Planning Report

Works Approval Application

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Works Approval Subject:	The works proposed under this WAA are all works in the Northbourne Avenue corridor between Barry Drive/Cooyong Street intersection and Alinga Street. The key components proposed are the Alinga Street Stop, the southern-most and largest stop of Stage 1 of the light rail project, and other landscaping and civil works between Barry Drive and Alinga St.
Site location:	The proposed works are located within the Northbourne Ave road corridor between Barry Drive/Cooyong Street intersection and Alinga Street.
Canberra Metro Works Approval Ref:	DWA 14

Approval required under the NCA because:	▪ The works are located in a Designated Area.
	▪ Schedule 2 of WA20277 stipulates that further Works Approval applications are required for:
	  ▪ Architectural and furnishing detail of the stops and any other associated infrastructure.
	  ▪ Lighting
	  ▪ Signage
	  ▪ New and relocated traffic signals
	  ▪ Traffic control devices
	  ▪ Tactile ground surface indicators

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Abbreviations

ACTPLA	ACT land and planning authority
CaNUDF	City and Northbourne Avenue Design Framework
CCTV	Closed-Circuit Television
CEMP	Construction Environmental Management Plan
CM	Canberra Metro
DA	Development Application
DDA	Disability Discrimination Act 1992
DKE	Dynamic Kinetic Envelope
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EPSDD	Environment, Planning and Sustainable Development Directorate
FLR	Fixed Location Reader
ISC	Integrated Service Cabinet
LED	Light Emitting Diode
LRV	Light Rail Vehicle
NA	Not Applicable
NCA	National Capital Authority
NCP	National Capital Plan
P&D Act	Planning and Development Act 2007
PA	Public Address
PALM Act	Australian Capital Territory (Planning and Land Management) Act 1988
PID	Passenger Information Display
PPP	Public-private partnership
RGBW	Red Green Blue White
TCCS	Transport Canberra and City Services
TCLR	Transport Canberra – Light Rail
TGSI	Tactile Ground Surface Indicator
WA	Works Approval
WAA	Works Approval Application
WSUD	Water Sensitive Urban Design

1. INTRODUCTION

1.1 Project Background

Approval has been granted by the National Capital Authority (NCA) and the ACT planning and land authority (ACTPLA) of the Environment and Planning and Sustainable Development Directorate (EPSDD) for the construction of Stage 1 of a light rail network in Canberra, ACT, from Gungahlin Town Centre to the City (the Project).

The Project is being developed through a public-private partnership (PPP) between Transport Canberra Light Rail (TCLR) (ACT Government) and Canberra Metro, the consortium chosen to deliver the Project. The Canberra Metro consortium comprises Pacific Partnerships, CPB Contractors, John Holland, Mitsubishi Corporation, Aberdeen Infrastructure Investments, Deutsche Bahn International and CAF.

The Project section from the Gungahlin town centre to the Flemington Road/Federal Highway junction (along the transport corridor and adjacent lands) is Territory land under ACT Government administration. Approval for the section was granted by the ACTPLA on 21 December 2015 (Development Application (DA) 20152851). The Project was assessed in the impact track under section 123 of the *Planning and Development Act 2007* (P&D Act).

The Project section from the Flemington Road/Federal Highway junction to the Canberra civic centre is Territory land; however it is zoned as a Designated Area in the National Capital Plan (NCP). Under the Australian Capital Territory (Planning and Land Management) Act 1988 (PALM Act) the NCA have responsibility for determining detailed conditions of planning, design and development for proposals in Designated Areas. Northbourne Avenue and the Federal Highway are specifically identified within the Designated Area category of 'Main Avenue and Approach Routes'.

An initial approval for selected details of the Project within the section under the NCA's planning jurisdiction was granted on 27 April 2016 (NCA ref. Works Approval (WA) 20277 / CM ref. WA1). The works approved under WA20277 included:

- Demolition of infrastructure within the Federal Highway and Northbourne Avenue road reserves, north of Antil Street as shown on the approved drawings.
- Demolition/removal of all existing infrastructure within the Northbourne Avenue and Federal Highway medians (the medians) as shown on the approved drawings. For clarity the demolition also includes the median kerb if damaged during construction. The kerb is to be replaced to match existing kerb detail.
- Earthworks as shown on the approved drawings, and subject to detail excavation drawings being submitted for approval.
- Removal of trees and other soft landscaping within the medians as shown on the approved drawings.
- Removal of trees as shown on the approved drawings within the Federal Highway/Northbourne Avenue verges, north of Antil Street.
- Installation of approximately 5.4 kilometres of embedded rail tracks and concrete track form within the medians as shown on the approved drawings.
- Installation of soft landscaping including trees within the medians and verges as shown on the approved drawings, and as described in Condition 3a.
- Construction of new road pavement and road intersections.

WA20277 has a number of associated conditions and exclusions which require further works approvals. Works requiring further approval from the NCA is being sought through a series of subsequent WA applications (WAAs) staged to follow the detailed design of relevant elements and enable efficient construction sequencing. This application forms one of these subsequent WAAs.

Stage 2 of the light rail, from the City to Woden, is currently in development. Stage 2 will continue the light rail alignment south of the Alinga Street Stop, through the median of the block between Alinga Street and London Circuit (known as Northbourne Plaza), and then further south along one of multiple route options still under consideration. Whilst this application is only for works associated with Stage 1 of the light rail, the proposed design has been developed with consideration the Stage 2 extension.

1.2 Summary of Proposed Works under this Application

The works proposed under WA14 are all works in the Northbourne Avenue corridor between Barry Drive/Cooyong Street intersection and Alinga Street. Reference is also made to WA13 which is the application for works between Alinga Street and London Circuit (referred to as Northbourne Plaza), which should be read in conjunction with this submission; the WAs are separated to facilitate construction sequencing.

The key components proposed under this application are the Alinga Street Stop, the southern-most and largest stop of Stage 1 of the light rail project, and other landscaping and civil works between Barry Drive and Alinga St.

Alinga Street Stop:

Key elements of the Alinga Street Stop include:

- Platform
- Canopies, including large cantilevers at the southern end which are tilted up as welcoming gesture, and a deferential gesture to the spiritual heart of Civic: the Melbourne and Sydney buildings
- Stage 1 drivers' facility on the platform (this will be removed in Stage 2 of the light rail project)
- Cyclist facilities, including racks
- Customer facilities/furniture:
  - Beach seating under shelter and in the landscape areas
  - General waste and recycling waste bins
  - Drinking fountain
- Public Art
- Integrated services cabinet (ISC)
- Electronic ticketing
- Wayfinding signage including ribbon signage and ISC signage
- Statutory and dynamic lighting, including feature landscape lighting and seat lighting
- Security systems including CCTV, public announcements and passenger information displays (PIDs)
- Tactile Ground Surface Indicators (TGSIs) and other universal accessibility facilities.

Other works between Barry Drive and Alinga Street:

- Landscaping (between Bunda Street and Alinga Street)
- Pedestrian and street lighting
- Traffic Signage
- Traffic Signals
- Line markings (including road TGSI's and raised pavement markers)
- Service points for temporary 'pop-up' commercial facilities (e.g. coffee carts).

2. SITE CONTEXT

2.1 Site Location

The Civic Precinct of the Project, referred to in this document, comprises the Northbourne Avenue corridor between Barry Drive/Cooyong Street and London Circuit. The Civic Precinct has been divided into two separate WAs:

- WA14 (this application), comprising select works within the Northbourne Avenue corridor between Barry Drive/Cooyong Street intersection and Alinga Street.
- WA13 (a separate application), comprising all works within the Northbourne Avenue corridor between Alinga Street and London Circuit (referred to as Northbourne Plaza).

Figure 1 below shows the Civic Precinct and the location of the two WAs.

Figure 1 Site Location and Context

2.2 Land Custodian

The land subject to the proposed works is unleased Territory Land. The land custodian is Transport Canberra and City Services (TCCS; formally Territory and Municipal Services (TAMS)).

2.3 Planning Jurisdiction

The land subject to the proposed works is a Designated Area of the NCP under the PALM Act. The NCA is responsible for approval all works within Designated Areas. Refer Section 4.1 for further legislative context.

3.PROJECT DESCRIPTION (WA14)

3.1.1 Alinga Street Stop

Alinga Street Stop is the signature landmark light rail facility located in Civic, the commercial heart of Canberra. Alinga Street stop is a major public realm amenity and a significant component of the proposed public transport infrastructure. Consequently, its design and integration in the CBD is a major focus of the design resolution.

3.1.1.1. Design strategy

The design generator for the distinct nature of the light rail project is the landscape. The transition in the landscape from Gungahlin in the north to Civic reflects a clear strategy of evolution in the development of a wilder, informal landscape to a more structured, formal landscape. The architectural approach of typical stops on that journey is to insert 'beautiful gems' into that landscape ground plane. The architecture provides a backdrop and support role to the broad power of the landscape setting. The architectural response is special in placement, form and texture.

As the light rail Stage 1 journey starts/ends in Civic, the emphasis shifts to a balance between ground plane and architecture. The bush landscape is at the end of its journey and becomes an insertion into an urban, dense context where the architecture strengthens its role to make a statement within the urban landscape of its surroundings. The challenge is how to achieve a balance and to manage the transition between bush and city.

The proposal retains a strong visual connection to the architectural 'language' of the typical stops; providing continuity through the module, the geometry, the "look", the materials and finishes. The double canopies of Alinga Street Stop delivers a significant shift in scale that is further strengthened by a generous upwards tilt of the southern cantilevers. This strengthens the visual qualities, civic presence and the sense of welcome and shelter.

The shifts in form and scale are subtle and combine to reinforce the signature qualities of the Civic Terminus. The design respectfully acknowledges the importance of the Sydney and Melbourne Buildings and the civic space between that they collectively define.

The design strategy for the Alinga Street Stop intends to reflect the civic nature of the place. The modular forms of the architecture have a clear, linear configuration that is articulated in the detail. The design of the ground plane draws on the project narrative and architectural form to compliment and strengthen the overall composition. The objective is to achieve an integrated design that binds the architecture to the landscape and delivers a unified public realm.

The spaces outside of the tracks and platforms, at the edges of the median, are long and relatively narrow. The proposed landscape takes on a highly articulated 'fractal' form that is derived, in part, from the triangulated detail of the canopies, and makes reference to the broader physical setting of Canberra and the Burley Griffin structure.

The public realm design augments the core platform functions with the creation of a broader civic space that delivers public amenity: additional circulation, resting, gathering and bicycle storage areas.

The configuration of the entry points at either end of the median is relaxed and welcoming with angled "fractal" shaped walkways, soft landscaping and bespoke seating. The landscaped paths in the northern half of the median have a different quality - treed, native urban garden - that offers an alternative transition space for pedestrians to access the platforms.

The lighting concept is focussed on the broader civic space to the outside of the platforms, and supplements the Stop canopy lighting with specific highlights in the seating and in the landscape. Innovative, dynamic lighting elements include an reactive system that responds to ambient light conditions.

The following sections describe the design strategy in relation to the broader considerations, the detailed planning of the stop and the integration with the landscape.

3.1.1.2. Context

The urban block between Alinga Street and Rudd Street/Bunda Street, within which the Alinga Street Stop will be located, is a commercial precinct within Canberra's most important retail and commercial zone. Major retail is in the blocks located to the east of the Stop. The streetscape has considerable scale relative to the Canberra CBD. There are important commercial properties along both sides of the block and specific facilities include the Novotel Canberra hotel, the Jolimont Centre interstate bus and coach terminal, and associated porte cochere and taxi rank functions. Immediately to the south are the historical Sydney and Melbourne Buildings. There is considerable existing east-west pedestrian movement at the Alinga/Rudd block, making it an ideal location for the proposed Alinga Street light rail stop.

3.1.1.3. A community place

The Alinga Street Stop design combines aesthetic appeal, safety, high use functionality, innovative architecture, delightful landscape and public amenity. It is a place for the community to meet, wait and connect with the city's transport network in the Central Business District and recognisable as the premium stop in the Stage 1 system. The Alinga Street Stop will be visually and functionally connected with the adjacent local bus terminus and will serve as a natural hub and central connection point for taxi, private vehicle, pedestrian and cyclist alike.

3.1.1.4. Ground plane resolution

Design capacities for the Stage 1 operations anticipate Stage 2 increases in customer use; pedestrian modelling for Stage 1 has been undertaken and is adequate for peak hour usage. The rail infrastructure for Stage 1 is built into the ground plane to reduce construction impacts with the following features:

- Operations allow for two trams to depart/arrive consecutively, doubling transport capacity;
- The Stop canopy is seven bays long, with two extended end bays, as opposed to the three bay configuration for standard Stops;
- The Stop layout is consistent with standard Stops in meeting universal access requirements
- The design has maximised all available space at the Stop for customer waiting area; the landscape space is limited to the edge treatment
- Increased capacity in the seating and waiting areas for use in Stage 2;
- Innovative design response anticipating future potential extensions;
- Dynamic lighting solution that responds to ambient lighting and event management;
- Landscape and architectural integration with Northbourne Plaza and Civic (CBD); and
- a tree layout that responds to the grand avenue character and the urban context: the design provides a roof canopy "nestled in the trees".

3.1.1.5. Place making at the forecourt plaza

As a major transport hub, the Alinga Street Stop will be the place to meet. It is a community facility. The forecourt at the southern end of the Stop is the most activated portion of the public realm, in this area commuters are at a decision point of arrival or departure. The open plaza of granite pavers provides an unimpeded space for high traffic movement. This forecourt plaza forms a strong visual link to the adjacent historical Sydney and Melbourne Buildings.

3.1.1.6. Design objectives

The design specifically responds to the functionality of the platforms and ancillary elements complement the overall form of the Stop. The seating and the movement around the seating is an integral functional response of the overall design. The design addresses issues of comfort, functionality, maintenance and whole of life considerations as outlined in this report. The design combines a timeless quality with delightful contemporary elements.

