NSW GOVERNMENT | sydney METRO

Northwest Parking Management Strategy

Disclaimer

The content of this document was correct at the time of publication in April 2019. The content is subject to change. For updates please contact 1800 019 989 or visit **sydneymetro.info**

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Acronyms

AS	Australian Standards
CBD	central business district
CPTED	Crime Prevention Through Environmental Design
DDA	*Disability Discrimination Act 1992*
DP&E	Department of Planning and Environment
DSAPT	Disability Standards for Accessible Public Transport
EIS	environmental impact statement
EP&A Act	*Environmental Planning and Assessment Act 1979*
LGA	local government area
LMA	licenced maintenance areas
LTC	local traffic committee
MTS	Metro Trains Sydney
NSW	New South Wales
NWGC	North West Growth Centre
RMS	Roads and Maritime Services
SMNW	Sydney Metro Northwest
SSI	State Significant Infrastructure
TDT	Technical direction
THSC	The Hills Shire Council
TfNSW	Transport for New South Wales

Executive summary

Sydney Metro is a new world-class railway for Sydney. Sydney Metro Northwest will open in mid-2019 and deliver for the first time a reliable public transport service to a region which has the highest car ownership levels per household in Australia. The project will deliver:

- eight new railway stations and 4000 commuter car parking spaces to Sydney's growing North West region
- 23 kilometres of new metro line between Rouse Hill and Epping, including 15 kilometres of tunnels and a four-kilometre skytrain viaduct, and conversion of the existing Epping to Chatswood railway to metro standards, including new platform safety screen doors
- a train every four minutes during peak periods or 15 trains an hour. With metro there will be no need for a timetable as customers can simply turn up and go.

The new Sydney Metro Northwest stations – Tallawong, Rouse Hill, Kellyville, Bella Vista, Norwest, Hills Showground, Castle Hill and Cherrybrook – have been designed as multi-modal transport interchanges. Customers will be able to access the new interchanges using a variety of transport modes including walking, cycling, buses, taxi, and kiss and ride bays, with 4000 commuter car parking spaces (off-street) provided at Tallawong, Kellyville, Bella Vista, Hills Showground and Cherrybrook stations. A number of short-term on-street parking spaces will also be available in some of the immediate station precincts.

As part of the planning approval (condition C11) under Environmental Impact Statement 2 (EIS 2), Sydney Metro is required to prepare a Parking Management Strategy that addresses key parking considerations across the project, such as commuter parking, impacts to on-street parking and appropriate responses to parking issues. This assessment applies only to the greenfield stations to be provided as part of Sydney Metro Northwest, and **not** the existing stations that will have metro services following conversion (Epping, Macquarie University, Macquarie Park, North Ryde and Chatswood), as these are already established interchanges with effective parking management already existing.

The overarching purpose of the Parking Management Strategy is to demonstrate how changes to travel and parking behaviour can be accommodated for the operation of Sydney Metro Northwest as well as meeting the planning approval condition C11.

The Parking Management Strategy has been developed in accordance with the following principles:

1. Support the integration of Sydney Metro Northwest into new and existing communities, minimising potential negative traffic and parking impacts on local streets.
2. Support the development of sustainable precincts and places, including methods to demonstrate safe vehicular access to interchanges and properties.
3. Deliver solutions that align with Sydney Metro goals and objectives regarding sustainable development, public transport use and sustainable mode-shift.
4. Provide effective coordination of related policies and programs led by the relevant Transport agencies and local stakeholders.

To meet the parking management principles and in consideration of the different reasons for implementing on-street car parking changes as detailed in this report, the following parking provisions at stations and the wider interchange precincts include:

- off-street commuter car parking – 4000 additional unrestricted spaces at Tallawong, Kellyville, Bella Vista, Hills Showground and Cherrybrook stations
- on-street parking – kiss and ride zones, taxi ranks, loading zones, half-hour (½P) to four-hour (4P) time-restricted parking, No Parking zones and No Stopping zones.

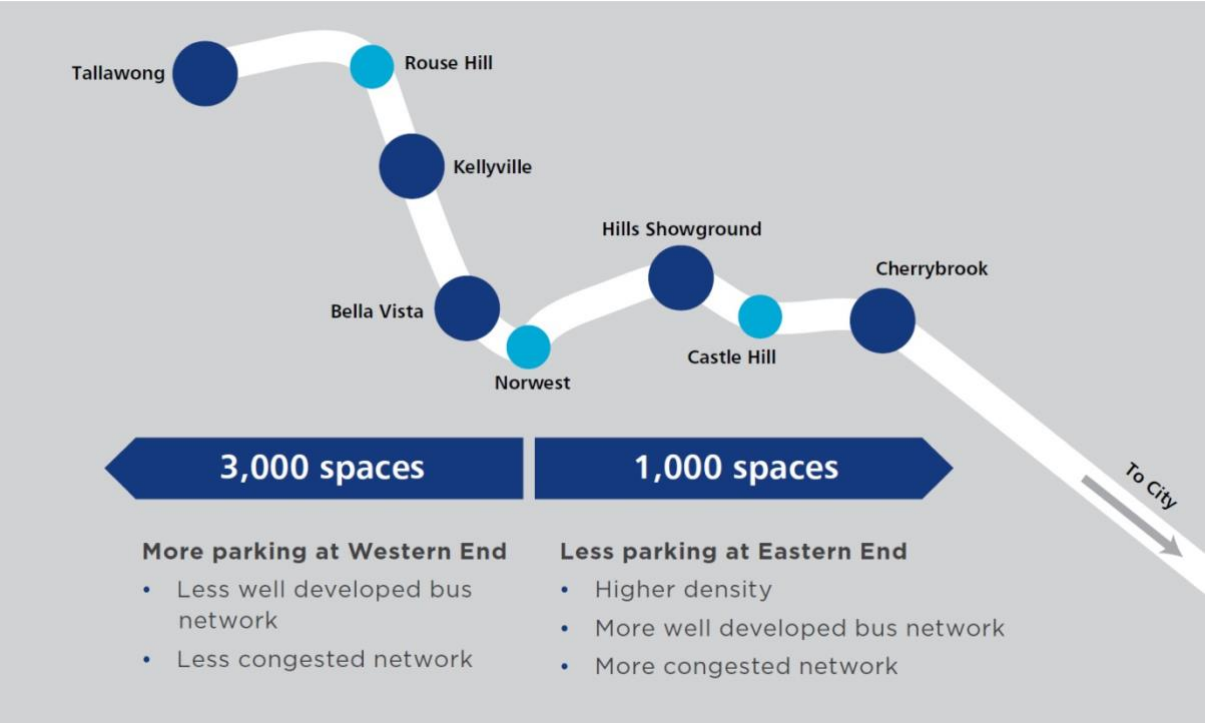

Figure ES.1: Commuter parking along the Sydney Metro Northwest alignment

Sydney Metro has consulted with Hornsby Shire Council, The Hills Shire Council and Blacktown City Council, as well as Roads and Maritime Services, bus operators and other Transport for NSW divisions such as the Sydney Coordination Office in the development of the Parking Management Strategy.

Public consultation and approval of the parking provisions is described as follows:

- Public consultation on the commuter car parks occurred through the public exhibition of EIS 2 in 2012, with planning approval provided by the Department of Planning in 2013.
- On-street parking changes in the immediate interchange precinct including kiss and ride bays (No Parking zones), taxi ranks and short-term parking were approved by the relevant local council with supporting documentation made publicly available on council's website. Public consultation for parking provisions on the new station precinct roads was not required as these are new roads.
- Public consultation on the proposed on-street car parking changes for the wider interchange precincts was undertaken in December 2018 through the publication of the Parking Management Strategy Overview Report. As the authority for on-street parking in these locations, these parking changes were approved by the relevant local councils in early 2019.

Parking provisions are planned to be implemented prior to the commencement of services on Sydney Metro Northwest in mid-2019.

As part of the planning conditions of approval (EIS condition F3), Sydney Metro is also required to undertake traffic and parking monitoring both 12 months prior to and 12 months following the opening of Sydney Metro Northwest. The results of the traffic and parking monitoring will inform any further parking changes post commencement of Sydney Metro Northwest and would remain centred on timed and restricted parking, focused around commuter activity.

1 Introduction

1.1 Sydney's new metro railway

Sydney Metro is a new world-class railway for Sydney.

Metro services start in Sydney's North West region in mid-2019 on Australia's first fully-automated railway, with 13 metro stations and 4000 new commuter car parking spaces.

A new generation of metro trains will run every four minutes in the peak in each direction. Customers won't need a timetable, they'll just turn up and go.

Sydney's fast, safe and reliable metro trains are fully-air conditioned with new customer benefits like multi-purpose spaces for luggage and parents with prams, as well as wheelchair spaces and priority seating in each carriage.

Technology like platform screen doors – used for the first time in Australia – will keep people and objects away from the tracks, also allowing trains to get in and out of stations much faster.

All metro stations will be fully accessible with lifts and level access between platforms and trains, making it easier for more customers to use public transport.

From the north west, metro rail is being extended under Sydney Harbour, through new underground city stations and beyond to the south west.

In 2024, Sydney will have 31 metro railway stations and a 66-kilometre stand-alone metro railway system.

There will be capacity for a metro train every two minutes in each direction under the Sydney city centre.

Sydney's new metro, together with signalling and infrastructure upgrades across the existing Sydney suburban rail network, will increase the capacity of train services entering the Sydney central business district (CBD) – from about 120 an hour currently to up to 200 services beyond 2024. That's an increase of up to 60 per cent capacity across the network to meet demand.

New metro rail will be extended to Western Sydney in the second half of the 2020s – the Sydney Metro West project will link the Sydney city centre with Greater Parramatta, doubling rail capacity between these centres and linking communities along the way with a new underground railway.

Sydney's new world-scale metro system is the biggest program of public transport infrastructure currently under construction in Australia and the largest urban rail infrastructure investment in the nation's history.

Sydney Metro's projects are:

- **Sydney Metro Northwest** – formerly the 36-kilometre North West Rail Link. This $8.3 billion project will open in mid-2019 with 13 stations and 4000 commuter car spaces; and
- **Sydney Metro City & Southwest** – a new 30 kilometre metro line extending metro rail from the north west under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the ultimate future capacity to run a metro train every two minutes each way through the centre of Sydney.

- **Sydney Metro West**: a new underground railway linking the Sydney CBD with Greater Parramatta by the second half of the 2020s. Key areas identified to be serviced by Sydney Metro West are Westmead, Parramatta, Sydney Olympic Park, The Bays Precinct and the Sydney CBD.
- **Sydney Metro Western Sydney Airport**: The railway servicing the new Western Sydney Airport will be developed and delivered by Sydney Metro. The project will become the spine for the region's growth for generations to come, connecting communities and travellers within Western Sydney and the rest of Sydney with a fast, easy and reliable metro service.

1.1.1 Sydney Metro Northwest

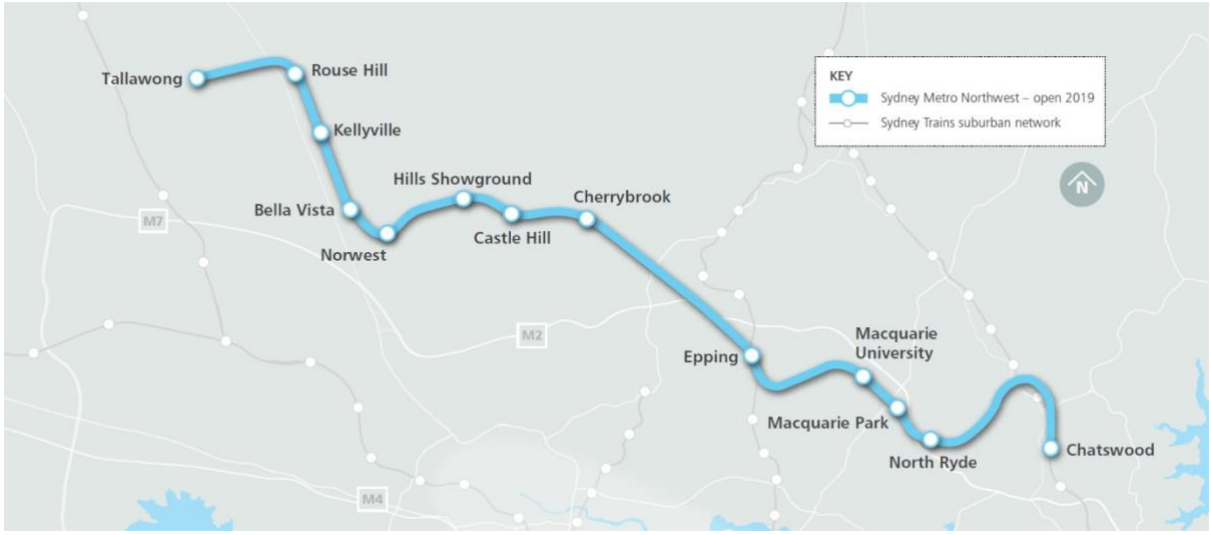

Figure 1.1: Sydney Metro Northwest project and route overview

Sydney Metro Northwest will deliver for the first time a reliable public transport service to a region which has the highest car ownership levels per household in Australia. Over the coming decades, an extra 200,000 people are forecast to move into Sydney's North West Growth Centre, taking its population above 600,000.

The project will deliver:

- Eight new railway stations and 4000 commuter car parking spaces to Sydney's growing North West
- Twenty-three kilometres of new metro line between Rouse Hill and Epping, including 15 kilometres of tunnels and a four-kilometre skytrain viaduct
- Conversion of the existing Epping to Chatswood railway to metro standards including new platform safety screen doors
- A train every four minutes during peak periods or 15 trains an hour. With metro there will be no need for a timetable as customers can simply turn up and go.

1.1.2 Customer access to new Sydney Metro interchanges

It is widely recognised that north-west Sydney remains one of the most highly car-dependent regions in Australia. As a major piece of transport infrastructure, Sydney Metro Northwest will change the way people get around across Sydney's entire North West region, as well as locally.

Interchange planning at each of the new stations recognises that a balance must be made between catering for car access demand and the encouragement of alternative, more sustainable public transport modes such as walking, cycling and public transport given cars are the least efficient transport mode.

The new Sydney Metro stations – Tallawong, Rouse Hill, Kellyville, Bella Vista, Norwest, Hills Showground, Castle Hill and Cherrybrook – have been designed as multi-modal transport interchanges. Customers will be able to access the new interchanges using a variety of transport modes including walking, cycling, buses, taxi and kiss and ride, with 4000 commuter car parking spaces (off-street) provided at the stations of Tallawong, Kellyville, Bella Vista, Hills Showground and Cherrybrook.

The number of commuter car parking spaces was determined by a range of factors including demand (current and forecast), site location and constraints, land use planning, station catchment profile (for example, strategic centre, employment centre), public transport provision, proximity to other car parks, road network access and traffic impacts.

Commuter car parking is not being provided at Rouse Hill, Norwest and Castle Hill as these are strategic centres. The approach for these centres broadly reflects planning for commuter car parks across Sydney which focuses parking provision outside of busy town centres and major employment centres. Customers wanting to park at Castle Hill, Norwest and Rouse Hill will be able to access car parking at the nearby stations of Cherrybrook, Hills Showground, Bella Vista, Kellyville and Tallawong.

1.2 The role of Sydney Metro

The NSW Government's Sydney Metro has been tasked with developing and delivering metro railways and managing their operations.

Sydney Metro also leads the development of vibrant station precincts to meet customer and community needs, transforming the way Sydney travels and helping shape the future of Australia's largest city.

Sydney's new world-scale metro system is the biggest program of public transport infrastructure currently under construction in Australia and the largest urban rail infrastructure investment in the nation's history.

A key part of delivering the NSW Government's Future Transport 2056 (TfNSW, 2018) priorities, this customer-focused fully-accessible metro service will help grow the state's economy and help create vibrant places and communities.

Sydney Metro has responsibility for delivering great places around metro stations so that precincts are designed, developed, activated and managed in alignment with the metro system to ensure the best outcomes for customers and communities.

Sydney Metro is owned by the NSW Government and is part of the NSW Government's transport cluster, operating as a transport delivery agency for Transport for NSW similar to Sydney Trains.

1.3 Transport for NSW

Transport for NSW (TfNSW) provides a strategic focal point for transport coordination, policy, integrated transport service and infrastructure planning and delivery. TfNSW takes

the lead on all policy and planning functions for Sydney Trains, Roads and Maritime Services, Sydney Ferries and Sydney Metro.

TfNSW is responsible for improving the customer experience, planning, program administration, policy, regulation, procuring transport services, infrastructure and freight. Transport operating agencies have been freed up to focus on service delivery – providing safe, reliable, clean and efficient transport services.

Further details on TfNSW are provided at **transport.nsw.gov.au**.

1.4 About the Parking Management Strategy

Sydney Metro Northwest is subject to an environmental assessment under the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Before work commenced on the project, a detailed environmental assessment was carried out and approved by the Minister for Planning and Infrastructure at each stage. These project planning approvals under Part 5.1 of the EP&A Act are split into:

- major civil construction works planning approval
- stations, rail infrastructure and systems planning approval
- Sydney Metro Trains Facility planning approval.

The first environmental impact statement (EIS 1) assessed impacts for major civil construction works. This covered major activities including tunnelling and viaduct construction. The EIS 1 application was approved by the Minister for Planning and Infrastructure on 25 September 2012. A modification to EIS 1 was approved on 18 April 2013 to incorporate changes to the Hills Showground Station and adjacent precinct.

The second environmental impact statement (EIS 2) assessed impacts for stations, rail infrastructure and systems works including commuter car parks. This covered the construction and operation of the railway itself, including stations and station precincts, rail systems and infrastructure. The EIS 2 application was approved by the Minister for Planning and Infrastructure on 8 May 2013. A modification to EIS 2 was approved on 20 May 2015 to alter the viaduct structure with a cable-stayed bridge over Windsor Road, Rouse Hill.

As part of the second EIS approval, a number of planning conditions were imposed upon the project, one of which requires the creation of a Parking Management Strategy.

1.4.1 Planning conditions and requirements

As part of the planning approval under EIS 2, Sydney Metro is required to prepare a Parking Management Strategy that addresses key parking considerations across the project, such as commuter parking, impacts to on-street parking and appropriate responses to parking issues. Condition C11 states:

*The Proponent shall prepare a **Parking Management Strategy** in consultation with the Roads and Maritime Services (RMS), bus operators and Councils to manage car parking impacts at stations and adjoining areas as a result of the operation of the SSI (State Significant Infrastructure). The Parking Management Strategy shall include, but not be limited to:*

(a) the provision of parking spaces consistent with those identified in EIS documentation, except as required by this approval;

(b) the replacement of lost on street car parking in the vicinity of stations, where feasible and reasonable;
(c) the safe placement, access to (including safe pedestrian and cycle access) and management of parking;
(d) a monitoring and reporting methodology for the utilisation of park and ride spaces and impacts on parking supply and turnover on adjoining streets at each station.
(e) the identification of measures to address on street parking impacts, such as resident parking schemes, should monitoring identify a significantly detrimental impact on local parking supply.

The Proponent shall be responsible for the coordination of measures in consultation with the relevant Council. The Strategy shall be submitted to the Director-General and the reporting of monitoring incorporated into the Compliance Tracking Program. The monitoring shall be undertaken in conjunction with the monitoring under condition F3 and apply for a minimum of one year following commencement of operation.

A summary of how this Strategy meets the condition is provided at Appendix F.

Other relevant conditions from this approval include:

Condition F3 – Traffic monitoring

'Traffic changes on local roads around each station shall be monitored. Monitoring shall be undertaken 12 months before opening and for a period of no less than 12 months after opening. Should monitoring indicate unacceptable traffic intrusion on local roads/streets as a result of SSI operation reasonably beyond that predicted in the EIS and/or Station Access Plans (condition C5), appropriate traffic management measures to mitigate the impacts of intrusive traffic in affected areas shall be implemented following consultation with the RMS and the relevant Council(s).'

1.4.2 Purpose of the Parking Management Strategy

The overarching purpose of the Sydney Metro Northwest Parking Management Strategy is to demonstrate how changes to travel and parking behaviour can be accommodated for the operation of Sydney Metro Northwest as well as meet planning approval condition C11.

The Parking Management Strategy provides a series of recommendations on parking changes in accordance with the following objectives:

1. Support the integration of Sydney Metro Northwest into new and existing communities, minimising potential negative traffic and parking impacts on local streets.
2. Support the development of sustainable precincts and places, including methods to demonstrate safe vehicular access to interchanges and properties.
3. Deliver solutions that align with Sydney Metro goals and objectives regarding sustainable development, public transport use and sustainable transport mode-shift.
4. Provide effective coordination of related policies and programs led by the relevant transport agencies and local stakeholders.

The Parking Management Strategy covers commuter car parks as well as on-street parking.

1.4.3 Defining parameters

Given the nature of the planning conditions that are to be addressed through the Parking Management Strategy, a number of parameters were outlined in the initial stages in order to

clarify the intent of the Strategy. These have been confirmed with the relevant stakeholders, such as local councils, Roads and Maritime Services (RMS) and the local bus operators.

In clarifying the planning approval requirements, the Parking Management Strategy will:

- Apply only to the greenfield stations to be provided as part of Sydney Metro Northwest (Cherrybrook, Castle Hill, Hills Showground, Norwest, Bella Vista, Kellyville, Rouse Hill and Tallawong) and not the existing stations that will have metro services following conversion (Epping, Macquarie University, Macquarie Park, North Ryde and Chatswood) as these are already established interchanges with effective parking management already existing.
- Retain the number of commuter car parking spaces provided as part of Sydney Metro Northwest, given that the 4000 spaces to be provided have been assessed and approved as part of the planning approval process.
- Articulate the appropriate ongoing role and associated governance structure for the parking management process, particularly for impacted parties.
- Represent a flexible approach to on-street parking changes, given the changing nature of land use in the north west, and the significant ongoing planning for development that will not be in place for day one of Sydney Metro operation, or potentially for years afterwards.
- Comprise recommended changes made to local councils for approval, as the roads authority for on-street parking changes. Parking provisions are planned to be implemented prior to the commencement of services on Sydney Metro Northwest in mid-2019.
- Limit recommendations to public infrastructure, with a focus on commuter parking, on-street parking and other public parking facilities within the station catchment.

1.4.4 Modal hierarchy

A key driver for the Sydney Metro Northwest project is the need to address transport issues in Sydney's north west – one of the most car-dependent regions in Australia. Influencing travel behaviours – and particularly encouraging public transport use – requires careful consideration of modal priority, physical infrastructure and broader service planning. This is particularly critical within the immediate proximity of the station.

TfNSW plans its interchanges around the modal hierarchy outlined in Figure 1.2**Error! Reference source not found.**. Park and ride has the lowest priority in terms of interchange access as private vehicle use for station access is generally the least efficient of all access modes. Interchange planning recognises that a balance must be made between catering for car access demand and the encouragement of alternative, more sustainable modes, such as walking, cycling and public transport.

The planning of the Sydney Metro Northwest station precincts has considered this modal hierarchy in the allocation of on-street parking spaces and the location of commuter car parking. Consideration of the modal hierarchy is reflected by the on-street parking allocation outlined in this Strategy.

Figure 1.2: Hierarchy of customer interchange access

1.4.5 Public consultation and approvals

Sydney Metro has been consulting with Hornsby Shire Council, The Hills Shire Council and Blacktown City Council, as well as Roads and Maritime Services, bus operators (CDC Hillsbus and Busways) and other Transport for NSW divisions such as the Sydney Coordination Office in the development of the Parking Management Strategy.

Consultation with these agencies and organisations has been ongoing over a number of years, and has taken the form of direct engagement, workshops and local consultation.

Public consultation has been undertaken on the parking provisions and approval of these provisions is described as follows:

- Public consultation on the commuter car parks occurred through the public exhibition of EIS 2 in 2012 with planning approval provided by the Department of Planning in 2013.
- On-street parking changes in the immediate interchange precinct – including kiss and ride bays, taxi ranks and short-term parking – were approved by the relevant local council, with supporting documentation made publicly available on each council's website. Public consultation for parking provisions on the new station precinct roads was not required as these are new roads.
- Public consultation on the proposed on-street car parking changes for the wider interchange precincts was undertaken in December 2018 (see Appendix A – Sydney Metro Northwest – Parking Management Strategy Overview Report). The proposed parking changes were approved in early 2019 by the relevant local councils, which are the authority for on-street parking changes.

Figure 1.3: Parking Management Strategy scope and approvals

2 Baseline review

2.1 Parking management in Australia

Parking management is guided in Australia by the Austroads Standards, which specify clear parameters for the practice of parking to be implemented by the state agencies. The Standards are focussed on specifications for safe and efficient parking for road designers and users.

Public parking in Australia is provided either on-street, which is mostly managed by local road authorities, and off-street (in car parks) which can be managed either publicly or by the private sector. The type of parking and associated demand for it is generally driven by a number of factors:

- geographic location (where lower density regions generally correlate with higher car ownership rates)
- type of land use in the vicinity (the highest determinant of parking demand; will determine how much people want to access a site and for how long)
- local transport alternatives (where generally parking requirements drop as public and active transport connectivity and service levels increase)
- parking facility accessibility and attractiveness (including Crime Prevention Through Environmental Design [CPTED] and aesthetic considerations)
- demographic and socio-economic patterns (changing attitudes towards car ownership)
- pricing (where increased parking cost generally drives demand lower)
- temporal and seasonal variation (considering peak period demand versus weekend demand).

Some Commonwealth legislation impacts parking provision also, with the *Disability Discrimination Act 1992* and the associated Disability Standards for Accessible Public Transport (2002) mandating access requirements and a minimum percentage of parking spaces to be designated as disabled parking.

2.2 New South Wales Government policy and programs

2.2.1 Parking management in NSW Government Transport agencies

Responsibility for parking policy is spread across a number of divisions and operating agencies within the NSW Government, generally reflecting the roles and responsibilities of each agency. These roles are outlined in Table 2.1 below.

Agency	Role	Primary focus on parking
Transport for NSW	Oversee policy relating to all parking types and forms, including relationship to other modes. Plan and deliver commuter car parking upgrades.	Set strategic parking objectives and outcomes. Prioritise and deliver new and upgraded commuter car parking infrastructure.
Roads and Maritime Services	Implement road-based policy and Australian standards.	Traffic management and safe network operation of the classified road network.

Agency	Role	Primary focus on parking
		Develop and implement of permit parking standards and trials.
Sydney Trains	Owner and operator of most commuter car parking spaces across the Sydney Trains rail network.	Operate car parking spaces and maximise access to rail services.
Sydney Metro	Deliver commuter car parking defined in project brief. Work with stakeholders to define parking requirements and impacts across projects.	Minimise disruption to the transport network and maximise access to new Sydney Metro services.

Table 2.1: Transport agency parking responsibilities

2.2.2 Commuter car parking

Purpose-built commuter car parking facilities are located close to many public transport hubs throughout NSW, and are designed to allow customers to connect to bus, ferry and train services. In this capacity, they are an important medium to allow customers travelling from lower density areas, where public transport may be limited, to access higher frequency and/or capacity public transport services. Purpose-built commuter car parking facilities in Sydney are mostly located in areas that have traditionally been low density. There are currently around 200 commuter car parks on the Sydney and NSW Trains network, with over 30,000 spaces available. Appendix B provides an overview of the commuter car parks on the Sydney Trains and NSW Trains networks.

Commuter car park requirements are assessed by TfNSW on a network-wide basis on existing and future demand, proximity to other car parking spaces and feasibility of providing parking. TfNSW is responsible for identifying locations where car parking facilities are required and determining the parking demand for the construction of new commuter car parks. TfNSW reviews parking requirements in line with future transport strategies as well as other considerations such as the flow on effects for roads and road infrastructure.

Design of commuter car parks is driven by a suite of standards and guidelines that have been developed by Transport for NSW and RMS. These are outlined in Appendix C.

Interchanges often have on-street parking tasks that are managed to varying degrees by the relevant local councils, RMS or TfNSW, depending on road management and local land uses. Councils employ a variety of policies regarding commuter car parking on streets, particularly given the impact it can have on town centres, which can vary between local government areas.

Further control over on-street spaces is exercised by the gazetted regulation RMS Delegations to Councils (Section 50 of the Transport Administration Act, 1988), which determines that local councils require RMS approval for on-street parking changes within one kilometre of nominated stations. These nominated stations include almost all stations with recently completed commuter car park upgrades and the delegations are employed to limit the restriction of commuters parking on local streets.

2.3 Local government policy

2.3.1 Local government and commuter car parking

Between local government authorities, there are widely differing approaches to managing commuter car parking – both dedicated commuter car parking facilities and impacts from on-street parking. These tend to vary due to the high variability in land uses and existing public transport infrastructure within the urban environment.

As is the case in other car-dependent areas of Sydney, local councils across Sydney's north west have traditionally had a greater reliance on commuter car parking facilities in order to encourage public transport usage, and less of a focus on intensive parking management. This perception is shifting rapidly as local government agencies seek to maximise place-making opportunities around public transport hubs, often in line with town centre and precinct improvements.

While some local councils have clearly defined policies around implementing restrictions with a focus to maximising safe parking activity, others have traditionally been more interested in restricting parking to minimise all-day commuter parking, particularly in residential areas. This has, in part, led to the creation of the Nominated Stations register under the RMS Delegations to Council, which seek to ensure some uniformity to parking restriction around interchanges. This is discussed in sections 2.2.2 above and 2.3.2 below.

From consideration of existing parking management strategies for councils, it can be determined that:

- Significant dedicated commuter car parking supply is an important provision for station access at key interchanges, but also requires supplementary control of on-street parking to provide an effective transport interchange whilst minimising impacts on the town centre.
- Unrestricted and unmanaged parking can decrease local amenity to local residents and town centre users by parking out streets and increasing local traffic congestion.
- At selected locations, on-street parking has some role to play in satisfying demand for commuter parking at railway stations.
- People will walk further from all-day parking to stations than for time-limited parking.

In consultation with the three relevant local councils (Hornsby Shire, The Hills Shire and Blacktown City Council), a number of themes and issues were discussed which were used to help inform the development of the Parking Management Strategy. These included:

- appropriateness of resident parking schemes and other parking management schemes, such as paid parking
- awareness of the need to encourage greater public transport use and impacts of all-day on-street parking
- potential precedent issues of introducing timed parking around interchanges
- differing exposure and experience in commuter car parking considerations for public transport access across the three councils – Hornsby and Blacktown have already experienced the issues associated with commuter car parks around existing transport interchanges; however The Hills Shire Council's exposure is mostly limited to car parks around the Express North-West T-way and M2 Hills Motorway bus stations.

The provision of commuter car parks in the local government areas (LGAs) is outlined in Table 2.2.

