



SMEC INTERNAL REF. 3002841

Planning Report

Parkes Way & Coranderrk Street Roundabout Signalisation

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Executive summary

Transport Canberra and City Services (TCCS) is undertaking a detailed design of the Parkes Way westbound approach which includes the installation of temporary traffic lights to control the right turn movement at the Parkes Way and Coranderrk Street roundabout as well as the extension of the right turn pocket. This proposed development is associated with the raising of London Circuit, a preliminary phase of Canberra's Light Rail Stage 2 project and the traffic management requirements during light rail construction.

Light Rail Stage 2 is intended to provide more convenient and reliable transport options for Canberrans, help prevent future traffic congestion and cut transport emissions. Light Rail Stage 2 is part of a wider suite of projects being undertaken by the ACT Government to achieve the objective of a compact and efficient city in accordance with the ACT Planning Strategy, the 2045 'net zero' emission reductions target and the ACT Transport Strategy 2020.

During the construction of Light Rail Stage 2, it is anticipated that there may be some traffic disruption for existing commuters, particularly car traffic crossing Lake Burley Griffin on Commonwealth Avenue. Capacity reductions on Commonwealth Avenue Bridge are expected to see traffic move away from Commonwealth Avenue and migrate to Kings Avenue, Tuggeranong Parkway and Monaro Highway and then use Parkes Way to access the City area.

Traffic modelling predicts that traffic volumes on Parkes Way will increase during the AM peak resulting in 2-3 minute increases in journey times between Glenloch Interchange and Kings Avenue. Much of this traffic will turn right onto Coranderrk Street, which will reduce available gaps for eastbound traffic to enter the roundabout, causing considerable queuing. The existing right-turning volumes already lead to substantial delays in the AM Peak period, and if unmitigated, traffic increases are expected to lead to increased delays eastbound on Parkes Way between Glenloch Interchange and the City.

The proposed development seeks to install temporary traffic signals and extend the right turn pocket for vehicles turning right from Parkes Way into Coranderrk Street. Also associated with this project is reconfiguration of street lighting, signage and new landscaping within the centre median.

This Planning Report accompanies a Works Approval application for the proposed development, and provides a plain English assessment against the relevant design and planning documents in accordance with the provisions of the *National Capital Plan the Australian Capital Territory (Planning and Land Management Act) 1988*, *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, and relevant Territory legislation.

This assessment is accompanied by a specialist biodiversity assessment (Section 5.1) which concludes that the works within the centre median will not impact on ecologically sensitive areas. A heritage assessment (Section 0) similarly confirms that the project will not impact on the view from Parliament House, a Matter of National Environmental Significance under the EPBC Act.

In addition to appropriately managing anticipated traffic congestion during the raising of London Circuit and construction of Light Rail Stage 2, the project successfully leverages opportunities for improving the appearance of this major approach to the city, through the improvement of lighting, signage, and landscaping.

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Term/Abbreviation	Definition
ACT	Australian Capital Territory
ACTPLA	ACT Planning and Land Authority (an independent authority within Environment, Planning and Sustainable Development Directorate)
AS/NZS	Australian Standard/New Zealand Standard
CEMP	Construction Environmental Management Plan
Construction Boundary	The area of land that is directly impacted to build the project/proposal. The construction boundary represents the assessed footprint for construction of the project. It allows space to construct the road formation, fencing, ancillary facilities, and temporary and permanent sedimentation basins.
EPSDD	ACT Environment, Planning and Sustainable Development Directorate
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth)
ESCP	Erosion and Sediment Control Plan
LRS2	Canberra Light Rail Stage 2 (Civic to Woden)
MIS	Municipal Infrastructure Standards
MNES	Matters of National Environmental Significance (under the EPBC Act)
NC Act	Nature Conservation Act
NCA	National Capital Authority
NCP	National Capital Plan
P&D Act	Planning and Development Act 2007
PALM Act	Australian Capital Territory (Planning and Land Management) Act 1988
RLC	Raising of London Circuit Project
Subcontractor	Any company, body or person who is contracted for the purpose of supplying plant and/or services
Subject site	The subject site that is encompassing the construction boundary, surrounding area needed to be investigated to give context to potential impacts by the proposal. For the purpose of this report, the subject site is also referred to as the boundary of work extents.
TCCS	Transport Canberra and City Services
WA	Works Approval Application required by the National Capital Authority (Commonwealth)

1 Introduction

SMEC has been appointed by Transport Canberra and City Services (TCCS) to prepare a detailed design for the signalisation of the Parkes Way westbound which includes the installation of temporary traffic signals to control the right turn movement at the Parkes Way and Coranderrk Street roundabout as well as the extension of the right turn pocket. This planning report has been prepared to facilitate an application for Works Approval to obtain development consent for the proposed development.

1.1 Project overview and identified need

This project is associated with the traffic management requirements for the Raising of London Circuit (RLC) project which is required to facilitate Light Rail Stage 2 (LRS2). The Stage 2 of Light Rail Project intends to provide more convenient and reliable transport options for the Canberra community by connecting Canberra's north and south.

During construction, capacity reductions on Commonwealth Avenue Bridge are expected to see traffic move away from Commonwealth Avenue and migrate to Kings Avenue, Tuggeranong Parkway and Monaro Highway and then use Parkes Way to access the City area.

Traffic modelling predicts that traffic volumes on Parkes Way will increase during the AM peak resulting in 2-3 minute increases in journey times between Glenloch Interchange and Kings Avenue. Much of this traffic will turn right onto Coranderrk Street, which will reduce available gaps for eastbound traffic to enter the roundabout, causing considerable queuing. The existing right-turning volumes already lead to substantial delays in the AM Peak period, and if unmitigated, traffic increases are expected to lead to increased delays eastbound on Parkes Way between Glenloch Interchange and the City.

This project seeks to alleviate the predicted traffic congestion by extending the right turn pocket and installing temporary traffic signals to provide a longer queueing arrangement for the westbound right turn movement. This will increase the gap acceptance for Parkes Way eastbound traffic entering the roundabout and reduce congestion. These interventions will improve traffic flow for the Parkes Way/Coranderrk Street roundabout.

These traffic signals are intended to operate during the morning peak hours, and at other peak times as required. When not in operation, normal roundabout give-way functionality would be in place. Whilst there is already congestion at this intersection during the AM peak, there is potential for delays to increase during construction of Light Rail Stage 2. As such, these are preventative works that will ensure the continued safe functioning of the road network whilst also rationalising, upgrading, and improving existing vertical elements in the streetscape such as lighting and landscaping.

1.2 Description of the site and locality

This Works Approval application relates to "road extension and signalisation" and associated works within the roundabout at the intersection of Parkes Way and Coranderrk Street and its surrounding area (the Site). The existing roundabout comprises three arterial roads with no traffic signals/lights, that operate with normal give-way control and clockwise circulation. Table 1-1 details each road that forms part of the roundabout and Figure 1-1 provides an overview of the project.

Introduction

Table 1-1 | Road details of the Parkes Way/Coranderrk Street roundabout

From road	To road	Number of lanes	Direction
Parkes Way (west)	Coranderrk Street	3 (enter) to 2 (exit)	West to north
Parkes Way (west)	Parkes Way (east)	3 (enter) to 2 (exit)	West to east
Coranderrk Street	Parkes Way (east)	2	North to east
Coranderrk Street	Parkes Way (west)	2 (enter) and 2 (1 x bypass lane)	North to west
Parkes Way (east)	Parkes Way (west)	2 (enter) and 2 (1 x bypass lane)	East to west
Parkes Way (east)	Coranderrk Street	2	East to north