3.1.1.7. The architectural response

The Alinga Street Stop has a distinct architectural form that will make significant contribution to place-making in the Civic precinct. It will be a signature landmark structure. The design employs the modular Stops systems applied throughout the network and the proposed materials and finishes are consistent with the stature and quality of other key landmark projects in the National Capital. The

southern module of each canopy has a seven-metre cantilever which is tilted up as a welcoming gesture and entrance to the raised platform. The cantilevered lift in the roof acknowledges the importance of the Sydney and Melbourne Buildings and *'Northbourne Plaza'* to the south.

Alinga Street Stop has a strong language of design that is unique to the Stop itself while retaining continuity with all other Stops on the project. The design is distinctive within the Civic Precinct.

3.1.1.8. The family of structures

The 5m structural module for the canopy is typical across all 13 stops part of Stage 1 light rail. The form of the canopy modules and the architectural detailing are consistent, as are the stops furniture, the materials, finishes and colours.

Figure 2. A typical stop

This gateway statement of elevated, pyramidal forms provides a design which is generous in scale, is recognisable as the system's premium stop and the entrance to the Canberra Metro system network in Stage 1. The Alinga Street Stop will be a central focal point when the future Stage 2 is implemented. It is a subtle powerful gesture in the urban landscape and framed by two *E. manniferas* located on either side of the southern public realm.

Figure 3. Proposed Alinga Street Stop

3.1.1.9. Feature approach landscape

The ground plane also includes feature landscape edge with native meadow plantings and emergents which provide delight, a sense of enclosure and a softening edge to the Stop. The landscape edge treatments provide a "fractal" green edge to the stop creating delight and civic pride in this *'green zone'*. The landscape seating and the structure will be illuminated at night with feature lighting which is consistent with other National Capital approach structures.

3.1.1.10. Landscape at the northern approach of Alinga Street Stop

The Alinga Street Stop is located in an urban landscape setting. *'Outdoor rooms'* define the visual and functional characteristics of the design. The northern portion of the stop is designed as an *'urban garden'* that includes WSUD features with the water from the canopy roof directed to the landscape planted areas. Customers accessing the platforms from Rudd Street will enjoy the experience of walking through an indigenous garden; eight distinctive indigenous trees (*Eucalyptus Mannifera*) define the rail corridor with dappled light on the walk through the meadow garden areas which provide a sense of enclosure to the *'urban garden'.* The landscape planting and species selection is consistent with all other planting regimes for the project along Northbourne Avenue.

3.1.1.11. Functionality of platforms

The location and configuration of the twin Island platform canopies relates positively to the axial median arrangement and frames views to the Sydney and Melbourne Buildings and beyond to City Hill. The arrangement doubles the sheltering capacity of canopies. The rhythm of the Stops structural grid and the associated relationship to the aligned landscape tree configuration is compatible with the strong architectural rhythm of the colonnade and proposed tree grid of Northbourne Plaza. The Stop provides a legible statement within the public domain and a welcoming destination. Its formal composition responds to the National Capital Plan requirement for increasing formality toward the city centre and Parliamentary Zone.

3.1.1.12. Informal complementary design

The Stop is also a meeting place. It provides seating areas as an extension of the platforms and integrates the passive landscape areas to the north of the platforms. The Stop is a community space,

a usable, memorable focus that will benefit commuters and visitors to the Canberra CBD. Beyond the platform edge the seating provides a waiting space, a space for conversation and interaction anticipating Stage 2 increased patronage. The landscape edge and trees provide softening treatments, an informal, albeit curated, response to the overall formality of the structure and functionality.

3.1.1.13. The Urban Room

The creation of an ‘urban room’ as a feature of the Alinga Street stop was an explicit design objective. This reflected the aspiration for passive meeting/sitting space and public furniture that was commensurate with the civic scale. This would identify the Stop as a place to meet and mix socially – a focus area that had a function beyond the base case of a pragmatic transport terminal.

In response, the proposal includes multiple seating areas within a landscape setting to the outside edge and away from the commuter platforms. This is in addition to the functional core of the platform that together creates an ‘urban room’ across the platform zone. The overall space incorporates the outside seating areas, bicycle parking, platform structures, all core facilities (such as customer information, ticket machines, swipes, seating, bins and drinking fountains). The northern section of the block extends the ‘room’ with the provision of treed pathways, supporting soft landscape and further public seating.

3.1.1.14. Analysis of movement

The analysis of pedestrian movement to and from the Alinga Street Stop differs strongly between northern and southern approaches with the southern approach considered to have a higher capacity. The Alinga Street forecourt area is designed to accommodate higher pedestrian flows. The northern area of the precinct is likely to experience less patronage as the current commercial and pedestrian links are stronger along Alinga Street. The eastern side of the Stop is likely to experience higher capacity requirements than the west, reflecting the stronger commercial area focus in that direction. In Stage 2 development, this arrangement is unlikely to change. An analysis of patronage movement to and from the station has resulted in:

- An enlarged forecourt area to the south;
- Provision of facilities to accommodate higher eastern access;
- Temporary driver facility in the north-western platform location; and
- Central ticketing and ICS wayfinding information.

This approach ensures that the design optimises peak demand and high functionality.

3.1.1.15. Pedestrian circulation

The design optimises the platform spaces to their maximum capacity to accommodate pedestrian circulation and seating in a balanced manner. The analysis of pedestrian movement and seating is designed to comply with the pedestrian and crowd modelling requirements of the project. It should be noted the proposed design maximises the platform space allocation for increased safety and public amenity.

3.1.1.16. Platform design

The platform design responds directly to the needs of a comfortable and complete customer experience on arrival to and departure from the platform and during waiting times on the platform. Analysis of the movement of customers to and from the platform at normal and peak times has generated the design layout for the Alinga Street Stop. The platform for Alinga Street Stop is arranged to promote increased patronage and respond to customer desire lines. The roof column-line is arranged to allow customers free passage on and off the LRV. Integrated services cabinets which also accommodate the ticket vending machines are located centrally on the platforms to improve access to the platform and to increase functionality. The platform is also arranged to allow equal operations (west and east) for peak demand periods. Consequently, the platform configuration and design is equivalent across the two platforms.

Public art is integrated into the Glass panels at both the northern and southern ends of the platform;; this is a continuous artwork that extends in an evolving narrative from Civic to Gungahlin, creating a

strong place making feature for each Stop and the broader Canberra community. This is a significant cultural response within a major piece of public infrastructure.

3.1.1.17. Pavements

Pedestrian pavements and Stop walk up spaces are elevated above adjacent roads and trackform levels. Pram ramps are located at verge kerb crossings and trackform crossings. Additional pedestrian pavement edge kerbs direct and guide pedestrian movement and safely separate pedestrians from DKE at platform approaches. Safe pedestrian storage spaces are detailed adjacent to road and trackform crossing locations. TGSI delineate hazards, align with paving joints and provides direction and alignment to crossing. Coloured TGSI's provide luminance contrast hazard warning against black granite pavement. Granite sett placement adjacent to coloured concrete pedestrian trackform crossing provides tactile and visual contrast.

Pedestrian crossings of the trackform are broom finished coloured concrete (Snow). Adjacent to the coloured concrete, on both sides, are 900mm wide bands of granite setts 90mm x 90mm x 60mm for tactile and colour contrast for DDA compliance.

3.1.1.18. Canopies

General

The primary function of the canopy structures is the provision of shelter, wind protection and shade for arriving, waiting and departing customers. The canopy design incorporates a module size of five metres and single, expressed columns. The expressed structure and generous module of the design enables stop components to fit between, rather than around the canopy structure, simplifying both construction sequencing and maintenance over the long term as well as minimising component size. The larger module also reduces the number of canopy column foundations, with the benefit of reducing construction impacts upon the ground plane and underground utilities.

The column corners are radiused to reduce wear on the steel coating system. A double-skinned canopy includes the provision of services routes and cableways for lighting, Closed-Circuit Television (CCTV), Public Address (PA) System and Passenger Information Displays (PIDs).

The canopy end modules are fully opaque. The intermediate canopy modules each include a glazed section that will offer the play of daylight and shadow to customers waiting on the platform below.

Materials and finishes

The canopy roofing is 3mm sheet metal supported by the roof structure and sub-frame to prevent any damage or deformity caused by maintenance access. The canopy roof glazing is heat-strengthened and laminated glass capable of bearing loads associated with maintenance activities and finishes with a non-slip ceramic frit and subtly integrated solar shading.

The soffit lining is a composite panel faced with a natural timber veneer (Prodema) with expressed joints and concealed panel fastenings. The design of the soffit panels is based on a fractal iteration of the Stops canopy structure that enables the efficient use of materials to minimise waste.

The canopy verges are finished with a brake-formed, powder coated metal profile to provide a fine, continuous edge to the canopy roof. The powder coat finish is colour matched to the steel protective coating system that is applied to all exposed steel on the stop platform. Support brackets for fixtures such as PIDs will also be powder coated in a matching colour.

The canopy structural steel is finished with a steel protective coating system that has been selected based on durability including gloss retention, scratch and abrasion resistance and coating to assist maintenance. This coating system has been selected for similar public transport projects such as the North West Rail Link and CBD and South East Light Rail (Sydney Light Rail).

Form and massing

The canopies are designed to maximise transparency and present an open, refined structure. The balance of vertical glazing or open extents to opaque materials has been maximised and the canopy cross-section kept as thin as possible, with slender, continuous edges.

Weather protection

Canberra Metro proposes full height glazed screens as well as perpendicular wind breaks at the ends of screens. This minimises the visual impact of the structures whilst providing effective weather protection. Full height screens were designed in response to customer comments obtained during early stage community consultation, where weather protection was identified as a high priority in the Capital Metro Early Design Consultation Report and the Capital Metro Urban Design Consultation Report.

Full height glazed screens are provided along the length of canopies as well as perpendicular wind breaks at either end to provide additional protection from wind and wind-driven rain as part of a customer-focused and evidence based design approach. Smaller glazed screens are provided along the centreline of island platforms. The extent and location of the glazed screens do not interfere with views of approaching LRVs.

The glazed screens were reviewed against touch potential zones and adjusted where required to maintain clearances. Coordination of the canopy overhang with the DKE is continuing to maximise opportunities for weather protection while providing the necessary clearances.

The provision of vertical screening along the length of the canopy increases the extent of weather protection without interfering with other activities such as purchasing tickets, thus assisting with customer flows and contributing towards the minimisation of vehicle dwell time at each stop.

Stormwater management

Each canopy module drains to a sump located above the module column. The downpipes are concealed within the columns.

Leaf guards are specified to prevent downpipe blockage from leaf litter.

3.1.1.19. Customer Facilities

As far as is practicable Stops furniture has been consistently located at stops to aid way-finding and promote intuitive use. Components are grouped to minimise clutter on the platforms.

The stops design includes the provision of customer and signage information, bench seats, waste and recycling bins and handrails.

Stop furniture has been placed in locations that:

- Maintain accessible paths of travel along the platforms
- Maintain wayfinding sight lines
- Minimise congestion through placement away from LRV boarding and disembarking areas, and clear of areas where customers purchase tickets or consult customer information displays
- Minimise opportunities for climbing
- Preserve access for maintenance, repair and replacement activities, such as replacing fittings in light poles.

Furniture and fittings materials and finishes

The Stops furniture is fabricated from a restricted palette of materials. The material selections respond to existing local patterns of use and the selections guided by local codes and standards such as the Canberra Central Design Manual and the National Capital Plan.

Bench seats

Seating capacity of each platform is extensive across the two platforms, comprising 8 seats within the canopy areas and 17 bench seats along the adjacent landscaped areas and in the northern garden area. Timber seats are mounted on precast concrete plinths, the seating is a family of seating elements.

The timber seats are fabricated from appropriately scaled dressed hardwood timber. The concrete colour and aggregate of the precast panels match those selected for the Stop platforms, the panel

finish matches the panels used in the integrated services cabinets, and the seat shape is sympathetic to the more rectilinear forms of the cabinets.

Waste bins

The proposed waste bins consist of precast concrete panels and rigidized stainless steel as used in the integrated services cabinets and the bench seats.

The bins are to be positioned near the stop's access and exit points and clear of the primary circulation path and seating and principal waiting areas.

The waste bins comprise general and recycling facilities with two 80litre wheeler-type bins behind locked doors for maintenance access.

Drinking fountain

The proposed model is a stand-alone unit comprised of a drinking fountain and bottle re-fill station mounted in a framed, lozenge-shaped column. The column is mounted in a drainage pit which is finished with a grate. Water from the fountain runs down the unit into the pit.

The drinking fountain will be installed as freestanding elements on the Stop platforms.

Bicycle Parking

Bicycle parking with racks will be provided immediately adjacent to the platform. Approximately 8 bicycle racks will be provided per platform.

Integrated Services Cabinet

Integrated services cabinets are located at the centre of stop platforms, and will accommodate the service equipment required for the provision of the following services:

- Communications and PA
- CCTV
- Electrical supply
- Help Point
- Customer information control equipment
- Other services as required

The platform design, planning and location of equipment is in coordination with the LRV design generally and customer boarding and alighting areas particularly.

Electronic ticketing equipment is also housed in the cabinet, and backlit customer information displays. The PID containing real-time network information is located adjacent to the integrated services cabinet. The PIDs are suspended from the canopy at a height of approximately 2.5m above finished floor level. The PID faces are perpendicular to the platform edge and the PID is located at the centre of the platform, to maximise visibility of the PID from the whole platform area. The collocation of customer information displays with the ticket vending machines supports smooth, efficient customer decision-making.