Local government area	Sydney Metro Northwest commuter car parks (and vehicle capacity)	Existing public transport with commuter car parks	Existing significant (400+) dedicated commuter parking facilities within LGA
Hornsby Shire Council	Cherrybrook Station (400)	T1 Northern Line T1 North Shore Line	Hornsby Station Berowra Station
The Hills Shire Council	Hills Showground Station (600) Bella Vista Station (800) Kellyville Station (1360)	M2 Bus Services North-West T-way	-
Blacktown City Council	Tallawong Station (1000)	T1 Western Line T5 Cumberland Line North-West T-way	Seven Hills Station Blacktown Station

Table 2.2: Commuter car parks by local council area

2.3.2 Council approvals and role of RMS Delegations

Changing on-street parking conditions is predominantly a local-council led and managed process. Similarly to other types of local approval processes, a proponent makes a recommendation or request for a parking change, which is considered by the council's Local Traffic Committee (LTC).

The RMS Delegations to Council (Section 50 of the Transport Administration Act, 1988) outlines the powers that RMS, as the chief road authority for the State, delegates to local councils. RMS retains road approval authority status over RMS-listed roads, and thus any parking restrictions or conditions that may apply.

The delegations also require RMS approval for any on-street parking changes on local streets around nominated stations. This approval is sought through the Local Traffic Committee process. The delegations mean that councils cannot make changes to any existing unrestricted parking spaces within one kilometre of nominated train stations without approval from RMS. This policy has been designed to limit wholescale reduction of parking around stations in established areas where a new commuter car park is built. This ensures new commuter car parking spaces provide additional capacity, not off-street replacement for existing on-street parking.

Sydney Metro Northwest has not proposed to nominate the five stations with commuter car parks within these delegations at the time Sydney Metro services commence.

3 Sydney Metro Northwest approach

In developing the Sydney Metro Northwest Parking Management Strategy, Sydney Metro is required to:

- Fulfil NSW government policy in relation to parking activity around interchanges.
- Fulfil specific requirements mandated in Condition C11 and related clauses of EIS 2.
- Fulfil legally mandated requirements for design, construction, management and operation of commuter car parks.
- Support the transport network and promote liveable centres.

3.1 Sydney Metro Northwest commuter car parks

Sydney Metro will deliver 4000 new commuter car parking spaces across the five car parks being provided at Tallawong, Kellyville, Bella Vista, Hills Showground and Cherrybrook stations.

The commuter car parks will provide a number of benefits to Sydney Metro Northwest customers including:

- increasing customer choice for station access
- expanding each of the interchange catchments
- providing a viable alternative to a car-only trip and alleviating congestion on key road corridors for part of a journey, thereby reducing overall vehicle kilometres travelled.

The distribution of car parking spaces across the Sydney Metro Northwest alignment was influenced by the surrounding land-use densities in the broader catchment, with more off-street car parking spaces prioritised towards the western end of the alignment and fewer car parking spaces to the eastern end of the alignment, which is closer to the city, as shown in Figure 3.1.

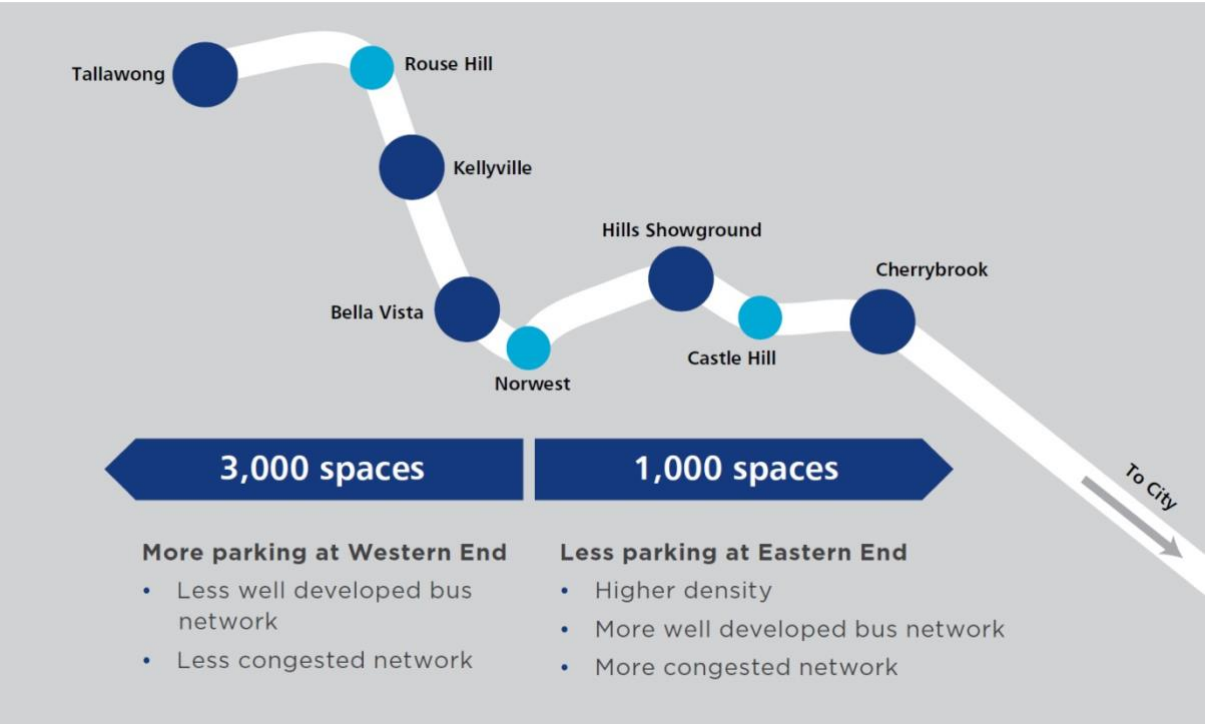

Figure 3.1: Targeted approach to the provision of car parking at Sydney Metro Northwest stations

The number of commuter car park spaces being provided was determined by a range of factors including demand (current and forecast), site location and constraints, land-use planning, station catchment profile (for example strategic centre and employment centre), public transport provision, proximity to other car parks, road network access and traffic impacts.

Additional factors were taken into consideration in determining the number of park and ride spaces at Sydney Metro Northwest stations. These included:

- Park and ride generates additional traffic movements (concentrated during peak periods) and impacts local amenity.
- Park and ride may be more attractive for customers with reduced take-up on local bus services.
- Due to land use requirements, and particularly where car parks are built at-grade, it can also consume real estate near stations which could be used for more beneficial purposes.
- Commuter car parks may be less utilised on weekends unless associated with other weekend activities.
- Large park-and-ride facilities can impact perceptions of personal safety and crime, particularly where there is little activity and surveillance outside peak periods.

3.1.1 Customer experience

With the exception of legal standards and wider guidelines, described in Appendix C, a number of additional considerations were included to define the commuter car parking experience for Sydney Metro Northwest.

For instance, the design and delivery of Sydney Metro Northwest aims to ensure that commuter car parks across the project offer:

- easily accessible car parking bays (minimum three per cent of parking spaces in accordance with Disability Standards for Accessible Public Transport – DSAPT 2002)
- efficient entry and exiting of vehicles, minimising congestion
- efficient pedestrian connection to and from the car park
- internal circulation routes designed to avoid conflicts with pedestrians and other vehicles
- a vehicle counting system
- dynamic signage (located at the car park entrance) to display the number of available bays at any given point in time
- access to car parking spaces 24 hours a day, 7 days a week
- a functional car parking facility that best fits the precinct in which it is located
- vehicle access points away from the station entry to minimise conflicts with other uses around these areas
- vehicle access points that limit adverse impacts to classified or main roads
- a convenient location in relation to the station for efficient customer transfer between the station and parking facilities
- integration with significant landscaping and paving treatments to enhance visual amenity and reduce heat loads.

Multi-deck car parking in particular is required to:

- permit natural light and ventilation internally to the structures
- incorporate a perimeter cladding or screen system that achieve project-nominated design objectives including appropriate materials and finishes, and achieves maximum integration with other interchange structures

- provide canopy coverage to a minimum 30 per cent of the car parking spaces on the top level of all multi-deck car parks.

3.1.2 Types and priority of commuter car park spaces

The design and construction of the Sydney Metro Northwest car parks presented an opportunity to diversify the types of parking in order to achieve more sustainable outcomes. This involved consideration of electric charging, different vehicle sizes and associated priority. All car parks include smaller spaces designed for compact vehicles, which have been apportioned at 15 per cent of total spaces at each car park.

Sydney Metro Northwest will also deliver a number of motorcycle parking spaces within commuter car parks. Motorcycle parking is to be located within the car park at a convenient location, with full use being made of under-croft and other incidental areas, including under internal vehicle ramps. Designs have also sought to minimise the need for motorcycles to circulate throughout the car park. These have been apportioned at three per cent of total capacity at each car park, but are provided in addition to the total car park requirement.

The different types of parking bays will be delivered in the following order of priority, in relation to proximity to the station gate line:

1. Accessible parking spaces
2. Electric vehicle ready spaces
3. Compact vehicle spaces
4. Standard vehicle spaces.

3.1.3 Future parking initiatives

Transport for NSW is trialling new access control measures at commuter car parks provided for the Northern Beaches B-Line and at other stations such as Kogarah, meaning that public transport users can use their Opal cards to access free parking for up to 18 hours. These new 'Transport Park&Ride' car parks aim to assist in the protection of commuter car parks for genuine public transport users. They can be accessed by Opal card after completing a trip on public transport. Non-public transport users who park in Transport Park&Ride car parks will be charged fees in line with commercial parking rates.

3.2 Other on-street parking allocation in the immediate station precinct

On-street space within the immediate station precinct is allocated to a mix of short-term parking and other public transport modes. These allocations are outlined below and further detailed in the Sydney Metro Northwest Interchange Access Plans (Sydney Metro, 2018) located at **sydneymetro.info.**

3.2.1 Short-term parking

A number of short-term parking spaces will be delivered on-street within the immediate precinct at some stations. These will generally be half-hour (½P) or two-hour (2P) parking spaces.

3.2.2 Bus stops

All interchanges have designated bus stops to provide pick-up and set-down locations for bus services.

3.2.3 Kiss and ride

Kiss and ride bays will be located at each station to allow for passenger set down and pick up. These spaces will be signposted as No Parking, allowing vehicles to stop for a maximum of two minutes.

A number of kiss and ride bays at each station will be designated as accessible kiss and ride, with the intention of ensuring easier access for customers with mobility impairments. These spaces will be larger, with additional ramps. The number of spaces at each station is defined in the relevant station section (see sections 6–13).

3.2.4 Taxi ranks

Taxi ranks are also provided at each station. These are spatially standard kerbside spaces that are reserved for taxi pick-up, drop-off and waiting areas.

3.2.5 Loading zones

A number of loading zones have been provided at station precincts to permit short-term parking for the dropping off and picking up of goods and services. These parking arrangements are essential for supporting active station precincts which include a variety of land uses.

3.2.6 Bicycle parking

Bicycle parking provision is included at each interchange to encourage cycling access and includes both bike storage sheds and bike racks.

Station	Bike shed spaces	Bike rack spaces	Total bicycle parking provision
Cherrybrook	35	10	45
Castle Hill	15	10	25
Hills Showground	35	10	45
Norwest	25	10	35
Bella Vista	25	10	35
Kellyville	35	20	55
Rouse Hill	35	10	45
Tallawong	35	20	55

Table 3.1: Bicycle parking provisions at Sydney Metro Northwest stations at opening

3.3 On-street parking management in the wider interchange precinct

This Parking Management Strategy has developed an assessment process to identify parking management mitigation measures to address the impacts of commuters parking on-street within the wider precinct surrounding each station. A comprehensive methodology was developed for assessing appropriate parking management in the wider interchange precinct. This assessment process is detailed in Section 4.

4 On-street parking management in adjoining areas

4.1 Parking management assessment methodology

The methodology for the assessment and application of on-street parking changes to meet the objectives in Section 1.4.2 comprises the following:

1. Assess the category of type of centre for each station based on various elements including local land uses (current and future), road network type and layout, transport patterns, demand and available transport infrastructure, to determine a town centre category for each precinct. The following categories were identified:
    a. Strategic centre
    b. Redeveloping centre
    c. New centre.
2. Review selected case studies of on-street parking around existing rail stations to identify common themes, practical application and confirm relevant principles to be applied for the new Sydney Metro Northwest on-street parking changes.
3. Based on the patterns of application derived from the case studies, apply the principle of parking controls that progressively decreases with increasing distance from the station at intervals with the following strategic parking controls:
    a. 0–400 metres (short-term / pay parking)
    b. 400–600 metres (short-term / long-term / unrestricted)
    c. 600–800 metres (long-term / unrestricted).
4. Identify the key factors and available parking controls that would be most appropriate, according to distance from the station, the station typology and in accordance with NSW and Australian parking management guidelines. The parking controls include Time-restricted parking, no stopping, no parking, pay parking and resident parking schemes.
5. Identify focus areas for parking management in the wider precinct surrounding each station within a one-kilometre radius.
6. Determine recommendations for appropriate parking changes for streets within the focus areas based on the following factors and in accordance with the methods listed above:
    a. Proximity to station
    b. Preserve local amenity
    c. Significant demand driven by land use
    d. Safety: maintain sight lines, allow for typography, proximity to intersections / pedestrian crossings, access for emergency / service vehicles, road spatial dimensions
    e. Bus access route
    f. Network access point.

4.2 Defining station categories

The stations across Sydney Metro Northwest, each have a different parking task. Factors that contribute to different forms of parking demand at stations include:

- **Local land uses:** existing land-use patterns and development
- **Road network:** existing type and nature of street network
- **Transport patterns and demand:** strategic proposals, demand, employment
- **Future changes:** future land use patterns and street network
- **Available transport infrastructure:** commuter car park capacity.

Each of the Sydney Metro Northwest stations was assessed against these factors, as summarised in Table 4.1.

Station	Strategic centre*	Commuter car park with capacity	Local land uses†	Demand for non-public-transport-related parking	Existing employment centre	Predominant local road network†
Cherrybrook	No	400 spaces	Mostly low–medium density residential	Local schools; residential on-street parking	No	Arterial & local
Castle Hill	Yes	No	Mix of medium–high density residential and retail	Significant shopping centre	Yes – retail	Arterial & local
Hills Showground	No	600 spaces	Mostly low–medium density residential and bulky goods light industrial	Showground special events	No	Sub-arterial, collector & local; new station precinct streets
Norwest	Yes	No	Medium density business park, local retail and low–medium density residential	Hillsong special events; local shopping centre; business park tenants	Yes – business park	Arterial & local
Bella Vista	No	800 spaces	Open space, mostly low–medium density residential and medium density business park	Local businesses	Partial – business park	Arterial & local; new station precinct streets
Kellyville	No	1360 spaces	Open space, mostly low–medium density residential	N/A	No	Arterial, sub-arterial & local; new station precinct streets
Rouse Hill	Yes	No	Open space, mostly low–medium density	Significant shopping centre	Yes – retail	Arterial, sub-arterial & local

Station	Strategic centre*	Commuter car park with capacity	Local land uses†	Demand for non-public-transport-related parking	Existing employment centre	Predominant local road network†
			residential and retail			
Tallawong	No	1000 spaces	Open space, mostly low/rural density residential	N/A	No	Sub-arterial, collector & local; new station precinct streets

* Referenced from A Plan for Growing Sydney (DP&E, 2014)
†Existing and within one kilometre

Table 4.1: Characteristics influencing parking at each Sydney Metro Northwest station

Based on the characteristics in Table 4.1, each station was grouped into three key categories, in order to assist in identifying an appropriate parking management response, as demonstrated in Table 4.2.

Station category	Station	Presence of commuter car park	Local land uses†	Demand for non-public-transport-related parking	Existing employment centre	Predominant local road network†
Strategic centre	Castle Hill Norwest Rouse Hill	No	Retail, business park, high-medium residential	High	Yes	Arterial
Redeveloping centre	Cherrybrook Hills Showground	No or yes (smaller)	Yes or partial	Medium–low	Partial or no	Sub-arterial / collector
New centre	Bella Vista Kellyville Tallawong	Yes (larger)	Open space / not yet developed, low–medium density residential	Low, N/A	Partial or no	New station precinct local network being provided

†Existing and within one kilometre

Table 4.2: Station types based on characteristics at each station

The application of the station categories is described further in Section 4.4.

4.3 Case studies

Across Sydney, many examples exist of stations where parking management has been delivered around railway stations. While no consistent, defined state-wide policy exists, common parameters apply. Assessment of on-street parking impacts exhibit inconsistencies between enforcement areas, but are generally considered holistically within local government areas.

At least one case study was identified for each of the categories identified in Section 4.2 and a local example in north-west Sydney was also assessed. Given the particularities of each station, and existing patterns of land use, these case studies were not an exact match, but broadly represent considerable matches for the different centre types identified along Sydney Metro Northwest. The case studies are summarised in Appendix D.

The assessment of each case study sought to understand how parking measures were applied, and the significance of distance to the station relative to on-street parking management.

The case studies demonstrated clear radial application of measures based on walking distance, with deviations from this norm driven by nearby significant land uses. The analysis looking at overall parking management was supplemented with detailed studies of areas that would normally have unrestricted parking in principle, but where parking is still restricted due to widths of roads or other spatial requirements. This analysis is relevant to the existing areas surrounding the Sydney Metro Northwest stations where street widths may not be designed to accommodate all-day commuter car parking.

This assessment of the case studies was used to inform both the development and application of the principles for on-street parking management for Sydney Metro Northwest. In developing specific principles for on-street parking management in the wider precinct surrounding Sydney Metro Northwest stations, it was considered appropriate to apply layered principles to parking management, as demonstrated at other stations, in concentric circles (200 metre, 400 metre and 800 metre).

The intention of these principles was to effectively manage on-street parking from the area of highest activity to the area of lowest activity by:

- prioritising on-street allocations for non-private vehicle modes or town-centre uses closest to stations
- regulating time limits to be most restrictive closer to the station and complementary to connected town centres
- minimising intrusion of commuter parking onto local streets, with particular focus on safe and regular access.

Further refinement and clarification was required, based on likely demand, existing street patterns and land uses (particularly parking-intensive land uses such as schools) and spatial dimensions of streets, as well as topography and type of rail service.

4.4 Application of parking control principles to station categories

4.4.1 Strategic centres

The strategic centres along the Sydney Metro Northwest alignment are Castle Hill, Norwest and Rouse Hill. At these centres, the intention of parking management recommendations is to discourage on-street commuter car parking within the walkable catchment where practicable.

As interchanges that will not have commuter car parks, and will have minimal additional roads as part of the project, but have pre-existing car parking demand, Sydney Metro has sought to limit additional private vehicle trips and parking activity as much as possible. Instead, station accessibility will be prioritised for users of other modes of transport – particularly those modes with a higher capacity (such as bus) or more sustainable outcomes (such as walking and cycling). In most cases, some restrictions already exist in strategic centres to encourage parking turnover and support town centre uses.

Figure **4.1** summarises the principles to be applied for each of the strategic centre interchanges.

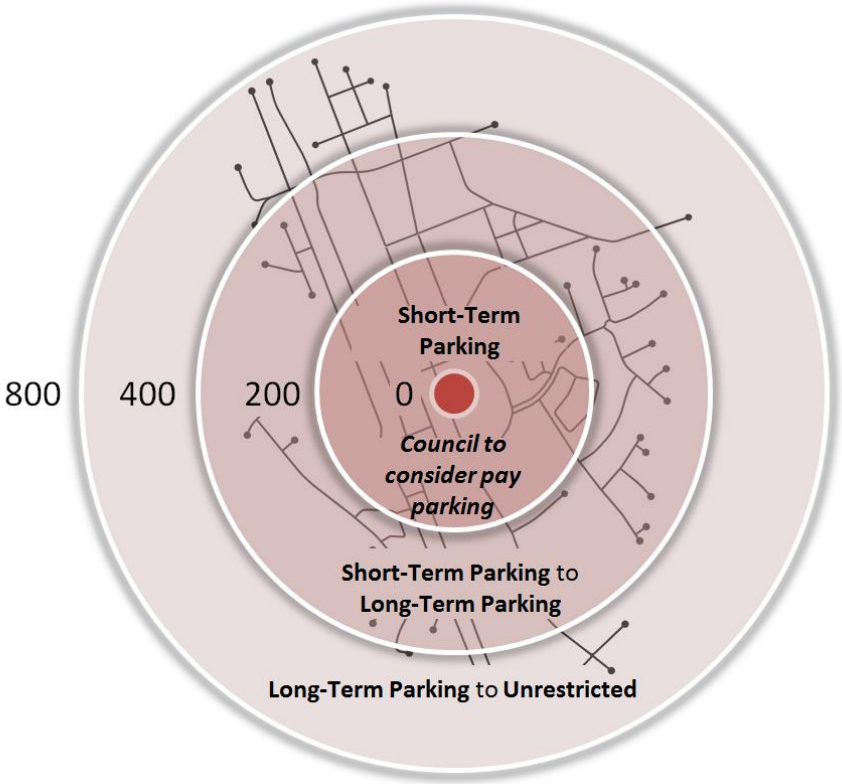

Figure 4.1: Strategic centre parking principles by radial distance (metres) from station

4.4.2 Redeveloping centres

The redeveloping centres along the Sydney Metro Northwest alignment are Cherrybrook and Hills Showground. The intention of parking management recommendations around these centres is to limit the impact of on-street commuter car parking on the existing residential areas within the walkable catchment, and support multi-modal access to the station.

As interchanges that have smaller commuter car parks, but little significant daily pre-existing car parking demand, Sydney Metro has sought to limit private vehicle parking intrusion and additional trip generation on spatially limited streets as much as possible. As with strategic centres, station accessibility has been prioritised for users of other modes of transport, albeit with a more local focus, reflecting that these interchanges do not currently service significant retail, business or commercial areas. At both Cherrybrook and Hills Showground, some restrictions already exist where local land use demands; introduction of parking management measures will further support the significant growth anticipated at each of these centres over time.

Figure 4.2 summarises the principles to be applied for each of the redeveloping centre interchanges.

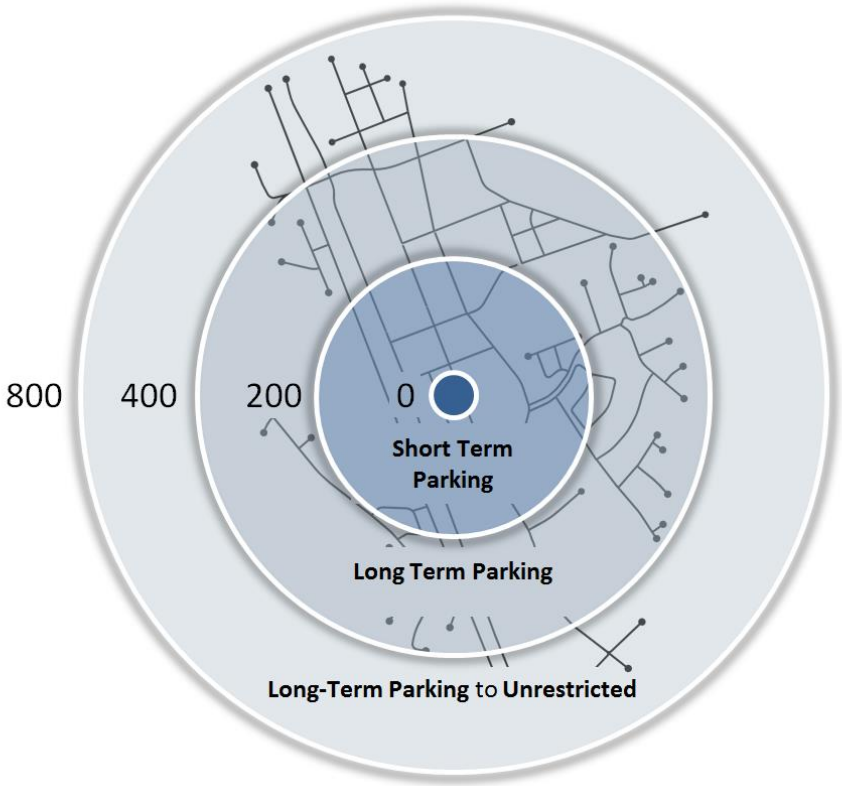

Figure 4.2: Redeveloping centre parking principles by radial distance (metres) from station

4.4.3 New centres

The new centres along the Sydney Metro Northwest alignment are Bella Vista, Kellyville and Tallawong. The intention of parking management recommendations around these centres is also to limit the impact of on-street commuter car parking on the existing residential areas within the walkable catchment, and support multi-modal access to the station. However, as interchanges that have the largest commuter car parks, a larger regional commuter parking catchment, significant local arterial road constraints and a local residential street network which makes unrestricted on-street parking unsuitable, parking still needs to be managed.

Modal prioritisation at the interchanges and the design of the local precinct roads reflects Transport for NSW and Sydney Metro's commitment to encouraging sustainable trips, whilst recognising that, initially, a considerable proportion of trips to these stations will be via private vehicle. In some cases, significant parking pressures already exist where public transport infrastructure already operates (such as along the North-West T-way). The introduction of parking management measures will further support the significant growth anticipated at each of these centres.

Figure 4.3 summarises the principles to be applied for each of the new centre interchanges.

Figure 4.3: New centre parking principles by radial distance (metres) from station

4.5 Assessing suitable on-street parking controls

In conjunction with the application of station categories and parking management principles, the Parking Management Strategy reviewed the different types and applications of parking restrictions that could be applied to determine the most appropriate recommendations for implementation in the wider interchange precinct surrounding Sydney Metro Northwest stations.

4.5.1 On-street parking parameters

The Austroads Guide to Traffic Management (Austroads, 2017) defines parking types and where implementation of parking controls is appropriate. This guide forms the basis of the recommendations below.

Spatially, a number of feasible on-street parking types exist. As part of the project, parallel kerbside parking is provided on new roads where feasible, as it has the least negative impact, and has maximum accommodation within existing street widths. On-street parking restrictions have also retained parallel parking.

In terms of impacts generated by interchange access activity, most will relate to cars seeking to access the station for drop-off, or parking for long periods to then use public transport to complete their journey. Application of on-street parking restrictions varies significantly by setting and jurisdiction. Timed parking parameters and their transport interchange roles are defined in Table 4.3.

Type of parking	Appropriate locations
No parking **Kiss and ride bay**	• Areas with a very high arrival rate associated with a specific facility • Zones operate under the condition whereby a driver may stop to drop off or pick up passengers for a maximum of two minutes • The vehicle must be occupied or its driver remains within three metres of the vehicle
5 minute parking **Kiss and ride bay**	• Areas with a very high arrival rate • Generally retail/commercial or high turnover use associated (schools etc.) where passengers are dropped off but some waiting is likely
10–15 minute parking	• Provides for pick-up and set-down at single-address destinations • Used outside schools and for a high turnover outside commercial facilities providing a high level of convenience such as banks, post offices, convenience stores and newsagents
half-hour parking (½P)	• Directly outside local shops that rely on providing a reasonably high level of convenience • Usually a high demand where one-hour parking would result in inadequate parking turnover • Half-hour restriction may allow people to go to two or three shops
1 hour parking (1P)	• Appropriate outside shopping centres and in other locations where there is a demand for parking • Associated activity is likely to take longer than half an hour (for example commercial developments providing professional and personal services) • Able to be diverted into off-street locations
2 hour parking (2P)	• Sometimes appropriate outside major shopping centres • More likely to be applicable in areas with developments containing professional and personal services. • Also applicable in streets where a resident parking permit scheme applies and time limited parking is available for non-residents
4 hour parking (4P)	• Appropriate where it is desired to prevent all-day commuter parking, but allow parking for other local uses
All-day parking (no time limit) **Commuter car parks**	• Usually generated by employees or Park&Ride motorists and will occur across all types of development • Does not require signs to indicate that parking is permitted with no time limit • A 'Parking' sign may be necessary where the method of parking (for example angle parking) or the method of payment (for example voucher) has to be indicated on a sign. Also, a 'Parking' sign will be necessary where the parking area is available only for certain classes of users (e.g. 'motorcycles only')

Table 4.3: Types of parking defined by Austroads Guide to Traffic Management (Austroads, 2017)

Parking restrictions can also be implemented within certain timeframes, or on certain days (that is, 9am–5pm Monday–Friday) in order to accurately respond to periods of most intense parking demand.

4.5.2 Resident parking schemes

Any decision on the implementation of a resident parking scheme is the responsibility of the relevant local council with consideration of the relevant guidelines and legislation.

Within the Sydney metropolitan area, implementation of resident parking schemes that have been put in place solely due to public transport interchange operations are rare and have generally only occurred where residential properties have no off-street parking available. As such, resident parking schemes were not considered an appropriate recommendation to the local councils for the on-street parking changes in the Sydney Metro Northwest wider interchange precincts.

4.5.3 Pay parking

The Austroads Guide to Traffic Management (Austroads, 2017), in conjunction with the RMS Guidelines for Pay Parking (RMS, 2012), also outlines appropriate scenarios for the implementation of pay parking. These include:

- locations where an insufficient turnover of parking spaces is identified, resulting in illegal parking
- locations where a high demand is indicated by continuous usage of at least 70 per cent of available parking spaces during business hours
- locations where studies reveal limited off-street parking facilities within reasonable walking distance from developments generating high short-term parking demand.

Pay parking tends to be implemented in localised sites, predominantly commercial/retail focussed, where short-term turnover is encouraged. It can be implemented in tandem with resident and/or timed parking, and it remains a heavily utilised parking management tool in higher density inner-ring suburbs of Sydney.

The Parking Management Strategy does not propose implementation of pay parking due to Sydney Metro Northwest operation. Any decisions for the implementation of pay parking are the responsibility of local councils.

4.6 Focus areas for on-street assessment

Once the principles of each station category had been applied, a number of streets were identified for focussed consideration at each station. These streets are predominantly existing residential streets which were built well before Sydney Metro Northwest construction commenced. In most cases, these streets are too narrow to permit untimed parking and the free flow of traffic without restrictions of some kind, which could potentially compromise safety and access. In some areas, they fall outside the specific consideration area nominated above, but have been considered as they are likely to encounter parking issues if unchecked or could underpin future mitigation responses.

The proposed focus areas and their associated streets are outlined in the station-specific sections (Sections 6–13).

4.7 Assessing local streets for application of parking measures

Parking changes can be implemented for a number of reasons. The following factors were considered in assessing and justifying specific locations where parking changes were recommended.

4.7.1 Factors considered

Proximity to station (0–400 metres)

Greater demand for parking and access is usually seen within proximity to the station. Within close proximity to the station (usually up to 400 metres), priority for on-street parking allocation should generally be given to interchange and local town centre users rather than providing unrestricted commuter parking.

Preserve local amenity

Unrestricted parking in narrow or congested residential streets can create issues with motorists parking partially on lawns, restricting access to driveways and generally impacting amenity. The recommendations in this Parking Management Strategy were developed to minimise these impacts.

Safety: maintain sight lines and allow for topography

Sydney's north west has considerable variance in topography around the new stations. Topography and tight bends in the road may result in the requirement for parking restrictions to ensure that adequate sight lines are maintained for both vehicles and pedestrians.