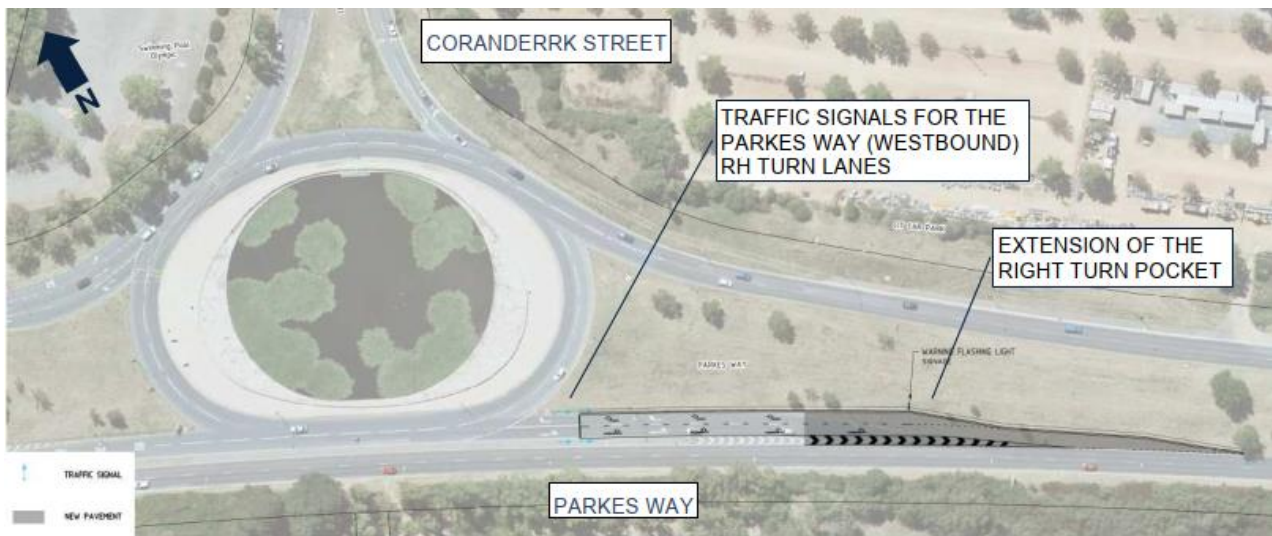


Figure 1-1 | Overview of the project

The Site is inside central Canberra's Parliamentary Triangle formed by grand avenues including Anzac Parade, Constitution Avenue and Parkes Way, which are the key elements of the Griffins' Plan for the national capital. The Site is also important in the broader transport network within the ACT: Parkes Way routes serves as a significant east-west connection between the Central Canberra, suburbs of the Molonglo Valley (existing and future), Russell Offices and Canberra Airport; and Coranderrk Street also plays a key role in providing access to the eastern half of Central Canberra.

The centre of this roundabout is a circular detention pond with diameters ranging from 68-82m, surrounded by a variable-width buffer. To the south of the Site, is Commonwealth Park, which forms part of the heritage listing of the vista from Parliament House. To the east of the Site, is a surface car park fronting Parkes Way, and further north is the Canberra Institute of Technology (Reid Campus). To the immediate northwest of the Site, is the Canberra Olympic Pool and a surface car park. The City Hill roundabout is approximately 570m northwest of the Site. Approximately 2.3km southwest of the site, across Lake Burley Griffin, is Parliament House.



Figure 1-2 | Aerial Photo of the site and surrounding locality with approximate project boundary shown orange (source: ACTMapi, 2021)

1.3 Purpose and structure of this report

This Planning Report provides justification and supporting information for a Works Approval (WA) that is required for the project under the *Australian Capital Territory (Planning and Land Management) Act 1988* (Commonwealth) (the *PALM Act*).

The project is to be contained within the road reserves of Parkes Way and Coranderrk Street, which is a “Designated Main Avenue and Approach Route” under the *National Capital Plan (NCP)*. As such, the relevant planning pathway for approval is the lodgement of a WA to the National Capital Authority (NCA). This report is to support a WA, to be lodged with the NCA for the proposed works on the Site.

This report provides justification against relevant matters for consideration under the *PALM Act*, and provides:

- Project background and overview
- Site context including zoning and applicable overlay
- Detail of pre-lodgement consultation
- A comprehensive planning assessment of the project against relevant sections of the *NCP*; and
- Evidence for compliance of the project and reason for approval.

This report is supported by and should be read in conjunction with the documentation submitted as part of the WA, as listed in Table 1-2.

Table 1-2 | Supporting documentation

Document Type	Document Name	Consultant	Appendix
Concept Engineering Plans	General Arrangement Plans - Parkes Way and Coranderrk Street Signalisation Project	SMEC	A
Landscape Plan	Concept Landscape Plans	Envirolinks Design	B
Statement of Heritage Impact	Statement of Heritage Impact – Parkes Way and Coranderrk Street Signalisation Project	Cultural Heritage Management Australia (CHMA)	C

1.4 Scope of works

The intent of this Project is to extend the right turn pocket and to install temporary part-time traffic signals with associated upgrade works (the Project).

The scope of works includes:

- Temporary Traffic Management during construction
- Extend the right turn pocket of the Parkes Way eastern approach to the roundabout by approximately 140m including an 80m deceleration lane. This will include a construction a new flexible gravel pavement and asphalt surfacing.
- Install four traffic signals, set back approximately 15m from the entry point to the roundabout and a traffic signal controller box within the median. These traffic signals are intended to operate during the morning peak hours, and at other peak times as required. When not in operation, normal roundabout give-way functionality would be in place. They will be removed once construction of the RLC project has been completed and traffic flow is no longer impeded by temporary traffic management plans.
- Install equipment for traffic management including one CCTV camera on the traffic signal post on Parkes Way westbound, and two CCTV cameras on the street lightpoles on Parkes Way eastbound and at the Coranderrk/Constitution Ave intersection for que detection.
- Install a mains powered Bluetooth detector within the traffic signal control cabinet
- Removal of five deciduous plantings and replacement with eight Australian native *Eucalyptus melliodora* (min. 200mm pot size) and seven Australian native *Eucalyptus polyanthemos* (min. 200mm pot size) in the centre median of Parkes Way with dryland grass mix, in accordance with TCCS Urban Tree Unit and standard Municipal Infrastructure Standards (MIS) landscaping requirements. Where the road verge is disturbed during construction, it will be replanted with native grasses.
- Relocate two existing street lights along the right turn pocket of the Parkes Way East further west, and install an additional 'like-for-like' street light for the extended portion of the right turn pocket to ensure sufficient lighting.
- The existing signage on the Parkes Way westbound carriageway between Anzac Parade and Coranderrk Street has been minimised. Rationalisation of signage as follows:
 - Existing guidance signage will be relocated to a new position to accommodate the longer right turn pocket.
 - Where regularity and warning signage is impacted by the widening of the road, they will be relocated outside of the road footprint.
 - Two additional warning signs noting the use of part time traffic signals ahead, will be added. These signs will be removed after construction of the RLC when the traffic signals are removed.
 - To minimise the number of signage locations, where possible multiple signs will be located at the same position.
- Extension of the ACT fibre communications network from the intersection of Coranderrk Street and Constitution Avenue to the proposed temporary traffic signals to assist in the operation of the traffic signals.
- Painting of new road markings.
- Construction of two new drainage pits on the existing drainage network to facilitate drainage of the increased road surface runoff.

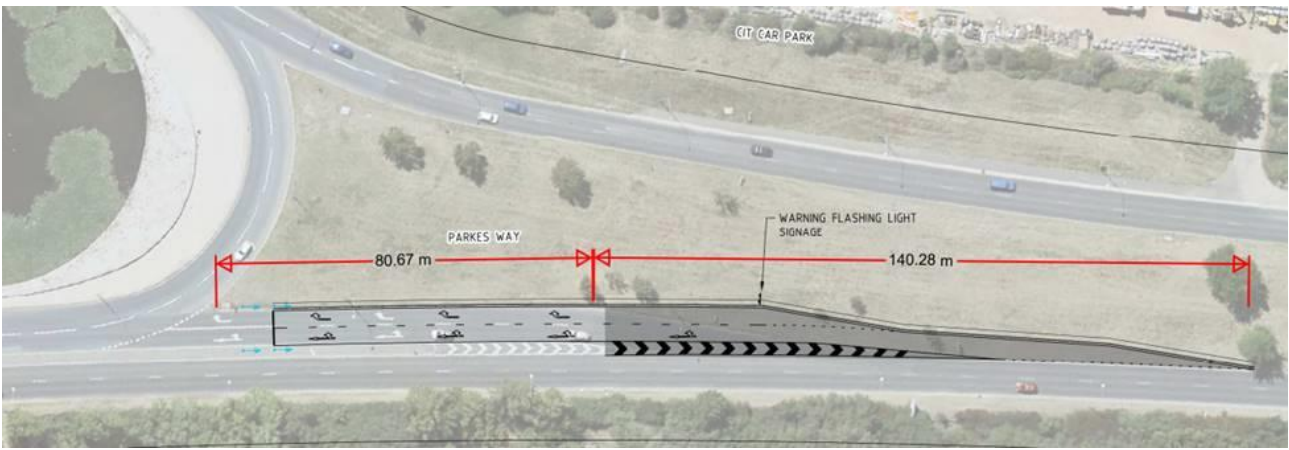


Figure 1-3 Concept layout of the lane extension

1.5 Approvals process

The following flowchart provides the basic approval process that will be required for the Proposal. The red arrow identifies the current stage of approvals for this proposal.

