

## Planning Report Works Approval Application

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Works Approval Subject:	<ul> <li>The works proposed under this application involves an upgrade of the public realm in the Northbourne Avenue corridor between Alinga Street intersection and London Circuit (referred to as Northbourne Plaza).</li> <li>The proposed works include the following:</li> <li>Verges: The verge areas will be upgraded to accommodate new improved pedestrian areas, seating, lighting (both statutory and feature), a cycle path and distinctive formal landscaping to complement the heritage values and views to the Sydney and Melbourne-buildings.</li> <li>Median: The median will be graded; utility pits will be adjusted to suit the new kerb height, trees removed, sculpture and pathways removed. The levelled median will be turfed with irrigation and provided with a decomposed granite walkway between the north and south end of the block. The median will include street lighting (multipoles), and the existing southern and northern footpaths will remain.</li> </ul>
Site location:	The proposed works are located within the Northbourne Avenue corridor between Alinga Street intersection and London Circuit (referred to as Northbourne Plaza).
Canberra Metro Works Approval Ref:	WA 13
Approval required under the NCA because:	<ul> <li>The works are located in a Designated Area.</li> <li>The primary Works Approval granted for Stage 1 of the light rail (WA20277) did not include the Northbourne Plaza block.</li> </ul>
Canberra Metro Doc #	00-CMC-DEV-MAN-NA-0025



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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
СМ	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 (Civic) 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.

The scope of the application for WA20277 did not include the Northbourne Avenue section between Alinga Street and London Circuit, referred to as Northbourne Plaza, which was still in an early design phase at the time of submission. The works within Northbourne Plaza are subject of this application.

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 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 of the Stage 2 works.



### 1.2 Summary of Proposed Works under this Application

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

The works involve an upgrade of the public realm deliver a high quality, integrated, revitalised and activated public space restoring connectivity across Northbourne Avenue and marking arrival at the City for all modes of transport, while responding appropriately to the heritage values of the Melbourne and Sydney buildings. The works allow for future stages of light rail development, the works are designed to facilitate future construction to be consistent with the future desired character of the precinct; including that identified in the NCP and the City and Northbourne Avenue Design Framework (CaNUDF). Northbourne Plaza will be progressively revitalised in Stage 2 and into the future.

The design for Northbourne Plaza has its own specific identity, the generator of which lies in the heritage of the precinct, specifically the relationship of the Sydney and Melbourne Buildings to each other and as framing elements to the space between. Careful consideration has also been given to the landscape heritage intention evidenced through 1930's photography of Northbourne Plaza and City Hill which demonstrates the use of mixtures of trees types and forms to create a grand plaza space at Civic. The design carefully and subtly reinvigorates the public realm of Northbourne Plaza as its own specific space. The design acknowledges the future visual qualities of the Stage 1 and 2 light rail while responding to the new Alinga Street Stop.

The proposed works include the following:

- Verges: The verge areas will be upgraded to accommodate new improved pedestrian areas with new paving, seating, lighting (both statutory and feature), a cycle path and distinctive formal landscaping to complement the heritage values and views to the Sydney and Melbourne buildings.
- Median: The median will be graded, trees removed, sculpture and pathways removed. The levelled median will be turfed, irrigated and provided with a decomposed granite walkway connecting the existing north and south paved footpaths. The median will include new street lighting (multipoles); the existing southern and northern footpaths will remain.
- This application comprises the following elements:
  - Demolition and earthworks
  - Roadworks
  - Landscaping including paving
  - Drainage
  - Pedestrian and street lighting
  - Utilities
  - Traffic Signage
  - Traffic Signals
  - Line markings (including road TGSI's and raised pavement markers)



## 2.SITE CONTEXT

### 2.1 Site Location

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

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

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



Figure 1 Site Location and Context







Figure 2. View of the Alinga Street intersection with Northbourne Avenue and Northbourne Plaza between the historic Sydney and Melbourne Buildings



Figure 3. View of Northbourne Plaza looking south towards City Hill. Alinga Street is shown in the immediate foreground. The Sydney Building is visible to the left and east and the Melbourne Building is to the west and right of the image.