The cabinets have been designed as compact, integrated components, minimising the spatial impact on the platform area and optimising visual transparency for the station environment. Cabinets are clear of the required accessible paths of travel. Horizontal surfaces and ledges have been avoided to reduce the build-up of dust, dirt and litter.

Materials and finishes

Precast concrete panels with a honed and polished finish are proposed for the ends of the cabinets. The concrete colour and aggregate are matched to the stop platform concrete, and finished with a graffiti-resistant treatment. The long faces of the cabinets are fabricated from the rigidized, patterned stainless steel sheet.

Static customer information is enclosed in glazed, backlit display panels that are integrated into the cabinet doors facing the platform.

The rear faces of the integrated cabinets on side platforms are finished with hardwood timber battens.

3.1.1.20. Electronic Ticketing

Electronic ticket vending machines are inserted in the integrated services cabinet and beneath the platform canopy, and will be monitored by CCTV. Both real time and static customer information displays are near the ticket machines to support customer decision-making and ticket purchasing. A card reader is always located adjacent to the ticket vending machine so that a customer can tap on once their card credit has been reloaded.

Card readers (Fixed Location Readers (FLRs)) are located to promote ease of tapping on or off the system, and to minimise congestion around the ticketing vending machines located at the centre of the platform. FLRs have been distributed along the platforms in consistent and convenient locations so that customers do not have to detour to “tag on”, or backtrack to “tag off”.

3.1.1.21. Drivers’ facility

On the other platform, it is proposed to provide a temporary drivers’ facility in a freestanding structure within the Stop design and in an architectural language that is consistent with other components of the urban design realm of the stop platforms. It will incorporate a toilet, a hand basin and some storage. The facility will be removed in Stage 2 of the project with different operations.

3.1.1.22. Artwork

Urban art is to deliver art that is:

- Integrated within the light rail infrastructure and urban design; and
- Fulfilling a specific purpose in relation to the identification of precinct, location and place.

Key considerations for public art have been as follows:

- Public art has the opportunity to be an outdoor exhibition that matches the calibre of Canberra’s significant cultural standing. It can also act in a way to reflect the city’s lifestyle and social identity.
- Through public art the nation has a history of supporting artwork and artists of national importance, which can be continued through the commissioning of high quality, contemporary works building a legacy for tomorrow.
- It is intended that works will be sympathetic with surroundings and focused on landscape as the primary generator of an art strategy.
- Artworks can act as markers/destination pieces that create meeting places and also drive visitation, becoming part of the reason people visit the place and use the light rail.
- Low maintenance.
- Works should help each precinct station be uniquely identifiable but present with continuity between each station.

A local artist, Hannah Quinlivan, has been commissioned following a selection process involving a range of prominent Australian artists. Ms Quinlivan, working collaboratively with the architects, has developed a design for the implementation of art into the project.

Artwork will be provided to each glass panel on the platform. This is a continuous artwork that extends in narrative from Civic to Gungahlin, creating a strong place making for each Stop and for the Canberra community. This is significant cultural response in infrastructure. The artwork references the movement patterns of humans in the landscape, with specific reference to the light rail. It is a significant contemporary work that will be source of pride.

3.1.1.23. Wayfinding

The wayfinding concept has been carefully integrated with the architecture of the stop. Key elements include:

- Elegant ribbon signage that extends along the full length of the canopy structure (subject of this WAA)
- The ribbon sign will be illuminated at night with a red LRV icon and white station name in large lettering (subject of this WAA)
- The face of the integrated services cabinet located centrally on the stop platform (subject of this WAA)

- Wayfinding totem signs at the verge (not subject of this WAA)
- Pole mounted wayfinding signs within the CBD (not subject of this WAA).

These are elegant and make a positive contribution to the overall stops design outcome. Materials and colours are consistent with the architectural elements.

3.1.1.24. Feature lighting at the stop

The Alinga Street Stop incorporates a consistent design approach to the lighting of stops throughout the network with extensive flexibility for creating and modifying the stops environment with a range of programmable RGBW lighting systems. These include LED RGBW fixtures at the canopy edges, LED RGBW up-light spot fixtures mounted on the canopy columns to illuminate the warm glow of the soffits in a rhythmic pattern and strip LED white lights that face downwards from the bottom of the signage ribbon that illuminate the artwork in the vertical glass wall panels.

In addition, the ground plane will have in-seat, and other feature LED fittings to provide visual interest to the stop and associated plaza spaces in a co-ordinated way.

3.1.1.25. Safety

The design and the principles that underpin the Stop design are focused on safety. Items have been careful placed to ensure:

- Driver sightlines are not obstructed;
- Customers are safe on platform areas;
- Passive surveillance is optimised form multiple observation points;
- Increased public activity in all areas of the stop is encouraged; and
- The design considers a variety of users incorporating universal access.

The Alinga Street Stop will be a very active environment. It will be the main point of arrival and departure for workers and visitors to the Canberra CBD commercial precinct. It is anticipated that a significant number of passengers will access the stop from adjacent streets. At times, people may be coming and going in waves of movement, particularly at peak periods. It is likely that more patrons will arrive at the stop and depart from the stop to the east rather than to the west. This will not affect the design of the platforms themselves, but has been recognised in relation to movement to and from the median and in adjacent streets.

- Safety is a prime consideration. Consequently, it is important to minimise risks in this area - between pedestrians themselves, between pedestrians and cars, and between pedestrians and the light rail vehicles.
- The configuration of the stop and its surrounds channels the flow of pedestrians in a safe and efficient manner. People have a clear understanding of where they need to go to access the stop and the design discourages or prevents people taking short cuts ("rat running") across traffic lanes or across the light rail track form. The design discourages access from the verges to the stop along the full length of this block and restricts access from the verge to the median to the southern traffic lights at Alinga Street and the northern traffic lights at Rudd Street and Bunda Street.
- At the Rudd/Bunda Street end of the block, the crossing has a staggered configuration to increase safety for those traversing this area. The track form surface is white insitu concrete with a broom finish and edging with Austral Black granite setts to provide a contrasted delineation between the crossing and adjacent surfaces.
- Landscape can be used as an excellent tool to respond to the need for clarity and safety. If creatively used, it can complement and reinforce the architectural composition of the stop and contribute strongly to the achievement of a pleasant visual environment. Potential "rat running" will be discouraged by the selection of plants of specific types (hardy and abrasive) and of an appropriate scale and planted at an appropriate density and configuration across the median.

3.1.2 Landscape

This section discusses landscaping for all of the Civic Precinct:

- Between Barry Drive and Alinga Street (subject of WA14)
- Between Alinga Street and London Circuit (Northbourne Plaza) (subject of WA13).

Although the Civic Precinct works are divided into two separate WAAs (WA13 and WA14) as listed above, this section covers landscaping for the whole Civic Precinct. It is necessary to integrate the two application areas when describing landscaping, for context and to discuss the relationship between the areas.

Only the landscaping works between Bunda Street and Alinga Street are subject to approval under this application. This section should be read in conjunction with the WA13 application. Landscaping between Barry Drive and Bunda Street, although discussed here, was approved under earlier WAAs (WA1 and WA6).

3.1.2.1. Federal Highway and Northbourne Avenue Landscape Character

The NCA National Approach Routes Strategy establishes a landscape character transition with bush at the border and increasing formality into the capital. This Federal Highway is a subtle landscape transition from bush to formal landscape. The existing Federal Highway landscape character includes native and deciduous tree planting in groupings within the wide verges.

The 'Gateway' landscape character of Federal Highway is enhanced with the planting of new native trees, *Eucalyptus melliodora* (Yellow Box) and *E. polyanthemos* (Red Box) to opportunistic infill locations within the verges. The planting of *Prunus Cerasifera Nigra* (Flowering Plum) at significant median locations reinforces the National Approach Routes Landscape Strategy.

The installation of Massed Planting Gateway Mix median planting adjacent to the trackform heightens the sense of arrival contributes to the 'Gateway' character and enhances the sense of place. Federal Highway median planting detail of native grass and local native wildflowers in the 'Massed Planting Gateway Mix' establishes the National Capital Approach Route landscape threshold with 'natural' landscape and seasonal colour from hardy plant selection well suited to the Canberra climate.

Northbourne Avenue landscape character is a further progression in formalisation of the 'Gateway' to the Capital, Canberra. The NCA National Approach Routes Strategy establishes a landscape character transition with bush at the border and increasing formality to the heart.

The '*Grand Boulevard'* is introduced with a sequence of textures, scales and enclosure as the structured tree planting and native grassland and meadow progressively formalise on approach to the Civic.

The new median planting of tall *Eucalyptus mannifera* at regular spacing in two staggered rows either side of the trackform establishes the '*Grand Boulevard'*. The native grassland and wildflower median planting of Northbourne Avenue enhances and refines the 'Gateway Massed Planting Mix' of Federal Highway. The random species mix of Federal Highway changes to a more ordered landscape composition within the Northbourne Avenue median.

The native grassland and wildflower planting express the character of the bush capital grasslands with enhancements from the wildflowers of the region. The native grassland establishes a consistent theme for Northbourne Avenue and the wildflower components provide a range of colour, texture and pattern that compliments and contrasts with the native grassland.

The landscape character of the Federal Highway and Northbourne Avenue is an extension and a further development of the Lowland Temperate Grassland character of Flemington Road.

The Massed Planting Gateway Mix of Federal Highway is a mixed species composition of the grass species and the herbs and forbs found in the grasslands of the Lowland Temperate Grassland. The mixed species composition introduces the components of the Native Grass and Coloured Wildflowers treatments used in Northbourne Avenue. The random and mixed composition of the Massed Planting Gateway treatment illustrates a typical 'native grassland meadow' treatment. The increasing formality of the corridor landscape treatment commences with this informal typical 'native grassland meadow' treatment.

The transition into the more formal Northbourne Avenue landscape finds the landscape structured with mixed species of verdant native forbs within and under the formal tree boulevard extending for the length of Northbourne Avenue. A mixed grassland with native herbs is located in the sunny edges of the median between the trees and kerbs.

The Native Grass and Yellow Wildflower Mix of Antil Street to Macarthur Avenue is a mixed species composition of the grass species and the yellow flowering herbs of the Canberra grasslands. The composition of this landscape treatment is formalised and randomised in such a manner as to retain a portion of the characteristics of a typical grassland whilst introducing a low level of horticultural formality.

The Native Grass and Purple Wildflower Mix of Macarthur Avenue to Haig Park is a composition of the grass species with areas of seasonal wildflower emergents. Blue wildflowers that are typically indistinct in the landscape for most of the year emerge from the grassland as vivid patches of blue: Native Bluebells and Trigger Plants in late summer, Blue Devils in late spring and Blue Daisies in late summer and autumn. The composition of this landscape treatment is formalised emergent and randomised grassland in such a manner as to retain seasonal characteristics of a typical grassland whilst introducing a mid level of horticultural formality.

The Native Grass and Civic Transition Mix of Haig Park To Barry Drive is a composition of the grass species with areas of seasonal wildflower emergents in conjunction with mixed plantings that provide a verdant green carpet with seasonal white paper daisies. The grassland and emergents combine with the more formal and higher order horticultural plantings to create the most formal plantings of the Northbourne Avenue corridor as introduction to the Civic Precinct formal landscape.

Civic Precinct

Barry Drive marks a narrowing of Northbourne Avenue to create a more intense, urban condition with buildings built to the boundary creating a sense of increased compression. South of Barry Drive, it is desirable to reduce clutter and increase space available for pedestrian activity and to maintain a clear line of sight to City Hill.

The Civic Precinct formal landscape continues the '*Grand Boulevard'* with median planting of *Eucalyptus mannifera* in two rows either side of the trackform that transitions to a single row of *E. mannifera* approaching the Alinga Stop and terminates with two sentinel *E. mannifera* at the Alinga Street forecourt plaza to the Stop.

Native grassland continues in the Civic Precinct with the composition of the grass species with seasonal wildflower emergents that provide a verdant green carpet with seasonal white paper daisies.

The surrounds to the Alinga Street Stop, as the most formal representation of the *'Grand Boulevard'*, include the native grassland and wildflower components of the Northbourne Avenue landscape presented in formal fractal arrangement with variation in horizontal location and planting bed height. This ground plane landscape arrangement connects with the similar geometry of the Alinga Stop canopy and public realm furniture.

The planters to the Northbourne Plaza verges, continue this most formal representation of the '*Grand Boulevard'*, and include the native grassland and wildflower components of the Northbourne Avenue corridor.

Northbourne Plaza verges are fully paved Bluestone and Austral Black Granite to NCA requirements and the central median provides the dominant 'greening element' in the streetscape. A key objective is to realise a smooth transition in the form and function of the Avenue as it approaches Vernon Circle.

A pedestrian focused streetscape experience with generous footpaths for outdoor dining and movement can be achieved along Northbourne Plaza.