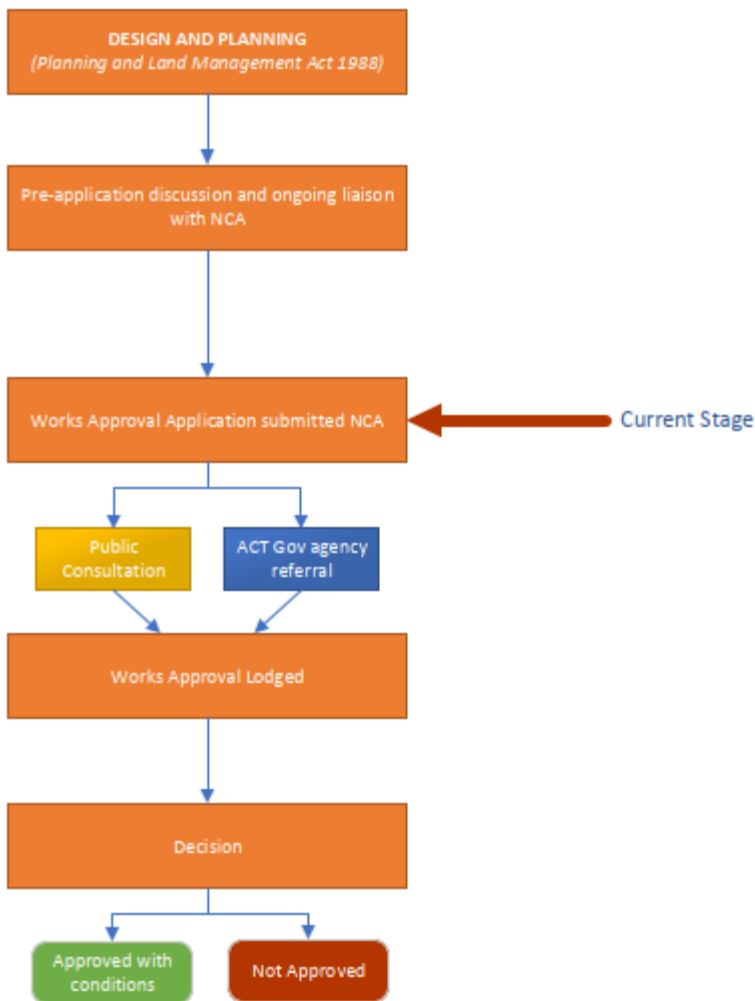


Figure 1-4 | Summary of NCA approval process

2 Site context

2.1 Site location

The Site is adjacent to the suburbs of Reid, Parkes, and Canberra City. The lowest point of the Site is the center of the roundabout which allows surface stormwater to run off into the detention pond from surrounding road reserves. The Site steadily increases in a gradient from the center of the roundabout in all directions.

The posted speed limit on Parkes Way on approach to the Site is 80km per hour, with suggested maximum speed of 35km per hour within the roundabout. The posted speed limit on Coranderrk Street is 60km per hour, with a suggested maximum speed of 25km per hour within the roundabout.

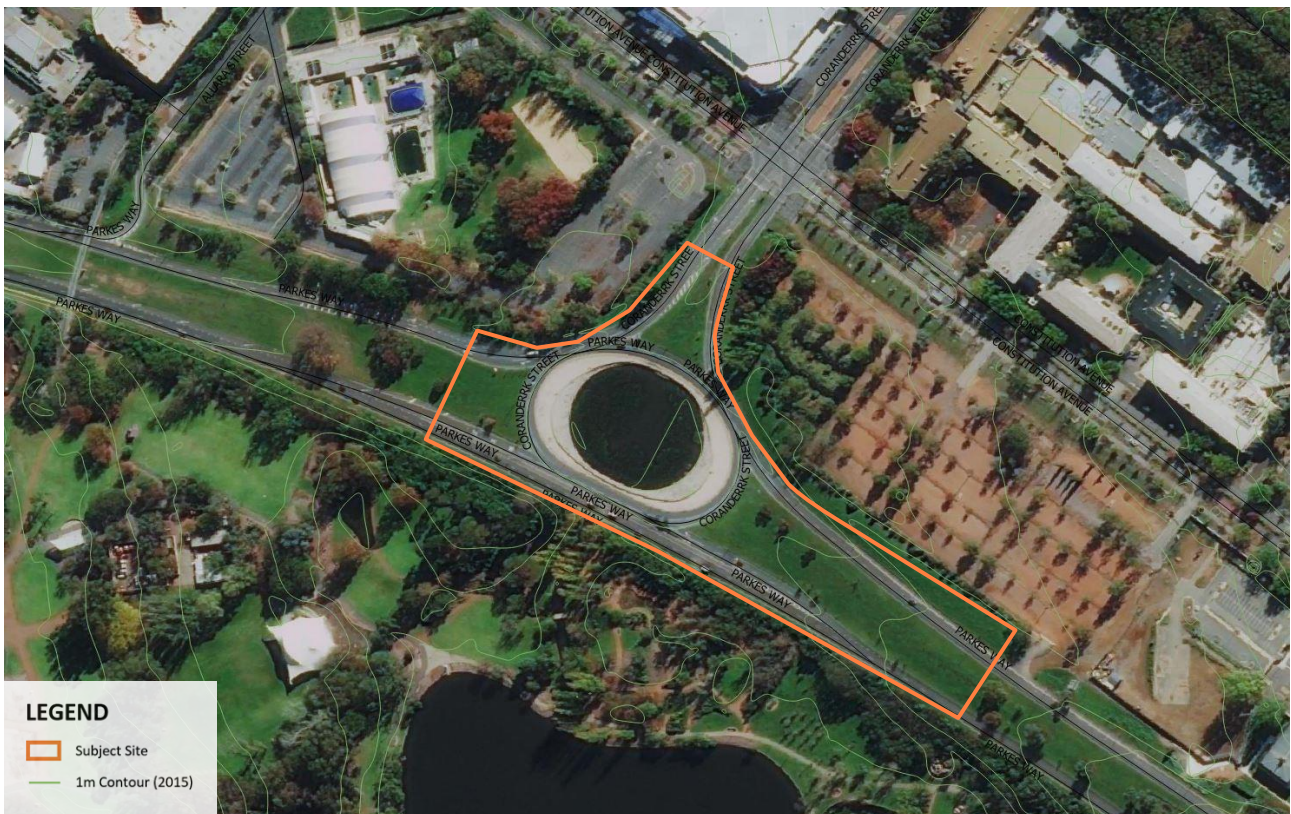


Figure 2-1 | Site Location with Contours and project boundary outlined (source: ACTMapi, 2021)



Figure 2-3 | View to roundabout from Parkes Way, looking south-west



Figure 2-2 | Vehicles approaching roundabout from Coranderrk Street



Figure 2-4 | View to roundabout and further west along Parkes Way



Figure 2-5 | Vehicles travelling east along Parkes Way

2.2 Existing land use

The Site contains traffic infrastructure including a roundabout and two arterial roads. The centre of the roundabout is a stormwater detention pond that collects stormwater run-off from the surrounding paved areas.

Existing surrounding land uses include leisure and accommodation, low-density residential, urban parks and recreation, commercial core, community facilities, transport, and service infrastructures. It is worth noting that the current CIT campus on Block 12, Section 33 Reid is scheduled to be redeveloped into the new multi-precinct campus housing 6,000 students for the University of NSW.

The Site is within the Constitution Avenue and Anzac Parade Precinct of the NCP. The permitted land uses of the surrounding land are specified in the NCP with more than 25 types of activities under the category of 'Land Use A'.