### 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**

### 3.1 Overview

#### Transport infrastructure as the generator of change in the heart of Canberra

The introduction of a light rail system into the centre of Civic has provided the opportunity to enliven the precinct with added activity and an associated upgrade of the urban realm. The Alinga Street stop is a major public realm amenity and the most significant public transport infrastructure built in Canberra for decades. To achieve a successful design outcome for the CBD, the integration of the infrastructure into Northbourne Avenue corridor from Barry Drive to London Circuit as a single precinct design was regarded as important and is demonstrated in this submission. The Alinga Street Stop will be a significant generator of increased activity in the precinct with significant, long term benefits. It will provide an opportunity to refocus and uplift the function, condition and status of the adjacent Northbourne Plaza, its verges and the heritage Sydney and Melbourne buildings that define the space.

Stage 1 incorporates the Alinga Street Stop and the Northbourne Plaza verges upgrade with the provision of an associated temporary multi-function median. The Alinga Street Stop and Northbourne Plaza need to be designed holistically to achieve a strong outcome. The Alinga Street Stop is subject of a separate WAA (WA14).

The revitalised Northbourne Plaza including its pleached Plane trees are the termination of the increasingly formalised landscape response for the light rail into Civic; a direct, innovative and appropriate response to the National Capital Plan.

#### A community place

Northbourne Plaza will provide high use functionality and associated flexibility to support a range of community activities. It will be a place for the community to meet and join in casual or organised events. It will have direct connection to the city's transport network within the Central Business District. It will be a broad, simple space as an open palette to accommodate a range of events – music, performance, dance, projection, charity activities, commercial promotions, markets, floral displays, etc. With the high pedestrian activity the precinct will be desirable and, consequently, the verges will be active and lively. The precinct will be distinctive and commensurate with the National Capital Plan and the design responds to the CaNUDF (refer Section 3.1.1.6).

#### Median ground plane

The approach is to ensure that Stage 1 works will not affect the required upgrades that are planned to occur in Stage 2. In Stage 1, the Northbourne Plaza median will be cleared, levelled, existing utility pits adjusted, turfed irrigated and set up with base lighting, power and water supply to service a wide range of events. This will allow safe access from all directions and provide clear sightlines across a broad space to encourage activation. Consequently, the simplicity and openness of the ground plane is a feature of the proposal.

#### Verge design objectives

The design responds to potential activities on the verges. The existing verges are limited in width and there is inadequate space to accommodate any viable commercial or social activities. Currently there are no trees or ground level planting. The ground surface is insitu concrete and a mixture of paving finishes.

The design strategy is to widen the verge, repave in quality Bluestone pavers with Austral Black Granite detailing and associated Setts and introduce trees along the verge which are planted in feature planter beds. The configuration will allow groups of lease-area tables to be distributed between the planters. These lease-area tables are intended to be served from the tenancies within the buildings via the colonnades. The verge area will be DDA (Disability Discrimination Act 1992) compliant, providing universal access amenity.



The trees will be a feature of the plaza as they will be shaped (pleached) to create a shaded canopy in summer and provide controlled vertical definition to the space. The pleached Plane trees are the termination of the increasingly formalised landscape response into Civic; a direct, innovative and appropriate response to the NCP. The pleached mature Plane trees will be a source of civic pride, and a sincere response to the heritage significance of the plaza. The trees while improving shade and atmospheric amenity, and allow for good viewing opportunities of the Sydney and Melbourne Buildings. The arrangement of trees responds directly to the colonnade of the heritage buildings. Deciduous trees allow sun penetration in the winter and respond to Griffin's plan for Plane trees in the heart of Civic. It is anticipated that the widened and upgraded verges will be popular as an activated commercial space with café areas, seating, meeting places and public seating.

Considerable effort has gone into the design of the verge and median at Northbourne Plaza in response to Stage 2 activities, especially to ensure that the long term, future desired character of the precinct is facilitated via the Stage 1 works.

#### **Pedestrian Circulation**

The design of the median allows clear access between the northern and southern ends of Northbourne Plaza in Stage 1. Pedestrians can move openly within the median in its open-plan condition. This open configuration will provide flexibility and enable a large range of temporary event layouts.