Safety: proximity to intersection or pedestrian crossing

A number of new intersections and pedestrian crossings are being delivered as part of the project. For the safety of all customers, No Stopping areas should be implemented on approach to intersections and crossings in accordance with the NSW Road Rules. These form part of the on-street parking changes.

Safety: retain safe access for emergency and service vehicles

Generally on narrow streets (less than 7.5 metres wide), the recommended parking restrictions will preserve access for emergency vehicles (ambulances, fire engines and police vehicles) and service vehicles (refuse trucks and delivery vehicles).

Safety: spatial dimensions of parking

On-street parking requires the physical accommodation of both parked vehicles and vehicles attempting to use the road. Depending on road width and lane dimensions, safe and easy access can be accommodated through a variety of means, such as restricting parking on one or both sides of the road. This includes regulatory requirements such as minimum distances for parked vehicles within proximity to dividing lines / dividing strips.

Appendix E outlines some of the spatial dimension considerations, from arterial roads through to cul-de-sac access routes.

Significant demand driven by land use

This occurs where an existing significant land use is driving either the introduction of parking restrictions, or intensification of existing restrictions. Often these land uses will not have had

to compete with commuter or other traffic. Some examples are schools and business-focused activities or sporting field parking.

Bus access route

A number of streets will need appropriate street widths and turning paths to be kept clear for safe and efficient bus movements. On-street parking changes have been recommended to accommodate bus access routes.

Network access point

At several locations where streets feed into a single access point in order to enable access to the wider road network, maintaining appropriate egress and access capacity and queuing space will be critical to permit efficient road functioning.

These considerations are further used to explain proposed changes on individual streets for each station precinct under the relevant station sections of this report.

5 Traffic and parking monitoring

As part of the planning conditions of approval, Sydney Metro is required to undertake traffic and parking monitoring both 12 months prior to and 12 months following the opening of Sydney Metro Northwest:

'Traffic changes on local roads around each station shall be monitored. Monitoring shall be undertaken 12 months before opening and for a period of no less than 12 months after opening. Should monitoring indicate unacceptable traffic intrusion on local roads/streets as a result of SSI operation reasonably beyond that predicted in the EIS and/or Station Access Plans (condition C5), appropriate traffic management measures to mitigate the impacts of intrusive traffic in affected areas shall be implemented following consultation with the RMS and the relevant Council(s).' (Condition F3, NWRL EIS 2 SSI Infrastructure approval, 2013)

This task will be undertaken in conjunction with the Parking Management Strategy to satisfy the conditions of approval.

The parking monitoring includes on-street parking counts around each of the new station precincts from Tallawong to Cherrybrook at selected intervals. The parking assessment includes the monitoring of parking demand and duration of stay on local roads.

The results of the traffic and parking monitoring will provide important information to:

- provide a baseline in order to determine the changes in traffic and parking behaviour both prior to and after opening of Sydney Metro Northwest
- inform any further parking changes required post-implementation of Sydney Metro Northwest.

Any further proposed parking changes identified through the monitoring activities and following the opening of Sydney Metro Northwest would remain centred on timed and restricted parking and focused around commuter activity.

6 Cherrybrook Station

6.1 Cherrybrook Station overview

Cherrybrook Station is located within the Hornsby Shire LGA. The station will mainly serve the suburbs of Cherrybrook and West Pennant Hills. The total population of these suburbs is approximately 35,000 people. Residents of these suburbs currently need to travel more than two kilometres to access a railway station. Prior to the introduction of Sydney Metro, rail customers in these suburbs are required to travel to Beecroft, Cheltenham, Pennant Hills and Thornleigh railway stations on the Northern Line to access rail services.

Cherrybrook Station will relieve the parking demand at Beecroft, Cheltenham, Pennant Hills and Thornleigh railway stations and will save travel time for The Hills and Hornsby Shire residents who are currently using these stations.

6.1.1 Station walking catchment

Figure 6.1: Cherrybrook Station one-kilometre walking catchment

Cherrybrook Station lies wholly within Hornsby Shire Council. However, the one-kilometre radius walking catchment is split between Hornsby Shire Council and The Hills Shire Council, with the boundary being Castle Hill Road. The one-kilometre radius walking catchment for Cherrybrook Station is notably restricted, and large areas of land within the one-kilometre radius of the station entrance remain undeveloped. The streets within the area are mostly narrow, with a number being private roads with insufficient width to allow parking. Cul-de-sacs also limit direct walking access to and from the station. Topography is not conducive to walking activity, particularly south of Castle Hill Road, where the landscape

drops off sharply. The area is primarily residential in nature with the most significant traffic generators comprising the Tangara School for Girls and Inala School.

6.2 Interchange parking provision

6.2.1 Commuter car park

Cherrybrook Station commuter car park will be a four-level multi-storey car park located immediately adjacent to the station and will provide a total of 400 parking spaces for use by Sydney Metro customers.

Figure 6.2: Visualisation of the new multi-storey car park at Cherrybrook Station, looking south east

Priority	Type of parking	Number of spaces
1	Accessible spaces	12
2	Electric-ready bays	80
3	Compact bays	60
4	Standard bays	248
N/A	*Motorcycle parking**	*12*
	Commuter car park (total)	**400**

*Motorcycle parking is provided in addition to the total car space requirement and is not included in the total car parking spaces.

Table 6.1: Types of parking at Cherrybrook Station commuter car park

Priority for each type of parking has been implemented in order to encourage more equitable and sustainable transport access. Accessible spaces are provided in closest proximity to the station to satisfy *Disability Discrimination Act 1992* (DDA) requirements.

Drivers wishing to access Cherrybrook commuter car park can do so from Bradfield Parade, the only vehicular access to the car park. Space availability will be indicated on an electronic signage board outside the driver's entrance. No roads need to be crossed by pedestrians between the car park and the station entrance.

6.2.2 Interchange on-street parking allocation

Cherrybrook Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy shown in Figure 1.2.

Type of parking	Number of spaces
Kiss and ride bays (peak times)	22
Accessible kiss and ride bays	2
Taxi	4
Staff and maintenance parking	3

Table 6.2: Interchange parking facilities at Cherrybrook Station at opening

Separate to the parking listed above, a number of spaces will also be delivered on-street which will function as short-term parking. At Cherrybrook, 15 short-term on-street parking spaces will be available outside of peak times. This will be provided as two-hour (2P) parking, which is consistent with the principles outlined in this Parking Management Strategy.

6.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking when Sydney Metro Northwest opens.

Three focus areas were identified for Cherrybrook, which are outlined in Figure 6.3. These are:

1. Franklin Road and linking streets (Hornsby Shire Council)
2. Robert Road and linking streets (Hornsby Shire Council)
3. Glenhope Road and linking streets (The Hills Shire Council).

A number of recommendations for on-street parking changes were made, based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

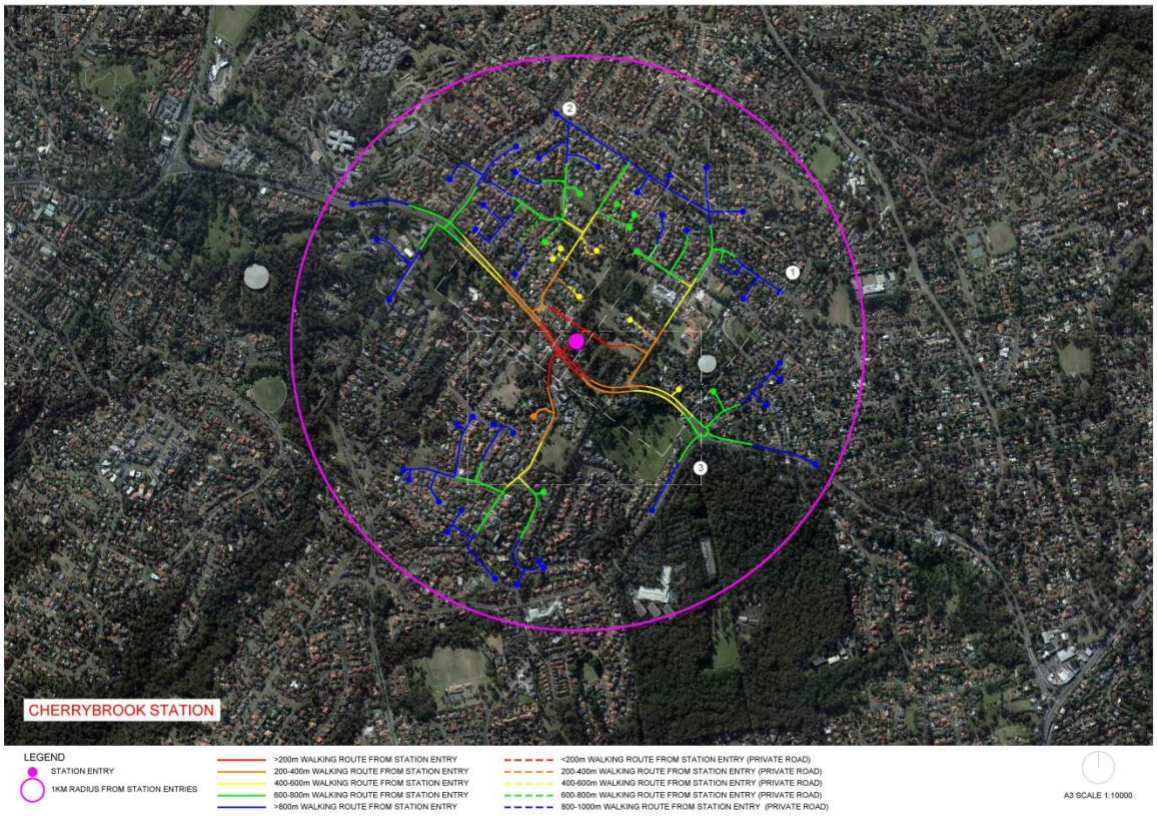

Figure 6.3: Cherrybrook Station focus area locations within one-kilometre radius

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is at Appendix A, and includes the parking changes that were proposed.

As a result of the feedback received, some amendments were made to the proposed parking changes. These were included in the final recommendations to the local council for assessment. The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below. These changes have been approved by the local council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

6.3.1 Franklin Road and linking streets

Franklin Road is located entirely within Hornsby Shire Council LGA. The following parking considerations apply to Franklin Road:

- Franklin Road and surrounding streets are generally low-density residential streets, with insufficient width to support unrestricted parking on both sides of the street.
- Parking at present is heavily influenced by the two schools located on its length and associated private and public vehicle movements. Existing parking restrictions along Franklin Road have been implemented largely to allow student drop-off and pick-up and maintain student safety.
- Buses currently service these schools and will continue to use this road in the future.

- There are a number of private subdivisions off Franklin Road which have narrow access roads. As these are private roads, they fall outside the scope of recommendations for the Parking Management Strategy.

Figures 6.4 and 6.5 compare the parking conditions around Franklin Road before and after the opening of Sydney Metro.

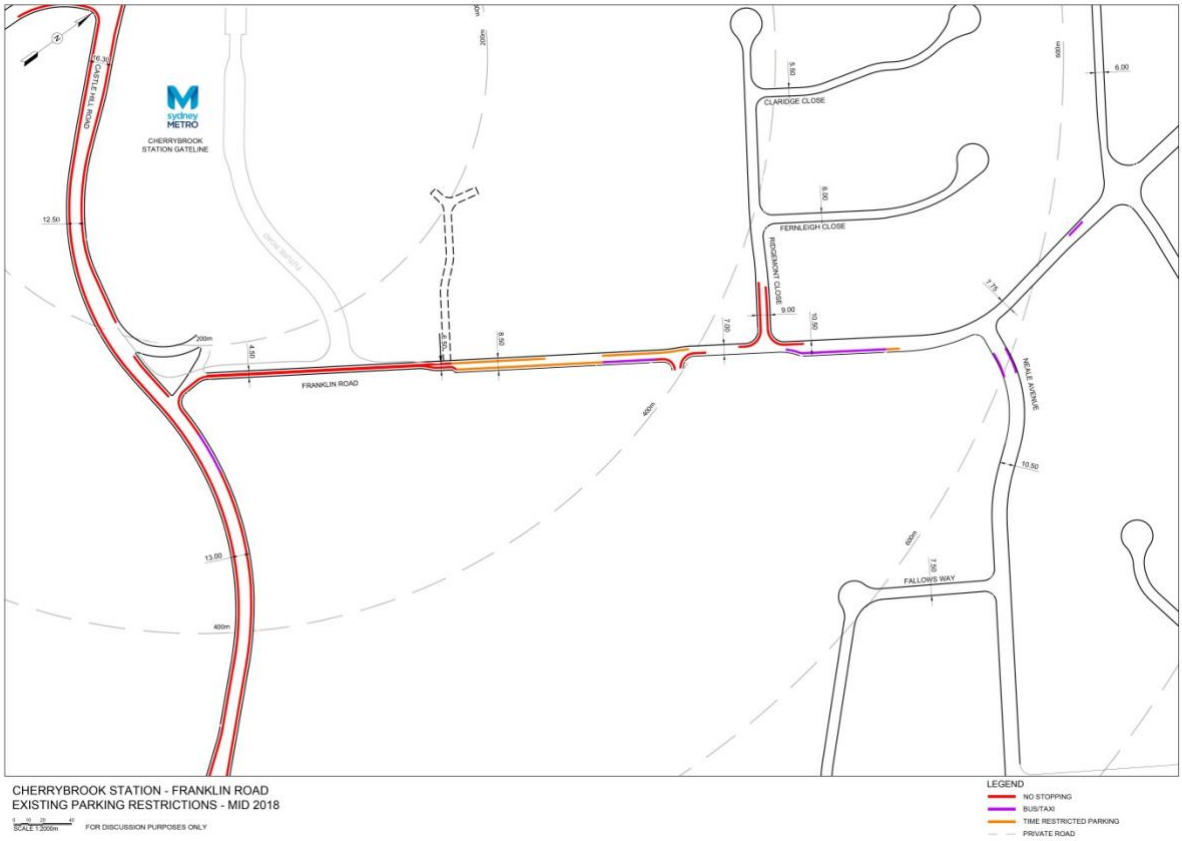

Figure 6.4: Pre-metro parking conditions mid-2018 – Franklin Road and linking streets

Changes introduced for metro operations include adjustments to the existing parking restrictions on Franklin Road, with parking restrictions to be extended into Ridgemont Close, Fernleigh Close and Claridge Close, as these streets are within a 400–600 metre walk of the station. The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

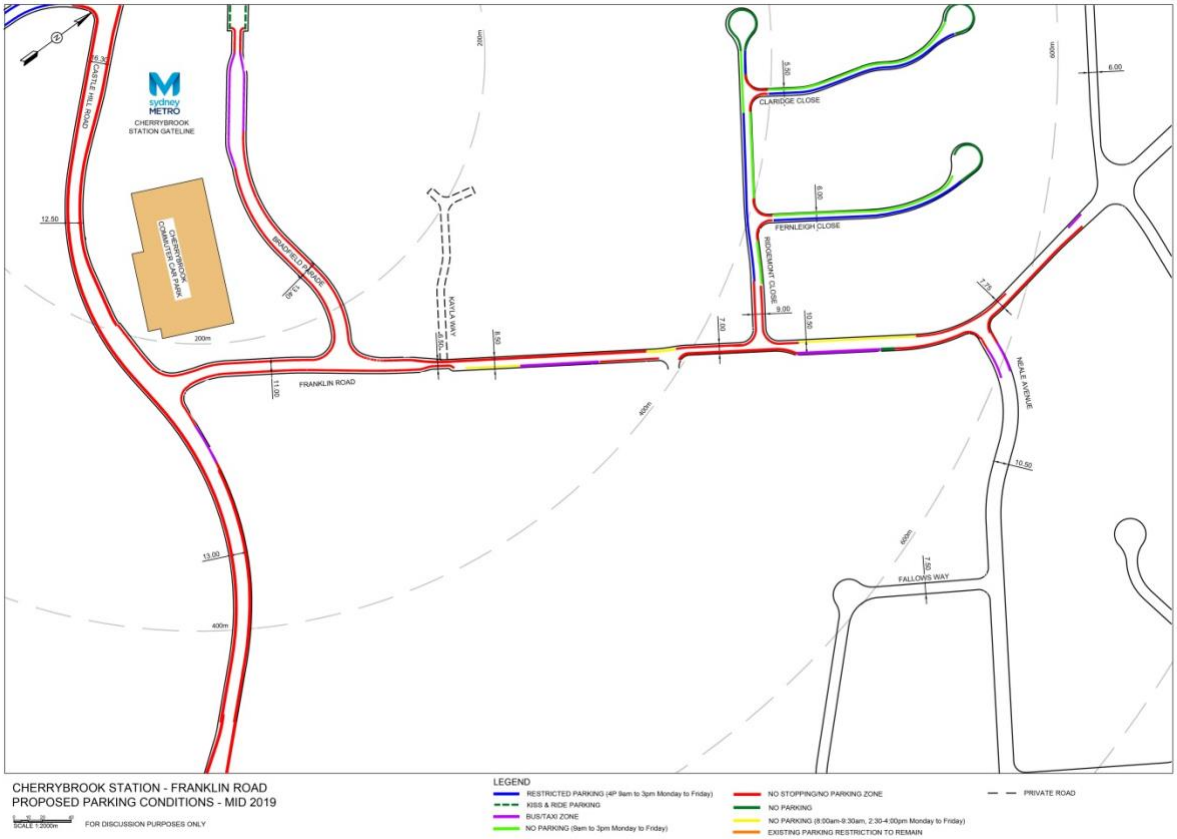

Figure 6.5: Proposed parking conditions mid-2019 – Franklin Road and linking streets

6.3.2 Robert Road and linking streets

Robert Road is located entirely within Hornsby Shire Council LGA. The following parking considerations apply to Robert Road:

- Robert Road is very narrow and straight, and currently has little parking demand apart from adjacent residents.
- There are a number of private subdivisions off Robert Road which have narrow access roads. As these are private roads, they fall outside the scope of recommendations for the Parking Management Strategy.

Figures 6.6 and 6.7 compare the parking conditions around Robert Road before and after the opening of Sydney Metro.

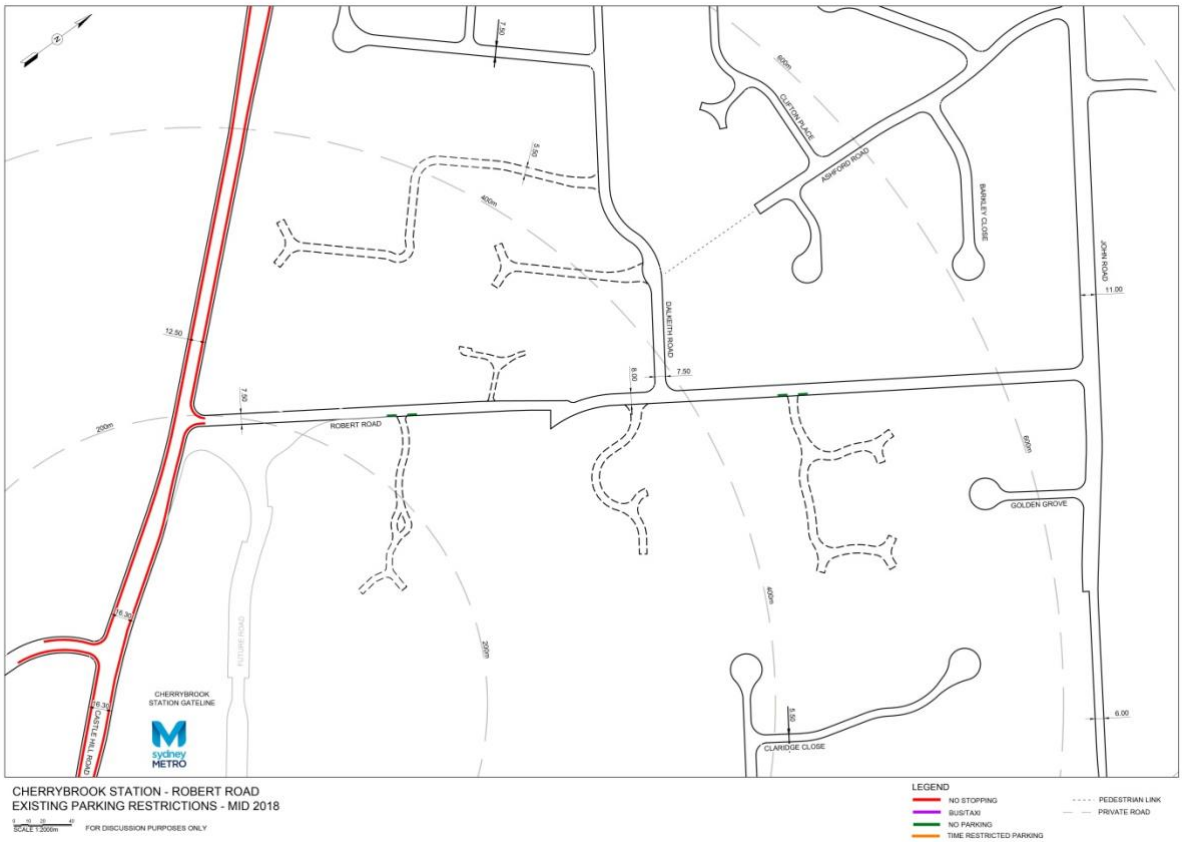

Figure 6.6: Pre-metro parking conditions mid-2018 – Robert Road and linking streets

All of Robert Road from Castle Hill Road up to the intersection with Dalkeith Road will be restricted parking; the length between Dalkeith Road and John Road will have short sections of No Parking alternating from one side to the other. Dalkeith will have timed restrictions between the Robert Road and Dunraven Way intersections. The end of Ashford Road and all of Ghisla Close will be restricted parking, up to approximately 600 metres from the station.

The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

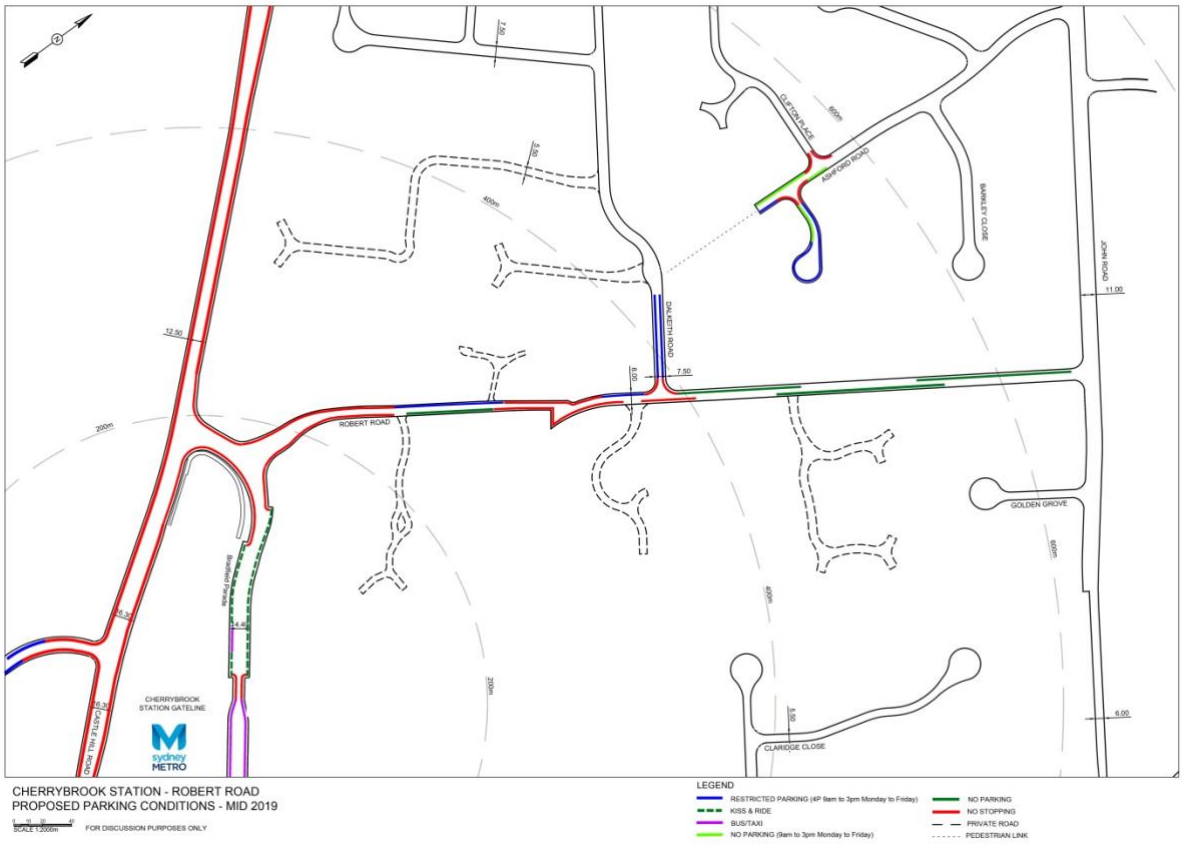

Figure 6.7: Proposed parking conditions mid-2019 – Robert Road and linking streets

6.3.3 Glenhope Road and linking streets

Glenhope Road is located entirely within The Hills Shire Council LGA. The following parking considerations apply to Glenhope Road:

- Currently, there are limited parking restrictions on Glenhope Road due to its generous width and a lack of commuter demand.
- Connecting streets such as Glenayr Grove are very narrow.

Figures 6.8 and 6.9 compare the parking conditions around Glenhope Road before and after the opening of Sydney Metro.

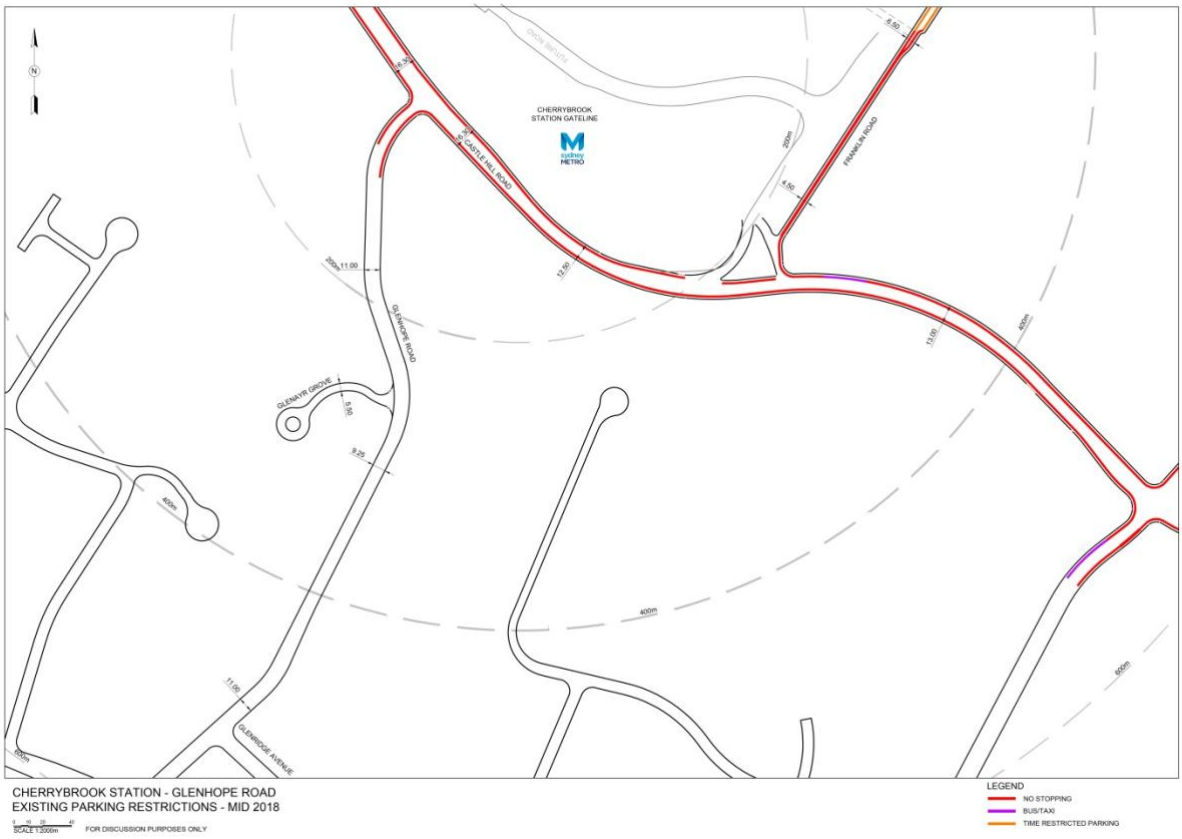

Figure 6.8: Pre-metro parking conditions mid-2018 – Glenhope Road and linking streets

Timed restrictions will be implemented down Glenhope Road from Castle Hill Road down and into Glenayr Grove. One side of Staley Court will be made No Parking as will the old road in front of 111 and 113 Castle Hill Road.

The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

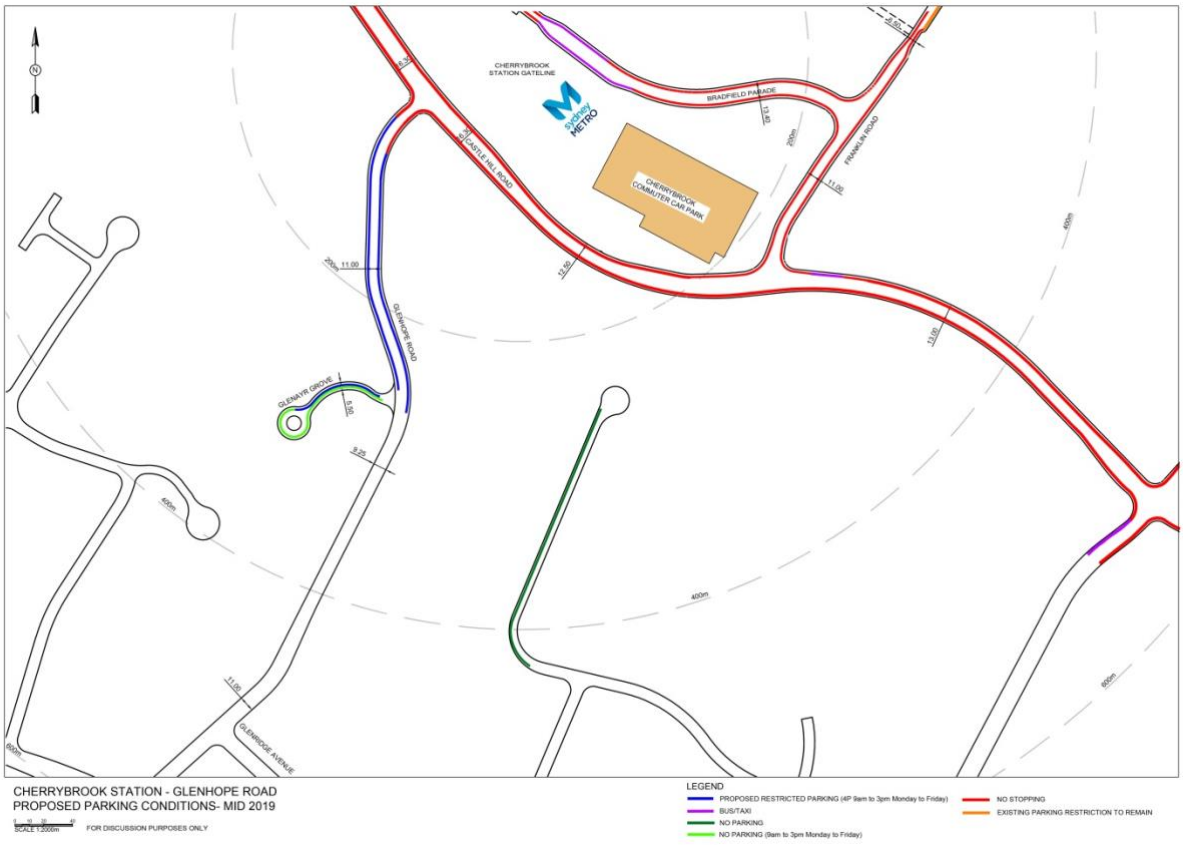

Figure 6.9: Proposed parking conditions mid-2019 – Glenhope Road and linking streets

6.3.4 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

The proposed type of parking changes and the reason for their implementation is summarised in Table 6.3.