3.1.2.2. Existing Street Trees

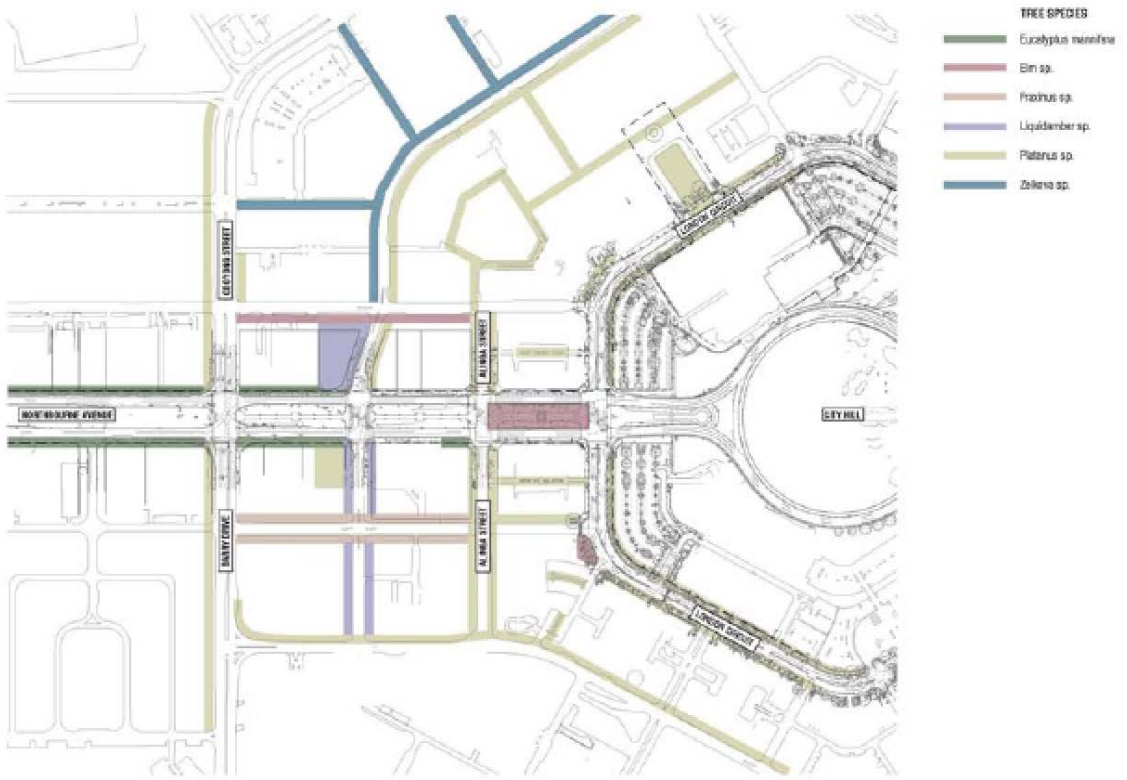
Canberra Central Design Manual Part C4 Trees

Canberra Central Design Manual Part C4 (DS26 Design Standards for Urban Infrastructure) is a historical document from 2007 providing direction on the species selection, use and location of street trees within the Canberra Central precincts.

In this document the city is divided into seven precincts related to their primary function and relationships to adjoining areas. Each precinct has been analysed and street tree species proposed.

The Civic Precinct including Northbourne Plaza falls within the centre of the City Commercial precinct which is the central northern area of the City. The northern edge is defined by Barry Drive and the southern edge by London Circuit.

Existing street trees within the City Commercial precinct are identified in the image below.



Eucalyptus mannifera Northbourne Avenue verge trees extend into the precinct from north of Barry Drive to Rudd and Bunda Streets. An isolated remnant stands on the Jolimont verge at Alinga Street.

Plane Trees (*Platanus sp*.) are located on the northern verge but not the southern verge of Barry Drive between Moore Street and Mort Street.

At Bunda Street and Rudd Street, the street tree species of *Platanus sp.* and *Liquidamber sp*. are augmented by the Platanus sp. and Liquidamber sp trees located in the adjacent public realms of Veterans Park and the Churches Centre. These street trees and adjacent trees contribute to an exotic deciduous cross streetscape of significant form, stature, texture and colour in contrast to the native Northbourne Avenue boulevard.

Alinga Street, East Row, West Row, Odgers Lane and Verity Lane and the southern verge of London Circuit streetscapes, which surround the Northbourne Plaza, include *Platanus sp.* street trees. Adjacent blocks to the east (Petrie Plaza) and to the west (Hobart Place) similarly include *Platanus sp.* street trees.

The City Commercial precinct street tree palette of the Canberra Central Design Manual is amended by the Canberra Metro project. *Eucalyptus elata* Northbourne Avenue median tree planting north of Alinga Street will be removed. *Ulmus americana* Northbourne Avenue median tree planting south of Alinga Street will also be removed. Modification includes retention of *Liquidamber styraciflua* and *Quercus palustris* planting within Rudd Street.

City Commercial Precinct (Northbourne Avenue) Streetscape Strategy

A Streetscape Strategy has been developed for the Northbourne Avenue median between Barry Drive and Rudd Street, Rudd Street to Alinga Street and between Alinga Street and London Circuit (Northbourne Plaza) as well as the verges of the Northbourne Plaza block. The development of this strategy responds to the various documents which provide direction.

The CaNUDF provides general direction regarding enhancement of the public realm environment with tree planting in widened verges, provision for enhanced pedestrian and outdoor dining and structure to the boulevard sections and tree planting in the progressive formalisation to City Hill. No explicit direction is provided regarding selection of tree species. The implementation strategy refers to ”Initial

retention of existing *Eucalyptus mannifera*, verge trees, with phased replacement to match the median planting".

3.1.2.3. Proposed Landscape Strategy

The Civic Precinct and Northbourne Plaza urban and landscape design responds to existing conditions by setting a priority in designing for Canberra and the *'Bush Capital'* The urban and landscape design provides a safe, secure and easily accessible environment.

The urban and landscape design approach considers the broader walk-up spaces and pedestrian desire lines, and the continuation of the adjacent streetscape character into new public domain, stop and termini environments. This has resulted in a balanced design that fits with local context.

Boulevard Character

The continuous tree canopy reinforces the Northbourne Avenue boulevard character and provides a bold landscape gesture which emphasises a sense of arrival to the Civic Precinct and Northbourne Plaza.

The landscape design has been configured to reflect the existing staggered native trees. The new landscape provides a boulevard character with native tree planting in a staggered arrangement of two rows up to Bunda and Rudd Streets. A single row of exotic deciduous trees continues through to Alinga Stop.

The Northbourne Avenue *Eucalyptus mannifera 'Grand Boulevard'* median tree planting extends through to Bunda and Rudd Streets and transitions to the exotic deciduous tree landscape character of the adjacent open space parks and streetscapes to engage with the Civic Precinct and Northbourne Plaza. An urban landscape character of low median planting gives emphasis to verge and cross corridor pedestrian movements.

Median Tree Planting at the Alinga Street stop

Large scale median tree planting and median pedestrian pavements provide shade shelter enclosure and a chance to linger adjacent to the Alinga Street stop. Pedestrian pavements introduce longitudinal median movements and provide an additional dimension to the pedestrian space and activity at the stop. A continuation of the urban landscape character of low median planting, adjacent to the kerb and alongside the trackform, gives emphasis to enclosure of and safe separation from traffic of the pedestrian environment. Lighting and seating furniture further enhances the public realm both within the pedestrian environment and adjacent to the Stop.

Civic Precinct

In the Northbourne Plaza block, exotic deciduous trees (*Platanus orientalis*), quality landscape pavements and urban design elements contribute to the establishment of outdoor dining opportunity and enhanced social activity in widened verges adjacent to the Sydney and Melbourne Buildings. This catalyst provides further opportunity for development of the Northbourne Plaza.

The Civic Precinct and Northbourne Plaza landscape design builds resilience into the landscape treatments and achieves an iconic and legacy landscape character that will thrive into the next 50-100 years.

Northbourne Avenue native median tree planting at Alinga Street stop and exotic deciduous tree planting at Northbourne Plaza is supported by subsurface vaulted planting systems of sufficient root volume to support the trees to maturity. Stormwater harvesting infrastructure and irrigation systems ensure the ongoing viability of these trees. High quality tree grate systems of the vaulted planting system provide an integrated product and a positive contribution to urban design outcomes.

The landscape construct of the Civic Precinct formalises the Northbourne Avenue narrative with:

- Retained existing native and deciduous street tree planting within the Northbourne Avenue verges
- Northbourne Plaza verge tree planting relating to the heritage setting and the building colonnades.

A coordinated public realm locates signage, security, lighting, signals and other street furniture into common areas and alignments that minimise clutter and facilitate unimpeded movement of pedestrians and cyclists. Co-location of infrastructure on poles minimises clutter; the light fitting chosen for the verge area has the potential to softly illuminate portions of the facades. Pole location and offset to pedestrian paths of travel at signalised crossings minimises clutter. Location of service pits and access covers outside of pedestrian pavements and use of infill lids enhances the public realm outcomes.

The dedicated cycle path will provide enhanced amenity in the area for cyclists.

Landscape plant material does not obstruct safe sight lines of pedestrians cyclists, motorists and LRV drivers

The Civic Precinct landscape design includes two rows of *Eucalyptus mannifera* located at 2.5m between the Dynamic Kinetic Envelope (DKE) and the edge of the mature trunk and the outer row at a minimum 2.0m stagger to achieve a consistent continuous boulevard. Trees are located no closer than 2.0m from back of kerb.

An assessment has been undertaken of the general arrangement of tree locations on the alignment regarding forward visibility for LRV drivers. Civic Precinct tree planting has been assessed as not obstructing safe lines of sight for LRV operators at intersections and at approaches to Alinga Street Stop.

The landscape treatments used in Civic Precinct are purposefully designed to ensure that they do not grow taller than 1.0m high and visibility over and around the landscape treatments is maintained for motorists, pedestrians and cyclists. Safe lines-of-sight are not obstructed.

The Northbourne Avenue landscape median treatment between Antil St and Barry Dr is native grassland and herbaceous planting installed by planting 140mm pots and cells. The composition of the median planting native grass and wildflower planting is of (800mm-500mm high) *Poa labillardieri, Calocephalum citreus, Chrysocephalum apiculatum, Chrysocephalum semipapposum Dianella caerula, Dianella revoluta, Dianella longifolia, Dianella tasmanica, Xerochrysum viscosum, Eryngium ovinum, Stylidium graminifolium, Hardenbergia violacea, Wahlenbergia ACT mix W gloriosa, W. stricta, W. communis, W. gracilis, Leucochrysum albicans* and *Lomandra confertifolia.* Trackform edge planting (1000-800mm high) of *Poa labillardieri, and Ficinea nodosa* provides a consistent treatment.

The landscape planting beds in the Civic Precinct showcase the native grassland and wildflower mixes of Northbourne Avenue in a formal manner within the Alinga Street Stop community space.

New trees are coordinated with subsurface utilities

Services clash coordination has been undertaken to ensure that tree planting in Northbourne Avenue was able to be located to achieve a continuous tree canopy and ordered spacing of trees.

Tree Pit Type 1 has been utilised where services check has established that proximity criteria have been met or that the service is of sufficient depth to not warrant modification or the service requires encasement to enable the tree planting.

Tree Pit Type 2 has been utilised where services are in close proximity and modification of the tree pit dimensions is necessary and root control barrier may be required.

Vaulted planting details have been utilised for the tree planting in the Alinga Stop.

Civic Precinct tree planting has been coordinated with proposed drainage to facilitate stormwater harvesting and subsoil drainage to the stormwater system.

Stormwater harvesting has been installed as subsoil drains linking stormwater structures and dedicated supplies from stormwater structures to tree planting locations. The dedicated supplies are provided as connection points from trackform drainage pits. Connection points correspond with the tree root balls.

Subsoil drainage of excess water from tree pits and landscape planting beds is provided and connections are provided into new drainage sumps and into existing and new kerbside stormwater drainage structures. Subsoil drainage is via penetrations through the wall of the structure. Additionally

during high rainfall events the stormwater discharge subsoil drains will work in reverse and enable stormwater inflow into the landscape areas.

3.1.3 Other works between Barry Drive and Alinga Street

The following civil works are also subject of this application:

- Pedestrian and street lighting
- Traffic Signage
- Traffic Signals
- Line markings (including road TGSI's and raised pavement markers)
- Service points for temporary 'pop-up' commercial facilities (e.g. coffee carts).

4.STATUTORY ASSESSMENT

4.1 Legislative Context

4.1.1 Commonwealth Legislation

ACT (Planning and Land Management Act) 1988 (PALM Act)

The proposed works are in a Designated Area of the NCP as defined under the PALM Act (Commonwealth legislation).

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.

Section 4.2 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.

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

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

A referral was submitted to the DoE for the Project (Referral No. 2014/7379) and it was determined by the DoE that the Project was not a controlled action as no MNES would be significantly impacted by the proposed works.

4.1.2 ACT Legislation

Planning and Development Act 2007

Initial approval for the section of the light rail which falls under the planning jurisdiction of the ACT Government was granted by ACTPLA on 21 December 2015 (DA 20152851). The Project was assessed in the impact track under section 123 of the P&D Act. A DA Amendment is being submitted for changes to the stop designs along Flemington Road. The Flemington Road stops are designed to be consistent with the stops along Federal Highway and Northbourne Avenue.

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 Project, including the works subject of this WAA, will be undertaken accordance with the above environmental legislation, which is reflected in the suite of construction environmental management plans for developed for the Project. These plans have been approved by the relevant ACT government agencies who administer the above legislation, as well as an independent certifier.

4.2 Assessment against the National Capital Plan

This section provides an assessment of the proposal against the applicable requirements of the NCP. In providing the assessment of the proposal against the requirements of the NCP, the proposal is taken to be a Transport Facility or a Public Transport Facility in accordance with the following land use definitions from Appendix A of the NCP:

Transport Facility

The use of land or a building for or associated with the movement of goods and people by road, rail and air.

Public Transport Facility

The use of land for the assembly, transport or dispersal of passengers travelling by any form of public transport, whether or not such public transport is provided by a public or private agency, and include facilities for the manoeuvring and temporary layover of public transport vehicles and driver amenities.

4.2.1 Part Two of NCP - Statement of Planning Principles – WA14

Table 1 Part 2 – Statement of Planning Principles

NCP Ref.	Provision	Response
2.1 General Matters		
Principle for Objective 1	The hills, ridges and other major open space which form the separation between towns will be kept largely free of urban development. The planning and development of urban areas will encourage measures through which urban intensification may occur and will be sympathetic to the landscape setting of the National Capital.	Not applicable
2.2 Productivity		
Objective 1 Infrastructure & Employment	Ensure that infrastructure supports the development of Canberra's National Capital functions.	The proposed works will complement the provision of light rail, Canberra's first intra-city rail infrastructure. Accordingly, the proposed works will support the development of Canberra and its National Capital functions through supporting the provision of servicing amid the provision of new major infrastructure, and supporting the shift away from private vehicle use and toward public transport use.