#### Safety

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

- sightlines are not obstructed
- the public is safe in all public realm areas
- passive surveillance is optimised from multiple observation points
- increased public activity in all areas is encouraged
- the design considers a variety of users incorporating universal access

#### Maintenance

Maintenance and resistance to vandalism is a major consideration in the design development including:

- general improved amenity assists with maintenance through a high quality presentation
- materials and finishes are selected to deter vandalism
- high quality materials and finishes are used to assist with whole-of-life, maintenance and robustness
- the forms of all structures are designed to minimise dirt and dust build up and to facilitate cleaning
- horizontal surfaces are minimised to reduce dust, dirt and soiling

#### Services Infrastructure and Recycling

Fixed underground infrastructure and features will be located in Stage 1 so as not to require relocation during construction of the potential light rail extension between Alinga Street and London Circuit in Stage 2.

#### 3.1.1 Northbourne Plaza Design Strategy

#### 3.1.1.1. Context

The block between Alinga Street and London Circuit is a commercial precinct with retail at the ground (colonnade) level. Not all commercial spaces in the Sydney and Melbourne buildings are currently leased. Some of the leased spaces are not high end tenants. The fitouts, signage, outdoor furniture, etc are not of a consistent quality. The building facades, shopfronts and colonnade surfaces and finishes have not been maintained to an equivalent or appropriate level. Many of the businesses do not contribute to the activation of the street. There are no existing trees along the verges.



Overall, it is hoped that the increased commuter activity generated by the Light Rail will result in increased commercial interest in the entire precinct, with specific activation and amenity improvements in the Northbourne Plaza block. This approach anticipates improvements in tenancy activity. Ideally, with an improved streetscape and a higher level of pedestrian activity, a range of new tenancies may be attracted to these colonnade areas and the verge. The opportunity for indoor-outdoor activity will be increased. The widened verges, with new paving, trees, planters, street furniture and lighting will collectively provide a public realm that will create civic pride, hopefully attract a new type of clientele and generate activity across a wider precinct throughout the day and night. Bars, cafes, restaurants, coffee shops and other food outlets would be a desirable range of premises as a strong base to an improved public realm experience.

Although not part of this submission, there is also potential to activate the courtyards of the Sydney and Melbourne buildings. These areas are currently primarily service areas in support of the shops and commercial tenancies above. In the long-term these courtyards could be vehicle free zones except at restricted hours with wonderful outdoor dining.

The design demonstrates integration with the key north-south and east-west pedestrian connections through the precinct and Northbourne Plaza.

It is noted that the Northbourne Plaza median zone is not an existing primary desire line for northsouth movement. The primary desire lines for north-south pedestrian movement are at the verges of Northbourne Avenue.

#### 3.1.1.2. Road, Median and Verge – Existing Configuration

The width of the existing median varies along its length but is approximately 29m wide. There are 3 motor vehicle lanes and one bicycle lane on each carriageway. The bicycle lane is at the same level as the road surface. The median has a combination of paved and landscaped areas. The highest point is appriximately 1m above existing kerb level.

The current verges are approximately 2500mm in width from the face of the colonnade step at the property boundary to the back of the 150mm wide road kerb to give a total 2650mm. The bus parking lane is approximately 2650mm wide from the face of kerb to the centreline of the lane marking; the bicycle lane if approximately 1300mm beyond.

The dimension from the face of the shopfront to the step that is located along the boundary line is approximately 4560mm. This step is approximately 160mm high and the kerb at the road line is approximately 140mm.

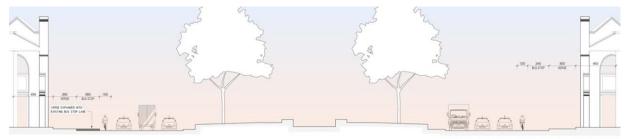


Figure 4 Section through existing Northbourne Plaza

#### 3.1.1.3. Proposed Verge Widening

A range of potential verge design widths were assessed by the design team. The preferred outcome is for a verge of 6750mm from the property boundary to the back of the road kerb along with a raised bicycle lane (1700mm wide) up to the verge level. The latter will enhance the visual effect of the verge width.

At the property boundary line the existing 160mm step dimension is consistent along the full length of the colonnades facing Northbourne Avenue for both the Sydney and Melbourne buildings. This step continues around the south face of both the Sydney and Melbourne buildings. At the north face of the Sydney Building the verge is at the level of the colonnade. At the north face of the Melbourne Building the verge is lower than the colonnade area, with a step of approximately 90mm.