Street	Restriction type	Reason for implementation
Robert Road	No Parking No Stopping Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricted sight lines / unsuitable topography • Restricts safe access for vehicles • Network access point
Dalkeith Road	Time-restricted parking Monday–Friday	• Proximity to intersection or pedestrian crossing • Network access point • Restricts safe access for vehicles
Franklin Road	No Parking	• Proximity to station (0–400m) • Bus access • Restricts safe access for vehicles

Street	Restriction type	Reason for implementation
	Time-restricted No Parking Monday–Friday No Stopping	• Network access point • Significant demand driven by land use • Proximity to intersection or pedestrian crossing
Ridgemont Close	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Proximity to intersection or pedestrian crossing • Network access point • Restricts safe access for vehicles
Claridge Close	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles
Fernleigh Close	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles
Glenhope Road	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Proximity to intersection or pedestrian crossing • Network access point
Glenayr Grove	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricted sight lines / unsuitable topography • Proximity to intersection or pedestrian crossing • Restricts safe access for vehicles

Table 6.3: Assessment of on-street parking changes in the wider precinct at Cherrybrook Station

The implementation of on-street parking measures is discussed further in Section 14.

6.4 Management, maintenance and enforcement

The organisation responsible for maintenance of the Cherrybrook Station commuter car park will be the operator MTS for the first 15 years.

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- Hornsby Shire Council, for on-street interchange facilities (such as kiss and ride bays)

- Hornsby Shire Council and The Hills Shire Council, for on-street parking issues in their respective areas
- Local landowners and community groups for private roads.

7 Castle Hill Station

7.1 Castle Hill Station overview

Castle Hill station is located within the town centre of Castle Hill within The Hills Shire LGA. The station will mainly serve the suburbs of Castle Hill and Baulkham Hills. The total population of these suburbs is approximately 70,000 people. The majority of rail customers from these suburbs need to travel more than four kilometres to access a railway station and are currently using Beecroft, Cheltenham, Thornleigh, Seven Hills and Parramatta stations to access rail services.

Castle Hill is classified as a strategic centre in A Plan for Growing Sydney (DP&E, 2014), which is defined as a location that currently or is planned to have at least 10,000 jobs. These are priority locations for employment, retail, housing, services and mixed-uses.

7.1.1 Station walking catchment

Figure 7.1: Castle Hill Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Castle Hill Station shows that the station has evenly distributed access from the surrounding commercial and residential areas. This is a reflection of Castle Hill's historic development and ongoing role as a commercial centre and transport hub. The streets within the area vary considerably from major arterial and town centre roads to collector and local residential streets. Topography is a notable determinant of the street network, with significant elevation falls from Old Northern Road to the east, making a lot of this area less attractive to walking activity. The area is primarily commercial retail

immediately around the station location, and residential beyond 200–300 metres walk from the station site. Notably, existing residential densities are much higher than at either Cherrybrook or Hills Showground sites, and this density is set to increase.

7.2 Interchange parking provision

7.2.1 Commuter car park

A commuter car park is not provided at Castle Hill as it is classified as a strategic centre. The approach for strategic centres broadly reflects planning for commuter car parks across Sydney, which focuses parking provision outside of busy town centres and major employment centres. Customers who wish to drive to Sydney Metro services will be able to access car parking at the nearby stations of Cherrybrook and Hills Showground Stations.

7.2.2 Interchange on-street parking allocation

Castle Hill Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride	6
Accessible kiss and ride	1
Taxi	9
Staff and maintenance parking	2

Table 7.1: Interchange parking facilities at Castle Hill Station at opening

Separate to the parking listed above, a number of short-term parking spaces will also be delivered on-street at some stations. However due to space constraints within the station interchange, no additional short-term parking will be provided at Castle Hill Station.

7.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Three focus areas were identified for Castle Hill, as shown in Figure 7.2:

1. Garthowen Crescent and Old Castle Hill Road
2. Brisbane Road, Crane Road and Mercer Street
3. Castle Street.

Figure 7.2: Castle Hill Station focus area locations

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below. These changes have been approved by the relevant local council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

7.3.1 Garthowen Crescent and Old Castle Hill Road

The area to the north of Castle Hill Station is largely low–medium density residential. Existing parking restrictions along Garthowen Crescent were implemented to minimise access issues while the restrictions on Old Castle Hill Road are designed to permit free bus movements and flow of traffic. Parking pressures currently exist on these residential streets as a result of parking demand from staff and customers of the Castle Towers shopping centre and Castle Hill town centre.

Figures 7.3 and 7.4 compare the parking conditions around Garthowen Crescent and Old Castle Hill Road before and after the opening of Sydney Metro.

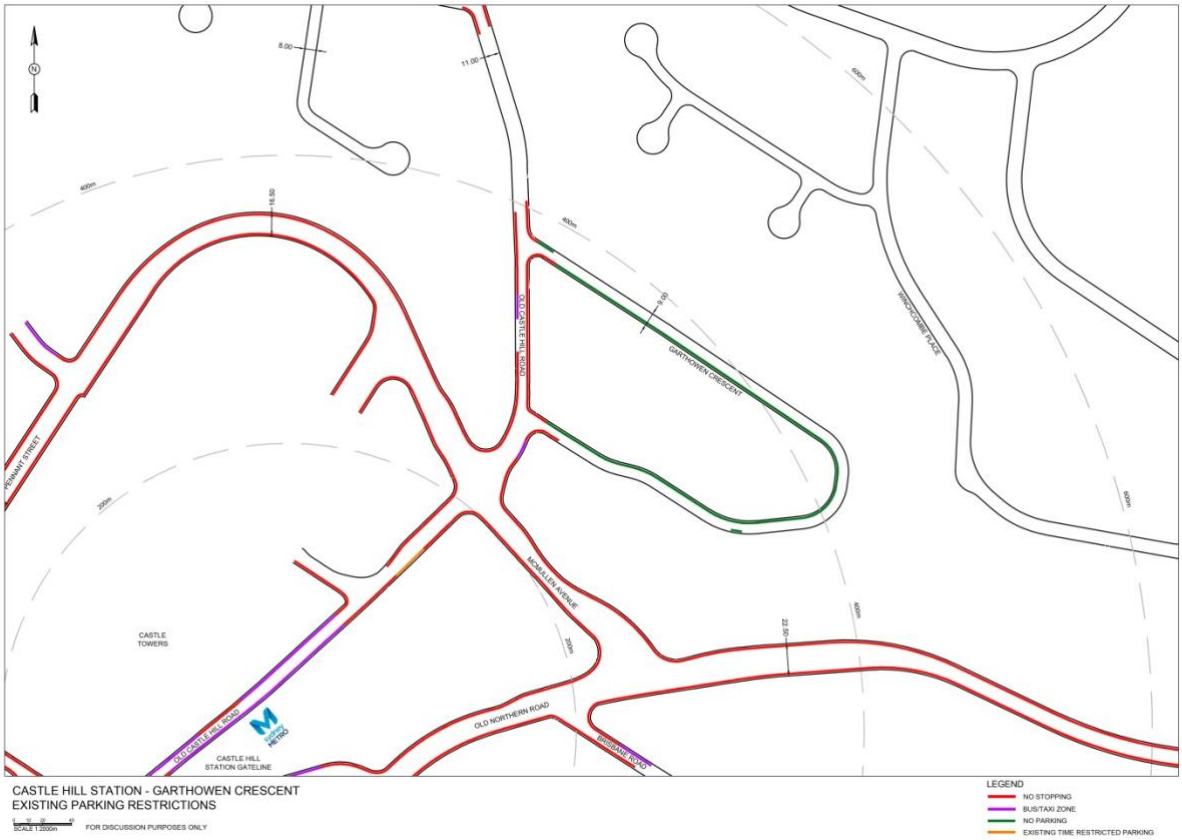

Figure 7.3: Pre-metro parking conditions mid-2018 – Old Castle Hill Road and Garthowen Crescent

Garthowen Crescent is within 400 metres of Castle Hill Station and already has No Parking restrictions on one side. Time-restricted parking (4P) will be implemented on the other side of Garthowen Crescent. Two short lengths of time-restricted parking (4P) will also be implemented along Old Castle Hill Road.

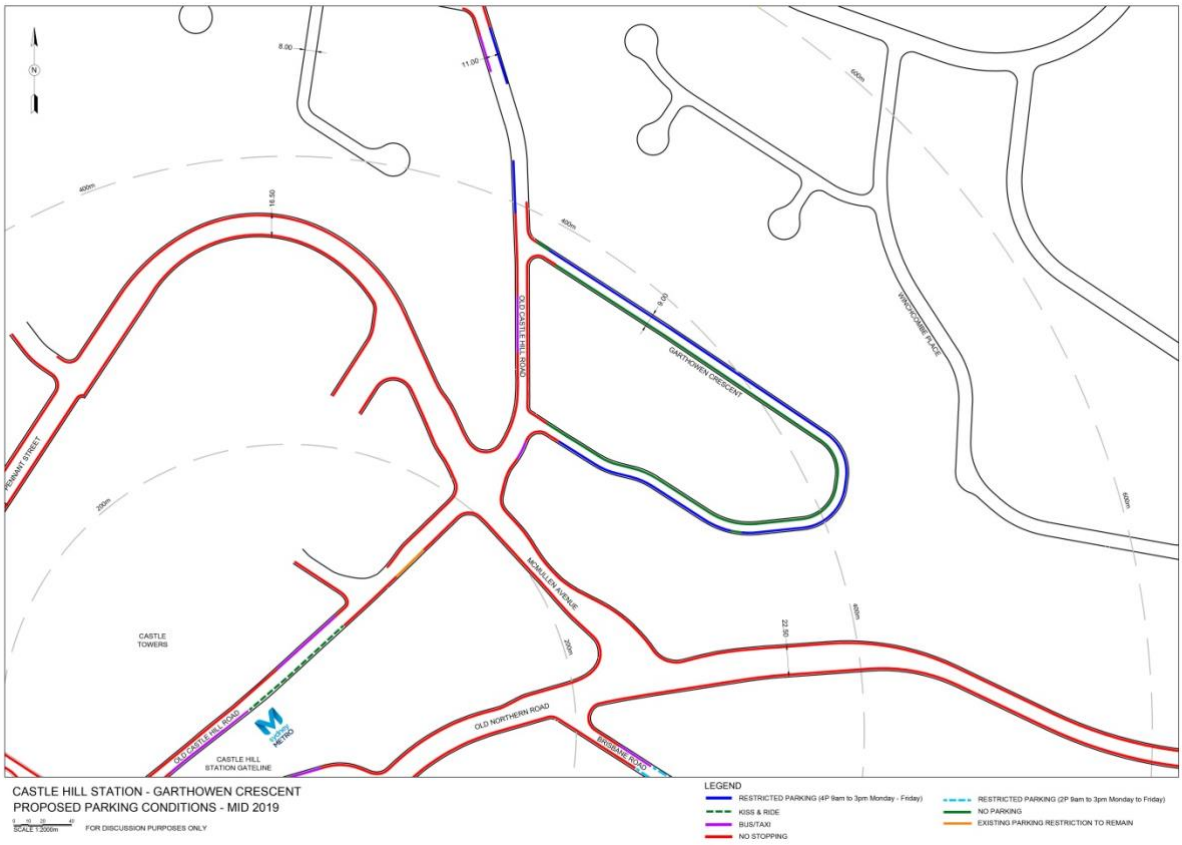

Figure 7.4: Proposed parking conditions mid-2019 – Old Castle Hill Road and Garthowen Crescent

7.3.2 Brisbane Road, Crane Road and Mercer Street

The area to the south and east of the station is largely medium–higher density residential. A number of parking restrictions have been applied, mostly to preserve through-lane capacity and restrict parking adjacent to higher density uses. Any unrestricted parking areas within 400 metres of the station are already well utilised by bus commuters and visitors to the town centre.

Figures 7.5 and 7.6 compare the parking conditions around Brisbane Road, Crane Road and Mercer Street before and after the opening of Sydney Metro.

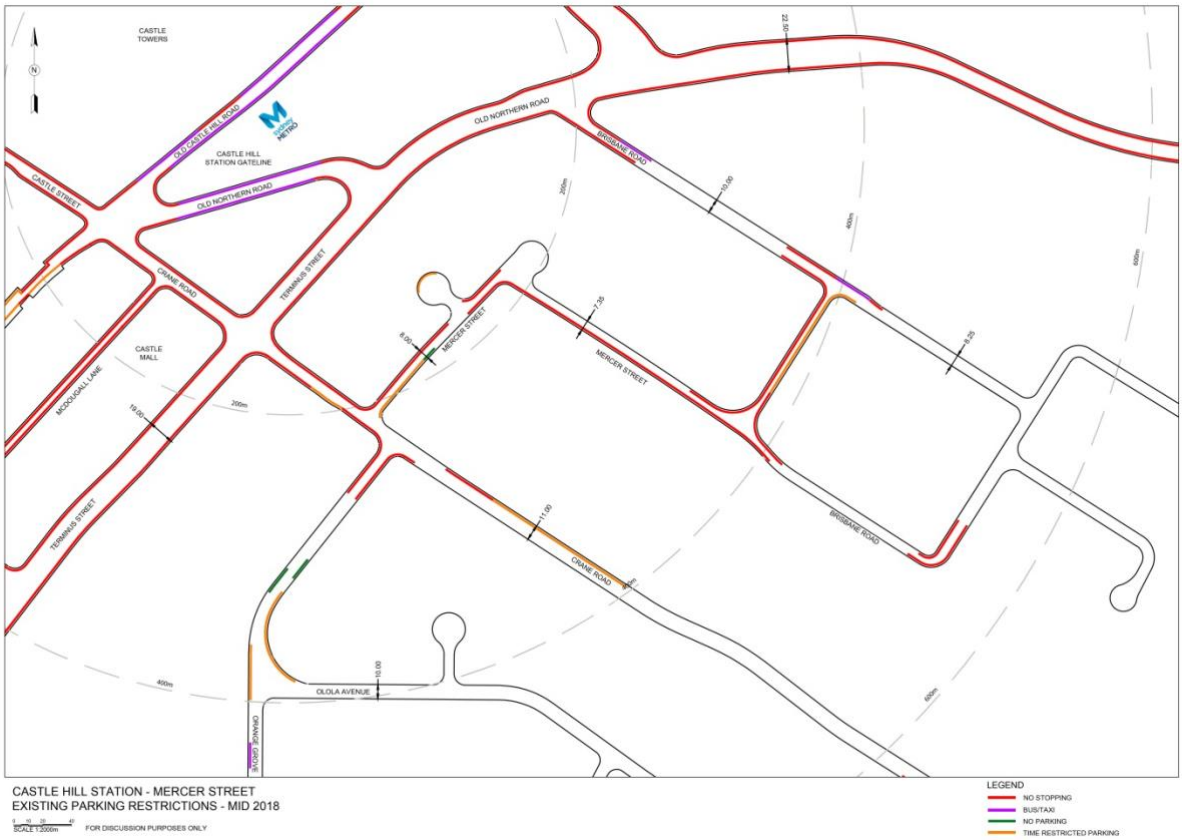

Figure 7.5: Pre-metro parking conditions mid-2018 – Brisbane Road, Crane Road and Mercer Street

The streets within this focus area are within 400 metres of Castle Hill Station and are largely already subject to parking restrictions. Areas of Mercer Street and Orange Grove within 400 metres of the station that are not yet restricted will be subject to timed parking restrictions (4P). Short-term (2P) timed parking restrictions will be implemented on both sides of Brisbane Road between Old Northern Road and Mercer Street.

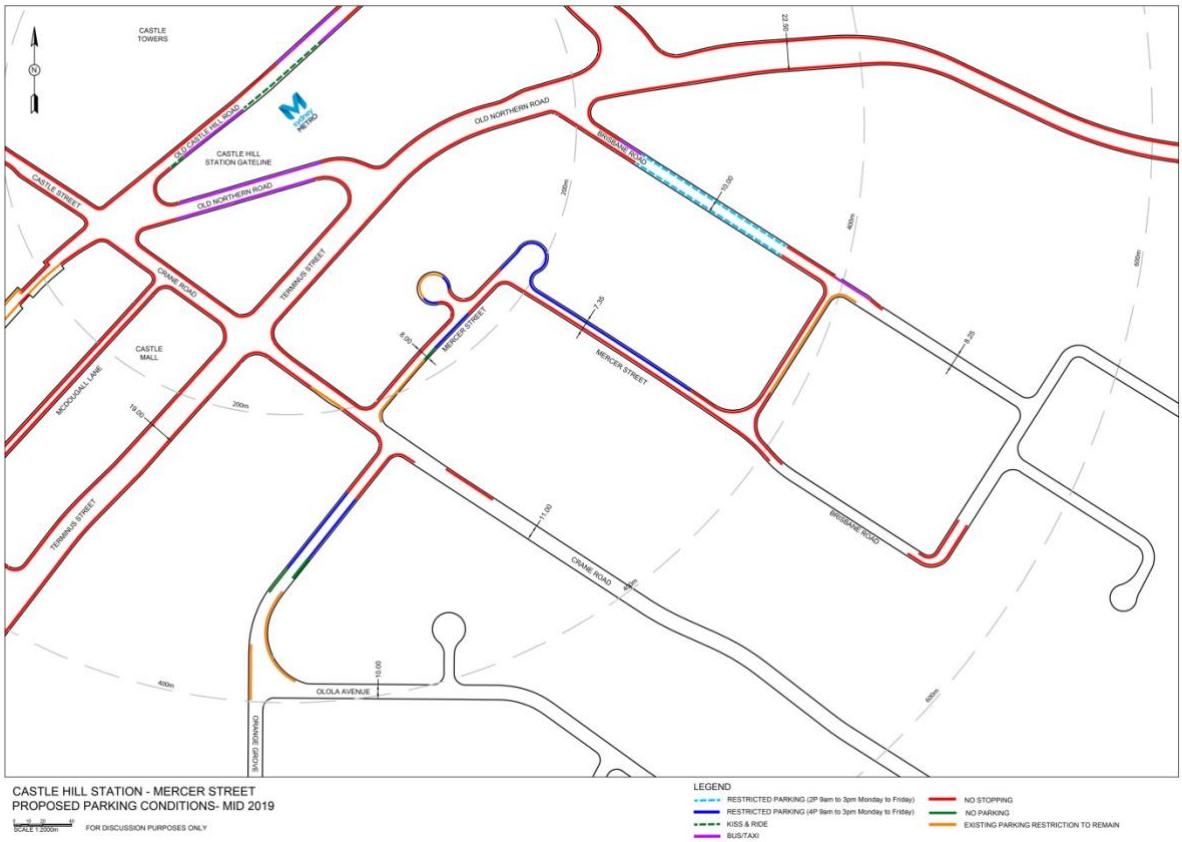

Figure 7.6: Proposed parking conditions mid-2019 – Brisbane Road, Crane Road and Mercer Street

7.3.3 Castle Street

Castle Street is an important access point to both the town centre and local residents, and leads to Castle Hill High School at its western terminus. Currently, this street faces parking pressures from both residents and staff from Castle Towers shopping centre. The Hills Shire Council has received a number of complaints from nearby residents regarding this existing parking issues.

Figures 7.7 and 7.8 compare the parking conditions around Castle Street before and after the opening of Sydney Metro.

Figure 7.7: Pre-metro parking conditions mid-2018 – Castle Street at Castle Hill

Sydney Metro has proposed the implementation of restricted parking (four-hour [4P] parking between 9am–3pm Monday to Friday) along the currently unrestricted parking section of Castle Street as it lies within a 600-metre walk of Castle Hill Station.

Figure 7.8: Proposed parking conditions mid-2019 – Castle Street

7.3.4 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

Street name	Restriction type	Reason for implementation
Garthowen Crescent	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles
Old Castle Hill Road	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Proximity to intersection or pedestrian crossing • Bus access • Network access point
Brisbane Road	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Proximity to intersection or pedestrian crossing • Network access point
Mercer Street	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles
Orange Grove	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Proximity to intersection or pedestrian crossing

		• Network access point
Castle Street	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Network access point • Bus access

Table 7.2: Assessment of on-street parking changes in the wider precinct at Castle Hill Station

The implementation of on-street parking measures is discussed further in Section 14.

7.4 Management, maintenance and enforcement

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- The Hills Shire Council, for on-street parking issues.

8 Hills Showground Station

8.1 Hills Showground Station overview

Hills Showground Station (previously known as Hills Centre or Showground Station) is located within The Hills Shire LGA in the suburb of Castle Hill. The station will mainly serve the residential areas of Castle Hill located to the south and east of the station. It will also provide access for workers to the industrial/commercial area located to the west of the station.

Hills Showground Station will complement Castle Hill Station in that it would capture customers from some of the same catchment as Castle Hill Station. Hills Showground Station will provide a park and ride option and serve a smaller bus interchange function than Castle Hill Station.

8.1.1 Station walking catchment

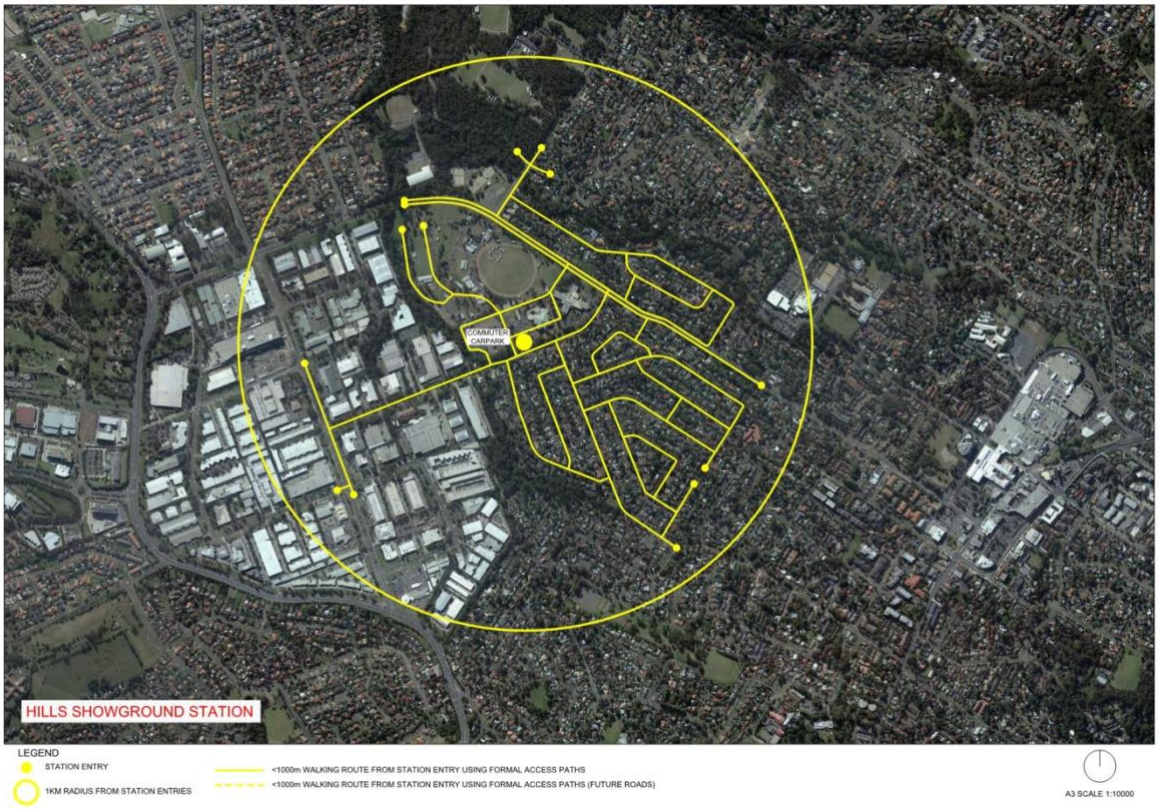

Figure 8.1: Hills Showground Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Hills Showground (shown in Figure 8.1) is somewhat restricted to the west and north, and notably divided between largely residential uses and a significant light industrial and retail park environment. The streets within the area are not particularly narrow when compared to other, newer, residential developments within the one-kilometre radius walking catchment of other stations. Cul-de-sacs and circuitous street patterns limit some of the more direct walking movement to and from the station. The local topography is largely conducive to walking activity, although major roads restrict crossing points to several key locations. The most significant traffic generators are likely to be the nearby arterial routes, such as Showground Road, the nearby Castle Hill Industrial Zone and, periodically, activities in the adjacent Castle Hill Showground.

8.2 Interchange parking provision

8.2.1 Commuter car park

Hills Showground commuter car park will be a three-level multi-storey car park within the station precinct. As can be seen in Figure 8.2, the car park has been designed to create a more efficient layout and support integrated development in the surrounding precinct.

Figure 8.2: Hills Showground Station car park, looking north east (Department of Planning and Environment 2017)

The Hills Showground Station commuter car park will provide a total of 600 parking spaces for use by Sydney Metro customers.

Priority	Type of parking	Number of spaces
1	Accessible spaces	18
2	Electric-ready bays	120
3	Compact bays	90
4	Standard bays	372
N/A	*Motorcycle parking**	*18*
	Commuter car park (total)	**600**

*Motorcycle parking is provided in addition to the total car space requirement and is not included in the total car parking spaces

Table 8.1: Types of parking at Hills Showground Station commuter car park

Priority for each type of parking has been implemented in order to encourage more equitable and sustainable transport access. Accessible spaces are provided in closest proximity to station gate lines to satisfy DDA requirements.

Drivers wishing to access Hills Showground commuter car park can do so from De Clambe Drive, the only vehicular access to the car park. Space availability will be indicated on an electronic signage board outside the vehicle entrance. Commuter car park customers will

need to cross Doran Drive and Mandala Parade in order to travel between the station entrance and the car park.

8.2.2 Interchange on-street parking allocation

Hills Showground Station will also provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride (peak times)	15
Accessible kiss and ride	1
Taxi	4
Staff and maintenance parking	3

Table 8.2: Interchange parking facilities at Hills Showground Station at opening

Separate to the parking listed above, a number of spaces will also be delivered on-street which will function as short-term or town centre parking. At Hills Showground, this amounts to 20 on-street parking spaces, with an additional five spaces available outside of peak times. This will be provided as two-hour (2P) parking, which is consistent with the principles outlined in this Parking Management Strategy.

8.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Two focus areas were identified for Hills Showground, as shown in Figure 8.3:

1. North – Kathleen Avenue and Belvedere Avenue
2. South – Middleton Avenue, Ashford Avenue and Partridge Avenue.

Figure 8.3: Hills Showground Station focus area locations

8.3.1 Kathleen Avenue and Belvedere Avenue

Kathleen Avenue runs parallel to Showground Road, and along with Belvedere Avenue lies in close geographical proximity to Hills Showground Station. It is a residential low-density street, with no competing land uses. Access to the station will occur via an existing pedestrian pathway between Belvedere Avenue and Showground Road, and the Gilbert Road footpath. As these streets are not within 400 metres walking distance of the station, there are no proposals to impose parking restrictions on these streets at station opening. However, these streets are included in the Traffic and Parking Monitoring work and will be monitored for at least 12 months after station opening. Parking mitigation measures may be considered following assessment of commuter parking impacts on these residential streets.

8.3.2 Middleton Avenue, Ashford Avenue and Partridge Avenue

The streets to the south of the Hills Showground Station precinct are in close proximity to the station entrance. These streets are fairly narrow, in keeping with their residential low-density character and have no competing land uses at present. Access to the station will occur via intersections (with pedestrian crossing legs) at Doran Drive and Middleton Avenue.

Figures 8.4 and 8.5 compare the parking conditions around Middleton Avenue, Ashford Avenue and Partridge Avenue before and after the opening of Sydney Metro.

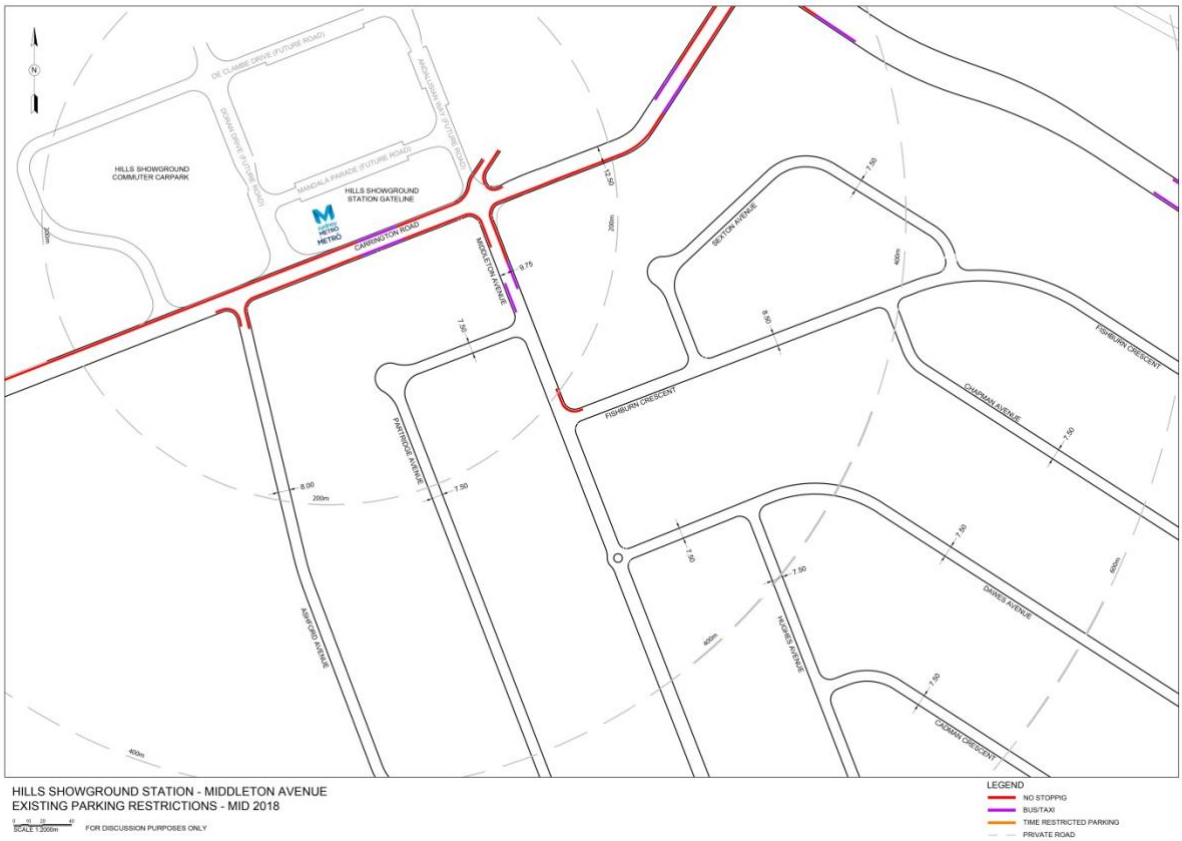

Figure 8.4: Pre-metro parking conditions mid-2018 – Middleton Avenue, Ashford Avenue and Partridge Avenue

Given their residential nature, the street activity surrounding the station precinct will change considerably over the operational life of Sydney Metro Northwest, but particularly in the earlier years.

