



SMEC INTERNAL REF. 3002750

PLANNING REPORT

William Hovell Drive Duplication

Reference No. 3002750

Prepared for Infrastructure Development Partners Group on behalf of Transport Canberra and City Services

14 May 2021

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Glossary & Abbreviations

Term & Acronym	Description
ACTPLA	Australian Capital Territory Planning and Land Authority
ACTION	Transport Canberra
ASS	acid sulphate soils
CEMP	Construction Environmental Management Plan
CMTEDD	Chief Minister, Treasury and Economic Development Directorate
CNVMP	Construction Noise and Vibration Management Plan
CTMP	Construction Traffic Management Plan
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DBYD	Dial Before You Dig
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EP Act	<i>Environment Protection Act 1997</i>
EPBC Act	<i>Commonwealth Environmental Protection and Biodiversity Conservation Act 1999</i>
EPSDD	Environment, Planning and Sustainable Development Directorate
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
GDE	Groundwater Dependent Ecosystems
GSM	Golden Sun Moth (<i>Synemon plana</i>)
IDPG	Infrastructure Delivery and Partners Group
MNES	Matters of National Environmental Significance
NCA	National Capital Authority
NC Act	<i>Nature Conservation Act 2014</i>
NTG	Natural Temperate Grasslands of the Southern Tablelands of NSW and the ACT
P&D Act	<i>Planning and Development Act 2007</i>
P&LM Act	<i>Australian Capital Territory Planning and Land Management Act 1988</i>
Project site	The area to be directly affected by the proposal, in this case, the portion of land within which construction and operation would occur
PTWL	Pink-tail Worm-lizard (<i>Aprasia parapulchella</i>).
SLA	Suburban Land Agency
Study Area	Project Site and surrounding area
TCCS	Transport Canberra and City Services
TEC	Threatened Ecological Community
WSUD	Water Sensitive Urban Design

Executive Summary

SMEC has been engaged by Infrastructure Delivery Partners Group on behalf of Transport Canberra and City Services to undertake the detailed design of the duplication of a 4.5 km portion of William Hovell Drive between John Gorton Drive and Drake-Brockman Drive. The Infrastructure Delivery Partners Group are a part of Major Projects Canberra, the ACT Government directorate with the responsibility for directing and managing all aspects of major projects invested in by the ACT Government.

Currently William Hovell Drive operates at over 20,000 vehicles per day which significantly exceeds the capacity of a single carriageway road. The upgraded road would also be required to accommodate additional traffic generated by new residential development in the estate of Ginninderry (West Belconnen) and the new suburbs of Strathnairn and Macnamara. The project includes:

- Upgrading and duplicating the existing road to a dual carriageway including two 3.5 m wide traffic lanes and two on-road cycle lanes
- Construction of a new 3.0m wide off-road marked pedestrian path
- A signalised intersection to Drake-Brockman Drive including traffic islands and zebra crossings
- Relocation of water mains to accommodate new intersection to Drake-Brockman Drive
- Tie in works to the existing road network
- Retaining wall structures
- Two acoustic walls
- Biodiversity mitigation measures, as required by conditions under the Notice of Decision
- Upgrade of access road to Old Weetangera Cemetery from Drake-Brockman Drive
- Retention, upgrade and extension of three existing underpasses
- Upgrade of the vehicular access for ACT Rangers to Kama Nature Reserve
- Associated batters, retaining walls, drainage and safety barriers
- Street lighting
- Tree removal, replanting and landscaping
- Median works
- Extension of existing culverts
- Ancillary drainage works to connect to existing drainage channels and Deep Creek
- Construction set down areas, compounds and stockpiles.

A Preliminary Environmental Assessment was prepared for the Project and identified potential significant impact on areas of Box Gum Woodland, Pink-tailed Worm-lizard and potential Golden Sun Moth habitat. The Proponent chose to refer this project to the Commonwealth Department of Agriculture, Water and the Environment to determine whether the Project constitutes a Controlled Action under the Environment Protection and Biodiversity Conservation Act 1999. Confirmation that the Project is a Controlled Action was received on 29 July 2020.