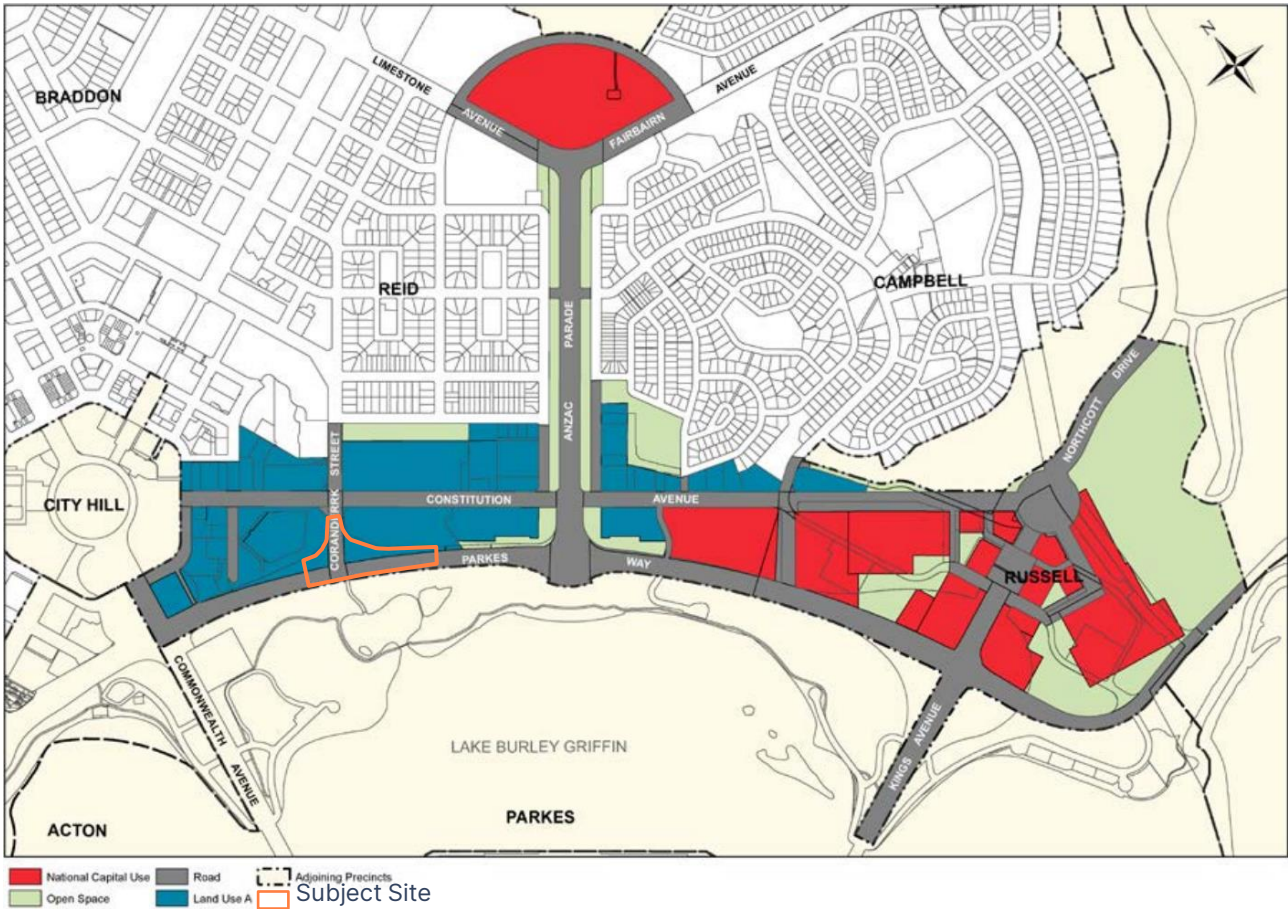


Figure 2-6 | Land use pursuant to National Capital Plan

2.3 Zoning and Overlay

The Site is located at the intersection of Parkes Way and Coranderrk Street and is zoned as Designated Land under the Territory Plan.

The surrounding lands are also zoned as Designated Land with different overlay zones. Figure 2-7 provides a map of the area and identifies uses of the site and surrounding lands.



Figure 2-7 | Zoning map (source: ACTMapi, 2021)

2.4 Land ownership and custodianship

NCA is the land custodian of the Site as it sits on National Land under the category of Road. It is anticipated that the project manager (TCCS) will secure a license from NCA as the land custodian for permission to construct assets on-site. TCCS will progress discussions with NCA to develop an agreement as the project progresses.

It is noted that NCA acts as an agency of the Commonwealth government that has signed the application form to enable the lodgement of this WA application. Refer to Appendix D.

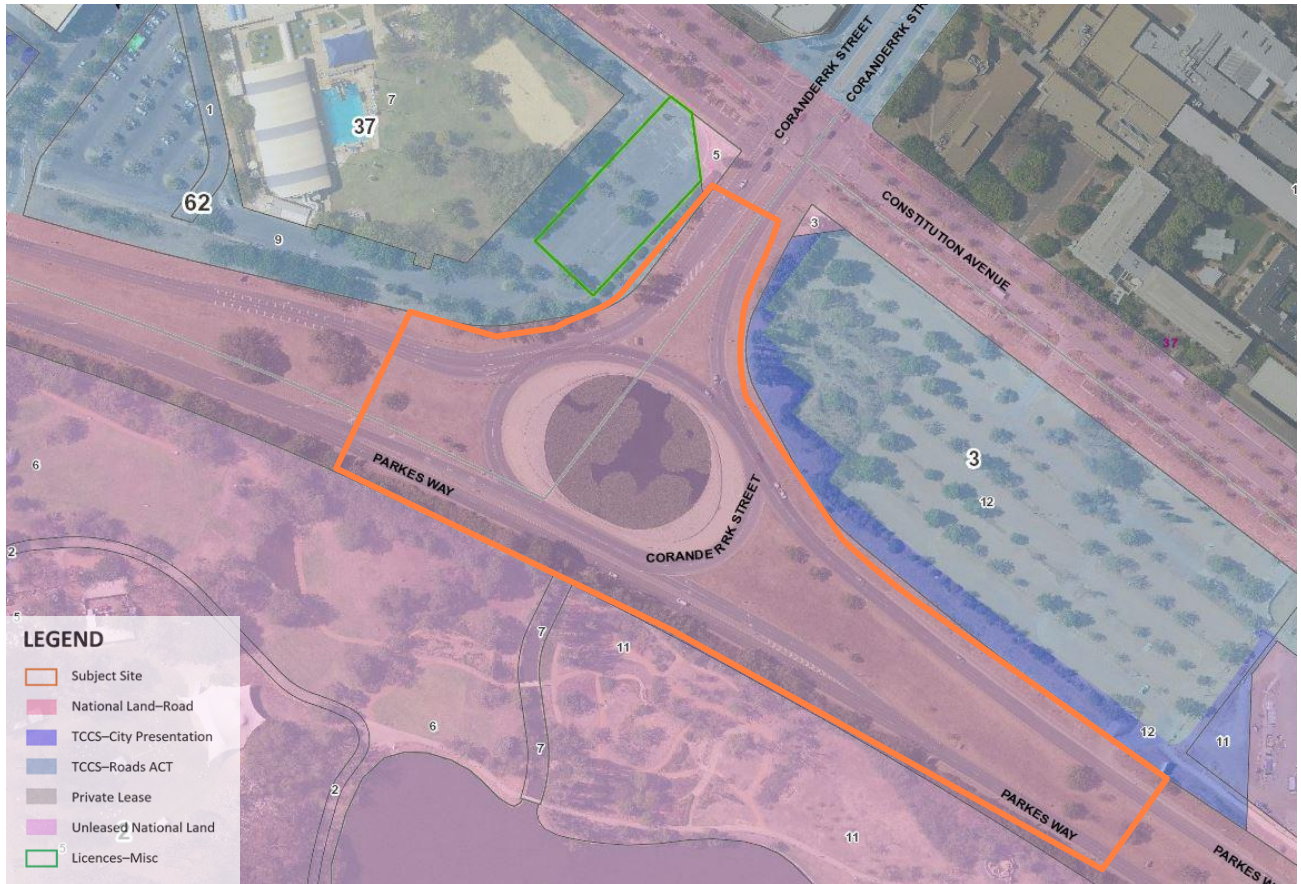
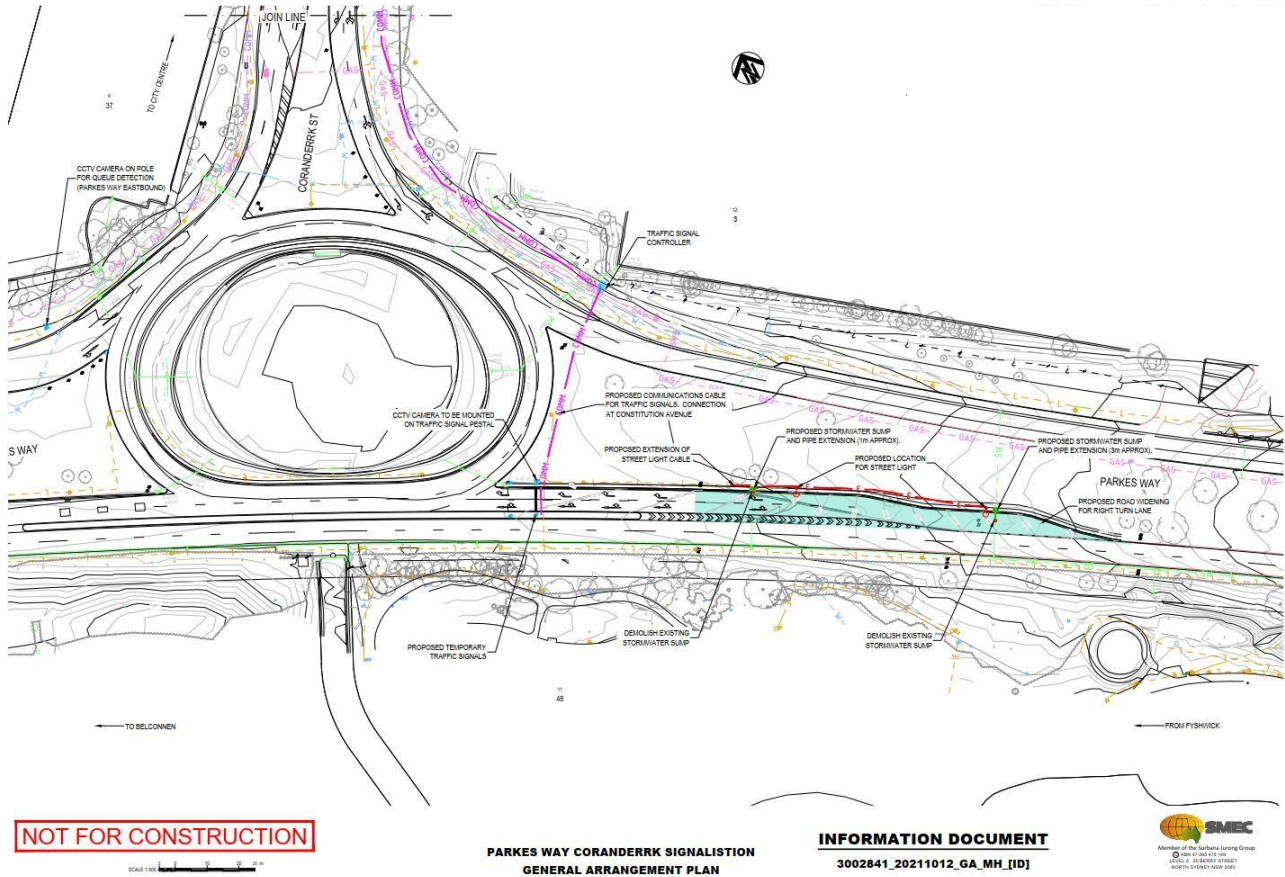