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

As a result of feedback received, some amendments were made to the proposed parking changes. These were included in the final recommendations to the local council for assessment. The proposed on-street parking conditions for the wider interchange precinct

are outlined below and focus on the implementation of Time-restricted parking. These changes have been approved by The Hills Shire Council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

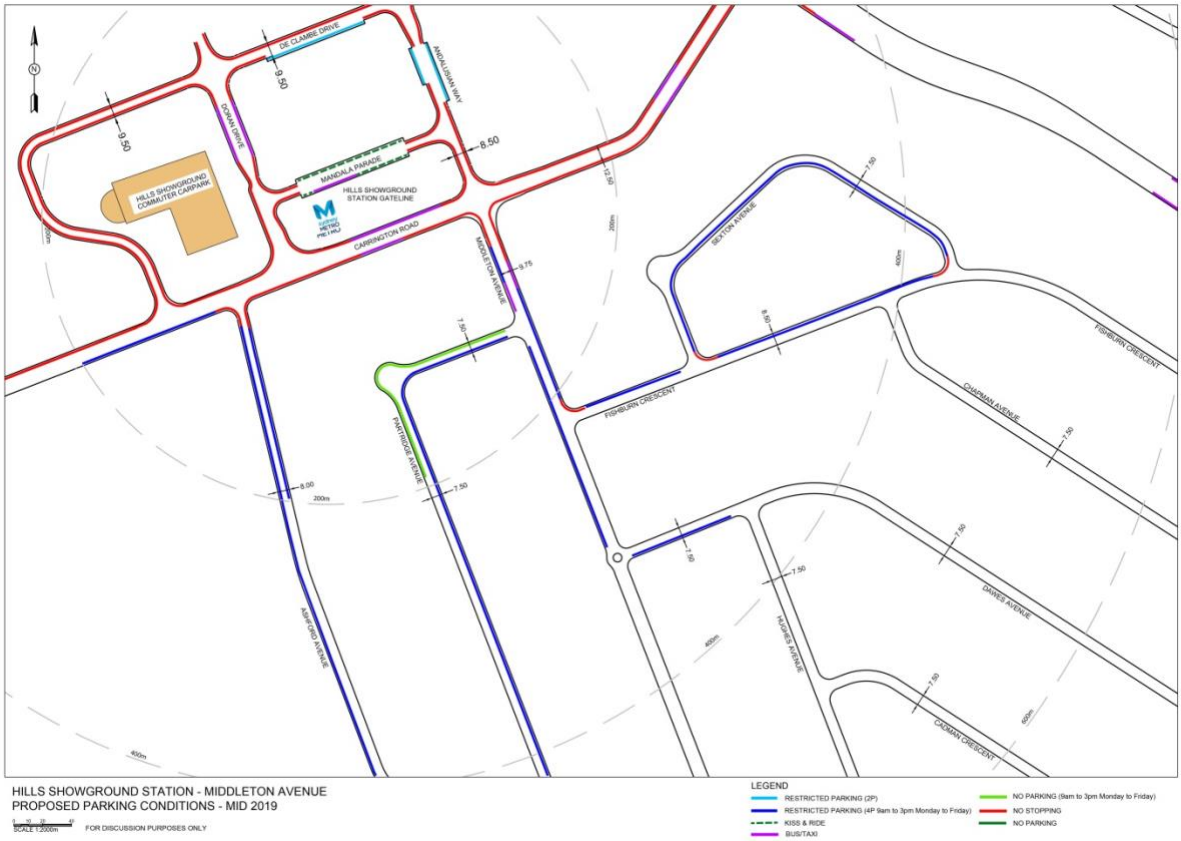

Figure 8.5: Parking conditions mid- 2019 – Middleton Avenue, Ashford Avenue and Partridge Avenue

8.3.3 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

Street name	Restriction type	Reason for implementation
Kathleen Avenue / Belvedere Avenue	No restrictions proposed	• Not within 400m walking distance to station
Ashford Avenue	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Proximity to intersection or pedestrian crossing • Restricts safe access for vehicles
Partridge Avenue	Time-restricted parking Monday–Friday Time-restricted No Parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Proximity to intersection or pedestrian crossing • Restricts safe access for vehicles
Middleton Avenue	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents

Street name	Restriction type	Reason for implementation
		• Proximity to intersection or pedestrian crossing • Restricts safe access for vehicles • Network access point • Bus access
Fishburn Crescent	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents
Sexton Avenue	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles
Dawes Avenue	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles

Figure 8.6: Assessment of on-street parking changes in the wider precinct at Hills Showground Station

The implementation of on-street parking measures is discussed further in Section 14.

8.4 Management, maintenance and enforcement

The organisation responsible for maintenance of the Hills Showground Station commuter car park will be the operator MTS for the first 15 years.

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- The Hills Shire Council, for on-street parking issues.

9 Norwest Station

9.1 Norwest Station overview

Norwest Station is located entirely within The Hills Shire LGA. The station will mainly serve the employees of the Norwest Business Park which is currently served by buses, as well as the suburbs of Baulkham Hills and Bella Vista. Existing bus services to Norwest Business Park are limited, particularly outside peak times. As a result of this and the dispersed nature of trip origins, the majority of the employees of the business park currently commute to work using private vehicles.

It is expected that Norwest Station will reduce the congestion along Windsor Road and Norwest Boulevard by encouraging a shift from private car to public transport for workers in Norwest Business Park.

Norwest is classified as a strategic centre in A Plan for Growing Sydney (DP&E 2014) which is defined as a location that currently or is planned to have at least 10,000 jobs. These are priority locations for employment, retail, housing, services and mixed-uses. Most employment and economic activity around Norwest Station takes place in the Norwest Business Park, an industrial/commercial hub currently providing employment for more than 20,000 people. There are more than 2000 dwellings in the adjacent Bella Vista residential areas.

9.1.1 Station walking catchment

Figure 9.1: Norwest Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Norwest Station has notably restricted walking access points, and is heavily influenced by the dispersed nature of land use activity. Large areas of land within the one-kilometre radius of the station entrance remain devoted to lower-density or private recreational uses. The nature of streets within the area varies considerably, consistent with the area's planning under hierarchical auto-oriented planning. Norwest Boulevard roughly bisects the station catchment, with significant collector roads linking to surrounding commercial and residential uses. Local residential streets tend to be narrow, with a number being private roads insufficient to allow parking. Cul-de-sacs also limit direct walking movement to and from the station.

Topography is not a significant impact to walking activity, with greater walking restriction imposed by the nature of the street network and road crossings. Norwest Boulevard is also a significant east–west link for Sydney's North West.

9.2 Interchange parking provision

9.2.1 Commuter car park

A commuter car park is not provided at Norwest Station as it is classified as a strategic centre. The approach for strategic centres broadly reflects planning for commuter car parks across Sydney which focuses parking provision outside of busy town centres and major employment centres. Customers who wish to drive to Sydney Metro services will be able to access car parking at the nearby stations at Bella Vista and Hills Showground.

9.2.2 Interchange on-street parking allocation

Norwest Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride	8
Accessible kiss and ride	1
Taxi	9
Staff and maintenance parking	3

Table 9.1: Interchange parking facilities at Norwest Station at opening

Separate to the parking listed above, a number of spaces will also be delivered on-street which will function as short-term parking. At Norwest, this amounts to approximately 20 on-street parking spaces. This will be provided as two-hour (2P) parking, which is consistent with the principles outlined in this Parking Management Strategy.

9.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Three focus areas have been identified for Norwest, which are outlined in Figure 9.2:

1. South – Barina Downs Road and linking streets
2. South-East – Brookhollow Avenue and Fairmont Avenue
3. North – Solent Circuit.

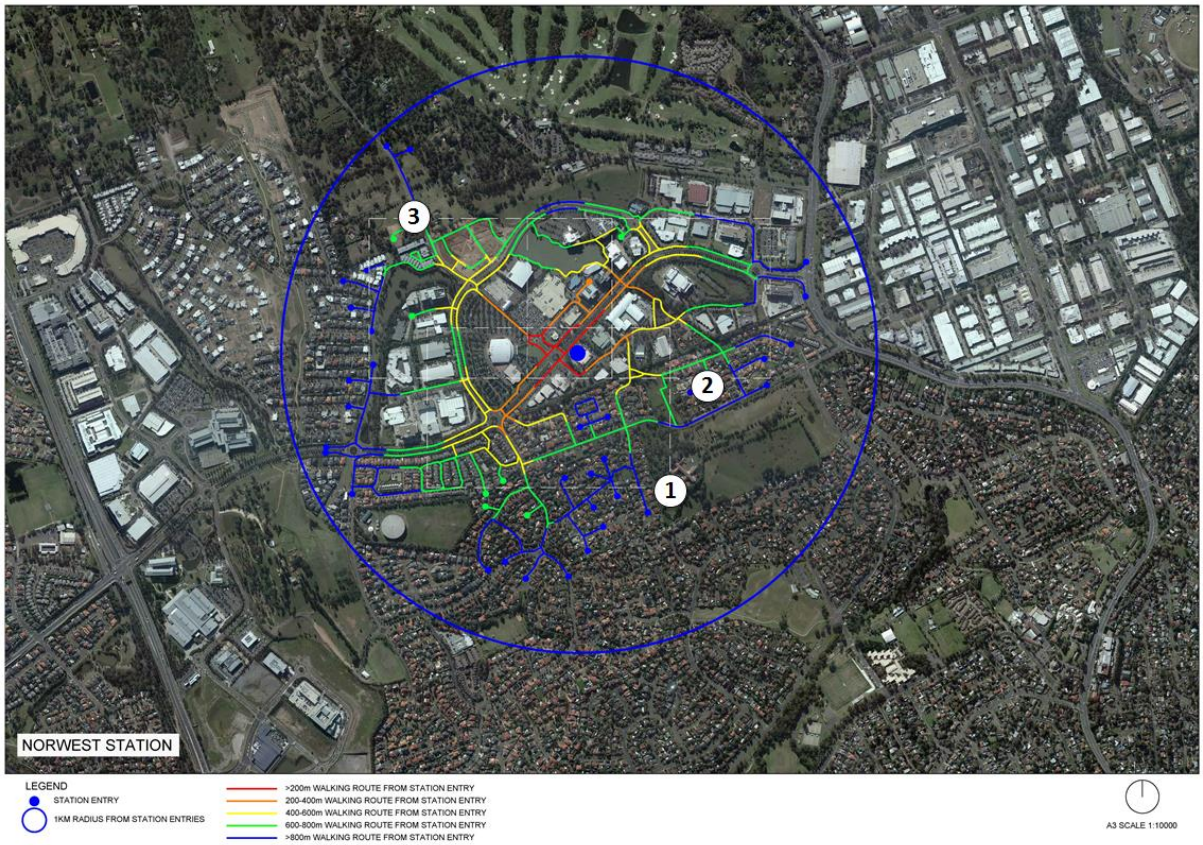

Figure 9.2: Norwest Station focus area locations

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below. These changes have been approved by The Hills Shire Council and are planned to be implemented when Sydney Metro services commence in mid-2019.

9.3.1 Solent Circuit, Barina Downs Road and linking streets

The area around Barina Downs Road is primarily low–medium density residential, with a clearly auto-oriented layout and road network. The residential streets themselves are

narrow, with many smaller private roads facilitating access. Barina Downs Road itself is wider, with bus stops in place. Parking restrictions are already in place in Evesham Court.

To the north of the station site, the Norwest Business Park is the dominant land use, with significant land uses in the Hillsong Church and Norwest Marketown Shopping Centre. Roads are generally very wide with some restrictions on parking. Large areas are devoted to surface level parking for commercial and retail land uses.

Figures 9.3 and 9.4 compare the parking conditions around Solent Circuit, Barina Downs Road and linking streets before and after the opening of Sydney Metro.

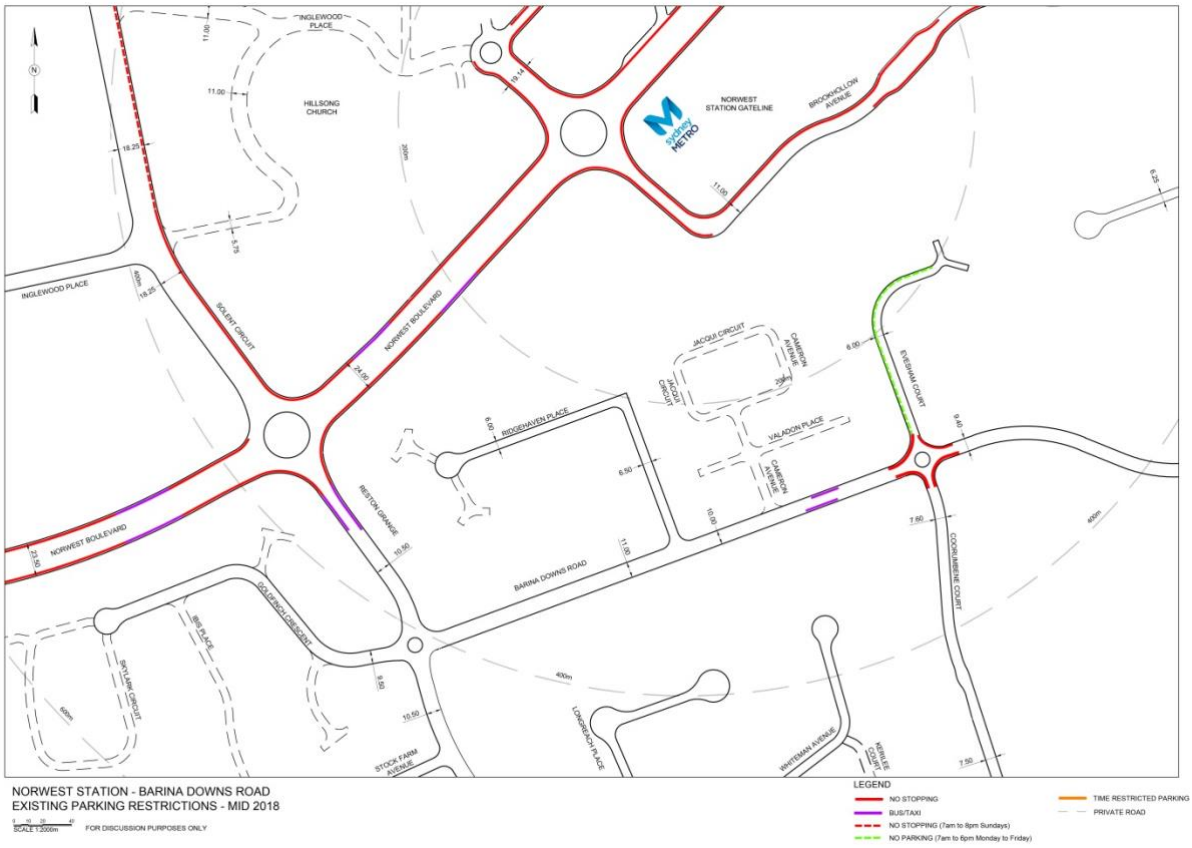

Figure 9.3: Pre-metro parking conditions mid-2018 – Solent Circuit, Barina Downs Road and linking streets

Sydney Metro will implement timed parking restrictions (four hour parking between 9am–3pm Monday–Friday) on Evesham Court, Inglewood Place, Solent Circuit and part of Ridgehaven Place. No Parking restrictions will also be implemented along sections of Ridegehaven Place. The parking restrictions in these streets are intended to protect residential amenity and customer parking by restricting all-day parking by commuters.

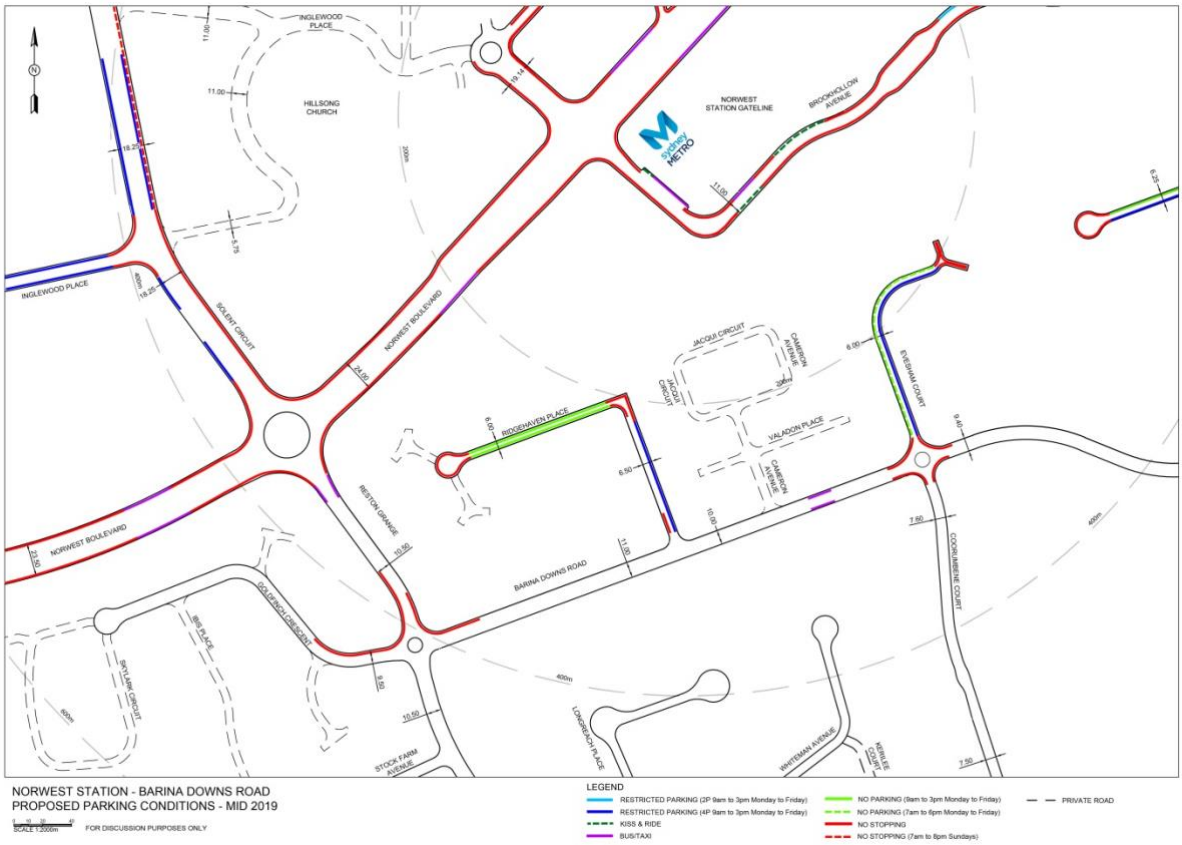

Figure 9.4: Proposed parking conditions mid-2019 – Solent Circuit, Barina Downs Road and linking streets

9.3.2 Brookhollow Avenue and Fairmont Avenue

Brookhollow Avenue has significant areas of No Stopping, with the remainder of parking generally occupied by business employee parking. This allows free flow in both directions. Fairmont Avenue to the south is another narrow residential street which provides direct access to the future station site.

Figures 9.5 and 9.6 compare the parking conditions around Brookhollow Avenue and Fairmont Avenue before and after the opening of Sydney Metro.

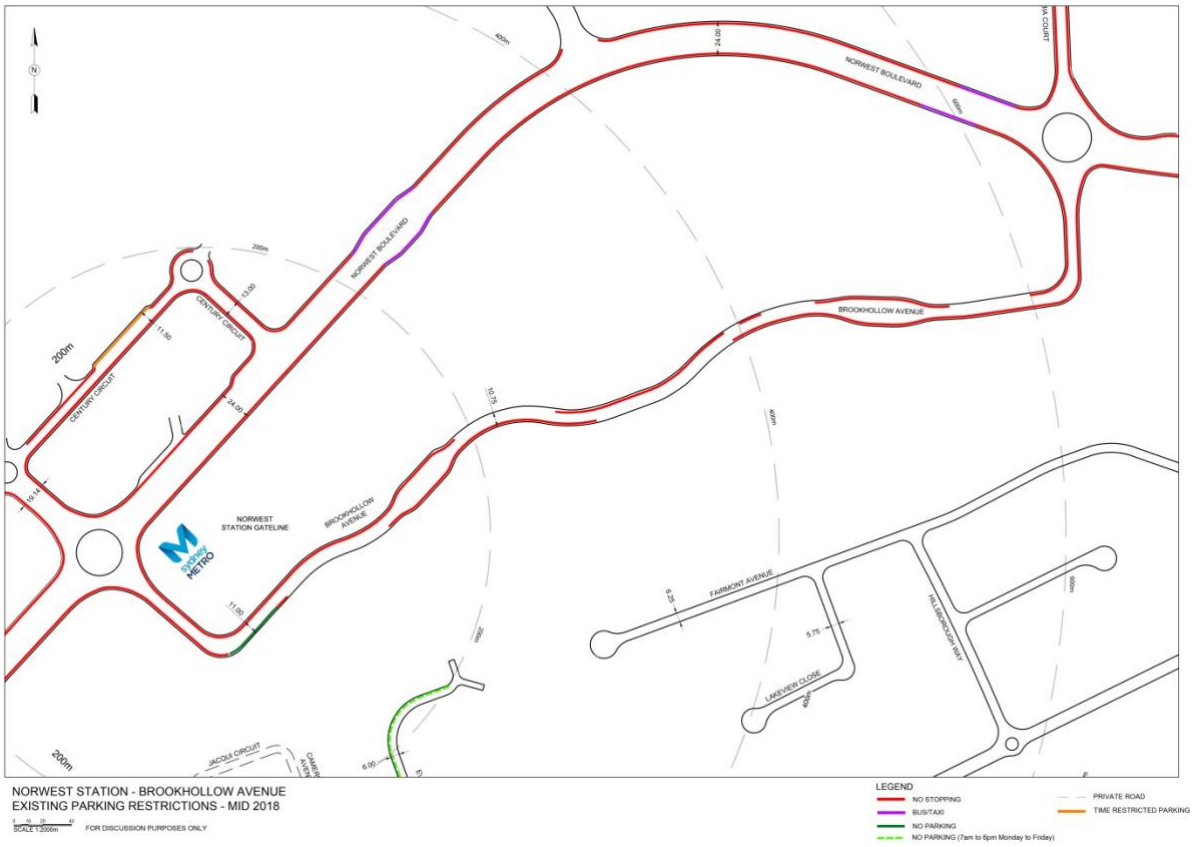

Figure 9.5: Pre-metro parking conditions mid-2018 – Brookhollow Avenue and Fairmont Avenue

Timed parking restrictions are to be implemented on the residential streets of Fairmont Avenue, Lakeview Close, Hillsborough Way and Bethany Court as pedestrian links put these streets within a 300–600 metres walking distance to Norwest Station. Unrestricted portions of Brookhollow Avenue will also be subject to timed restrictions.

The parking restrictions in these streets are intended to protect residential amenity and customer parking by restricting all-day parking by commuters.

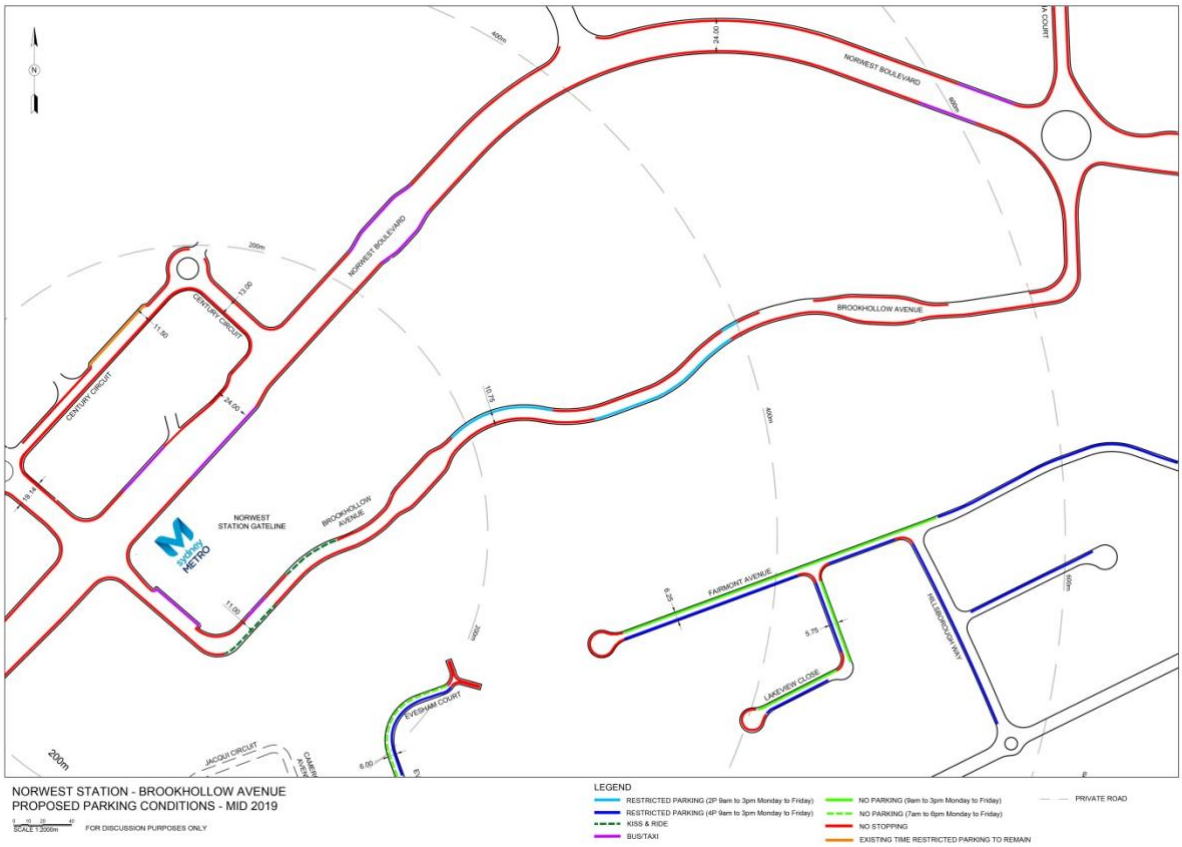

Figure 9.6: Proposed parking conditions mid-2019 – Brookhollow Avenue and Fairmont Avenue

9.3.3 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

Street name	Restriction type	Reason for implementation
Ridgehaven Place	Time-restricted parking Monday–Friday Time-restricted No Parking Monday–Friday	• Restricts safe access for vehicles • Adverse impacts on residents • Proximity to station (0–400m)
Brookhollow Avenue	No Parking Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Network access point • Significant demand driven by land use
Fairmont Avenue	Time-restricted parking Monday–Friday Time-restricted No Parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles

Street name	Restriction type	Reason for implementation
Barina Downs Road	No Stopping	• Proximity to intersection • Reinforcing No Stopping at corners
Solent Circuit	No Stopping Time-restricted parking Monday–Friday	• Proximity to intersection • Reinforcing No Stopping at corners • Significant demand driven by land use
Inglewood Place	No Stopping Time-restricted parking Monday–Friday	• Proximity to intersection • Reinforcing No Stopping at corners • Significant demand driven by land use
Lakeview Close	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles
Hillsborough Way	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles
Bethany Court	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles

Table 9.2: Assessment of on-street parking changes in the wider precinct at Norwest Station

The implementation of on-street parking measures is discussed further in Section 14.

9.3.4 Management, maintenance and enforcement

Parking management, maintenance and enforcement within the immediate and wider station precincts will be undertaken by:

- MTS, in terms of interchange shelter and landscape maintenance
- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- The Hills Shire Council, for on-street parking issues
- Local landowners and community groups for private roads.

10 Bella Vista Station

10.1 Bella Vista Station overview

Bella Vista station is located within The Hills Shire LGA, to the north east of the Old Windsor Road / Celebration Drive intersection. The station will mainly serve the north-western part of the Norwest Business Park as well as the existing Bella Vista and Glenwood suburbs and future developments in the Balmoral Road release area. The total population of these suburbs is approximately 20,000 people. Prior to the commencement of metro services, the rail customers of the suburbs in this area need to travel more than four kilometres to access a railway station, at Seven Hills or Blacktown, or else use T-way bus services to Blacktown, Westmead or Parramatta stations. The rail customers accessing these stations travel using the road network which is heavily congested during peak periods.

Bella Vista Station has the potential to reduce the parking demand at Seven Hills and Blacktown stations and would reduce travel time for local residents who are currently using these stations. There are several major traffic generating businesses within the Norwest Business Park located approximately one kilometre from Bella Vista Station. Employees from the Norwest Business Park would be encouraged to use the proposed Bella Vista or Norwest stations in conjunction with the provision of improved connecting bus services.

10.1.1 Station walking catchment

Figure 10.1: Bella Vista Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Bella Vista is heavily restricted to the west, and notably divided between largely residential uses and a significant business park to the immediate south. Old Windsor Road is a major east–west access barrier, and contributes to this divide. Residential streets in both Bella Vista and Glenwood are narrow, with numerous cul-de-sacs. To the north and east of the station, undeveloped land is predominant; this land will be rapidly developed over the coming years, and parking management principles will remain relevant.

Topography is largely conducive to walking activity, although major roads and creek lines restrict crossing points to several key locations. Access is particularly constrained during peak periods, with significant congestion along Old Windsor Road and through the Norwest Business Park.