In order to retain the current levels of the road and provide a single slope verge from the colonnade line to the kerb for effective drainage of the verge itself, it is necessary to adjust the verge level to align with the colonnade surface.

The unified verge will enhance the visual effect of the zone between the shopfronts and the road kerb. Elimination of the step will improve the indoor/outdoor flow of the space between tenancies and the verge areas, and also enable staff movement when serving food, drinks, etc. The elimination of the step is a DDA requirement for public realms.

It is necessary to realign the swept kerbs at the 4 transitions from Northbourne Avenue into both Alinga Street and London Circuit. It is also necessary to introduce ramp transitions to accommodate the vertical rise required for the cyclists.

TGSIs will delineate hazards, align with paving joints and provide direction and alignment to crossing points. TGSI's will provide luminance contrast hazard warning against the background bluestone pavement. Granite setts separate the cycle path from the verge area providing colour and texture contrast in the ground surface to assist with designation of functional areas.

Bluestone and granite banding provide reference to the Sydney and Melbourne Buildings' colonnades. The bluestone paving is continued into Northbourne Plaza verge to create an integrated appearance with the existing public realm paving on the north and south footpath areas of both Sydney and Melbourne Buildings.

#### 3.1.1.4. Tree and Planter Placement

The remodelling of the verge and median spaces at Northbourne Plaza provides the opportunity for a new and improved urban public realm. It is proposed to locate trees in the verge, clear of the bicycle lane clear zone, and within planter beds which align with and define the width of the bicycle lane. It is important that the trees are off-set from the face of the façades of the Sydney and Melbourne buildings as much as possible due to the anticipated canopy width of the trees at full maturity. It is also important to ensure a reasonable clear width for the pedestrian movement along the verge between the face of the colonnade and the landscape planters. The tree locations are also influenced by utility locations in the zone.

The trees are aligned with the geometry of the colonnade façade columns. This urban design gesture reinforces the strength of the plaza geometry and creates controlled view corridors to the façade. This configuration provide a strong avenue geometry, it is also coordinated with ground plane Water Sensitive Urban Design (WSUD) features to create a formal grand boulevard and gateway to the city, as envisaged in the Walter Burley Griffin plan.

The WSUDs will provide significant improvements and visual amenity with seasonally flowering native species selections. They will also provide a buffer zone defining the line between the verge areas and the bicycle lane, while reducing the extent of hard surfaces, the heat-island effect and increasing ground plane permeability. Shade trees will improve public realm amenity.

The Plane trees, being deciduous will provide a beautiful structured canopy and shade in the summer. In the winter they will allow the sun to penetrate the verge area, providing a sense of scale, a linear structure and strong rhythm to these external spaces. Section 3.1.2 provides more detail on the proposed landscaping.

The location of potential tenancies that might be able to take advantage of the verge as an extension of the internal premises is not currently known and will vary over time. Consequently, it is appropriate to provide a common configuration of landscape and street furniture that is flexible and both visually and functionally effective. It is proposed to place a seat in association with planters for people to rest, wait, meet or consume food or drink at each corner of the plaza. This will leave the area between planters as fully accessible for the commercial opportunity placement of tables or benches.

#### 3.1.1.5. Compatibility with the City and Northbourne Avenue Design Framework

Recognising the transformative potential of light rail, the ACT Government commissioned the preparation of an urban design framework for the city with a particular focus on Northbourne Avenue. The framework (CaNUDF) outlines a range of planning, transport and place making initiatives for the growth of Canberra's inner north. The Traffic Design, Civil Engineering Design and Works Phasing



section of this report provides specific guidelines for Northbourne Avenue with a strategy of strengthening its presence as more than a ceremonial route and transit-oriented place. The objective is to reinforce the role of the avenue as a forum for the daily life of the city and as a focus for the community with a greater priority given to people, social interaction, opportunities for events and an emphasis on connections.

CaNUDF outlines the importance of the transition in the urban design, landscape and built form between Barry Drive and London Circuit. A key objective is to increase space available for pedestrian activity and maintain the line-of-sight of City Hill.