Figure 2-8 | Site area with land custodianship (source: ACTMapi, 2021)

3 Project description

3.1 Extent of works

The extent of the proposed works includes extending the right turn pocket by approximately 140m and installing temporary part-time traffic signals set back approximately 20m from the entry point of the roundabout as well as associated upgrade works to pavement and line marking.



3.5 Landscape improvement

It is in the National interest to reinforce the urban structure of the Parliamentary Triangle through appropriate landscaping. The treatment and landscape design applying to Parkes Way should be consistent with the pattern of other avenues within the precinct, and the height and species desired by both the NCA and EPSDD Urban Tree Unit who will manage and maintain the median.

As previously indicated, there is an opportunity to improve the density of tree planting within the project area, as the project requires the removal of five existing deciduous trees within the centre median. Through pre-lodgement consultation with NCA and the Urban Tree Unit, we understand the importance of established trees to provide screening and enhance the nationally significant vista from Parliament House.

The project makes provision for improvement to the landscape within the site, providing for eight *Eucalyptus melliodora* (min. 200mm pot size) and seven *Eucalyptus polyanthemus* (min. 200mm pot size) within the median and dryland grass to remediate disturbed areas in accordance with requirements the Canberra Living Infrastructure Plan and MIS. These plantings are preferred as they will also enhance the nationally important vista from Parliament House toward Mount Ainslie, obscuring road infrastructure and would replace existing poor condition plantings with a rate of over 2:1.

3.6 Erosion and sediment control

A concept Erosion and Sediment Control Plan has been prepared by SMEC as part of the engineering drawings in Appendix A. These measures will ensure site works are managed appropriately and environmental impact, particularly sediment laden runoff to nearby receiving waterways, is minimised.

4 Statutory assessment

The Site is limited to the area within and surrounding the Parkes Way/Coranderrk Street roundabout and is within a Designated Area of the NCP.

The ACT operates under a two-tier legislative planning framework for the approval of planning proposals; however, the project will only fall under the Commonwealth Government approval requirements.

The *PALM Act* established the NCA as a Commonwealth Government agency with the role of (amongst other things) to prepare and administer the *NCP*.

The *PALM Act* also stipulates that the *NCP* may specify areas of land that have the special characteristics of the National Capital as Designated Areas. Proposals to undertake “works” within a Designated Area of the *NCP* are required to be approved by the NCA and must be consistent with the requirements of the *NCP*.

The *PALM Act* defines ‘works’ as:

- a) the construction, alteration, extension or demolition of buildings or structures
- b) landscaping
- c) tree felling; or
- d) excavations

but excludes anything done inside buildings or structures.

The proposed activities include a)-d) and would be defined as “works” under the *PALM Act* and therefore require works approval.

4.1 Commonwealth legislation

4.1.1 Australian Capital Territory (Planning and Land Management Act) 1988

The proposed works are in a Designated Area of the *NCP* as defined under the *PALM Act*.

Section 12 of the *PALM Act* provides that no works shall be performed in a Designated Area unless:

- The proposal to perform the works has been submitted to the NCA together with such plans and specifications as are required by the NCA
- The NCA has approved the works in writing and
- The works are in accordance with the *NCP*.

It also sets out the requirements for works in Designated Areas to be subject to planning and approval by the NCA. This report demonstrates how the proposed works are consistent with the relevant principles and policies for the *NCP*, including policies of land use and planning of national and arterial road systems, and detailed conditions of planning, design and development.

4.1.2 Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Under the *EPBC Act*, approval from the Commonwealth Minister for the Department of Agriculture, Water and the Environment (DAWE) is required for an action that is likely to have a significant impact on a matter of national environmental significance (MNES) as a controlled action.

The Parliament House Vista is listed as a MNES under the *EPBC Act* as “it is highly significant for its symbolic representation of the democratic interchange between the people and their elected representatives and its use of the natural landforms to generate a strong planning geometry. It expresses a masterly synthesis and ordering of topographical features and administrative functions to meet the needs of a national capital. The vista landscape embraces the central land axis and part of the water axis and most of the Parliamentary Triangle including the area known as the Parliamentary Zone”.

The upgrade of landscaping within the centre median of Parkes Way provides the opportunity to enhance the vista and obscure road infrastructure. The existing small deciduous plantings which require removal are inconsistent with other existing Eucalypt plantings on Parkes Way.

Overall, it is considered that the works undertaken as part of this WA are minor in nature and do not result in a significant impact on MNES. As such, the proposal does not require referral to the Commonwealth under the *EPBC Act*.

Further details are provided in the Statement of Heritage Impact undertaken for the project, Appendix C.

4.1.3 Assessment against the National Capital Plan

This section provides an assessment of the proposal against the applicable requirements of the *NCP*.

The *NCP* is the strategic plan for Canberra and the Territory, and "...is the strategy and blueprint giving effect to the Commonwealth's interests and intentions for planning, designing and developing Canberra and the Territory".

The *NCP* maintains a broad oversight of planning in the Territory as a whole and an important interest in the planning, design and development of those areas having the special characteristics of the National Capital.

At its broadest level, the *NCP* prescribes land use controls across the whole of the Territory and includes more detailed planning provisions for areas to which the Commonwealth have a specific interest and clear intentions.

The object of the *NCP* is "to ensure that Canberra and the Territory are planned and developed in accordance with their national significance."

4.1.4 Designated areas

Figure 4-1 identifies the Site as being a National Road System located at the intersection of Parkes Way and Coranderrk Street. This confirms that the National Capital Authority is the consent authority for planning/development approval and the proposal must be assessed as a WA (which is the context of this submission).

4.1.5 National and Arterial Roads

Under the *NCP* definition, all roads within the National Triangle are classed as National Roads including Parkes Way. In accordance with the *NCP*, the proposal is defined as a 'Road' in accordance with the following land use definitions from Appendix A of the *NCP* (relevant sections underlined):

Administrative and Utility Services is defined as:

Administrative Use, Community Protection Facility, Defence Installation, Public Utility, Road

Road: Any way or street, whether in existence or under reserve, open to the public which is provided and maintained for the passage of vehicles, persons and animals and which may include footpaths, community paths, bus lay-bys, turning areas or traffic controls.

Figure 4-1 sets out the general location of national and arterial roads within the Territory.