The one-kilometre walking map in Figure 10.1 does not incorporate customers using the Emmanuel Baptist Church for access or the existing the future pedestrian link from Old Windsor Road through to the Glenwood residential area that received planning approval in 2018. This is discussed further in Section 10.3.2.

10.2 Interchange parking provision

10.2.1 Commuter car park

Bella Vista Station commuter car park will be a three-level multi-storey car park located to the north of the station and will provide a total of 800 parking spaces for use by Sydney Metro customers.

Figure 10.2: Visualisation of the new multi-storey car park at Bella Vista Station

Priority	Type of parking	Number of spaces
1	Accessible spaces	24
2	Electric-ready bays	160
3	Compact bays	120
4	Standard bays	496
N/A	*Motorcycle parking**	*24*
	Commuter car park (total)	**400**

*Motorcycle parking is provided in addition to the total car space requirement and is not included in the total car parking spaces.

Table 10.1: Types of parking at Bella Vista Station commuter car park

Priority for each type of parking has been implemented in order to encourage more equitable and sustainable transport access. Accessible spaces are provided in closest proximity to the station to satisfy DDA requirements.

Drivers wishing to access Bella Vista commuter car park can do so from Byles Place, the only vehicular access to the car park. Space availability will be indicated on an electronic signage board outside the vehicle entrance.

Unaipon Avenue will need to be crossed by pedestrians to access the station, with a marked pedestrian crossing facilitating safe pedestrian movements.

10.2.2 Interchange on-street parking allocation

Bella Vista Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride (peak times)	20
Accessible kiss and ride	1
Taxi	4
Staff and maintenance parking	3

Table 10.2: Interchange on-street parking facilities at Bella Vista Station at opening

Separate to the parking listed above, a number of short-term parking spaces will also be delivered on-street and will function as town centre parking. At Bella Vista, this amounts to a total of approximately 118 on-street parking spaces. These parking spaces will be delivered as a mix of half-hour (½P) and two-hour (2P) parking, which is consistent with the principles outlined in the Parking Management Strategy.

10.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Four focus areas were identified for Bella Vista, which are outlined below:

1. Brighton Drive, Edgewater Drive and linking streets (The Hills Shire Council)
2. Sharrock Avenue and linking streets (Blacktown City Council)
3. Shaun Street and linking streets (Blacktown City Council)
4. Lexington Drive and linking streets (The Hills Shire Council).

Figure 10.3: Bella Vista Station focus area locations

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

As a result of the feedback received, some amendments were made to the proposed parking changes. These were included in the final recommendations to the local council for assessment. The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below.

These changes have been approved by the council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

10.3.1 Brighton Drive, Edgewater Drive and linking streets

The area around Brighton and Edgewater drives is predominantly residential low–medium density. There is some existing pressure on parking in this area due to the operation of the business park.

Figures 10.4 and 10.5 compare the parking conditions around Brighton Drive, Edgewater Drive and linking streets before and after the opening of Sydney Metro.

Figure 10.4: Pre-metro parking conditions mid-2018 – Brighton Drive and linking streets mid-2018

These streets are between 300–600 metres from Bella Vista station and timed parking restrictions will be implemented in addition to the existing No Stopping restrictions. Restrictions will be predominantly implemented on Brighton Place, Craigend Place, Bridgeview Place and Bimbadgen Place with short sections of Millhouse Place and Edgewater Drive to also be restricted. The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters and employees from the business park.

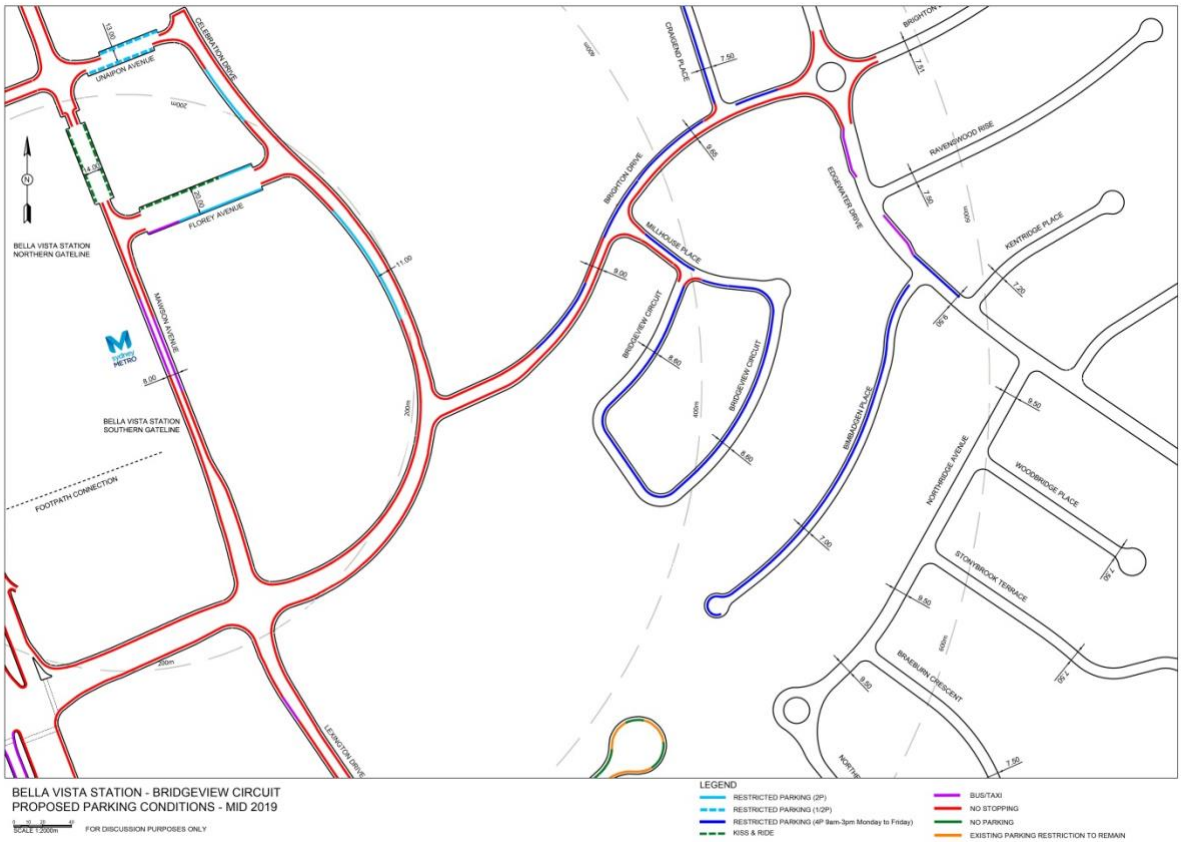

Figure 10.5: Proposed parking conditions mid-2019 – Brighton Drive and linking streets

10.3.2 Shaun Street, Sharrock Avenue and linking streets

Shaun Street runs parallel to an existing drainage swale and connects several smaller cul-de-sacs with the wider Glenwood street network. Streets in this area are narrow, particularly towards Old Windsor Road, and have been considered for parking management given their proximity to Bella Vista Station due to pedestrian access that currently occurs through the Emmanuel Baptist Church grounds.

Figures 10.6 and 10.7 compare the parking conditions around Shaun Street, Sharrock Avenue and linking streets before and after the opening of Sydney Metro.

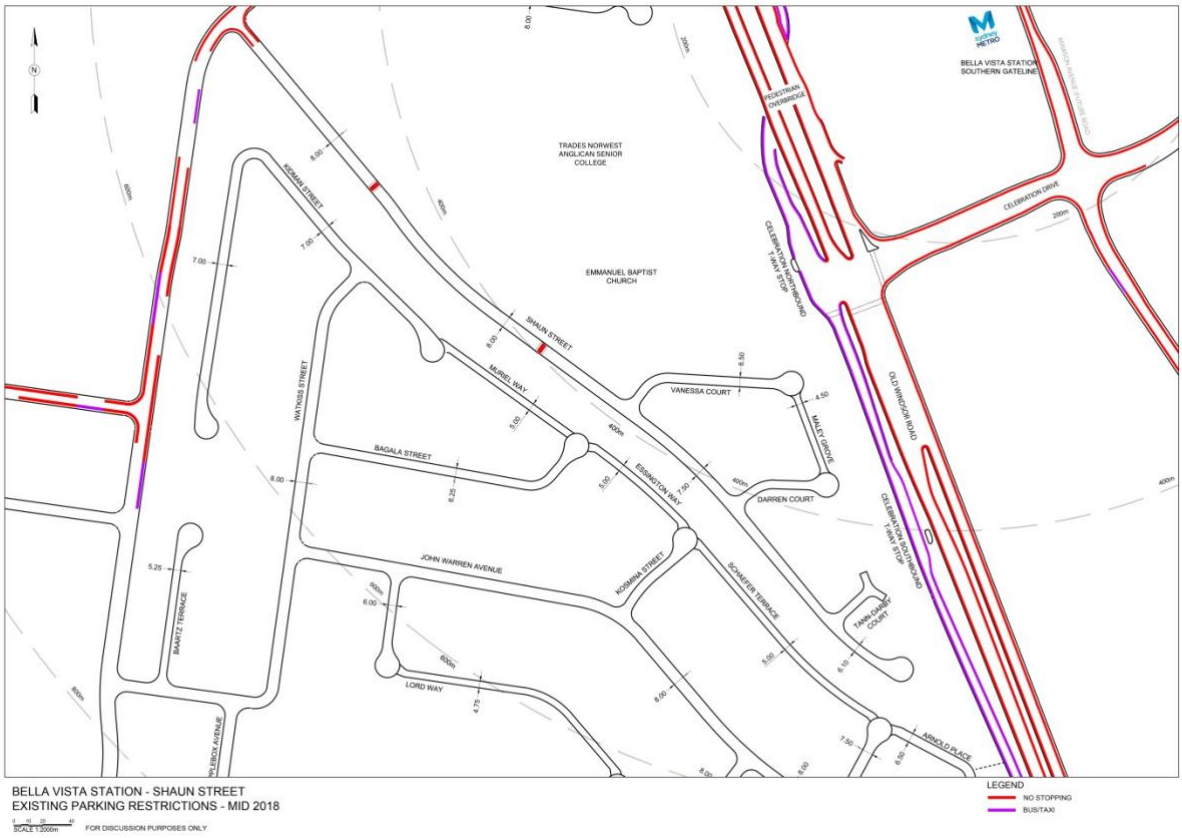

Figure 10.6: Pre-metro parking conditions – Shaun Street and linking streets mid-2018

Sydney Metro will implement parking restrictions on Shaun Street and nearby linking streets to protect residential amenity by restricting all-day parking by commuters. Time-restricted parking will be implemented along one side of Shaun Street while the other side will remain unrestricted. The narrower streets of Vanessa Court, Maley Grove, Darren Court and Tann-Darby Court will be restricted on both sides.

The area around Sharrock Avenue is the future location for a proposed pedestrian link that will improve pedestrian access for residents to Bella Vista Station. Feedback from the community during previous consultation on the pedestrian link raised a number of concerns around parking, and particularly the potential for increased on-street parking demand in Glenwood within the vicinity of the proposed link. Parking management measures may need to be considered for the streets surrounding Sharrock Avenue when the pedestrian link is constructed; however existing access constraints to this area have excluded this area from the currently proposed parking changes. These streets will still be included in the traffic and parking monitoring work.

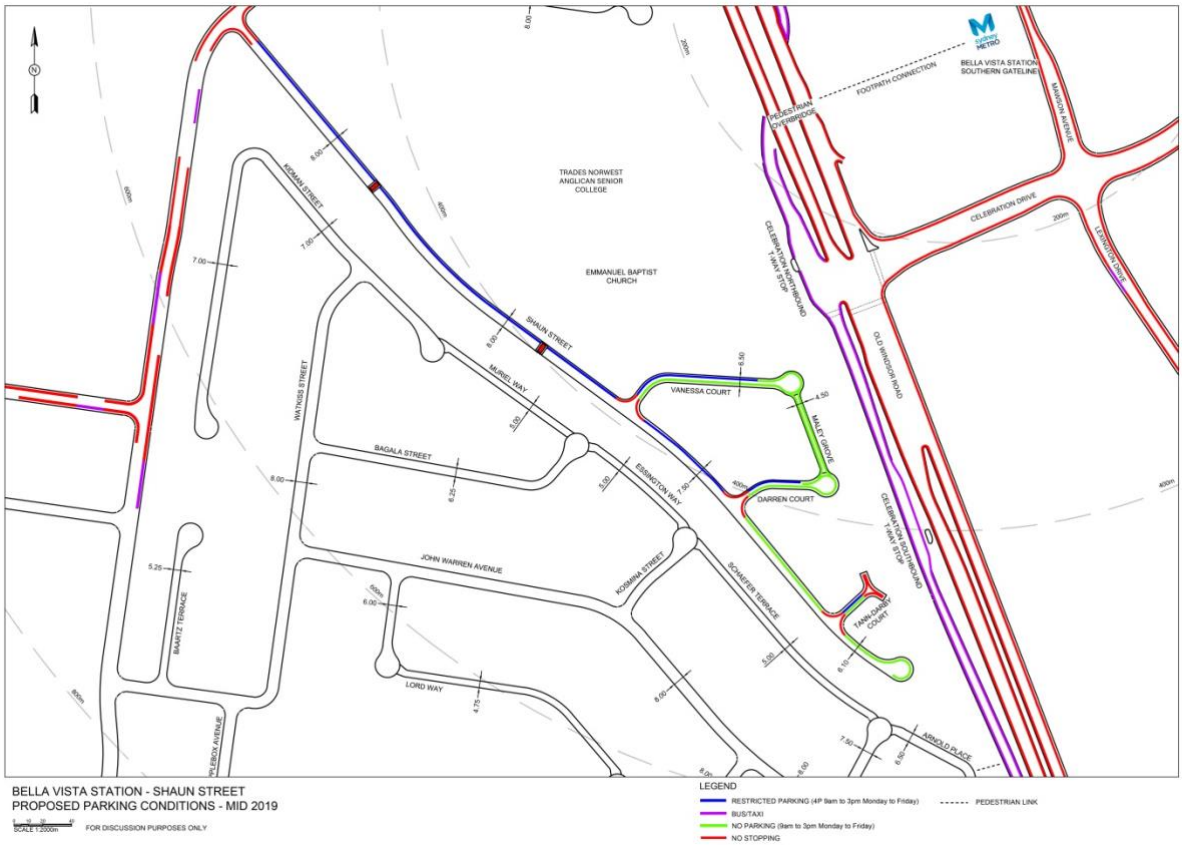

Figure 10.7: Proposed parking conditions mid-2019 – Shaun Street and linking streets

10.3.3 Lexington Drive and linking streets

Lexington Drive is a key traffic corridor for Norwest Business Park, and experiences heavy congestion during peak periods. Local land uses are dominated by commercial office space and retail, with a business park focus. Currently, a number of restrictions are in place on-street, with unrestricted parking fully occupied during weekdays.

Figures 10.8 and 10.9 compare the parking conditions around Lexington Drive and linking streets before and after the opening of Sydney Metro.

Figure 10.8: Pre-metro parking conditions mid-2018 – Lexington Drive and linking streets

Unrestricted areas of Lexington Drive and Meridian Place will be time-restricted to protect parking for local businesses by preventing all-day commuter parking.

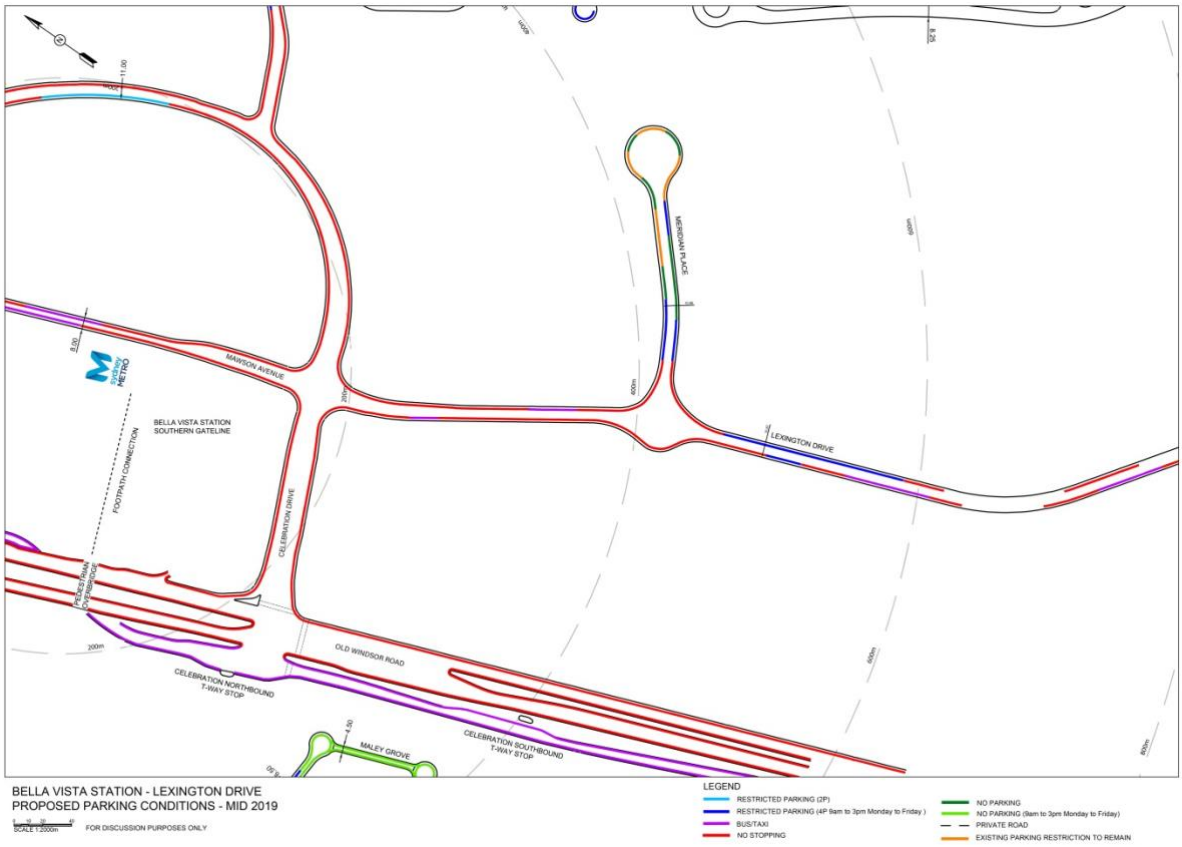

Figure 10.9: Proposed parking conditions mid-2019 – Lexington Drive and linking streets

10.3.4 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factor, based on the list of factors in Section 10.3 above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

The proposed type of parking changes and the reason for their implementation is summarised in Table 10.3.

Street name	Restriction type	Reason for implementation
Lexington Drive	Time-restricted parking Monday–Friday	• Proximity to station (0–400 m) • Network access point • Significant demand driven by land use
Meridian Place	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Significant demand driven by land use • Proximity to intersection or pedestrian crossing
Brighton Drive / Edgewater Drive	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Bus access • Proximity to intersection or pedestrian crossing • Network access point • Restricts safe access for vehicles

Millhouse Place / Bridgeview Circuit	Time-restricted parking Monday–Friday	• Network access point • Restricts safe access for vehicles • Adverse impacts on residents
Bimbadgen Place	Time-restricted parking Monday–Friday	• Restricts safe access for vehicles • Significant demand driven by land use • Adverse impacts on residents
Craigend Place	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Proximity to intersection or pedestrian crossing • Network access point
Shaun Street	Time-restricted parking Monday–Friday Time-restricted No Parking Monday–Friday	• Network access point • Restricts safe access for vehicles • Adverse impacts on residents
Vanessa Court / Maley Grove / Darren Court / Tann-Darby Court	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Restricts safe access for vehicles • Adverse impacts on residents

Table 10.3: Recommendations for on-street parking changes around Bella Vista Station at opening

The implementation of on-street parking measures is discussed further in Section 14.

10.4 Management, maintenance and enforcement

The organisation responsible for maintenance of the Bella Vista Station commuter car park will be the operator MTS for the first 15 years.

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- Blacktown City Council and The Hills Shire Council, for on-street parking issues in their respective areas.

11 Kellyville Station

11.1 Kellyville Station overview

Kellyville station is located within The Hills Shire LGA, south-east of the intersection of Old Windsor Road and Samantha Riley Drive. The station will mainly serve the Beaumont Hills, Kellyville and Stanhope Gardens areas which are currently being served by buses. The rail customers of these suburbs currently need to travel more than six kilometres to access a railway station and mostly use Seven Hills, Blacktown and Schofields railway station to access rail services. The rail customers accessing these stations need to travel using the road network which is heavily congested during peak periods.

Kellyville Station is expected to relieve the parking demand for Seven Hills, Blacktown and Schofields stations and may reduce travel times for local residents who are currently using these stations. Kellyville Station would also potentially serve some of the residents from the northern section of the Balmoral Road Release area.

11.1.1 Station walking catchment

Figure 11.1: Kellyville Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Kellyville Station is limited by major roads and creek lines, as well as road network coverage. Both Old Windsor Road and Samantha Riley Drive are major access barriers. Residential streets in both Stanhope Gardens and Kellyville are narrow, with numerous cul-de-sacs and a hierarchical street network. To the south and east of the station, undeveloped land is predominant; this land will be developed over the coming years, and parking management principles will remain relevant.

11.2 Interchange parking provision

11.2.1 Commuter car park

Kellyville Station commuter car park will comprise two separate facilities within the Kellyville Station precinct. The first will be a multi-storey car park to the south of the station with a capacity of 995 spaces; the second will be an at-grade facility to the north of the station with a capacity of 365 spaces.

Figure 11.2: Artists impression – view from Kellyville commuter car park towards the station

Priority	Type of parking	Number of spaces
1	Accessible spaces	41
2	Electric-ready bays	272
3	Compact bays	204
4	Standard bays	843
N/A	*Motorcycle parking**	*40*
	Commuter car park (total)	**1360**

*Motorcycle parking is provided in addition to the total car space requirement and is not included in the total car parking spaces

Table 11.1: Types of parking at Kellyville commuter car park

Priority for each type of parking has been implemented in order to encourage more equitable and sustainable transport access. Accessible spaces are provided in closest proximity to the station to satisfy DDA requirements.

Drivers wishing to access Kellyville commuter car park can do so from Guragura Street (for the southern car park) or Derrobarry Street (for the northern car park). Space availability will be indicated on an electronic signage board outside the car park entrance.

From Kellyville North car park, pedestrians will need to cross Samantha Riley Drive to access the station, with a signalised pedestrian crossing facilitating safe pedestrian

movements. From Kellyville South car park, no roads will need to be crossed between the car park and station entrance.

11.2.2 Interchange on-street parking allocation

Kellyville Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride	5
Accessible kiss and ride	1 (to be installed after station opening)
Taxi	4
Staff and maintenance parking	3

Table 11.2: Interchange on-street parking facilities at Kellyville Station at opening

Separate to the parking listed above a number of spaces will also be delivered on-street which will function as town centre parking. At Kellyville, this amounts to a total of 67 on-street parking spaces. This will be delivered as a mix of half hour (½P) two hour (2P) parking, which is consistent with the principles outlined in the Parking Management Strategy.

11.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Two focus areas have been identified for Kellyville, which are outlined in Figure 11.3 below:

1. Kellyville Station East (The Hills Shire Council)
2. Kellyville Station West (Blacktown City Council).

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- Proximity to station (0–400m)
- Adverse impacts on residents
- Restricted sight lines / unsuitable topography
- Proximity to intersection or pedestrian crossing
- Restricts safe access for vehicles (narrow streets within 600 metres)
- Significant demand driven by land use
- Bus access route
- Network access point (traffic convergence point).

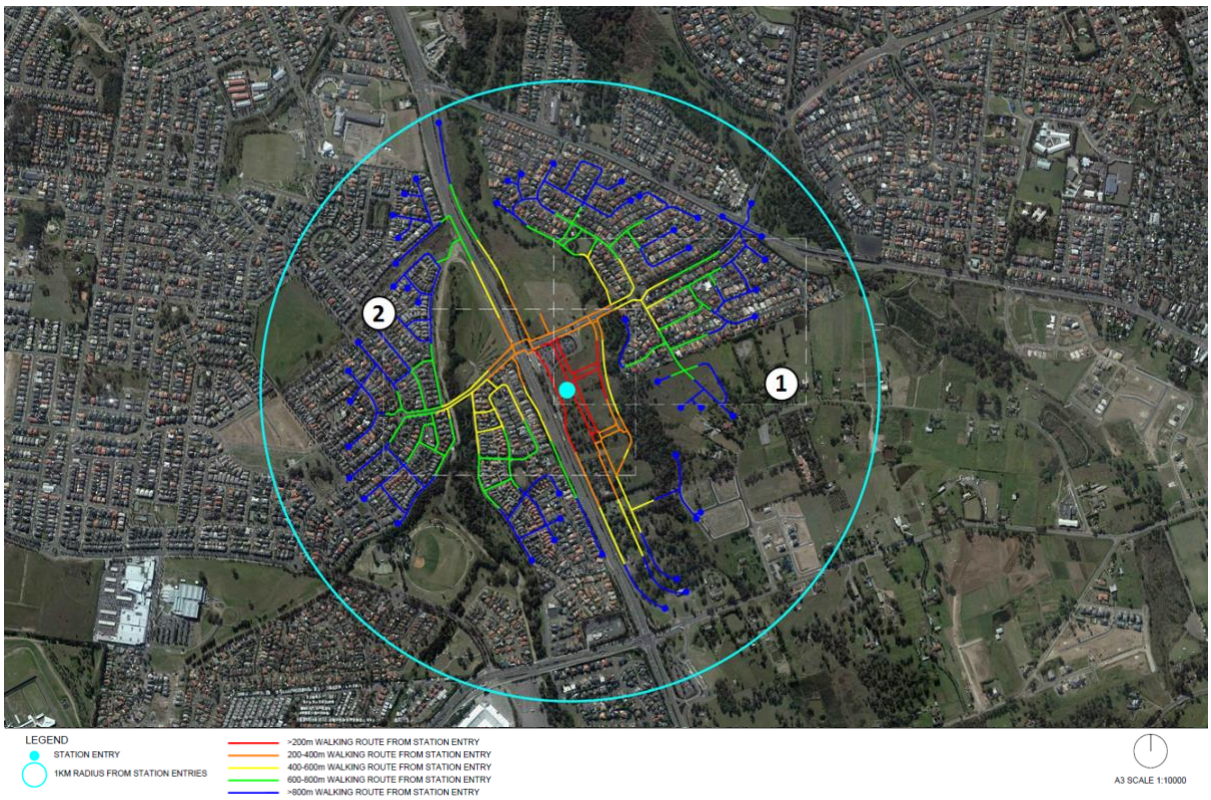

Figure 11.3: Kellyville Station focus area locations

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

As a result of the feedback received some amendments were made to the proposed parking changes. These were included in the final recommendations to the local council for assessment. The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below.

These changes have been approved by the council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

11.3.1 Kellyville Station East

The residential areas to the east of Kellyville Station are largely unrestricted and low-density residential in nature. Parking pressures have become more acute in this area over the last 2–3 years as patronage has increased at the Riley North-West T-way stop.

Figures 11.4 and 11.5 compare the parking conditions around Kellyville Station East before and after the opening of Sydney Metro.

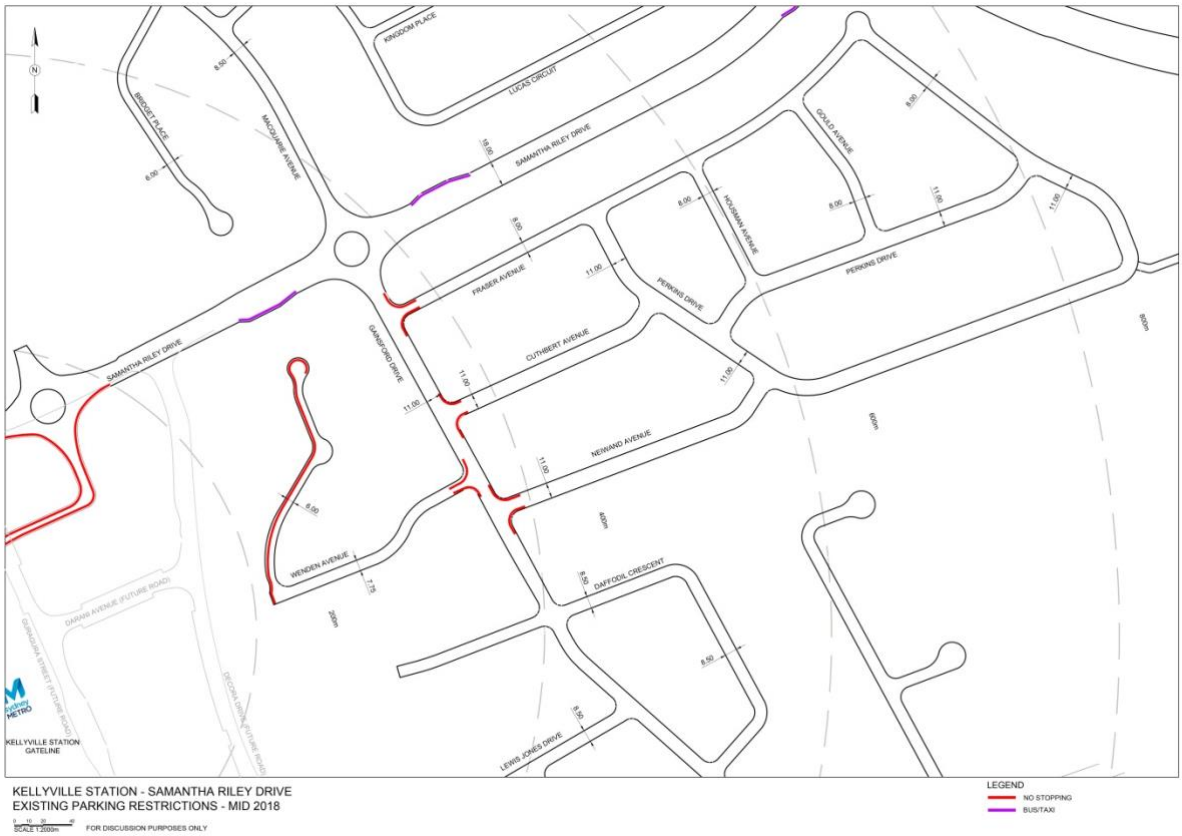

Figure 11.4: Pre-metro parking conditions mid-2018 – Kellyville Station East

Streets to the east of Kellyville Station that are between 300–600 metres walking distance to the station will be restricted. These streets include Landy Place, Wenden Avenue, Gainsford Drive, Cuthbert Avenue, Fraser Avenue, Macquarie Avenue and Bridget Place. No Stopping signs will be implemented on Samantha Riley Drive between Windsor Road and Old Windsor Road.