NCP Ref.	Provision	Response
Principals for Objective 1 Infrastructure & Employment	▪ Infrastructure must support the effective functioning of Canberra with proper consideration of the environmental and visual impact and be integrated with land use decisions. ▪ Infrastructure must be planned and provided in an integrated and timely manner to facilitate the development of Canberra and the Territory and ensure safety and security of supply and operation. ▪ Energy and water supply and security issues will be given due consideration in the planning and development of any new infrastructure. ▪ The infrastructure of Canberra and the Territory must be planned and provided to: – ensure that public utilities infrastructure is available and maintained for Commonwealth and ACT Government needs and activities. – minimise the visual impact of electricity and telecommunication facilities, particularly along major vistas, corridors and major open space. – give due consideration to energy and water, supply and security issues. – ensure safety and security of supply and operation.	The infrastructure in the blocks between Barry Drive and Alinga Street, including Alinga Street Stop is carefully designed and planned to integrate the infrastructure into Civic and its urban landscape context. A major feature of the project is its focus on safety for all users in the transport corridor. Canberra Metro is contracted to ensure security of supply and operations. All aspects of Light Rail environmental management are developed in accordance with Infrastructure Sustainability Council of Australia (ISCA) principles for sustainability. This includes energy and water use. The Light Rail is a public facility that has been developed in a public–private partnership (PPP) format to ensure that Commonwealth and ACT Governments needs are met. All utilities are available for use. Considerable design and construction effort has focussed on minimising the visual impact of electricity and telecommunication facilities, particularly along major vistas, corridors and major open space. This is demonstrated in visual material as well as technical documents associated with this application. Safety and security of supply and operation will be delivered as part of the CM contract.
2.3 Sustainability		
Objective 1 – Environmental Sustainability and Open Space	Ensure the development of a city that both respects environmental values and reflects national concerns with the sustainability of Australia's urban areas.	The project is inherently focussed on high sustainability outcomes. The mass transport of people is inherently respectful of the environmental values of the community, especially in the urban context.
Provisions to support Objective 1.	▪ Urban expansion should be contained so as to minimise impacts on valuable natural and rural areas. ▪ A substantial portion of new development must be located within existing urban areas such as town centres and	Not applicable. Not applicable.

NCP Ref.	Provision	Response
	along public transport routes or other strategic sites that allow for efficient use of infrastructure. ▪ The natural environment of Canberra and the Territory will be protected and improved by reducing resource consumption and waste, improving water security and quality, energy and food security and improving and protecting soil quality. ▪ Ecological communities, threatened flora and fauna species, water catchments and water quality will be protected and supported by sustainable resource management. ▪ Development will respect environmental values including water catchments and water quality and ensure resilience to the impacts of climate change.	The Light Rail infrastructure will reduce the impact of vehicular traffic in the city through the mass transport facility. Consequently, the natural environment of Canberra and the Territory will be protected and improved by reducing resource consumption and waste, improving water security and quality, energy and food security and improving and protecting soil quality through the reduction of petro-chemicals from vehicles. The proposed materials and finishes for the blocks between Barry Drive and Alinga Street, including Alinga Street Stop, employ best practice resource management. Ecological communities, threatened flora and fauna, water catchments and water quality will be protected in accordance with the approved Construction Environmental Management Plan and sub-plans prepared for the project. Climate change has been carefully considered in the Alinga Street stop design. Some initiatives include: - LED lighting is proposed for the stops to reduce energy use. - Platforms have been designed to provide weather protection for light rail customers. - Water Sensitive Urban Design has been incorporated in the urban design around stops. The stop canopies deliver water runoff to landscaping rather than the stormwater network where applicable. - Materials have been selected that are more resistant to increased extreme and prolonged temperature events.
Objective 2 – Environmental sustainability and open space	Protect the nationally significant open-space network, visual backdrop and landscape setting of the National Capital.	The blocks between Barry Drive and Alinga Street are designed to fit within the urban context and are co-located in existing transport corridors. Therefore, the nationally significant open space network is protected.

NCP Ref.	Provision	Response
Principle to support Objective 2.	The hills, ridges and other major open space will be kept largely free of urban development and will act as a natural backdrop to the National Capital.	Not applicable.
2.4 Liveability		
Objective 1 – Urban Design and Heritage	Enhance and preserve Canberra's symbolic and unique design and role as the National Capital.	The design of the blocks between Barry Drive and Alinga Street provides a high quality public realm outcome. The project will add prestige to Canberra as an exemplar Light Rail project with Alinga Street Stop being the landmark Stop in Canberra's commercial heart.
Principles for Objective 1	▪ The National Capital role requires that planning and development, in Canberra Central in particular, and generally throughout the Territory, should reflect contemporary thinking in urban design practice. ▪ Planning controls should seek to ensure that development in all forms, including landscaping in urban and non-urban areas, complements and enriches its surroundings. ▪ Substantial works of architecture, engineering and landscape within the Territory should be designed to contribute positively to the overall composition, symbolism and dignity of the National Capital. ▪ Development in the National Capital should seek to achieve harmony between architecture and landscape to give continuing effect to the City Beautiful and Garden City characters of the city. ▪ Within Canberra Central, roads, bridges, waterways and public landscaping projects should reinforce and complement the geometric lines of the Main Avenues. ▪ Vistas to major landscape features must be protected from and enhanced by development. ▪ Buildings in Canberra Central should be of a height generally not greater than the height of	The blocks between Barry Drive and Alinga Street have a strong contemporary urban design approach which is artistic, minimalist and articulated. All planning controls applied to the Light Rail have enforced this principle. All aspects of this architecture of the stops and mid-block crossings contribute positively to the overall composition, symbolism and dignity of the National Capital. The artistry and architecture will evoke a sense of civic pride. The design approach to the landscape design has carefully considered Griffin's approach to the continuing effect to the City Beautiful and Garden City characters of the city. The proposal will contribute to the Garden City characteristics through its strong landscape-led design approach. The attention to the detail of the landscape gesture at Alinga Street Stop will be a source of civic pride in the commercial heart of Canberra. The proposed works are in the median

NCP Ref.	Provision	Response
	the mature tree canopy (typically 3-4 storeys), except where otherwise permitted by the Plan. In Canberra Central no building or structure which protrudes substantially above the tree canopy must exceed a height of RL617. ▪ Opportunities should be encouraged for the enhancement and reinforcement of the physical, symbolic and visual linkages to adjoining areas of the Inner Hills and the Central National Area. ▪ Urban development will be planned in a manner which promotes community vitality and safety, applies the principles of crime prevention through environmental design and recognises the needs of people with disabilities. ▪ New development, including public spaces, should: – exemplify sustainability principles – demonstrate excellence in urban design, landscape and architecture – facilitate pedestrian connectivity and bicycle movements where appropriate – encourage energy efficient development and land use.	of Northbourne Avenue and therefore reinforce the geometric lines of the Main Avenues theme. The landscape design will be a major landscape feature of Northbourne Avenue; this is a requirement for the integration of the project into the Canberra context. NA The landscape design of the project carefully considers and responds to all existing vistas and opportunities to view the Inner Hills and Central National Area. The landscape gesture also specifically responds to the future desired character for the vistas to City Hill. Crime Prevention Through Environmental Design (CPTED) principles have informed the stop designs to maximise the personal safety and security of customers travelling to or waiting at the stops. A range of passive measures are proposed, as well as the provision of active security measures such as the provision of CCTV and obvious, easily accessible Help Points. The design also meets and exceeds all relevant accessibility standards. The project has employed ISCA sustainability principles for the development of the project. This is the highest standard of measurement available for infrastructure projects in Australia. The Alinga Street Stop design and the process of review in the design has

NCP Ref.	Provision	Response
		ensured excellence in landscape and architectural design. Pedestrian and universal connectivity will be improved through the new facility of the Light Rail including new amenities for all users. The project is energy efficient as required by its cost and environmental management systems.
Objective 2 – Urban design and heritage	Enhance the character of Canberra and the Territory as the National Capital by identifying, protecting, conserving and presenting natural, Indigenous and historic heritage places.	The proposed works between Barry Drive and Alinga St do not impact on any heritage listed sites.
Principles for Objective 2	▪ The National Capital Authority will consider heritage places in Designated Areas as Commonwealth Areas for the purposes of protecting the environment in the manner currently afforded under the *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and any subsequent legislation. ▪ Within Designated Areas, the National Capital Authority may require Heritage (or Conservation) Management Plans to accompany development applications for heritage places which should be prepared to meet requirements equivalent to those in the *EPBC Act*. The National Capital Authority may require Heritage Impact Statements to accompany development applications for a heritage place. ▪ Development should be consistent with the requirements of any relevant Heritage (or Conservation) Management Plan for that particular place. ▪ The management of heritage places should ensure that their use and presentation is consistent with their heritage values. Heritage places will be presented and interpreted to increase public awareness, understanding and enjoyment	The proposed works between Barry Drive and Alinga St do not impact on any heritage listed sites.

NCP Ref.	Provision	Response
	of the natural and cultural heritage of the National Capital and its conservation, subject to any reasonable requirements for privacy or confidentiality. ▪ The National Capital Authority will adopt the Australian Natural Heritage Charter and the Burra Charter as key guiding documents respectively for natural and cultural heritage places within Designated Areas.	
2.5 Accessibility		
Objective – Transport and movement	Support a connected and equitable multi-modal transport system.	The Alinga Street Stop is the largest stop for the Light Rail. The landmark stop supports the light rail project which is an equitable transport system and will be integrated with other public transport systems such as bus and taxi. Facilities for integration with private transport such as private vehicles bicycles, disabled persons facilities are also included in the project. Notably the Transport Canberra Action Bus stop in Alinga Street is very close (~50m) to the Alinga Street Stop at Northbourne Avenue intersection and is regarded as an interchange area.
Principles	▪ Accessible movement systems for a diversity of pedestrian, cycle, public transport and private transport modes will be provided, with good connections between different modes of transport. ▪ An accessible movement system will be achieved by: ▪ maintaining the national and arterial road systems ▪ supporting efficient and sustainable pedestrian, bicycle and public transport systems that reduce car dependency ▪ maintaining movement around the city for a diversity of pedestrian, cycle, public transport and private transport modes ▪ providing streets that foster a connected and pedestrian-friendly environment ▪ reducing the barriers created by major roads to make it easier for people to access the	The Barry Drive to Alinga Street design meets and exceeds all relevant accessibility standards.

NCP Ref.	Provision	Response
	public spaces of the city, particularly in the Central National Area.	

4.2.2 Part Three of NCP – Land Use Plans and General Land Use Controls

The proposed works are located with the 'National and arterial roads' and 'Inter-town Public Transport System' land use categories of the NCP's General Policy Plan.

Table 2 Part 3 – Land Use Plans and General Land Use Controls

NCP Ref.	Provision	Response
3.1.3 National and arterial roads (Policies)	▪ The National and Arterial Roads System will: – generally, not provide frontage access to development, except where such access will meet appropriate design standards and road safety needs – generally, intersect with the local road network through distributor roads. ▪ The final alignment of proposed arterial roads is subject to consultation with the National Capital	Not applicable to the works proposed in this application.
3.1.4 Inter-town Public Transport System (Policies)	Public transport planning and provision will: ▪ Reserve a route for the development of a public transport service to link major employment nodes. As far as practicable the service will be segregated from other transport systems and will operate with priority of right-of-way. ▪ A corridor between the city centre, the town centres and major employment nodes, suitable for priority or segregated right-of-way for use by public transport services will be reserved against a possible future need to develop a system of inter town and express routes suitable for buses or other public transit modes as appropriate.	Not applicable to the works proposed in this application.