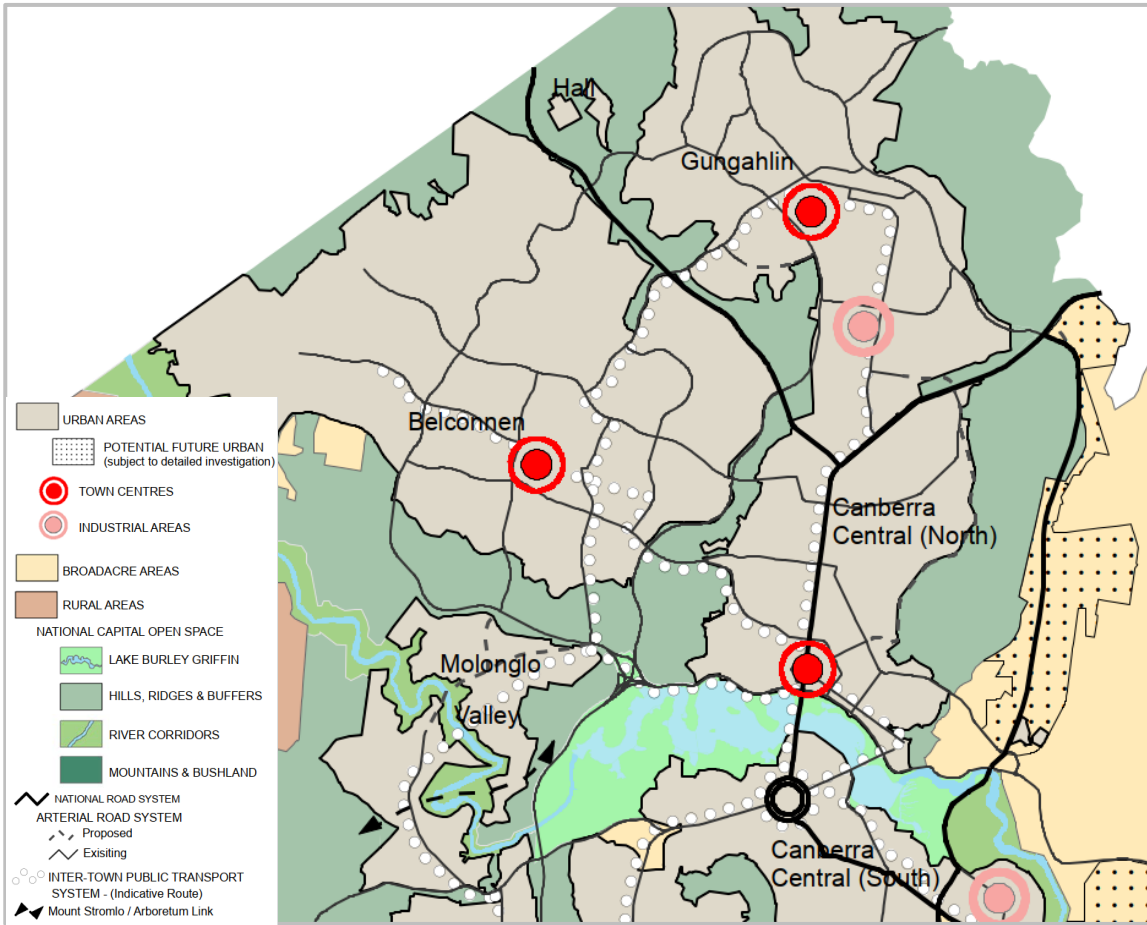


Figure 4-1 | General Policy Plan (National Capital Plan)

4.1.6 Principles and Policies for Designated Areas

The Site is within a Designated Area, being Precinct 6 of the Central National Area (refer to Figure 4-2).

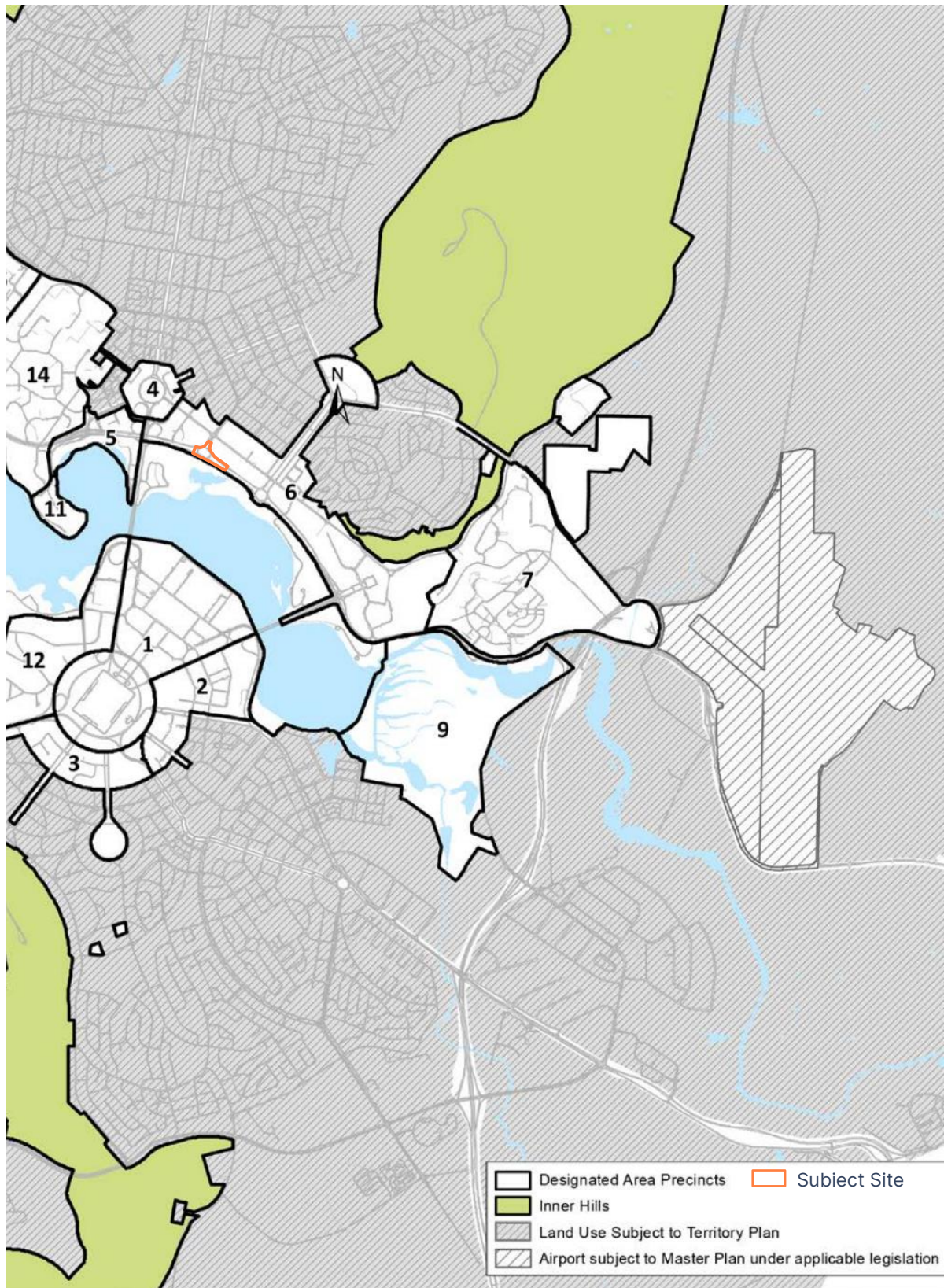


Figure 4-2 | Designated Area Precincts (source: National Capital Plan, 2021)

4.1.7 The Central National Area

The Site is located at the intersection of Parkes Way and Coranderrk Street within the Constitution Avenue and Anzac Parade Precinct under the category of Central National Area.

A summary of how the proposal meets the detailed design conditions for the Central National Area is outlined in the table below.