#### 3.1.2 Landscape

This section addresses 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; this application).

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 Alinga Street and London Circuit are subject to approval under this application. This section should be read in conjunction with the WA14 application.

#### 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 framework for 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 Antill 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 following image.





*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 Antill 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.

## Mature height and location of trees do not conflict with Sydney and Melbourne Buildings

Civic Precinct landscape design includes *Platanus orientalis* located in the Northbourne Avenue verge adjacent to the Sydney and Melbourne buildings. The unrestrained canopy width of these trees extends into the adjacent buildings.

The principal risk mitigation measure that can be undertaken is formative pruning (pleaching) of the trees to achieve a tree branch and canopy structure with a pleached shape and the majority of the tree structure located remote from the Sydney and Melbourne buildings.

Ongoing maintenance including regular arborist inspection of trees and formative pruning to AS4373 will be undertaken during operation of the project.





## 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

NCP Ref.	Provision	Response
2.1 General Matters	5	
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.

Table 1 Part 2 – Statement of Planning Principles



NCP Ref.	Provision	Response
Principals for Objective 1 Infrastructure & Employment	<ul> <li>Infrastructure must support the effective functioning of Canberra with proper consideration of the environmental and visual impact and be integrated with land use decisions.</li> <li>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.</li> <li>Energy and water supply and security issues will be given due consideration in the planning and development of any new infrastructure.</li> <li>The infrastructure of Canberra and the Territory must be planned and provided to:</li> <li>ensure that public utilities infrastructure is available and maintained for Commonwealth and ACT Government needs and activities.</li> <li>minimise the visual impact of electricity and telecommunication facilities, particularly along major vistas, corridors and major open space.</li> <li>give due consideration to energy and water, supply and security issues.</li> </ul>	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	1	
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.	<ul> <li>Urban expansion should be contained so as to minimise impacts on valuable natural and rural areas.</li> <li>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</li> </ul>	Not applicable. Not applicable. The Light Rail infrastructure will reduce



NCP Ref.	Provision	Response
	<ul> <li>allow for efficient use of infrastructure.</li> <li>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.</li> <li>Ecological communities, threatened flora and fauna species, water catchments and water quality will be protected and supported by sustainable resource management.</li> <li>Development will respect environmental values including water catchments and water quality and ensure resilience to the impacts of climate change.</li> </ul>	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	<ul> <li>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.</li> <li>Planning controls should seek to ensure that development in all forms, including landscaping in urban and non-urban areas, complements and enriches its surroundings.</li> <li>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.</li> <li>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.</li> <li>Within Canberra Central, roads, bridges, waterways and public landscaping projects should reinforce and complement the geometric</li> </ul>	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: <b>Burra Charter Article 12.</b> <b>Participation</b> <i>Conservation, interpretation</i> and management of a <i>place</i> should provide for the participation of people for whom the place has significant <i>associations</i> and <i>meanings</i> , 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.