4.2.3 Part Four (A) of the NCP - Principals and Policies for Designated Areas and Special Requirements for National Land Outside Designated Areas - Main Avenues and Approach Routes

Table 3 Main Avenue and Approach Routes Precincts Code

NCP Ref.	Provision	Response
4.15.3 Objectives for Main Avenues and Approach Routes	▪ Establish and enhance the identity of the approaches to the Central National Area as roads of national significance and, where relevant, as frontage roads for buildings which enhance the National Capital function and as corridors for a possible future inter-town public transport system. ▪ Ensure that works within the road reservations are carried out to the highest standards, by maintaining and enhancing landscaping, and by facilitating the flow of traffic as far as possible. ▪ Reinforce and, where possible, express the integrity of the Griffin Plan's visual structure by strengthening the geometry and form of main avenues, vistas and public spaces. ▪ Improve the urban design and streetscape qualities of the Main Avenues as approaches to the Central National Area.	The Light Rail urban design incorporating the proposed design between Barry Drive and Alinga Street provides a distinctive and prestigious identity for Northbourne Avenue and beyond. Considerable integrated design of landscape architecture art and civil engineering has occurred to ensure the project will provide civic pride. Northbourne Avenue will be reinvigorated and upgraded with a major new transport amenity of distinction.
4.15.4 Detailed conditions of planning, design and development - **General**	Traffic is to be managed to ensure the continued effective function of the Main Avenues and Approach Routes. The Main Avenues will provide access to fronting buildings where practicable, and where traffic safety and flows are not adversely affected.	Traffic reduction along Northbourne Avenue is anticipated as a result of the Light Rail project, consequently traffic management on existing roads will also be managed and traffic flows are anticipated to be well managed.
4.15.4 Detailed conditions of planning, design and development - **Landscaping**	The Main Avenues and Approach Routes will be developed and maintained as high quality landscaped corridors. In built-up areas, the established design theme of verges and medians and formal tree plantings will be maintained. In areas of intensive pedestrian use, high quality paving is to be used.	The Main Avenue of Northbourne Avenue will be developed and maintained as a high quality landscaped corridor. In built-up areas, the established design theme of verges and medians and formal tree plantings will be improved with new landscape design. In areas of intensive pedestrian use, high quality paving is used. This application includes materials and finishes for the projects which are high quality.
4.15.4 Detailed conditions of planning, design and development -	Signs will generally comprise traffic, directional and visitor information signs, and unnecessary repetition will be avoided. Commercial roadside signs are	Traffic signage is subject of this application. Wayfinding signage comprising ribbon signage and ISC signage is also proposed as part of

NCP Ref.	Provision	Response
Signs	not permitted in road reservations, except on bus shelters. Non-commercial signs may be permitted where they comply with the requirements for signs set out in the Signs General Code.	this application at the Alinga Street Stop. The wider wayfinding strategy for the precinct is outside of the NCA Designated Area; however the design response for all wayfinding is elegant, carefully designed to be a coordinated suite across the city. Furthermore the Wayfinding design considers Stage 2 of the light rail and its application through the heart of the parliamentary precinct.
4.15.4 Detailed conditions of planning, design and development – **Streetscape design**	A streetscape hierarchy, that complements the road hierarchy, should be established. This hierarchy should give primacy to main avenues, emphasise continuity along their length through avenues of appropriately scaled trees, consistent pedestrian pavement materials, street furniture and lighting. Development should generally be constructed to the street boundary to define and enclose streets and create continuous street frontage while allowing variations in individual buildings and uses. A limited palette of high quality pedestrian pavement materials, street furniture and lighting will be used. Pavement and landscape design should have an elegant, simple and bold design emphasising the geometry and formality of the main avenues. Streetscapes are to be well lit for pedestrians and optimise security and safety for night time use	The road hierarchy remains unchanged. The road hierarchy provides primacy to the main avenue of Northbourne Avenue, which emphasises continuity along the length through avenues of appropriately scaled trees, consistent pedestrian pavement materials, street furniture and lighting. Development is constructed to the street boundary of the median to define and enclose the avenue. A limited palette of high quality pedestrian pavement materials, street furniture and lighting is employed. Pavement and landscape design has an elegant, simple and bold design emphasising the geometry and formality of the main avenue and is contextually related to Canberra palette of materials. The Light Rail project will be appropriately illuminated for pedestrians to optimise security and safety for night time use. The lighting strategy has been prepared to address the high quality lighting outcomes designed for the project.

4.2.4 Part Two of NCP - Statement of Planning Principles – WA13

Table 4 Part 2 – Statement of Planning Principles

NCP Ref.	Provision	Response
2.1 General Matters		
Principle for Objective 1	The hills, ridges and other major open space which form the separation between towns will be kept largely free of urban development. The planning and development of urban areas will encourage measures through which urban intensification may occur and will be sympathetic to the landscape setting of the National Capital.	Not applicable
2.2 Productivity		
Objective 1 Infrastructure & Employment	Ensure that infrastructure supports the development of Canberra's National Capital functions.	The proposed works will complement the provision of light rail, Canberra's first intra-city rail infrastructure. Accordingly, the proposed works will support the development of Canberra and its National Capital functions through supporting the provision of servicing amid the provision of new major infrastructure, and supporting the shift away from private vehicle use and toward public transport use.

NCP Ref.	Provision	Response
Principals for Objective 1 Infrastructure & Employment	▪ Infrastructure must support the effective functioning of Canberra with proper consideration of the environmental and visual impact and be integrated with land use decisions. ▪ Infrastructure must be planned and provided in an integrated and timely manner to facilitate the development of Canberra and the Territory and ensure safety and security of supply and operation. ▪ Energy and water supply and security issues will be given due consideration in the planning and development of any new infrastructure. ▪ The infrastructure of Canberra and the Territory must be planned and provided to: – ensure that public utilities infrastructure is available and maintained for Commonwealth and ACT Government needs and activities. – minimise the visual impact of electricity and telecommunication facilities, particularly along major vistas, corridors and major open space. – give due consideration to energy and water, supply and security issues. – ensure safety and security of supply and operation.	Northbourne Plaza is carefully designed and planned to integrate the infrastructure into Civic and its urban landscape context. A major feature of the project is its focus on safety for all users in the transport corridor. Canberra Metro is contracted to ensure security of supply and operations. All aspects of Light Rail environmental management are developed in accordance with Infrastructure Sustainability Council of Australia (ISCA) principles for sustainability. This includes energy and water use. The Light Rail is a public facility that has been developed in a public–private partnership (PPP) format to ensure that Commonwealth and ACT Governments needs are met. All utilities are available for use. Considerable design and construction effort has focussed on minimising the visual impact of electricity and telecommunication facilities, particularly along major vistas, corridors and major open space. This is demonstrated in visual material as well as technical documents associated with this application. Safety and security of supply and operation will be delivered as part of the CM contract.
2.3 Sustainability		
Objective 1 – Environmental Sustainability and Open Space	Ensure the development of a city that both respects environmental values and reflects national concerns with the sustainability of Australia's urban areas.	The project is inherently focussed on high sustainability outcomes. The mass transport of people is inherently respectful of the environmental values of the community, especially in the urban context.
Provisions to support Objective 1.	▪ Urban expansion should be contained so as to minimise impacts on valuable natural and rural areas. ▪ A substantial portion of new development must be located within existing urban areas such as town centres and along public transport routes or other strategic sites that	Not applicable. Not applicable. The Light Rail infrastructure will reduce

NCP Ref.	Provision	Response
	allow for efficient use of infrastructure. ▪ The natural environment of Canberra and the Territory will be protected and improved by reducing resource consumption and waste, improving water security and quality, energy and food security and improving and protecting soil quality. ▪ Ecological communities, threatened flora and fauna species, water catchments and water quality will be protected and supported by sustainable resource management. ▪ Development will respect environmental values including water catchments and water quality and ensure resilience to the impacts of climate change.	the impact of vehicular traffic in the city through the mass transport facility; Northbourne Plaza upgrade is regarded as part of the Stage 1 operations of the Light Rail. Consequently the natural environment of Canberra and the Territory will be protected and improved by reducing resource consumption and waste, improving water security and quality, energy and food security and improving and protecting soil quality through the reduction of petro-chemicals from vehicles. The proposed materials and finishes for Northbourne Plaza, employs best practice resource management. Ecological communities, threatened flora and fauna, water catchments and water quality will be protected in accordance with the approved Construction Environmental Management Plan and sub-plans prepared for the project. Climate change has been carefully considered in the stops design. Some initiatives include: - LED lighting is proposed for the stops to reduce energy use. - Platforms have been designed to provide weather protection for light rail customers. - Water Sensitive Urban Design has been incorporated in the urban design around stops. The stop canopies deliver water runoff to landscaping rather than the stormwater network where applicable. - Materials have been selected that are more resistant to increased extreme and prolonged temperature events.
Objective 2 – Environmental sustainability and open space	Protect the nationally significant open-space network, visual backdrop and landscape setting of the National Capital.	Northbourne Plaza is designed to fit within the urban context and is co-located in existing transport corridors. Therefore, the nationally significant open space network is protected. Northbourne Plaza design in Stage 1

NCP Ref.	Provision	Response
		specifically responds to the landscape heritage, including that seen in 1930s, 40s landscape, and the landscape gesture associated with City Hill.
Principle to support Objective 2.	The hills, ridges and other major open space will be kept largely free of urban development and will act as a natural backdrop to the National Capital.	Northbourne Plaza design in Stage 1 specifically responds to the landscape heritage, including that seen in 1930s, 40s landscape, and the landscape gesture associated with City Hill.
2.4 Liveability		
Objective 1 – Urban Design and Heritage	Enhance and preserve Canberra's symbolic and unique design and role as the National Capital.	Northbourne Plaza design Stage 1 works will positively transform the heritage space providing a high quality urban design outcome. The project will add prestige to Canberra as an exemplar Light Rail project Northbourne Plaza, is considered as the major public realm intervention for the project that will invigorate Civic in conjunction with the Light Rail works at Alinga Street Stop.
Principles for Objective 1	▪ The National Capital role requires that planning and development, in Canberra Central in particular, and generally throughout the Territory, should reflect contemporary thinking in urban design practice. ▪ Planning controls should seek to ensure that development in all forms, including landscaping in urban and non-urban areas, complements and enriches its surroundings. ▪ Substantial works of architecture, engineering and landscape within the Territory should be designed to contribute positively to the overall composition, symbolism and dignity of the National Capital. ▪ Development in the National Capital should seek to achieve harmony between architecture and landscape to give continuing effect to the City Beautiful and Garden City characters of the city. ▪ Within Canberra Central, roads, bridges, waterways and public landscaping projects should reinforce and complement the geometric	The design of Northbourne Plaza has a strong contemporary urban design approach which is artistic, minimalist and articulated. This contemporary approach is sensitive to the heritage of the precinct and specifically responds to the Burra Charter, specifically: **Burra Charter Article 12. Participation** *Conservation, interpretation* and management of a *place* should provide for the participation of people for whom the place has significant *associations* and *meanings*, or who have social, spiritual or other cultural responsibilities for the place. Northbourne Plaza design of the verge areas is specifically arranged and designed to promote the participation and activation of the general public in the external spaces with the commercial / retail facilities in the Sydney and Melbourne buildings. The landscape design, seating, paving and lighting is designed to create a revitalised public realm, consistent with NCA and CaNUDF principles.

NCP Ref.	Provision	Response
	lines of the Main Avenues. ▪ Vistas to major landscape features must be protected from and enhanced by development. ▪ Buildings in Canberra Central should be of a height generally not greater than the height of the mature tree canopy (typically 3-4 storeys), except where otherwise permitted by the Plan. In Canberra Central no building or structure which protrudes substantially above the tree canopy must exceed a height of RL617. ▪ Opportunities should be encouraged for the enhancement and reinforcement of the physical, symbolic and visual linkages to adjoining areas of the Inner Hills and the Central National Area. ▪ Urban development will be planned in a manner which promotes community vitality and safety, applies the principles of crime prevention through environmental design and recognises the needs of people with disabilities. ▪ New development, including public spaces, should: – exemplify sustainability principles – demonstrate excellence in urban design, landscape and architecture – facilitate pedestrian connectivity and bicycle movements where appropriate – encourage energy efficient development and land use.	**Burra Charter Article 13. Co-existence of cultural values** Co-existence of cultural values should always be recognised, respected and encouraged. Northbourne Plaza landscape design, seating, paving and lighting is designed to create a revitalised public realm, consistent with NCA and CaNUDF principles. The design responds to cultural landscape design of the 1930s in a contemporary manner, creating a high quality upgrade that will revitalise the precinct. All planning controls applied to the Light Rail have enforced this principle. All aspects of the revitalised public realm contribute positively to the overall composition, symbolism and dignity of the National Capital. The artistry and architecture will evoke a sense of civic pride. The design approach to the landscape design has carefully considered Griffin's approach to the continuing effect to the City Beautiful and Garden City characters of the city. The proposal will contribute to the Garden City characteristics through its strong landscape-led design approach. The attention to the landscape gesture at Northbourne Plaza will be a source of civic pride for the commercial heart of Canberra. The proposed works are in the median of Northbourne Avenue and therefore reinforce the geometric lines of the Main Avenues theme. The landscape design will be a major

NCP Ref.	Provision	Response
		landscape feature of Northbourne Avenue; this is a requirement for the integration of the project into the Canberra context. NA The landscape design of the project carefully considers and responds to all existing vistas and opportunities to view the Inner Hills and Central National Area. Crime Prevention Through Environmental Design (CPTED) principles have informed the stop designs to maximise the personal safety and security of customers travelling to or waiting at the stops. A range of passive measures are proposed, as well as the provision of active security measures such as the provision of CCTV and obvious, easily accessible Help Points. The design also meets and exceeds all relevant accessibility standards. The project has employed ISCA sustainability principles for the development of the project. This is the highest standard of measurement available for infrastructure projects in Australia. The Northbourne Plaza design and the process of review in the design has ensured excellence in landscape and architectural design. Pedestrian connectivity and disabled persons' facilities will be improved through the new facility of the Light Rail including new amenities for all users, providing universal access. The project is energy efficient as required by its cost and environmental management systems.
Objective 2 – Urban design and heritage	Enhance the character of Canberra and the Territory as the National Capital by identifying, protecting,	As previously mentioned the design of Northbourne Plaza specifically responds to the heritage significance

NCP Ref.	Provision	Response
	conserving and presenting natural, Indigenous and historic heritage places.	of the precinct. CMC employed considerable effort in ensuring the design responds to the Articles of the Burra Charter in relating the contemporary plaza design to the heritage of the precinct and to revitalise the area. The revitalisation and activation of the precinct will ensure the cultural, social and heritage values of the place are identified, protected, conserved and respond to the natural, indigenous and non-indigenous heritage values of the place.
Principles for Objective 2	▪ The National Capital Authority will consider heritage places in Designated Areas as Commonwealth Areas for the purposes of protecting the environment in the manner currently afforded under the *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)* and any subsequent legislation. ▪ Within Designated Areas, the National Capital Authority may require Heritage (or Conservation) Management Plans to accompany development applications for heritage places which should be prepared to meet requirements equivalent to those in the *EPBC Act*. The National Capital Authority may require Heritage Impact Statements to accompany development applications for a heritage place. ▪ Development should be consistent with the requirements of any relevant Heritage (or Conservation) Management Plan for that particular place. ▪ The management of heritage places should ensure that their use and presentation is consistent with their heritage values. Heritage places will be presented and interpreted to increase public awareness, understanding and enjoyment of the natural and cultural heritage of the National Capital and its conservation, subject to any reasonable	Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) requires a Commonwealth Heritage place management plan. This document including the Heritage Conservation Management Plan and Heritage Impact Statement is provided in an Attachment to this Works Approval Application. The proposal is consistent with the requirements of any relevant Heritage (or Conservation) Management Plan for the place. The design and interpretive elements ensure that Northbourne Plaza use and presentation is consistent with the significant heritage values of the place. Northbourne Plaza will be presented and interpreted to increase public awareness, understanding and enjoyment of the natural and cultural heritage of the National Capital and its conservation through interpretation. The Burra Charter has been utilised in developing a suitable design response, specifically Articles 12 and 13 for the activation and participation of the public in the revitalised public realm have been carefully considered in the design response.