Table 4-1 | Detailed conditions of planning, design and development (source: National Capital Plan, 2021)

Conditions	Project Response
2. Other parts of the Designated Areas will be used in accordance with relevant Precinct Codes.	Refer to Section 4.1.8
3. Land uses will relate primarily to national functions. This should not, however, preclude the establishment of appropriate ACT Government functions, suitably located.	The current and continued land use as a major road will remain consistent.
6. Traffic capacity and traffic arrangements on major routes in the Designated Area will be planned to ensure safe and dignified access for all ceremonial occasions, and for residents, staff, tourists and visitors.	The objective of the Project is to improve safety and to reduce congestion for the traffic at the Parkes Way/Coranderrk Street roundabout, particularly in the AM peak.
7. The transport system within the Designated Area will be planned and managed for volumes of traffic and parking consistent with the significance and use of the area. Transport infrastructure should foster the use of transport systems which minimise adverse effects from vehicular traffic.	This project is associated with the LRS2 project which will directly address this objective by improving public transportation within Designated Areas. The intent of the project is to minimise traffic disruption during construction and overcome existing congestion issues at this roundabout.
14. Landscaping is to enhance the visual setting of the Designated Area and integrate the buildings with their landscape setting. This will be carried out in accordance with a landscape masterplan to be prepared by the National Capital Authority which particularly emphasises the following landscape themes: <ul style="list-style-type: none"> a. the formal and consistent landscaping of Main Avenues and mall spaces b. the combination of formal and informal landscaping which occurs around the Lake's edge and is the setting for Parliament House and its adjacent area. 	<p>Proposed landscaping will enhance the vista from Parliament House by removing five poor quality deciduous plantings which are inconsistent with the scale and species of plantings elsewhere on Parkes Way and other major avenues in Canberra.</p> <p>As demonstrated in the Landscape Plan (Appendix B) two new plantings will be provided for every tree removed. SMEC understands that the desired species is <i>Liquidambar styraciflua</i> with a minimum lot size of 150L. These species have a mature height of 20m and will form a feature along this important approach to Canberra City, whilst also providing screening of road infrastructure when viewed across Lake Burley Griffin from Parliament House.</p>

4.1.8 Constitution Avenue and Anzac Parade Precinct Code

The Site is limited to the Parkes Way/Coranderrk Street roundabout and its surrounding area, which sits within the Constitution Avenue and Anzac Parade Precinct under the NCP.



Figure 4-3 | Constitution Avenue and Anzac Parade Precinct location

The objectives of the Constitution Avenue and Anzac Parade Precinct are to:

1. Establish Constitution Avenue as a diverse and active grand boulevard lined with shops, cafés and a mix of commercial, entertainment and residential uses.
2. Establish Constitution Avenue as a prestigious address for National Capital Uses.
3. Link education and high-tech employment clusters located in the corridor between the Australian National University and the Canberra International Airport.
4. Complete the base of the National Triangle.
5. Support Constitution Avenue with an integrated transport system and mix of land uses contributing to the life of the National Triangle.
6. Establish Constitution Avenue with higher density development, public transport, broad
7. tree-lined footpaths and outdoor dining and street parking.
8. Develop a built environment which demonstrates design excellence.
9. Achieve leading practice environmentally sustainable development.

A summary of how the proposal meets the design conditions for the Constitution Avenue and Anzac Parade Precinct is outlined in the table below.

Table 4-2 | Constitution Avenue and Anzac Parade Precinct conditions

Conditions	Project Response
General	
d. Reduce the barrier created by Parkes Way and its high-speed intersections along its length by changing the character of Parkes Way to become a boulevard addressed with prestigious buildings, at grade pedestrian crossings and appropriately scaled road reserves and intersections.	The extension of the right turn pocket reduces the potential traffic congestion and the introduction of signals will improve the traffic flow going through the intersection of Parkes Way. No pedestrian crossings are proposed.
n. Design proposals should be site responsive, taking maximum advantage of varying characteristics and features of each site, complementing adjoining development <ul style="list-style-type: none"> - both existing and proposed - and expressing physical and environmental features. 	This project does not propose to change the characteristics or features of the Site being road reserves but will maximise the opportunity to reinforce the established pattern of the streets and complement the visual character of landscape design through upgraded plantings, rationalised signage and improved street lighting.
Landscape structure	
A formal treatment should be applied to the main avenues including Constitution, Kings and Commonwealth Avenues, as well as Parkes Way. Continuous street trees should define the pattern of major and minor streets.	A formal landscape treatment is proposed as part of the project to contribute to improved urban amenity and landscaped promenade.
Road hierarchy	
The road hierarchy provides a legible and connective framework for moving throughout the area with: <ul style="list-style-type: none"> • Constitution, Commonwealth and Kings Avenues and Parkes Way having the role of principal routes for through traffic and pedestrians connecting other parts of the city to the area • major connecting streets including Coranderrk Street, Blamey Crescent and Sellheim Avenue having a role of providing the main connections from the City Centre and adjoining neighbourhoods • minor streets having a local access role with priority for pedestrians and cyclists • lanes, share ways and arcades having a service, access, and pedestrian network role. 	The road hierarchy remains consistent with the current network. Parkes Way and Coranderrk Street continue to provide major connections from/to the City Centre and other parts of the city.
Water sensitive urban design	
Implement water sensitive urban design strategies, including bio-filtration systems integrated with street and landscape design, to protect lake water quality. To protect the water quality of Lake Burley Griffin, a catchment management approach should be implemented to detain and filter stormwater in the upper catchment or at the source.	Coranderrk Pond is an existing WSUD device which is designed to improve water quality in this catchment. The small increase to impervious area associated with the extension of the right turn lane will be accommodated within the existing local drainage network.
Integrated urban art and signage	
Opportunities for animated signs to create focal points when viewed from across public spaces may be considered where this does not impact adversely on the overall character of the place.	The Project has sought to rationalise existing signage where possible, with a view to minimising vertical elements in the streetscape, whilst maintaining road safety. A signage plan is provided in Appendix A.

4.2 ACT legislation

4.2.1 Planning and Development Act 2007

The *Planning and Development Act 2007 (P&D Act)* is the key piece of legislation determining planning assessment procedures in the ACT. The *P&D Act* provides the basis for land use zoning under the Territory Plan.

As the proposal is located within Designated Area, the statutory provisions of the *P&D Act* are not relevant to the consideration of this application.

4.2.2 Environmental legislation

Key environmental legislation and regulations in the ACT include.

- Environmental Protection Act 1997
- Environmental Protection Regulation 2008
- Nature Conservation Act 2014
- Heritage Act 2004
- Tree Protection Act 2005
- Water Resources Act 2007.

The proposal, including the works subject to this WA, will be undertaken in accordance with the above environmental legislation. We anticipate that this WA will be referred to the relevant ACT government agencies who administer the above legislation.

5 Impact Assessment

5.1 Traffic modelling

5.1.1 CINRM modelling

This project is associated with the RLC project and traffic management requirements during construction. During construction of RLC and LRS2, capacity reductions on Commonwealth Avenue Bridge are expected to see traffic move away from Commonwealth Avenue and migrate to Kings Avenue, Tuggeranong Parkway and Monaro Highway and then use Parkes Way to access the City area.

Traffic modelling predicts that traffic volumes on Parkes Way will increase during the AM peak resulting in 2-3 minute increases in journey times between Glenloch Interchange and Kings Avenue. Much of this traffic will turn right onto Coranderrk Street, which will reduce available gaps for eastbound traffic to enter the roundabout, causing considerable queuing. The existing right-turning volumes already lead to substantial delays in the AM Peak period, and if unmitigated, traffic increases are expected to lead to increased delays eastbound on Parkes Way between Glenloch Interchange and the City

Previous modelling was conducted using the 2021 City Centre and Inner North Precinct Reference Model (CINRM). The CINRM was developed for the purpose of assessing major changes to the transport network and has been used extensively to test construction scenarios for LRS2 and associated projects. This modelling acknowledged the difficulties in accurately measuring delay and queue length at a single point in a complex network and recommended further modelling be undertaken as part of the detailed design process.

5.1.2 SIDRA modelling

SMEC has undertaken SIDRA modelling based on the outcomes of the CINRM modelling to better quantify the delay and queuing at the intersection of Parkes Way and Coranderrk Street.

This SIDRA modelling supports the findings of the CINRM modelling and confirms signalisation of the westbound right turn would improve the performance of the eastbound through movement along Parkes Way in the AM Peak period, without causing significant delay to the signalised movement.

5.1.3 Recommendation

Based on the CINRM and SIDRA modelling undertaken for the Project, SMEC recommends the following be incorporated into any approval issued:

- Provide 115m of two-lane queuing space, plus 80m deceleration length, to allow for operational flexibility. This will ensure traffic does not encroach into the deceleration length.
- Implement signalisation of the westbound right turn in the AM Peak only, noting the optimised signal timing suggested in the modelling
- Monitor the intersection performance and alter the signal timing if required during operation.

5.2 Biodiversity

Publicly available mapping on ACTMapi indicates the presence of Golden Sun Moth (*Synemon plana*) habitat further west of the site along Parkes Way. Golden Sun Moth is listed as Critically Endangered under the EPBC Act and Endangered under the ACT *Nature Conservation Act (NC Act)*. SMEC undertook a vegetation assessment on 21 September 2021. This section provides a brief discussion of the outcome of that assessment.

5.2.1 Methodology

A SMEC ecologist visited the study area on 21 September 2021. The study area was assessed by a SMEC ecologist through a random meander and through collection of species cover in 30 representative plots (1 metre x 1 metre) across the study area. These plots were photographed. Field assessment was supported through remote video connection with a specialist SMEC botanist to confirm the presence or absence of habitat features suitable for native flora and fauna, including Golden Sun Moth (*Synemon plana*).