The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

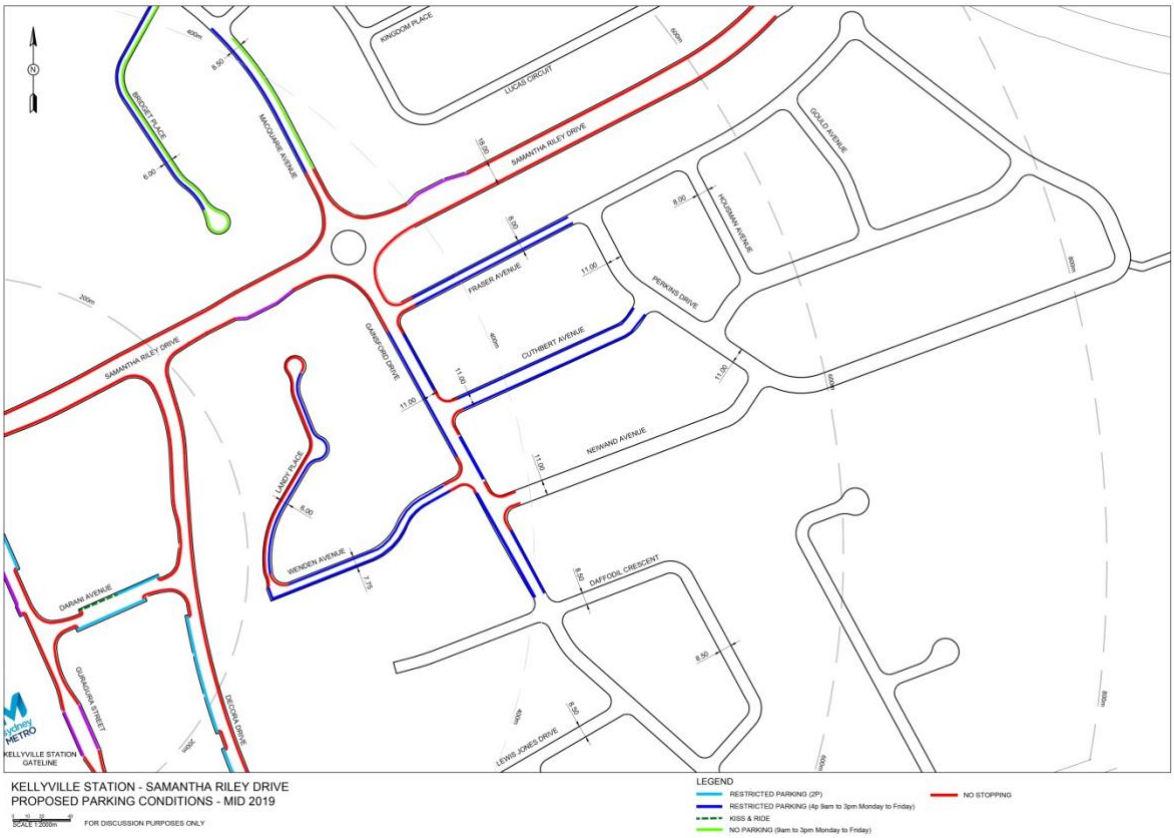

Figure 11.5: Proposed parking conditions mid-2019 – Kellyville Station East

11.3.2 Kellyville Station West

The residential areas to the west of Kellyville Station are also largely unrestricted and low-density residential in nature. These areas are also affected by overflow parking from the nearby Riley North-West T-way stop. Blacktown City Council has responded to parking concerns in streets like Ascot Glen by restricting parking on weekdays. Streets are particularly narrow in newer developments.

Figures 11.6 and 11.7 compare the parking conditions around Kellyville Station West before and after the opening of Sydney Metro.

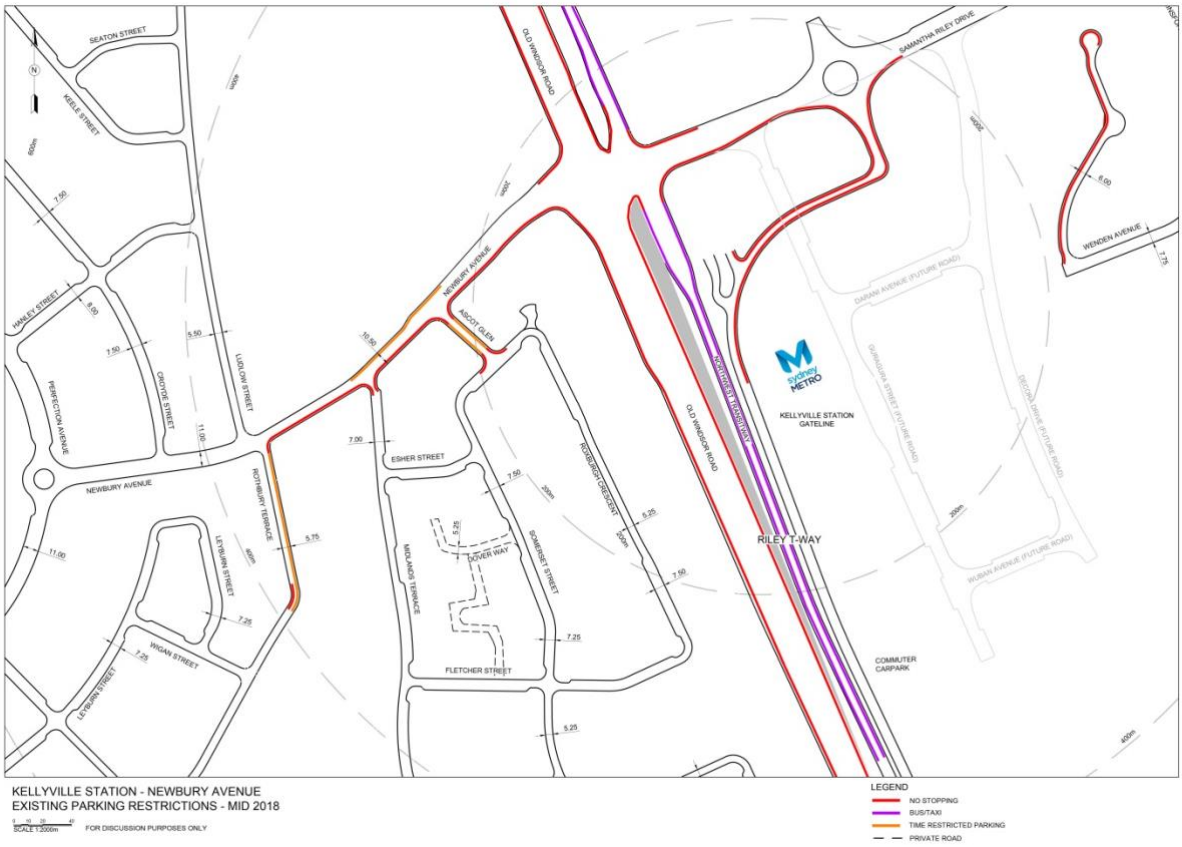

Figure 11.6: Pre-metro parking conditions mid-2018 – Kellyville Station West

Streets to the west of Kellyville Station that are between 200–400 metres walking distance to the station will be restricted. These streets include Roxburgh Crescent, Esher Street, Somerset Street and Midlands Terrace. No Stopping will be implemented on Newbury Avenue in proximity to Old Windsor Road.

The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

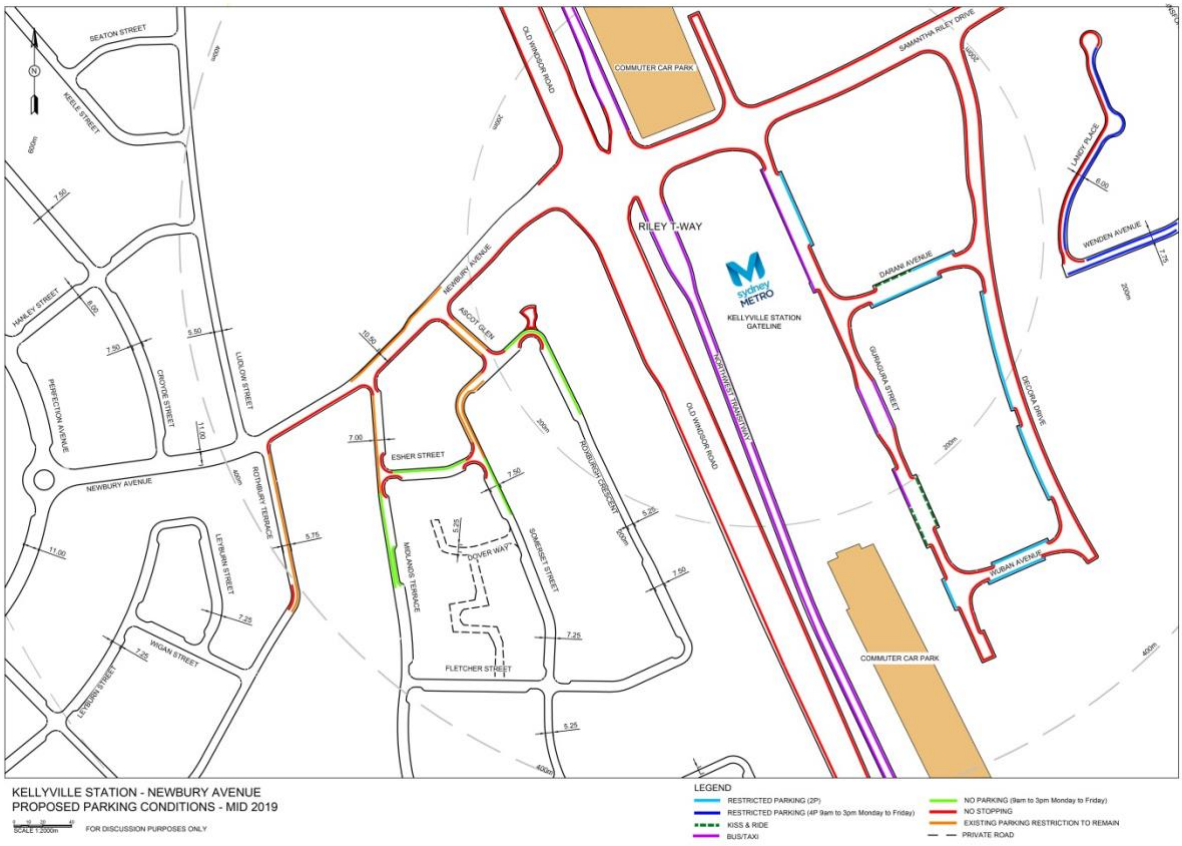

Figure 11.7: Proposed parking conditions mid-2019 – Kellyville Station West

11.3.3 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list in Section 11.3 above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

The proposed type of parking changes and the reason for their implementation is summarised in Table 11.3.

Street name	Restriction type	Reason for implementation
Landy Place / Wenden Avenue	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Restricts safe access for vehicles • Network access point • Adverse impacts on residents
Gainsford Drive	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Restricts safe access for vehicles • Network access point • Adverse impacts on residents
Fraser Avenue	Time-restricted parking Monday–Friday	• Restricts safe access for vehicles • Adverse impacts on residents
Cuthbert Avenue	Time-restricted parking Monday–Friday	• Adverse impacts on residents

Street name	Restriction type	Reason for implementation
Bridget Place	Time-restricted No Parking Monday–Friday Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricted sight lines / unsuitable topography • Restricts safe access for vehicles • Network access point
Macquarie Avenue	Time-restricted parking Monday–Friday Time-restricted No Parking Monday–Friday	• Proximity to intersection or pedestrian crossing • Network access point • Adverse impacts on residents
Roxburgh Crescent / Somerset Street	Time-restricted No Parking Monday–Friday	• Proximity to intersection or pedestrian crossing • Adverse impacts on residents • Restricts safe access for vehicles
Esher Street	Time-restricted No Parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles
Midlands Terrace	Time-restricted No Parking Monday–Friday	• Proximity to intersection or pedestrian crossing • Network access point • Adverse impacts on residents • Restricts safe access for vehicles
Samantha Riley Drive	No Stopping	• Maintain traffic flow

Table 11.3: Assessment of on-street parking changes in the wider precinct at Kellyville Station

The implementation of on-street parking measures is discussed further in Section 14.

11.4 Management, maintenance and enforcement

The organisation responsible for maintenance of the Kellyville Station commuter car park will be the operator MTS for the first 15 years.

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- Blacktown City Council and The Hills Shire Council, for on-street parking issues in their respective areas.

12 Rouse Hill Station

12.1 Rouse Hill Station overview

Rouse Hill Station is located within The Hills Shire LGA, adjacent to the Rouse Hill Town Centre and Windsor Road. This station will operate as a major bus-rail interchange station with no commuter parking proposed. The station will mainly serve Rouse Hill, Beaumont Hills and Kellyville Ridge, which are currently being directly served by buses. The rail customers of these suburbs currently need to travel more than six kilometres to access a railway station and are currently using Seven Hills, Blacktown, Schofields and Riverstone railway stations to access the rail network. Rouse Hill station will save travel time for these local residents in regional travel, as well as acting as a station for the North West Growth Centre towards Box Hill. A total of 60,000 additional dwellings are planned in the North West Growth Centre by 2031. The North West Growth Centre area covers parts of The Hills and Blacktown City LGAs.

Rouse Hill is classified as a strategic centre in A Plan for Growing Sydney (DP&E, 2014) which is defined as a location that currently or is planned to have at least 10,000 jobs. These are priority locations for employment, retail, housing, services and mixed-uses.

12.1.1 Station walking catchment

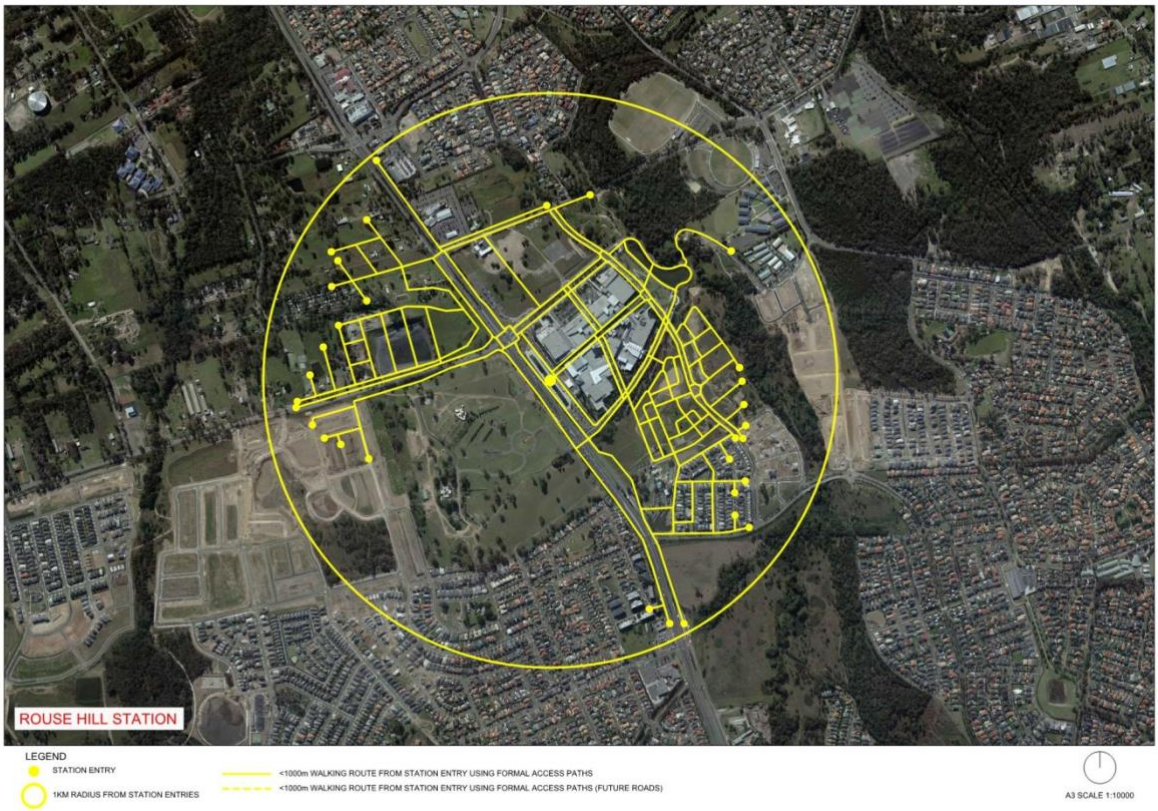

Figure 12.1: Rouse Hill Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Rouse Hill Station shows that the station has variable walking access. This is a reflection of Rouse Hill's current development status and growing role as a retail, commercial and civic centre. The streets within the area vary

considerably from major arterial and town centre roads to collector and local residential streets. Topography is not a notable determinant of the street network, although the line of Caddie's Creek restricts access to the east. The area is primarily commercial retail immediately around the station location, and residential beyond 200–300 metres walk from the station site to the north west, north, east and south. Windsor Road is a major east–west access barrier, and Schofields Road is a north–south barrier for the western segment of the catchment. Notably, the private Castlebrook Memorial Park to the immediate south-west of the station considerably restricts walking access to the site, with limited access into Kellyville Ridge and The Ponds residential area from this direction.

12.2 Interchange parking provision

12.2.1 Commuter car park

A commuter car park is not provided at Rouse Hill as it is classified as a strategic centre. The approach for strategic centres broadly reflects planning for commuter car parks across Sydney, which focuses parking provision outside of busy town centres and major employment centres. Customers who wish to drive to Sydney Metro services will be able to access car parking at the nearby stations of Kellyville and Tallawong Stations.

12.2.2 Interchange on-street parking allocation

Rouse Hill Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride (peak times)	23
Accessible kiss and ride	2
Taxi	9
Staff and maintenance parking	3

Table 12.1: Interchange parking facilities at the Rouse Hill Station at opening

Separate to the parking listed above, a number of short-term parking spaces will also be delivered on-street at some stations. However due to space constraints within the station interchange, no additional short-term parking will be provided at Rouse Hill Station.

Figure 12.2: Rouse Hill Station visualisation

12.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Two focus areas were identified for Rouse Hill, which are outlined in Figure 12.3:

1. Rouse Hill town centre (The Hills Shire Council)
2. Rouse Hill south (The Hills Shire Council).

No focus areas fall within Blacktown City Council, as can be seen from the walkability of the one-kilometre walking catchment.

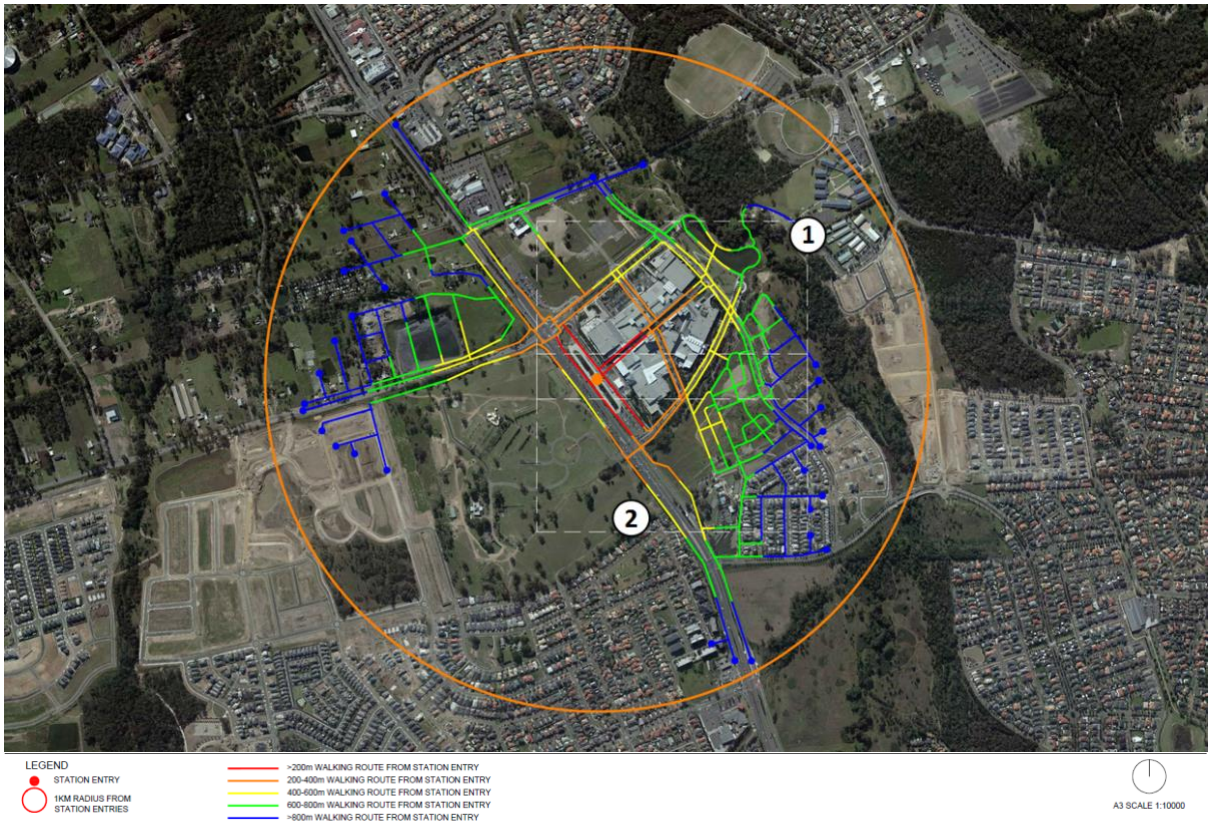

Figure 12.3: Rouse Hill Station focus areas within one-kilometre radius

A number of recommendations for on-street parking changes were made based on one or more of the following factors:

- proximity to station (0–400 metres)
- adverse impacts on residents
- restricted sight lines / unsuitable topography
- proximity to intersection or pedestrian crossing
- restricts safe access for vehicles (narrow streets within 600 metres)
- significant demand driven by land use
- bus access route
- network access point (traffic convergence point).

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

The pre-existing and proposed on-street parking conditions for the wider interchange precinct are outlined below. These changes have been approved by The Hills Shire Council and are planned to be implemented prior to the commencement of Sydney Metro services in mid-2019.

12.3.1 Rouse Hill town centre

Parking within the existing Rouse Hill town centre environment is heavily controlled, and predominantly time-restricted. This reflects both the level of activity within the centre, and the number of parking spaces in the Rouse Hill Town Centre complex that is devoted to

customer parking. Some unrestricted parking exists which is already predominantly used by employees and commuters.

Figures 12.4 and 12.5 compare the parking conditions around Rouse Hill Town Centre before and after the opening of Sydney Metro.

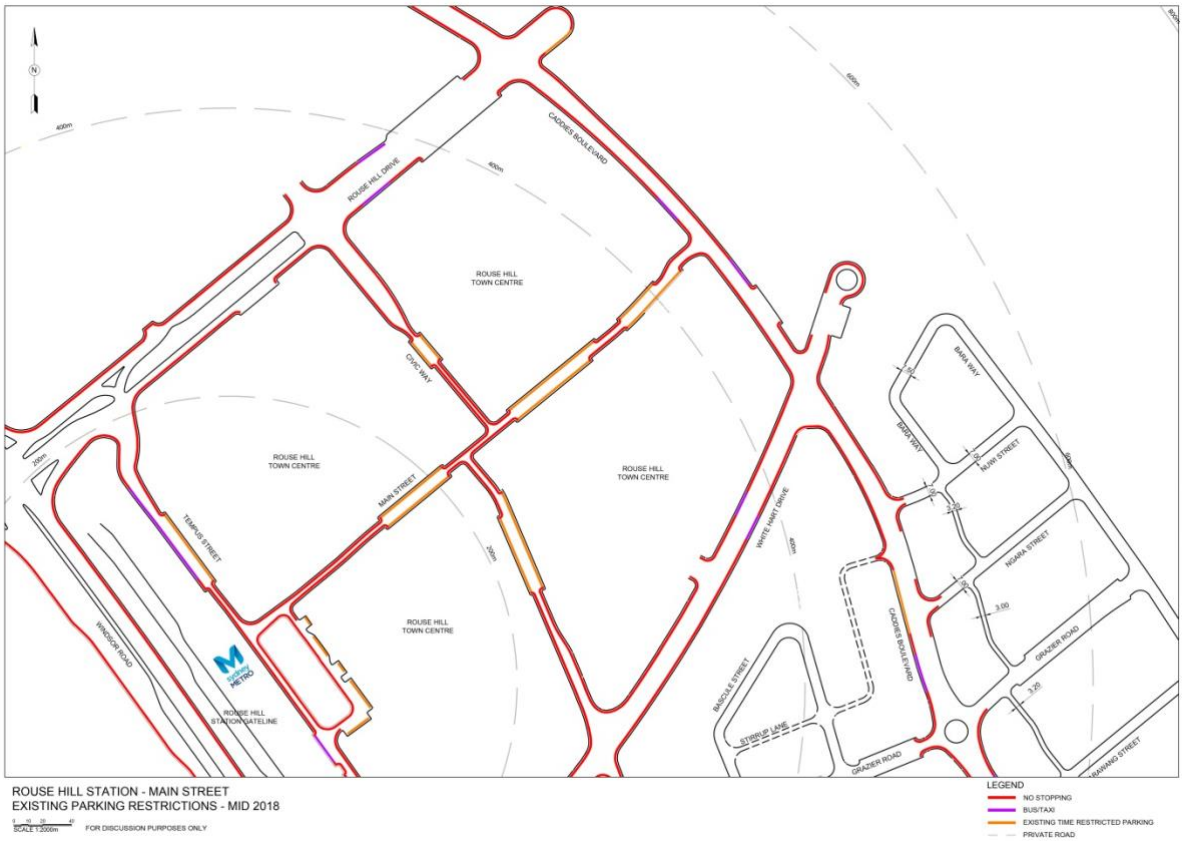

Figure 12.4: Pre-metro parking conditions mid-2018 – Rouse Hill streets north east of station

No changes are proposed to be implemented within the town centre as these streets are private roads.

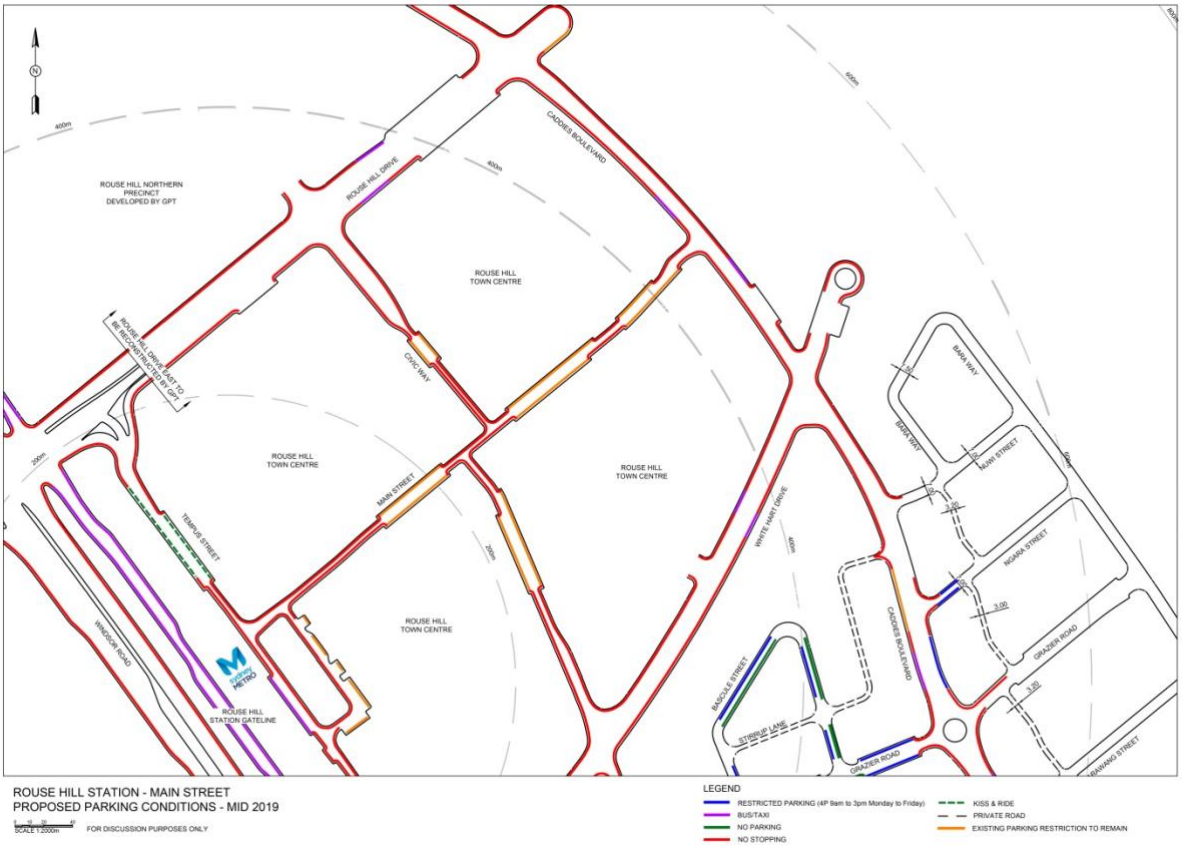

Figure 12.5: Proposed parking conditions mid-2019 – Rouse Hill streets north east of station

12.3.2 Rouse Hill south

South of Rouse Hill Town Centre, and north of Picket Place and the Sanctuary T-way stop, land use is predominantly low–medium density residential. Parking has been noted as an existing issue around Picket Place and the local residential areas.

Figures 12.6 and12.7 compare the parking conditions around Rouse Hill south before and after the opening of Sydney Metro.