NCP Ref.	Provision	Response
	requirements for privacy or confidentiality. ▪ The National Capital Authority will adopt the Australian Natural Heritage Charter and the Burra Charter as key guiding documents respectively for natural and cultural heritage places within Designated Areas.	
2.5 Accessibility		
Objective – Transport and movement	Support a connected and equitable multi-modal transport system.	The revitalisation of Northbourne Plaza through its integration in Civic supports the light rail project which is an equitable transport system and will be integrated with other public transport systems such as bus and taxi. Facilities for integration with private transport such as private vehicles bicycles, disabled persons' facilities are also included in the project. Notably the Transport Canberra Action Bus stop in Alinga Street adjoins Northbourne Plaza and is regarded part of the revitalisation of the precinct.
Principles	▪ Accessible movement systems for a diversity of pedestrian, cycle, public transport and private transport modes will be provided, with good connections between different modes of transport. ▪ An accessible movement system will be achieved by: ▪ maintaining the national and arterial road systems ▪ supporting efficient and sustainable pedestrian, bicycle and public transport systems that reduce car dependency ▪ maintaining movement around the city for a diversity of pedestrian, cycle, public transport and private transport modes ▪ providing streets that foster a connected and pedestrian-friendly environment ▪ reducing the barriers created by major roads to make it easier for people to access the public spaces of the city, particularly in the Central National Area.	Northbourne Plaza revitalisation design meets and exceeds all relevant accessibility standards and includes specific provisions for cyclists and the disabled.

4.2.5 Part Three of NCP – Land Use Plans and General Land Use Controls

The proposed works are located with the 'National and arterial roads' and 'Inter-town Public Transport System' land use categories of the NCP's General Policy Plan.

Table 5 Part 3 – Land Use Plans and General Land Use Controls

NCP Ref.	Provision	Response
3.1.3 National and arterial roads (Policies)	▪ The National and Arterial Roads System will: – generally, not provide frontage access to development, except where such access will meet appropriate design standards and road safety needs – generally, intersect with the local road network through distributor roads. ▪ The final alignment of proposed arterial roads is subject to consultation with the National Capital	Not applicable to the works proposed in this application.
3.1.4 Inter-town Public Transport System (Policies)	Public transport planning and provision will: ▪ Reserve a route for the development of a public transport service to link major employment nodes. As far as practicable the service will be segregated from other transport systems and will operate with priority of right-of-way. ▪ A corridor between the city centre, the town centres and major employment nodes, suitable for priority or segregated right-of-way for use by public transport services will be reserved against a possible future need to develop a system of inter town and express routes suitable for buses or other public transit modes as appropriate.	Not applicable to the works proposed in this application.

4.2.6 Part Four (A) of the NCP - Principals and Policies for Designated Areas and Special Requirements for National Land Outside Designated Areas - Main Avenues and Approach Routes

Table 6 Main Avenue and Approach Routes Precincts Code

NCP Ref.	Provision	Response
4.15.3 Objectives for Main Avenues and Approach Routes	▪ Establish and enhance the identity of the approaches to the Central National Area as roads of national significance and, where relevant, as frontage roads for buildings which enhance the National Capital function and as corridors for a possible future inter-town public transport system. ▪ Ensure that works within the road reservations are carried out to the highest standards, by maintaining and enhancing landscaping, and by facilitating the flow of traffic as far as possible. ▪ Reinforce and, where possible, express the integrity of the Griffin Plan's visual structure by strengthening the geometry and form of main avenues, vistas and public spaces. ▪ Improve the urban design and streetscape qualities of the Main Avenues as approaches to the Central National Area.	The Light Rail urban design incorporating the proposed Northbourne Plaza upgrade provides a distinctive and prestigious identity for Northbourne Avenue in Civic. Considerable integrated design of landscape architecture art and civil engineering has occurred to ensure the project will provide civic pride. Northbourne Avenue will be reinvigorated and upgraded with a major new transport amenity of distinction. Northbourne Plaza will be revitalised through this major public realm upgrade.
4.15.4 Detailed conditions of planning, design and development - **General**	Traffic is to be managed to ensure the continued effective function of the Main Avenues and Approach Routes. The Main Avenues will provide access to fronting buildings where practicable, and where traffic safety and flows are not adversely affected.	Traffic reduction along Northbourne Avenue is anticipated as a result of the Light Rail project, consequently traffic management on existing roads will also be managed and traffic flows are anticipated to be well managed.
4.15.4 Detailed conditions of planning, design and development - **Landscaping**	The Main Avenues and Approach Routes will be developed and maintained as high quality landscaped corridors. In built-up areas, the established design theme of verges and medians and formal tree plantings will be maintained. In areas of intensive pedestrian use, high quality paving is to be used.	The Main Avenue of Northbourne Avenue will be developed and maintained as a high quality landscaped corridor. In built-up areas, the established design theme of verges and medians and formal tree plantings will be improved with new landscape design. In areas of intensive pedestrian use, high quality paving is used. This application includes materials and finishes for the projects which are high quality.
4.15.4 Detailed conditions of planning, design and development -	Signs will generally comprise traffic, directional and visitor information signs, and unnecessary repetition will be avoided. Commercial roadside signs are	Traffic signage is proposed as part of this application. A Wayfinding signage for the area is outside of the NCA Designated Area.

NCP Ref.	Provision	Response
Signs	not permitted in road reservations, except on bus shelters. Non-commercial signs may be permitted where they comply with the requirements for signs set out in the Signs General Code.	
4.15.4 Detailed conditions of planning, design and development – **Streetscape design**	A streetscape hierarchy, that complements the road hierarchy, should be established. This hierarchy should give primacy to main avenues, emphasise continuity along their length through avenues of appropriately scaled trees, consistent pedestrian pavement materials, street furniture and lighting. Development should generally be constructed to the street boundary to define and enclose streets and create continuous street frontage while allowing variations in individual buildings and uses. A limited palette of high quality pedestrian pavement materials, street furniture and lighting will be used. Pavement and landscape design should have an elegant, simple and bold design emphasising the geometry and formality of the main avenues. Streetscapes are to be well lit for pedestrians and optimise security and safety for night time use	The road hierarchy remains unchanged. The road hierarchy provides primacy to the main avenue of Northbourne Avenue, which emphasises continuity along the length through avenues of appropriately scaled trees, consistent pedestrian pavement materials, street furniture and lighting. Development is constructed to the street boundary of the median to define and enclose the avenue. A limited palette of high quality pedestrian pavement materials, street furniture and lighting is employed. Pavement and landscape design has an elegant, simple and bold design emphasising the geometry and formality of the main avenue and is contextually related to Canberra palette of materials. The Northbourne Plaza will be appropriately illuminated for pedestrians to optimise security and safety for night time use. The lighting strategy has been prepared to address the high quality lighting outcomes designed for the project.

5. SCHEDULE OF COMPLIANCE WITH WA20277 / WA1

Condition/Note for of WA1 (WA 20277)		How the condition has been met
1	Works Approval has been granted for the following works:	
a)	Demolition of infrastructure within the Federal Highway and Northbourne Avenue road reserves, north of Antil Street as shown on the approved drawings.	No change proposed as part of this application.
b)	Demolition/removal of all existing infrastructure within the Northbourne Avenue and Federal Highway medians (the medians) as shown on the approved drawings. For clarity the demolition also includes the median kerb if damaged during construction. The kerb is to be replaced to match existing kerb detail.	No change proposed as part of this application.
c)	Earthworks as shown on the approved drawings, and subject to detail excavation drawings being submitted for approval.	No change proposed as part of this application.
d)	Removal of trees and other soft landscaping within the medians as shown on the approved drawings.	No change proposed as part of this application.
e)	Removal of trees as shown on the approved drawings within the Federal Highway/Northbourne Avenue verges, north of Antil Street.	No change proposed as part of this application.
f)	Installation of approximately 5.4 kilometres of embedded rail tracks and concrete track form within the medians as shown on the approved drawings.	No change proposed as part of this application.
g)	Installation of soft landscaping including trees within the medians and verges as shown on the approved drawings, and as described in Condition 3a.	No change proposed as part of this application.
h)	Construction of new road pavement and road intersections.	No change proposed as part of this application.
i)	Temporary site compound on Block 13 Section 63 City.	Not applicable. This application is for design only. Temporary works are subject to a separate construction WAA.
2	Approval has not been granted for the following works:	
	Access driveway to TPS6 substation adjacent to Macarthur House, all the mid-block crossings including the associated landscaping, that section of works that includes the two right hand tum lanes and pedestrian/cycle path across Northbourne Avenue between Morphett and Murdoch Street, Dickson, and the right hand tum storage lane from Northbourne Avenue onto Bunda Street.	Not applicable.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
3	New Trees	
a)	The new Eucalyptus mannifera plantings within the Northbourne Avenue median are to be spaced a maximum 10 metre apart (e.g. between tree centres) as shown on Attachment B_. Except at slip lanes and proposed stop locations, the trees are to be generally located 2.5 metres from the edge of the concrete track form and 4.5 metres from the Northbourne Avenue median kerb. Prior to the commencement of tree replacement works, revised drawings are to be submitted to the NCA for Works Approval.	Not applicable.
b)	The Public Domain and Landscape Detail Plans for that section of landscape works to the north of Antil Street indicate in the legend the type of new native trees to be planted. The NCA supports the use of Eucalyptus mellidora and Eucalyptus polyanthemos within the verges and Eucalyptus mannifera within the median. The drawings are to be amended to include the tree species symbol for each individual tree within the verges.	Not applicable.
4	Temporary Site Compound	
a)	The temporary hoarding around the site compound is to be painted white.	Not applicable. This application is for design only. Temporary works are subject to a separate construction WAA.
b)	Any temporary signage associated with the site compound (except signage required for work safe purposes) is to be approved by the NCA. No signage along Commonwealth Avenue will be permitted except as required for work safe purposes.	Not applicable. This application is for design only. Temporary works are subject to a separate construction WAA.
c)	Once the temporary site compound is no longer required, the site is to be restored to a car park or another use approved by the NCA. The works associated with the restoration or another use will be the subject of a separate Works Approval application.	Not applicable. This application is for design only. Temporary works are subject to a separate construction WAA.
Prior to commencement of works approved as part of WA20277 or as otherwise agreed by the NCA, the following items need to be addressed as described.		
5	All relevant ACT Government agency approvals relating to the works are to be obtained.	This condition will be met and is demonstrated through the Project's Compliance Tracking Program.
6	Tree Assessment Report	
-	An updated Tree Assessment Report is to be provided to the NCA and TAMS which indicated which trees are to be removed as part of the Stage 1 works. Currently the report notes the probability of retention only.	An updated Tree Assessment Report has been provided to the NCA.
7	Colour Sample Schedule	