<ul> <li>lines of the Main Avenues.</li> <li>Vistas to major landscape features must be protected from and enhanced by development.</li> <li>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.</li> <li>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.</li> <li>Urban development will be planned in a manner which promotes community vitality and safety, applies the principles of crime prevention through environmential design and recognises the needs of people with disabilities.</li> <li>New development, including public spaces, should:</li> <li>exemplify sustainability principles</li> <li>demonstrate excellence in urban design, landscape and architecture</li> <li>facilitate pedestrian connectivity and bicycle movements where appropriate</li> <li>encourage energy efficient</li> </ul>	<ul> <li>lines of the Main Avenues.</li> <li>Vistas to major landscape features must be protected from and enhanced by development.</li> <li>Buildings in Canberra Central should be of a height generaly 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 height of RL617.</li> <li>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.</li> <li>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.</li> <li>New development, including public spaces, should:</li> <li>exemplify sustainability principles</li> <li>demonstrate excellence in urban design, landscape and architecture</li> <li>facilitate pedestrian connectivity and bicycle movements where appropriate</li> </ul>	NCP Ref	Provision	Response
<ul> <li>Vistas to major landscape features must be protected from and enhanced by development.</li> <li>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.</li> <li>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.</li> <li>Urban development will be planned in a manner which promotes community vitality and safety, applies the public spaces, should:</li> <li>New development, including public spaces, should:</li> <li>exemplify sustainability principles</li> <li>demonstrate excellence in urban design, landscape and architecture</li> <li>facilitate pedestrian connectivity and bicycle movements where appropriate</li> <li>encourage energy efficient</li> </ul>	<ul> <li>Vistas to major landscape features must be protected from and enhanced by development.</li> <li>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 secked a height of RL617.</li> <li>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.</li> <li>Urban development will be planned in a manner which principles of crime prevention through environmental design and recognises the neeks of people with disability principles.</li> <li>New development including public spaces, should:</li> <li>exemplify sustainability principles.</li> <li>He denostrate excellence in urban design, landscape and architecture</li> <li>encourage energy efficient development and land use.</li> <li>The design approach to the landscape design of the Netional Capital. The arise and bicycle movements where appropriate</li> <li>encourage energy efficient development and land use.</li> </ul>			
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	of Northbourne Avenue and therefore reinforce the geometric lines of the	NCP Ref.	<ul> <li>Vistas to major landscape features must be protected from and enhanced by development.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>New development, including public spaces, should:</li> <li>exemplify sustainability principles</li> <li>demonstrate excellence in urban design, landscape and architecture</li> <li>facilitate pedestrian connectivity and bicycle movements where appropriate</li> <li>encourage energy efficient</li> </ul>	<ul> <li>existence of cultural values</li> <li>Co-existence of cultural values should always be recognised, respected and encouraged.</li> <li>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.</li> <li>All planning controls applied to the Light Rail have enforced this principle.</li> <li>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.</li> <li>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</li> </ul>



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	<ul> <li>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 <i>Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)</i> and any subsequent legislation.</li> <li>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 <i>EPBC Act</i>. The National Capital Authority may require Heritage Impact Statements to accompany development applications for a heritage place.</li> <li>Development should be consistent with the requirements of any relevant Heritage (or Conservation) Management Plan for that particular place.</li> <li>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</li> </ul>	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
	<ul> <li>requirements for privacy or confidentiality.</li> <li>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.</li> </ul>	
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	<ul> <li>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.</li> <li>An accessible movement system will be achieved by:</li> <li>maintaining the national and arterial road systems</li> <li>supporting efficient and sustainable pedestrian, bicycle and public transport systems that reduce car dependency</li> <li>maintaining movement around the city for a diversity of pedestrian, cycle, public transport and private transport modes</li> <li>providing streets that foster a connected and pedestrian- friendly environment</li> <li>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.</li> </ul>	Northbourne Plaza revitalisation design meets and exceeds all relevant accessibility standards and includes specific provisions for cyclists and the disabled.



# 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.

NCP Ref.	Provision	Response
3.1.3 National and arterial roads (Policies)	<ul> <li>The National and Arterial Roads System will:</li> <li>generally, not provide frontage access to development, except where such access will meet appropriate design standards and road safety needs</li> <li>generally, intersect with the local road network through distributor roads.</li> <li>The final alignment of proposed arterial roads is subject to consultation with the National Capital</li> </ul>	Not applicable to the works proposed in this application.
3.1.4 Inter-town Public Transport System (Policies)	<ul> <li>Public transport planning and provision will:</li> <li>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-ofway.</li> <li>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.</li> </ul>	Not applicable to the works proposed in this application.

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



### 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	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>Improve the urban design and streetscape qualities of the Main Avenues as approaches to the Central National Area.</li> </ul>	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 - <b>General</b>	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 project 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 isproposed 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

Whilist WA20277 did not include works within Northbourne Plaza, the conditions of approval are considered to apply to the whole of the Stage 1 project.



Cor	ndition/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 Antill 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 Antill 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 Antill 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.
	r to commencement of works approved as part of WA20277 of wing items need to be addressed as described.	r as otherwise agreed by the NCA, the
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	



Cor	ndition/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 board will be provided.
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.



Cor	dition/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.
	a Noise Management Plan developed in consultation with the EPA which addresses but is not limited to:	
e)	<ul> <li>how construction will comply with section 22 of the Environment Protection Act 1997; and</li> </ul>	Not applicable. This application is for design only. Construction management is subject to
0)	<ul> <li>how works in the area will comply with noise zone standards in Schedule 2 of the Environment Protection Regulation 2005, where not exempt.</li> </ul>	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.