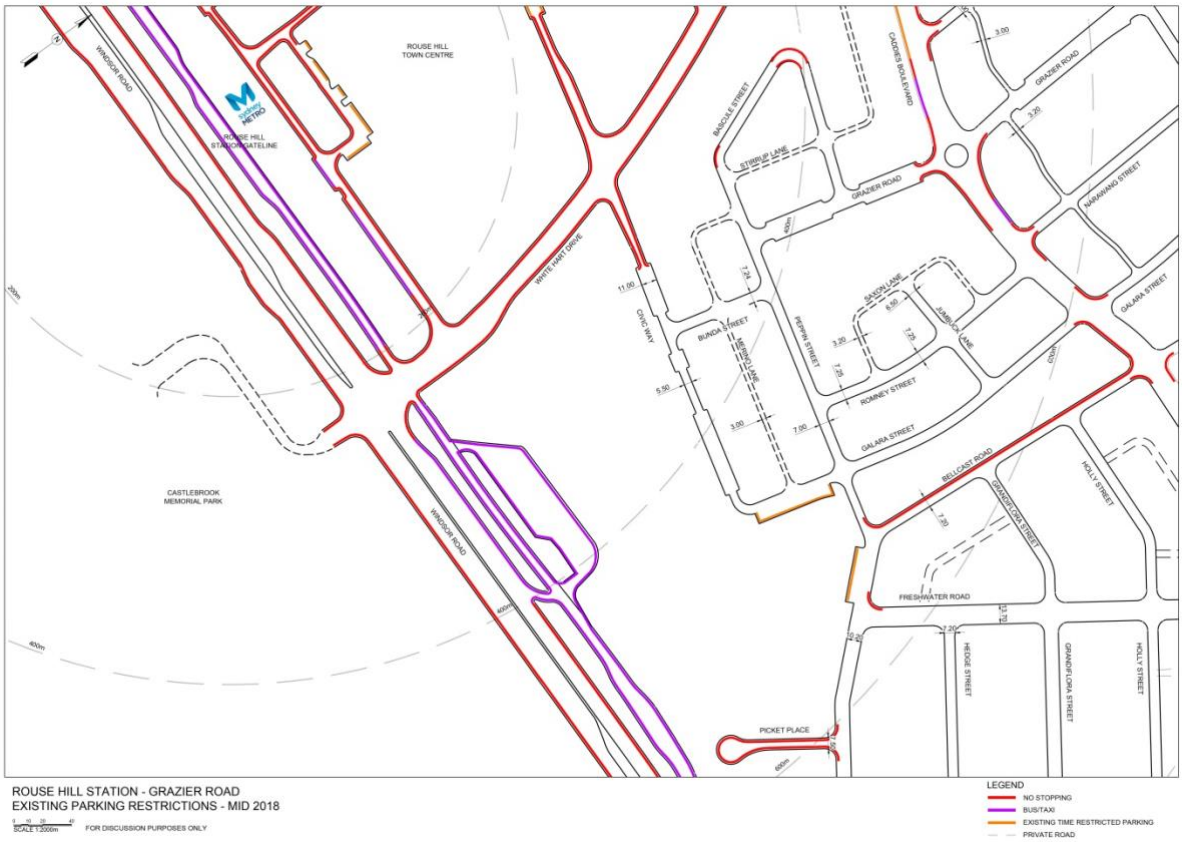

Figure 12.6: Pre-metro parking conditions – Rouse Hill streets south east of station mid-2018

Streets bound by White Hart Drive, Civic Way, Caddies Boulevard and Bellcast Road are generally within 300–700 metres walking distance to Rouse Hill Station. Sydney Metro will implement No Parking or timed parking restrictions on the majority of the streets within this area, with the exception of some of Galara Street.

The parking restrictions in these streets are intended to protect residential amenity by restricting all-day parking by commuters.

Sydney Metro is unable to impose parking restrictions on private roads.

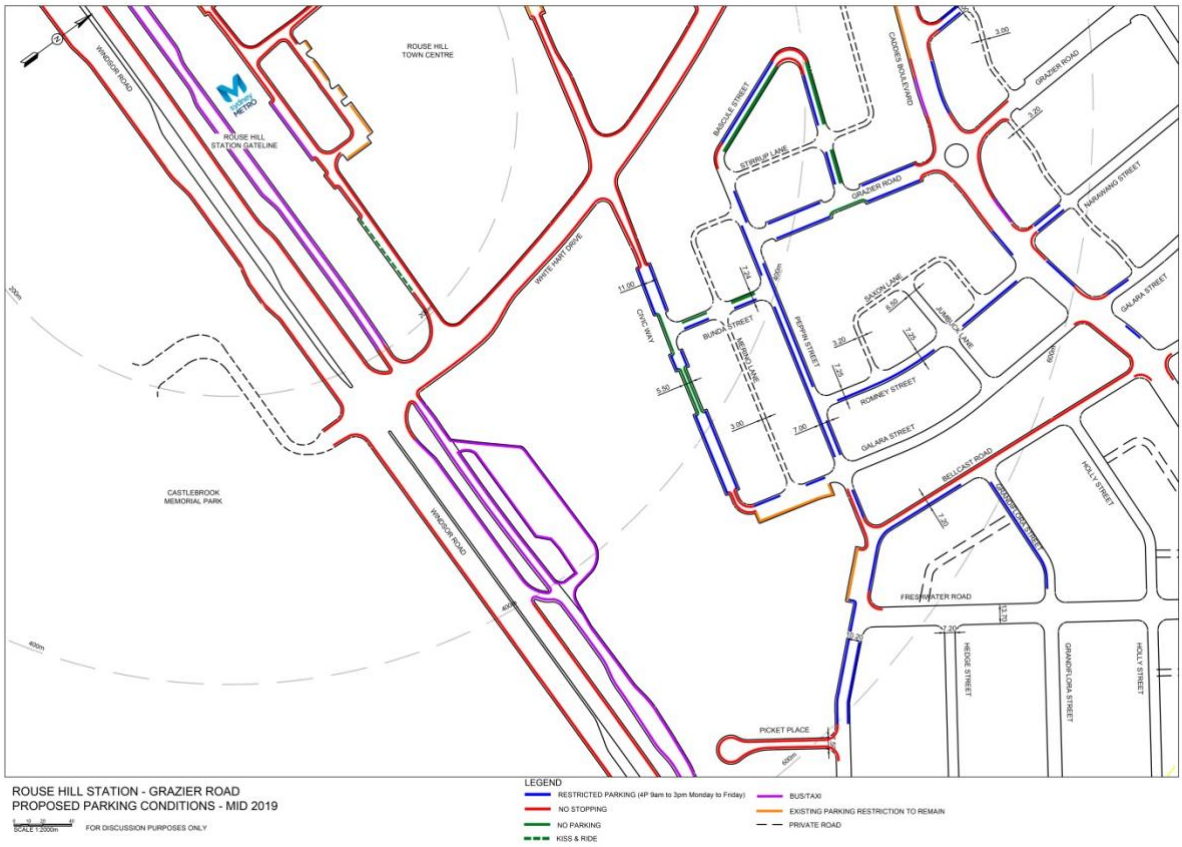

Figure 12.7: Proposed parking conditions mid-2019 – Rouse Hill streets south east of station

12.3.3 Summary of on-street parking changes

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

The proposed type of parking changes and the reason for their implementation is summarised in the table below.

Street name	Restriction type	Reason for implementation
Bascule Street	No Parking Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Grazier Road	No Parking Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use • Network access point
Peppin Street	Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Bunda Street	No Parking	• Proximity to station (0–400m) • Adverse impacts on residents

Street name	Restriction type	Reason for implementation
	Time-restricted parking Monday–Friday	• Restricts safe access for vehicles • Significant demand driven by land use
Civic Way	No Parking Time-restricted parking Monday–Friday	• Proximity to station (0–400m) • Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use • Network access point
Bellcast Road	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use • Network access point
Grandiflora Street	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Galara Street	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Romney Street	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Narrawang Street	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use
Ngara Street	Time-restricted parking Monday–Friday	• Adverse impacts on residents • Restricts safe access for vehicles • Significant demand driven by land use

Table 12.2: Assessment of on-street parking changes in the wider precinct at Rouse Hill Station

The implementation of on-street parking measures is discussed further in Section 14.

12.4 Management, maintenance and enforcement

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- The Hills Shire Council, for on-street interchange facilities (such as kiss and ride bays)
- Blacktown City Council and The Hills Shire Council, for on-street parking issues in their respective areas
- Local landowners and community groups for private roads.

13 Tallawong Station

13.1 Tallawong Station overview

Tallawong Station (previously known as Cudgegong Road station) is located entirely within the Blacktown City LGA. The station will primarily serve the residents of the release areas of the North West Growth Centre (NWGC) including Riverstone, Marsden Park, Vineyard, Box Hill, Riverstone East, North Kellyville, Alex Avenue and Schofields release areas, as well as existing residents of The Ponds. Approximately 60,000 new dwellings will be built in the NWGC over the next 25–30 years.

Tallawong Station is expected to relieve the parking demand for Seven Hills, Blacktown and Schofields stations and may reduce travel times for local residents who are currently using these stations.

13.1.1 Station walking catchment

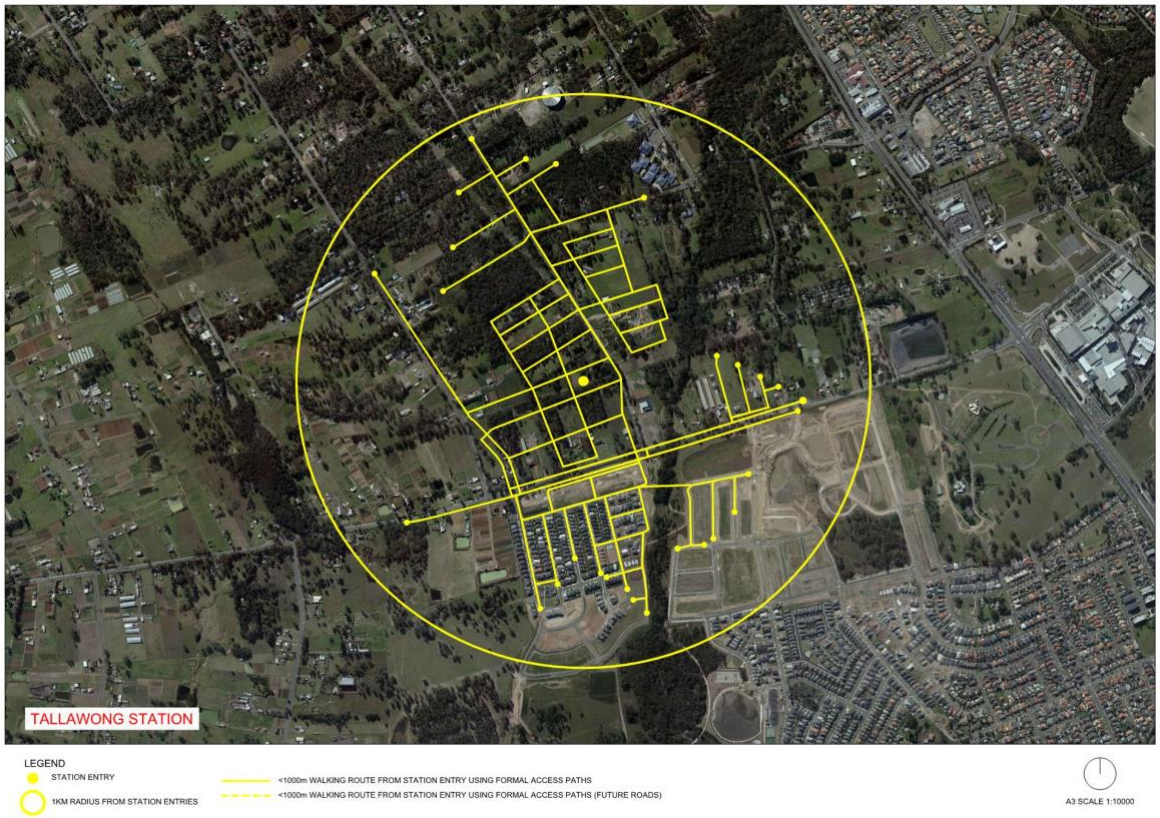

Figure 13.1: Tallawong Station one-kilometre walking catchment

The one-kilometre radius walking catchment for Tallawong Station is currently limited by a lack of road infrastructure and development coupled with barriers imposed by major roads and creek lines. Schofields Road is a major north–south access barrier, although with a number of crossing points it has minimal impact on the one-kilometre radius walking catchment for the station. Residential streets in The Ponds are relatively narrow but well connected, with a clear hierarchical street network.

To the north, east and west of the station, undeveloped land is predominant, but this land is expected to be developed over the coming years. Pedestrian access to the west of the

station remain constrained due to the location of the Sydney Metro Trains Facility. Topography is largely conducive to walking activity, although major roads and creek lines restrict crossing points in several directions.

13.2 Interchange parking provision

13.2.1 Commuter car park

Tallawong Station commuter car park will comprise three separate, at-grade facilities within the Tallawong Station precinct. The first will be to the south of the station (Tallawong South) with a capacity of 153 spaces; the second will be to the west of the station (Tallawong West) with a capacity of 402 spaces. The third will be to the south-west of the station (Tallawong South West) with a capacity of 445 spaces.

Priority	Type of parking	Number of spaces
1	Accessible spaces	30
2	Electric-ready bays	200
3	Compact bays	150
4	Standard bays	620
N/A	*Motorcycle parking**	*30*
	Commuter car park (total)	**1000**

*Motorcycle parking is provided in addition to the total car space requirement and is not included in the total car parking spaces

Table 13.1: Types of parking at Tallawong Station commuter car park

Priority for each type of parking has been implemented in order to encourage more equitable and sustainable transport access. Accessible spaces are provided in closest proximity to the station to satisfy DDA requirements.

Drivers wishing to access Tallawong commuter car parks can do so from Conferta Avenue (for Tallawong South or Tallawong South West car parks) or Aristida Street (for Tallawong West car park). Space availability will be indicated on an electronic signage board outside the car park entrance.

For the furthest car parking spaces in Tallawong South West car park, three roads will need to be crossed by pedestrians – Conferta Avenue, Aristida Street and Themeda Avenue.

13.2.2 Interchange on-street parking allocation

Tallawong Station will provide the following on-street parking provisions at the commencement of services in mid-2019. These will be accommodated on-street within the station precinct and have been allocated according to the modal hierarchy.

Type of parking	Number of spaces
Kiss and ride (peak times)	25
Accessible kiss and ride	2
Taxi	9
Staff and maintenance parking	4

Table 13.2: Interchange on-street parking facilities at Tallawong Station at opening

Separate to the parking listed above, which has a defined interchange role, a number of spaces will also be delivered on-street at some stations which will function as town centre

parking. At Tallawong Station, this amounts to a total of 35 on-street parking spaces, with an additional nine spaces available outside of peak times. These spaces will be delivered as two-hour (2P) short-term parking, which is consistent with the principles outlined in the Parking Management Strategy.

13.3 Wider interchange precinct parking

Based on the principles of this Parking Management Strategy, focus areas around each station were identified for assessment of additional parking measures to address the potential impacts of commuter demand for on-street parking.

Two focus areas were identified for Tallawong, which are shown in Figure 13.2:

1. Tallawong Station precinct (Blacktown City Council)
2. The Ponds (Blacktown City Council)

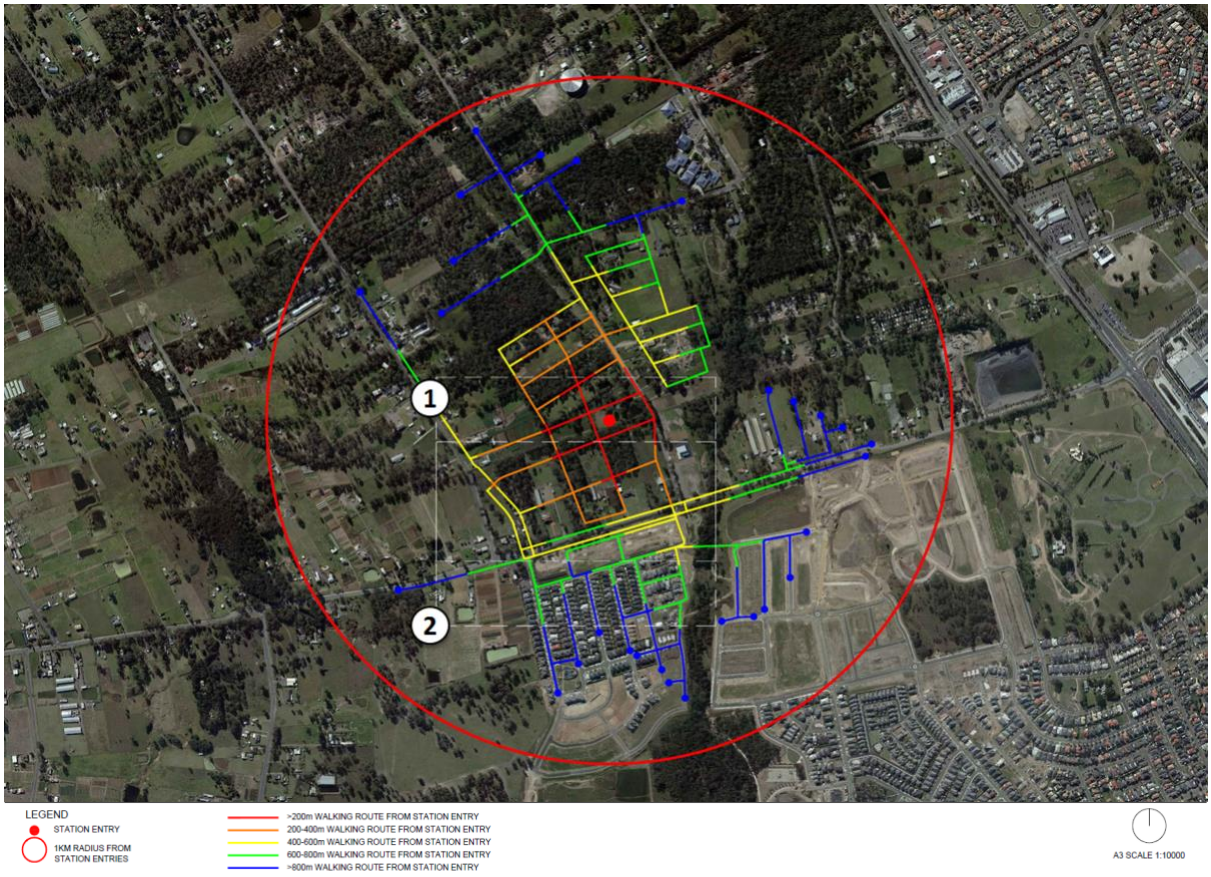

Figure 13.2: Tallawong Station focus area locations

During December 2018, Sydney Metro undertook public consultation on the proposed parking changes around the wider interchange precinct. The Sydney Metro Northwest – Parking Management Strategy Overview Report was produced to summarise the proposed changes to on-street parking in the wider interchange precinct. The report is included at Appendix A and includes details of the proposed parking changes.

As a result of the feedback received some amendments were made to the proposed parking changes. These were included in the final recommendations to the local council for assessment. The pre-existing and proposed on-street parking conditions for the wider

interchange precinct are outlined below. These changes have been approved by Blacktown City Council and are planned to be implemented prior to the commencement of Sydney Metro Northwest services in mid-2019.

13.3.1 Tallawong Station precinct

The existing roads around the station have few parking restrictions, which is supported by the fact there is currently little demand for parking on these roads. Figure 13.4 shows the location of the commuter car parks and new precinct streets surrounding Tallawong Station.

Figures 13.3 and 13.4 compare the parking conditions around Tallawong Station precinct before and after the opening of Sydney Metro.

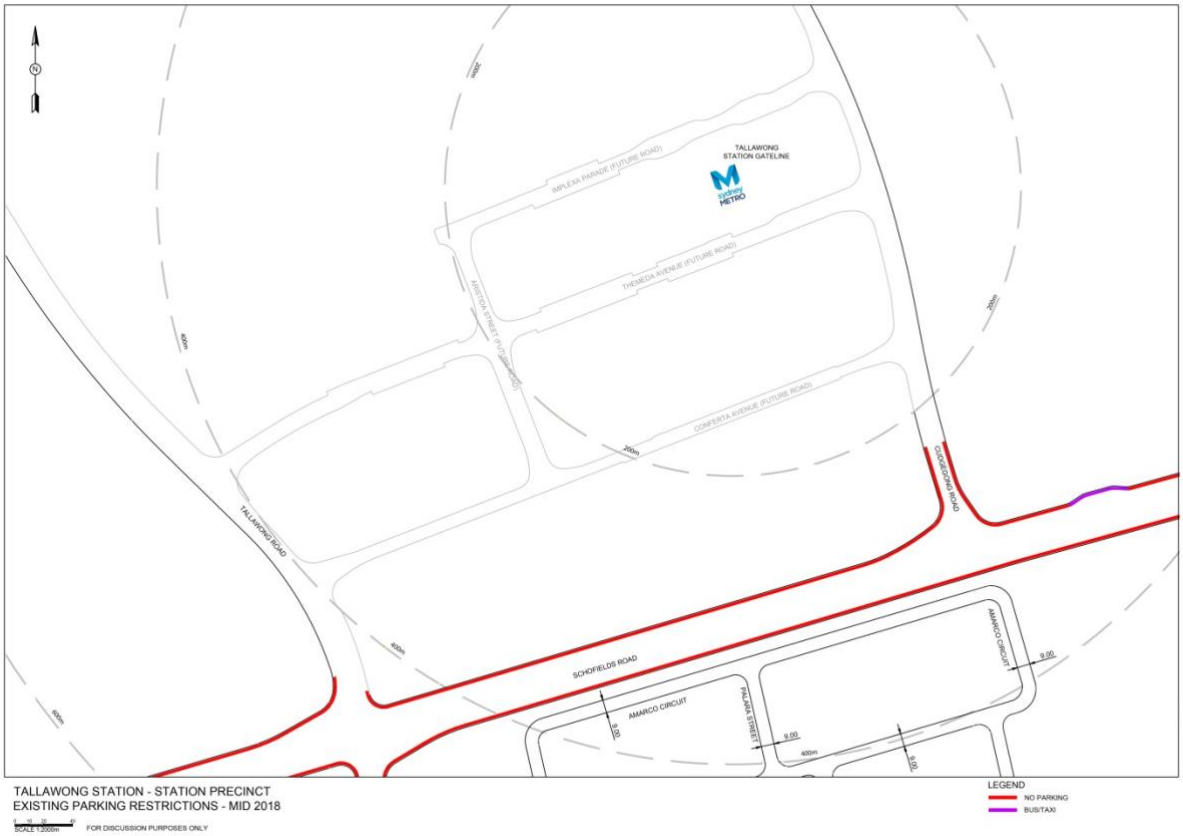

Figure 13.3: Pre-metro parking conditions mid-2018 – Tallawong Station

All of the new interchange precinct streets will have restrictions placed on them to facilitate access to the station and commuter car parks. The upgraded roads east and west of the station, Cudgegong Road and Tallawong Road, will be signposted as No Stopping.

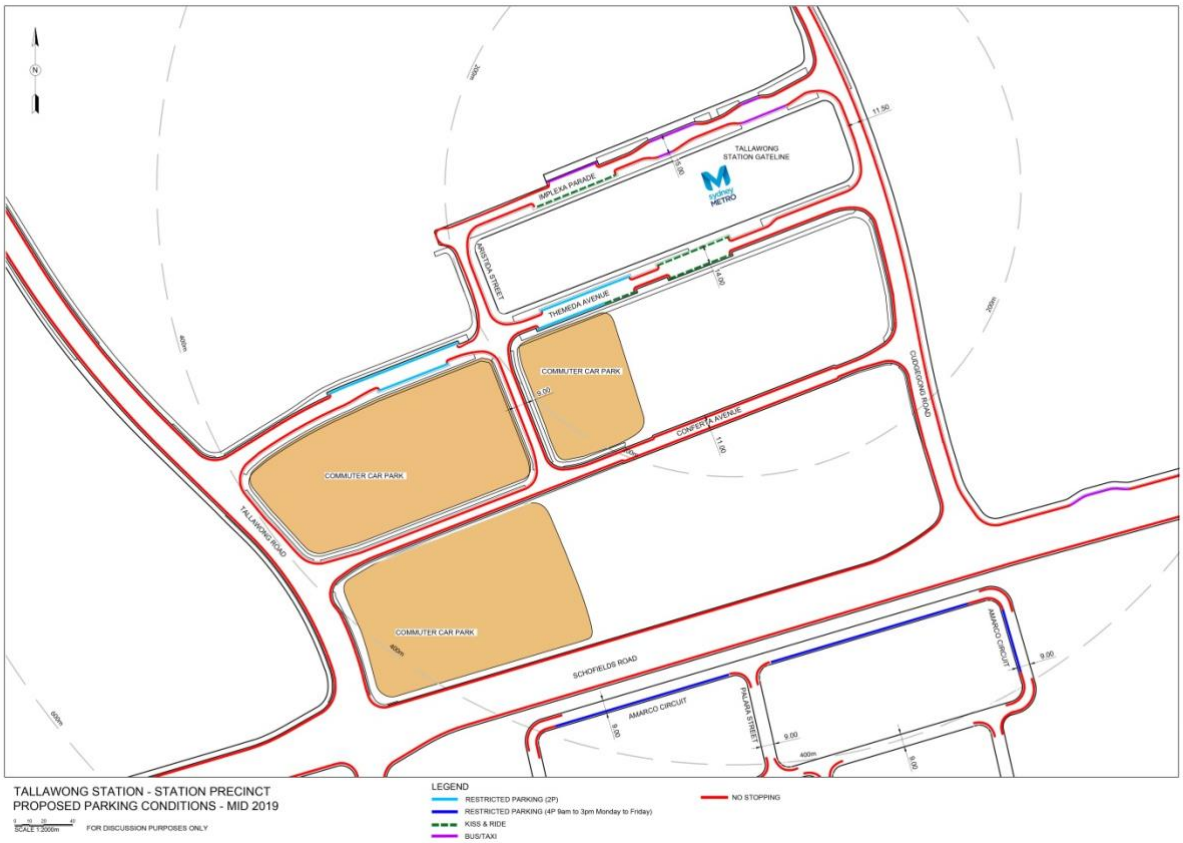

Figure 13.4: Proposed parking conditions mid-2019 – Tallawong Station

13.3.2 The Ponds

Apart from parking restrictions on Schofields Road, the residential area to the south of the future station has almost no signposted parking restrictions.

Figures 13.5 and 13.6 compare the parking conditions around The Ponds before and after the opening of Sydney Metro.

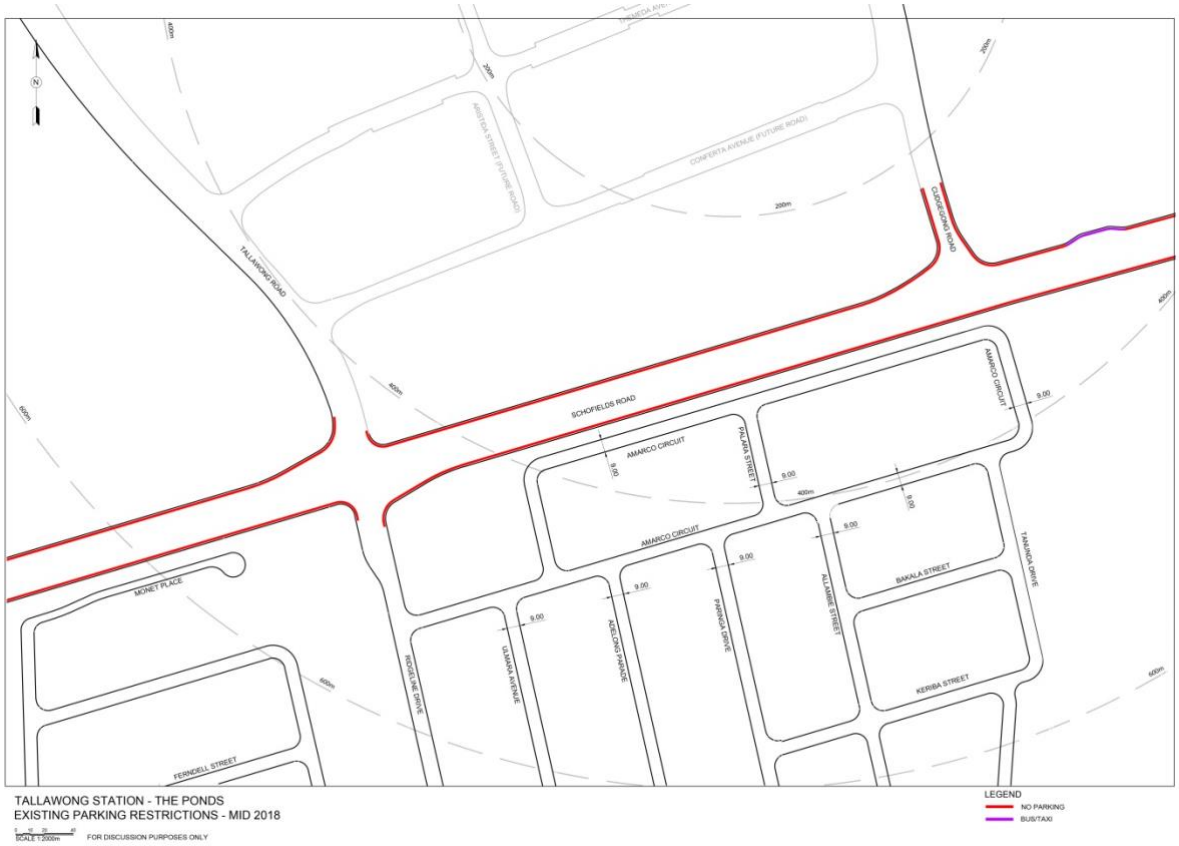

Figure 13.5: Pre-metro parking conditions mid-2018 – The Ponds

The northern edge of The Ponds estate is within 500 metres walking distance of the new station. Time-restricted parking will be implemented along one side of Armaco to protect residential amenity by restricting all-day parking by commuters. No Stopping at intersections will also be reinforced.

Figure 13.6: Proposed parking conditions mid-2019 – Tallawong Station

13.3.3 Summary of on-street parking changes

The nature of streets within the precinct will change considerably over the operational life of Sydney Metro Northwest, but particularly in the earlier years. This must be considered under the Traffic and Parking Monitoring work.

The priority precinct work will need to consider road widening and potentially associated land acquisition in order to facilitate development outcomes for the local precinct.

Each proposed change within the wider precinct has been given one or more justifying factors, based on the list above. This assists in prioritising changes and providing clearer justification to stakeholders and local landowners.

The proposed type of parking changes and the reason for their implementation is summarised in the table below.

Street name	Restriction type	Reason for implementation
Amarco Circuit	Time-restricted parking Monday–Friday No Stopping	• Proximity to station (0–400m) • Adverse impacts on residents

Table 13.3: Assessment of on-street parking changes in the wider precinct at Tallawong Station

The implementation of on-street parking measures is discussed further in Section 14.

13.4 Management, maintenance and enforcement

The organisation responsible for maintenance of the Tallawong Station commuter car park will be the operator MTS for the first 15 years.

Parking management and enforcement within the immediate and wider station precincts will be undertaken by:

- Blacktown City Council, for on-street interchange facilities (such as kiss and ride bays)
- Blacktown City Council, for on-street parking issues in their respective area.

14 Implementation

14.1 Parking management at service commencement

Sydney Metro Northwest will commence operations in mid-2019. Commuter car parks will be open in line with commencement of metro services, with on-street parking changes planned to be implemented prior to opening. All approvals have been obtained for the proposed on-street parking changes in this Parking Management Strategy through the relevant Local Traffic Committees and councils.

14.2 Mitigation measures and further changes

Traffic and parking monitoring will be undertaken on local roads around each station for a period of 12 months following the opening of Sydney Metro Northwest. The outcomes of the traffic and parking monitoring will be shared with local councils and RMS and will inform any potential future changes to parking in and around the station precincts.

Further mitigation measures may be implemented post-opening, should traffic and parking conditions indicate that these measures are required.

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