5.2.2 Flora species

Only one native flora species was identified within the study area, *Cynodon dactylon* (Couch). It is likely that other native species may have been present including species occupying low cover or abundance or seasonally cryptic such as *Wahlenbergia* spp or *Microlaena stipoides*. Any potential additional native species would occur at low densities and be species that are regionally widespread, abundant, and secure species not listed as threatened. The dominant flora species are shown in Table 5-1.

Table 5-1 | Dominant flora species in study area

Scientific name	Common name	Native or exotic to the ACT	Estimated average cover across study area (% cover)	Larval foodplant for Golden Sun Moth (Yes/no)
<i>Briza minor</i>	Shivery Grass	Exotic	5%	No
<i>Bromus catharticus</i>	Prairie Grass	Exotic	5%	No
<i>Cynodon dactylon</i>	Couch	Native	25%	No
<i>Hordeum leporinum</i>	Barley Grass	Exotic	25%	No
<i>Lolium perenne</i>	Perennial Ryegrass	Exotic	5%	No
<i>Poa annua</i>	Wintergrass	Exotic	10%	No
<i>Arctotheca calendula</i>	Cape Weed	Exotic	1%	No
<i>Malva neglecta</i>	Dwarf Mallow	Exotic	1%	No
<i>Trifolium repens</i>	White Clover	Exotic	10%	No
<i>Plantago lanceolata</i>	Ribwort	Exotic	1%	No

5.2.3 Vegetation communities

No native vegetation communities were identified within the study area, with the single native species, *Cynodon dactylon* (Couch) not forming an assemblage such that a native plant community occurred. This species is a cosmopolitan planted and naturalised species associated with managed grassland. The managed anthropogenic grassland on site was dominated by exotic grasses and exotic forbs.

5.2.4 Threatened species

No threatened species were incidentally observed on site. A targeted survey for potential habitat of Golden Sun Moth was carried out based on floristic make-up, vegetation community structure, exposure and landscape features.

Habitat features associated with Golden Sun Moth were surveyed for:

- Larval food plants: Wallaby grass (*Rytidosperma* sp.), Speargrass (*Austrostipa* spp.), Chilean Needlegrass (*Nassella nessiana*), Serrated Tussock (*Nassella trichotoma*), and *Bothriochloa macra*

- North-facing sites, slightly sloping with minimal shading
- Areas of bare or sparsely covered ground between grass tussocks (inter-tussock space)

The field methods considered to determine the presence or absence of these potential associated habitat characters included:

- Identify native versus exotic grasses to determine if native or exotic grassland(s) and stratify to vegetation community(s) based on this dominance.
- Within these vegetation communities further stratify these vegetation communities by structure into different vegetation zones such as open tussock grassland, closed mixed grassland, etc
- Within this/these communities, determine the cover of each of the plant species using a series of 1m x 1m plots, with particular consideration given to larval food plants listed above
- Finally determine what areas are potential habitat for Golden Sun Moth principally considering vegetation dominated by larval food plant species, and in suitable structure of open tussocks

No larval food plants were observed in the study area, and the grassland did not have the structure of tussocks with adequate inter-tussock space.

5.2.5 Threatened ecological communities

No native vegetation community was observed on site and no fauna-based ecological community was observed.

5.2.6 Recommendations

As there is no likely occurrence of threatened species, ecological communities or their habitats in the study area, there is unlikely to be any impact to listed threatened entities, requiring no recommendations to avoid or mitigate impacts.

5.3 Heritage

A Statement of Heritage Impact was prepared by CHMA for this project and is provided in Appendix C. As part of the heritage assessment, CHMA undertook a search of the following historic registers and databases to determine the extent of historic sites and features in the vicinity of the study area:

- ACT Heritage Register
- Register of National Estate
- National Trust of Australia
- Australian Heritage Database

The search identified the following five places of heritage significance within or adjacent to the Project:

- Parliament House Vista
- Parliament House Vista Extension – the Portal Buildings
- St John the Baptist Church and Churchyard
- St Johns Schoolhouse Museum
- West Portal Cafeteria

A field survey was undertaken by a CHMA Senior Archaeologist to appraise these places of heritage significance and consider the potential impact of the Project on heritage values. The Statement of Heritage Impact at Appendix C confirms:

- The proposed modifications to the Coranderrk/Parkes Way roundabout will not impact upon the Parliament House Vista or Vista Extension. The proposal occurs some 15m outside the recorded bounds of this registration while also occurring in a position that is not visible from Parliament House and from which Parliament House cannot be seen.
- The proposed modifications to the Coranderrk/Parkes Way roundabout occur in excess of 250, from the defined boundary of the St John's Church precinct. It will not have any impact upon the heritage values of this site.
- The proposed modifications to the Coranderrk/Parkes Way roundabout occur in excess of 200m, from the defined boundary of the West Portal Cafeteria. It will not have any impact upon the heritage values of this site.

5.4 Moral Rights

No works are proposed to any existing buildings on the site and therefore this item is not applicable to this proposal at this time.

6 Stakeholder consultation

6.1 Pre-application meeting with stakeholders

A pre-application meeting with NCA, TCCS and SMEC representatives was held on 9 September 2021 via Microsoft Teams.

Further to that initial meeting, SMEC has consulted with Peter Beutel of NCA to confirm the lighting specification for new poles and spacing within the project area.

Consultation with the Urban Tree Unit of EPSDD also occurred, confirming that replacement plantings are required as follows:

- In line with the Canberra's Living Infrastructure Plan of 30% tree canopy cover by 2045, there is an expectation that two trees shall replace every one tree removed.
- The trees in the vicinity of the roundabout are in poor condition. If additional trees need to be removed as part of the design process, Urban trees is happy to support this.
- Trees shall be planted with improved growing conditions as per standard tree planting detail, adopted in the landscape plan (Appendix B)
- Replacement trees shall be located in similar area, although in a more centralise position to compliment alignment of retained trees (if any) and existing below ground infrastructure
- Preferred planting species are *Eucalyptus melliodora* and *Eucalyptus polyanthemos* as the designated species for Parkes Way, Minimum 200mm stock to AS2303
- Spacing of trees to ensure adequate room for mature canopy as per Municipal Infrastructure Standards (MIS) 25.
- Disturbed areas to be reinstated with dryland grass mix as per the MIS standards.
- Drawings to include an annotation for the TCCS public notification process – trees proposed for removal must be sign posted at least 14 days prior to them being removed.

6.2 Community consultation

Community consultation/public notification may be required by the NCA. SMEC is able to provide a written response to any submissions received, if required.

7 Conclusion

The intersection of Parkes Way and Coranderrk Street is a primary traffic route into the city, typically congested during AM peak hour traffic times. With the construction of the RLC Project and LRS2, traffic is expected to move away from Commonwealth Avenue and migrate to Kings Avenue and Parkes Way.

Traffic modelling predicts that traffic volumes on Parkes Way will increase during the AM peak resulting in 2-3-minute increases in journey times between Glenloch Interchange and Kings Avenue. Much of this traffic will turn right onto Coranderrk Street, which will reduce available gaps for eastbound traffic to enter the roundabout, causing considerable queuing. The existing right-turning volumes already lead to substantial delays in the AM Peak period, and if unmitigated, traffic increases are expected to lead to increased delays eastbound on Parkes Way between Glenloch Interchange and the City

This Planning Report confirms that the Project is capable of complying with the relevant legislative planning frameworks and will successfully alleviate the anticipated traffic congestion subject to:

- Modifying the existing right-hand turn pocket to provide 115m of two-lane queueing space, plus 80m deceleration length, to allow for operational flexibility. This will ensure traffic does not encroach into the deceleration length.
- Implement signalisation of the westbound right turn in the AM Peak only, noting the optimised signal timing suggested in the modelling.
- Upgrade line marking, signage, landscaping and lighting to accommodate the road works, retain acceptable level of safety and enhance this important approach to the Canberra CBD.
- Following construction, monitor the intersection performance and alter the signal timing if required during operation.

The proposal demonstrates compliance with the relevant legislative planning frameworks and will implement preventive traffic upgrades and measures to alleviate the predicted traffic congestion through the installation of traffic lights and extension of the right turn pocket on Parkes Way to Coranderrk Street.

Overall, it is considered that the development presents a positive outcome for Canberra's road network and reduces expected queuing lengths during the AM peak. The Project positively improves the presentation of the street by rationalising signage and improving landscaping and does not adversely impact the nationally recognised vista from Parliament House. It is therefore requested that the application be granted approval.

Appendix A **Concept Engineering Design**

Appendix B **Concept Landscape Plan**

Appendix C **Statement of Heritage Impact**

Appendix D **Authorisation Form**

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