Cor	ndition/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.
I)	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.
0)	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.



Cor	ndition/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.	
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.



Cor	dition/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 is to be provided to the NCA.	As above.



Cor	ndition/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, signage and storage areas.	Not applicable. This application is for design only. Site establishment is subject to a separate construction WAA.



Cor	ndition/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.
	RING CONSTRUCTION AND/OR DEMOLITION, the applicant ditions unless as otherwise agreed by the NCA.	t is required to comply with the following
-	The following conditions are required to be implemented and maintained for the duration of any work for each stage of the project.	As below.



Cor	ndition/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) H		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).
- Public design charrette for Northbourne Plaza (refer below)

Northbourne Plaza has been the focus of intensive community engagement with a public design charrette on the 27th June 2016, the input of which formed the basis of the Community Design Brief "A Vision for Northbourne Plaza", August 2016.

The Northbourne Plaza Community Design Brief included the following Aspirations (in summary):

- be a distinctive place that signifies arrival in the City Centre and marks the transition between the city and the Central National Area.
- retain the visual connection between the Sydney and Melbourne Buildings.
- treat the verge, carriageways and median as a contiguous, seamlessly integrated and accessible public space with activation at the edges.
- incorporate distinctive street furniture including seating, feature lighting and signage as well as commissioned public art works.
- have a quality soft landscape character that includes sustainable plantings, and high canopied deciduous trees at the edges to provide shade and shelter.
- incorporate green, living infrastructure to reduce 'heat island' effects and to reflect water sensitive urban design.
- include distinctive lighting to define the space, sensitively illuminating the Sydney and Melbourne Buildings and support safe night time use.
- create attractive, safe and discrete spaces on the widened footpaths for outdoor dining and entertainment.
- support the development of vibrant café, bar and restaurant tenancies within the Sydney and Melbourne Buildings.
- provide an attractive buffer zone between public uses on the verge and traffic.
- provide a setting able to support temporary events and activation throughout the space including at the centre while preserving a path for future light rail extension.
- evoke pride in the Canberra City Centre and the role of Canberra as the National Capital.
- be a welcoming destination for visitors of all ages and abilities, day and night.
- The Northbourne Plaza Community Design Brief includes the following briefing notes in regards to space curation:
- traffic calming including shared vehicle and pedestrian zones and a reduction in vehicle speeds to 40 km/hr.
- 'scramble' crossings at the southern and northern ends of the space to enable efficient and easy
  pedestrian and cycle access to the median, light rail stop, bus stops and local businesses on the
  Northbourne Corridor.
- event infrastructure to support temporary installations including shade and shelter.
- services provision to enable performances, temporary food stalls and markets throughout the space.
- exploration and facilitation of pedestrian mid-block connections from the space to the Sydney and Melbourne Buildings and to their internal courtyards.



 policies to encourage the temporary use of vacant tenancies for start-up and creative 'pop up' retail activities.

The Northbourne Plaza Community Design Brief includes the following Project parameters (in summary):

- incorporate a 'people first' approach to ensure place amenity at the edges, good active travel connections, seasonal climate control and a buffer between public uses on the verges and traffic.
- take into account the relocation of existing bus stops and loading zones along the Sydney and Melbourne Building frontages and associated proposed verge widening.
- consider the potential for clear zones along the verges of Melbourne and Sydney Building frontages to allow drop-off /pick-up outside peak times and to support street activation.

The Northbourne Plaza Community Design Brief included a number of aspirations; these have directly informed the design response for upgrade of the public realm reflected in this application. Within the Stage 1 development of the Northbourne Plaza, the majority of community aspirations have been realised through the verge design at the frontage of the Sydney and Melbourne Buildings. Where it has not been possible to entirely fulfil specific aspirations in Stage 1, enabling works have been incorporated into the design to facilitate the achievement of the full range of community aspirations in later development stages.

The Northbourne Plaza design has undergone extensive design development over a number of months with TCLR. The design achieves the high quality design requirements, and an appropriate reponse to the heritage 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 additional consultation with the National Capital Authority through technical working meetings to ensure that the design is appropriate, All requirements arising 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 key 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.