Condition/Note for of WA1 (WA 20277)		How the condition has been met
a)	This approval is for those samples related to the works approved as part of this Works Approval. All other samples will be considered as separate Works Approval applications.	A Materials and Finishes Schedule has been included with this application.
b)	A sample of the concrete track form is to be approved by the NCA prior to the construction of the track form.	A sample will be provided when available.
8	Compliance monitoring and tracking	
-	Prior to the commencement of works, a Compliance Tracking Program must be developed and implemented to track and audit the requirements of and compliance with the conditions of this works approval. The program should include:	A Compliance Tracking Program (00-CMC-PMM-MAN-NA-0001) has been prepared for the Project. Compliance is additionally tracked in this table.
a)	a timeline which details the relevant approvals required and approving entities.	As above.
b)	provisions for periodic reporting of the compliance status of the approved work against the requirements and conditions of approval to the NCA and the Environment Protection Authority (EPA).	As above.
c)	mechanisms for rectifying any non-compliance identified during auditing or review of compliance.	As above.
-	Written confirmation is to be provided to the NCA that the Compliance Tracking Program has been developed.	Completed.
9	Community Information, Consultation and Involvement	
-	Prior to the commencement of works, Canberra Metro must ensure that the following are available for community enquiries and/or complaints during construction and until operation of the project:	Not applicable. This application is for design only.
a)	a telephone number on which complaints about construction activities at the site can be registered.	Established - 1300208824
b)	a postal address to which written complaints may be sent.	Established - 330 Northbourne Avenue DICKSON ACT 2602
c)	an email address to which electronic complaints can be transmitted .	Established - cbr.communications@canberra.metro.com.au
-	The telephone number, the postal address and the email address shall be displayed on signs and placed in appropriate locations, including being readily available on construction compounds and construction hoardings. A register of complaints shall be made available for inspection by the NCA upon request and provided to the NCA on a regular basis as agreed between the NCA and Capital Metro Agency.	Signage has been established at compounds and on fencing. A register of complaints is maintained using which will be provided to the NCA quarterly and upon request, and to ACTPLA upon request.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
-	Prior to the commencement of works, a business landowner and engagement management plan must be developed and submitted to the NCA for its approval. The management plan must be implemented for the duration of the construction program.	The Stakeholder and Community Engagement Management Plan prepared for the Project (00-CMC-PLN-CTY-NA-0002) addresses this requirement.
10	Construction Environmental Management Plan	
-	A Construction Environmental Management Plan (CEMP) for each stage of the project must be endorsed by an independent environmental consultant and submitted to, and approved in writing by the NCA prior to the commencement of any work for each stage. The CEMP is required to address commitments in the Environmental Impact Statement (EIS) and must include the following:	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
a)	a Tree Replacement Strategy which has been agreed with NCA and reflects the approved landscape plans. The Strategy must outline the timing for tree replacements, species selection, size of stock, planting technique and ground preparation, and maintenance and replacement in the event of death or damage of a tree.	A Tree Replacement Strategy (00-CMC-PLN-MAN-NA-0014) has been developed for the Project which has been endorsed by the EPSDD and the Independent Certifier. The Strategy has been provided to the NCA.
b)	the mitigation and management measures committed to in the Environmental Impact Statement (EIS) for Stage 1 of the Light Rail.	There are no EIS commitments directly relevant to this application. All EIS commitments are being addressed and tracked through the Compliance Tracking Program.
d)	Consideration of onsite detention of contaminated stormwater during construction to minimise downstream impacts, and the capacity and condition of the existing stormwater systems to make provisions for managing any excess flow during construction.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
e)	a Noise Management Plan developed in consultation with the EPA which addresses but is not limited to: (i) how construction will comply with section 22 of the Environment Protection Act 1997; and (ii) how works in the area will comply with noise zone standards in Schedule 2 of the Environment Protection Regulation 2005, where not exempt.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
f)	a Dust and Air Quality Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction will WAA.
g)	a Traffic Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
h)	a Soil and Water Management Plan	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
i)	a Hazardous Materials Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
j)	a Biodiversity Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
k)	a Vegetation Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
l)	a Heritage Management Plan, including unexpected finds protocol.	Not applicable. This application is for design only. Construction management is to a separate construction WAA.
m)	a Spoil Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
n)	a Contamination Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
o)	a Utilities Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
p)	a Waste and Recycling Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
q)	a Construction Emergency Response Plan.	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
r)	a Water Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
s)	a Construction Transport Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
t)	a revised Erosion and Sediment Control Plan which provides consideration of a whole- of-project approach and is endorsed in writing by the EPA.	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
u)	Emergency planning procedures in accordance with Australian Standard AS3745 and provisions for appropriate access for a fire fighting response, developed in consultation with the Emergency Services Agency. Where works prevent travel along existing roads or access ways, alternate access must be provided to ensure firefighting response.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
v)	measures for an independent environmental consultant to monitor and audit construction works against the conditions of approval relating to the Construction Environmental Management Plan and report on these works regularly to the NCA and the EPA.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
11	Accessibility and Mobility Report	
-	Prior to the commencement of works, an Accessibility & Mobility Report is to be prepared by a suitably qualified person, endorsed by the ACT Territory and Municipal Services Directorate (TAMS) and submitted to the NCA. Works are to comply with the requirements set out in Condition 28.	As agreed with the NCA, an Accessibility & Mobility Report will be provided following completion of all relevant design elements.
12	Heritage	
-	Prior to the commencement of any work for each stage of the project, the following requirements must be met in respect of heritage, unless otherwise agreed with the ACT Heritage Council:	As below.
a)	provide a revised 'Unexpected Finds Protocols' as presented in GML (2015) and Parsons Brinckerhoff Australia (2015) to include Council notifications in accordance with Section 51 of the Heritage Act 2004. Where project impacts to additional heritage places or objects are identified approval must be sought from the Council in accordance with Section 76 of the Heritage Act 2004 prior to the commencement of works in that area.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
b)	The proposed works have the potential to disturb the root systems of two significant trees in Haig Park, at the comer of Northbourne Avenue and Masson Street. One of the trees is within the Designated Area. Arborist advice to be sought for the protection of these trees during the construction phase and provided to the Heritage Council for review prior to commencement of works at Haig Park. Significant impact to the identified heritage values of Haig Park may also require the approval of a Statement of Heritage Effect under Section 61H of the ACT Heritage Act 2004 prior to the commencement of works.	Not applicable to this application.
c)	prior to these investigations, Excavation Permit approval under Section 61F of the ACT Heritage Act 2004 must be obtained. The information should be provided to the Heritage Council in the Excavation Permit application to be prepared in accordance with Section 61E of the ACT Heritage Act 2004.	Not applicable to this application.
-	Written advice from the ACT Heritage Council is to be provided to the NCA as evidence of compliance with Items (a) to (d).	Not applicable to this application.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
13	Bushfire Risk Management Plan	
-	Prior to the commencement of works, a Bushfire Risk Management Plan, prepared by a suitably qualified person, is required that is endorsed by the ACT Emergency Services Agency. The Bushfire Risk Management Plan must include:	Not applicable to this application.
a)	specific dimensions for the Asset Protection Zones.	Not applicable to this application.
b)	where Asset Protection Zones are on adjacent lands, confirmation that the Asset Protection Zone/s can and will be maintained by the land manager.	Not applicable to this application.
-	The endorsed Bushfire Risk Management Plan is to be submitted to the NCA.	Not applicable to this application.
14	Pollution Control Plan	
-	Prior to the commencement of works in a particular area, a pollution control plan must be approved in writing by the Environment Protection Authority (EPA) for that area. The approved pollution control plan is to be submitted to the NCA for Works Approval. In developing the pollution control plan refer to the Environment Protection Guidelines for Construction and Land Development in the ACT.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
15	Environmental Authorisation/Agreement	
-	Prior to the commencement of works in a particular area, the contractor/builder proposing to develop that area must hold an Environmental Authorisation or enter into an Environment Protection Agreement with the EPA in respect of that area and activity. A Works Approval application is to be submitted for any works that requires the NCA 's approval.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
16	Contamination	
-	Prior to the commencement of any work, the following requirements must be met:	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
a)	the area where works are proposed to commence must be assessed and remediated as required for potential impacts from contamination by a suitably qualified environmental consultant.	As above.
b)	the findings of the assessment in part (a) must be independently audited by an EPA approved contaminated sites auditor.	As above.
c)	the findings of the audit into site suitability or proposed management (from a contamination perspective) must be signed off by the EPA.	As above.
d)	The findings of the audit endorsed by the EPA are to be provided to the NCA.	As above.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
17	Temporary Traffic Management Plan	
-	Where required, a Temporary Traffic Management (TTM) Plan must be prepared by a suitably qualified person and approved by TAMS. The approved TTM is to be submitted to the NCA for Works Approval. The TTM Plan must be implemented prior to the commencement of works within the area incorporated by the plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
-	In developing each Temporary Traffic Management Plan consultation is to occur with the station sergeant for ACT Policing Civic and Gungahlin Stations. Consultation is to also occur with any landowners who may be affected by the TTM. Evidence of this consultation is to be submitted with the Works Approval application	As above.
-	Note: The plans must address measures to be employed during construction to manage all traffic, including construction traffic, in and around the site, pro vision of safe pedestrian movement around the site, the provision of parking for construction workers, and associated traffic control devices.	As above.
18	Landscape Management and Protection Plan	
a)	Prior to commencement of works, a Landscape Management and Protection Plan is required to be submitted to the NCA for Works Approval. Prior to the submission of the Works Approval application the Landscape Management and Protection Plan is to be approved in writing by the Manager, Asset Acceptance, TAMS or his/her delegate.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
b)	The plan is to be implemented prior to the commencement of works for each stage of the project, including demolition or earthworks in that area.	As above.
c)	The Landscape Management and Protection Plan must be in accordance with Landscape Management and Protection Plans (LMPP) Requirements for the Protection of Public Landscape Assets Adjacent to Development Works-REF-04.	As above.
d)	The Landscape Management and Protection Plan must provide arborist advice to confirm how potential impacts around existing trees will be protected during construction works. In particular advice must be provided for trees which may be impacted by the construction of the retaining wall along the southern side of Flemington Road and western side of the Federal Highway.	As above.
19	Site Establishment Plan	
-	Prior to the commencement of works and where required, site establishment plans are to be submitted to the NCA for Works Approval. The plans are to detail the location of any temporary fencing/hoarding, access gates, and signage and storage areas.	Not applicable. This application is for design only. Site establishment is subject to a separate construction WAA.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
20	Notice of commencement of construction	
-	A Notice of Commencement of Construction must be submitted to the NCA and the Manager, Asset Acceptance, TAMS or his/her delegate one week prior to the commencement of construction works for a particular stage of the project. The Notice must include:	Not applicable to this application.
a)	confirmation of any protective measures installed in accordance with the approved Landscape Management Protection Plan and Temporary Traffic Management Plan for the area; and	Not applicable to this application.
b)	Notice of any existing damage to public facilities in the area.	Not applicable to this application.
-	The proponent is held responsible for all damages to ACT Government assets (including footpaths) caused by the development and they must properly repair any damages to those assets.	Not applicable to this application.
21	TransGrid Asset Management	
-	Prior to the commencement of any works in the vicinity of TransGrid assets, the applicant must:	Not applicable. No works are in the vicinity of TransGrid Assets.
a)	consult with TransGrid to ensure the proposed construction method and materials will not adversely affect the structure of TransGrid's Canberra Optic Fibre Cable.	As above.
b)	provide final design plans, including any changes to ground levels, to TransGrid's Asset Management Department to ensure it complies with TransGrid requirements.	As above.
22	Water Supplies for Fire	
-	Rail platforms are considered to be "light industry" and are classified Fire Risk classification F4 for water supply. The proponents will be required to meet standards as agreed by ACTEW and ACT Fire & Rescue.	Not applicable to this application.
DURING CONSTRUCTION AND/OR DEMOLITION, the applicant is required to comply with the following conditions unless as otherwise agreed by the NCA.		
-	The following conditions are required to be implemented and maintained for the duration of any work for each stage of the project.	As below.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
23	The development must be undertaken in accordance with approved plans, including but not limited to:	
a)	Construction Environmental Management Plan.	Not applicable. This application is for design only. Construction management is subject to a separate construction WAA.
b)	Temporary Traffic Management Plan.	As above.
c)	Landscape Management and Protection Plan.	As above.
d)	Pollution Control Plan.	As above.
e)	Noise and Vibration Management Plan, developed in consultation with the EPA	As above.
24	Erosion and sediment control	
-	Erosion and sediment control measures must be in place and maintained at all times during construction and at site compounds and storage sites.	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
-	All works must be carried out in accordance with the Environment Protection Guidelines for Construction and Land Development in the ACT, March 2011. Note: The guidelines referred to above are available by calling 132281.	As above.
25	Rainwater	
-	All rain water that enters the site and pools in excavations during a rain storm event would be considered as a sediment control pond, and must meet the following conditions.	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
a)	all stormwater must be pumped out and disposed of at an approved location.	As above.
b)	no discharge is to occur from the pond unless sediment level is less than 60mg/litre. If sediment level is greater, then prior to discharge, the pond must be dosed with either Alum or Gypsum and allowed to settle until the sediment is less than 60 mg/litre.	As above.
26	Surface and groundwater	
a)	All works affecting waterways (e.g. ponds, creeks, drainage lines etc) require a Waterway works Licence before work may commence.	Not applicable. This application is for design only. Construction management will be subject to a separate construction WAA.
b)	Any take of surface water or ground water during construction or otherwise must be suitably licensed under the Water Resources Act 2007 with a licence to take water and a water access entitlement.	As above.

Condition/Note for of WA1 (WA 20277)		How the condition has been met
27	Paths of travel	
-	During construction all public areas must be constructed in accordance with the following Australian Standards:	The design complies with the following Australian Standards.
a)	AS 1428.1- Design for Access and Mobility	As above.
b)	AS 1428.4 - Tactile ground surface indicators for the orientation of people with vision impairment to highlight hazards.	As above.
c)	AS 4586- Slip Resistant Classification of New Pedestrian Surface Materials for external paving and ground surfaces.	As above.
d)	AS J 428.2- Design for access and mobility- Enhanced and additional requirements - Buildings and facilities.	As above.
e)	AS1742.10 (1991) Manual of Uniform Traffic Control Devices- Pedestrian Control and Protection.	As above.
-	Pedestrian paths must be constructed in accordance with AUSTROADS Guide to Traffic Engineering Practice Part 13. - Pedestrians, or the most recent version of this guidance document applicable to the ACT.	As above.
-	Bicycle paths must be constructed in accordance with A USTROADS Guide to Traffic Engineering Practice Part 14. - Bicycles, or the most recent version of this guidance document applicable to the ACT.	As above.
POST CONSTRUCTION AND/OR DEMOLITION, the applicant is required to comply with the following conditions unless as otherwise agreed by the NCA.		
28	Operating Phase Environment and Sustainability Plan	N/A

6. STAKEHOLDER CONSULTATION

Significant consultation has been undertaken for the Light Rail project, involving the ACT Government, the NCA, stakeholders and the wider community. Formal public consultations have occurred through the following avenues to date:

- Light Rail Integration Study Consultation
- Early Design Consultation
- Urban Design Consultation
- Public Exhibition of the EIS
- Public Exhibition of the initial NCA WAA (WA20277) and the WAA for the light rail stops (WA100360) (excluding Alinga Street Stop)
- Public Exhibition of the initial DA and light rail stops DA for project areas outside Designated land (DA201528511).

The Barry Drive to Alinga Street design has undergone extensive design development over a number of months with TCLR. The design achieves the high quality design requirements, and an appropriate response to the NCP and the future desired character of the precinct as demonstrated in this application.

More recently in late July and early August 2017 the design process has included consultation with the NCA through technical working meetings to ensure that the design is appropriate, All requirements from these meetings have been incorporated.

The design through careful multifactorial integration and has resulted in a design that will evoke Civic pride. The design has been presented to a number of stakeholders in August 2017 and will be submitted for community comment in late August 2017. Comments from the community will be taken into consideration in the assessment of this WAA.