An Environmental Impact Statement (EIS) has been prepared by SMEC providing a detailed assessment of the project. The EIS is supported by technical chapters covering the areas of traffic impact, noise, heritage, ecology, hydrology, bushfire, waste and social impact. This Statement Against Criteria report has been structured to support the consideration of the EIS and impact track development application concurrently.

Design iterations have been undertaken throughout the optioneering and design development phases to avoid and minimise impacts on threatened species and ecological sensitive areas. After consulting with the ACT Conservator of Flora and Fauna and Environment, Planning and Sustainable Development Directorate, modifications were made to the design to minimise the loss of mature trees between the Kama and Pinnacle Nature Reserves, as it is understood that these provide an important movement corridor for fauna. Micro-siting of the design and particularly the shared path has also reduced the impact on areas of native vegetation.

Overall, the project has been sensitively designed to minimise impacts on adjoining land uses including the two nature reserves, residential properties, identified areas of heritage importance and biodiversity. In addition, this transport infrastructure supports active travel and significantly assists in improving safety and reducing traffic congestion for the Molonglo region. This Planning Report provides a clear, plain English assessment of the project

against the relevant statutory planning controls that apply to this Impact Track Development Application and demonstrates that the proposal is capable of approval.

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1 Introduction

1.1 Overview

SMEC has been engaged by IDPG on behalf of TCCS to undertake the detailed design of the duplication of William Hovell Drive between John Gorton Drive and Drake-Brockman Drive (the Project). This Planning Report provides an assessment of the road duplication design and supporting information for a development application (DA) in the impact track to support concurrent assessment with the Project Environmental Impact Statement in accordance with the *Planning and Development Act 2007* (the *P&D Act*).

1.2 Need and Justification

The Project area is a 4.5 km section of William Hovell Drive between John Gorton Drive and Drake-Brockman Drive (the Site). It is the only remaining unduplicated section of William Hovell Drive. It is subject to traffic congestion, particularly during the AM and PM peaks. Congestion is anticipated to continue to increase as regions of Molonglo Valley, the estate of Ginninderry (West Belconnen) and the new suburbs of Strathnairn and Macnamara continue to be developed.

Based on the traffic counts undertaken for the Project, from 13 to 19 February 2020 (pre-Covid-19 pandemic), the road currently accommodates more than 20,000 vehicles per day which significantly exceeds the capacity of a single carriageway road. A review of crash history on the road has identified that the road is recording higher than average crash rates. Duplication of William Hovell Drive is critical to relieving AM and PM congestion from West Belconnen and addressing road safety issues.

The Project will also support active travel and sustainable transport. The Project retains the existing alignment of the Bicentennial National Trail and provides an off-road shared path for the length of the upgrade. Two additional on-road cycle paths will also be provided. Improved access to the Weetangera Cemetery and maintenance access to Kama Nature Reserve are also provided as part of this project.

1.3 Purpose and Structure of this Report

This Planning Report provides a statutory assessment of the concept road design and supporting information for a DA to be lodged under the impact track.

This report provides consideration under the *P&D Act*, which including:

- Project background and justification.
- Site context including zoning and applicable overlays.
- Details of project consultation.
- A comprehensive planning assessment for the of the project against relevant *Territory Plan*; and
- Evidence of compliance of the project and reasons for approval.

This report is supported by and should be read in conjunction with the documentation submitted as part of the DA, which has been listed within **Table 1-1** below.

Table 1-1 | Supporting documentation

Document Type	Prepared by / Consultant	Appendix
Engineering Concept Design	SMEC	Appendix A
Landscape Plan	Enviro links Design	Appendix B
Biodiversity Assessment	SMEC	Appendix C

Noise Impact Assessment	SLR Consulting	Appendix D
Sediment and Erosion Control	SMEC	Appendix E
Water Sensitive Urban Design	SMEC	Appendix F

1.4 Location of Works

The proposed works are to be completely contained to the road reserve extending from John Gorton Drive to Drake-Brockman Drive. This Site is unleased Territory land, with TCCS – Roads ACT as the custodian. Therefore, no designated block or section is available for the site. To assist in identifying the subject location, the project is lodged referring to the next closest leased land, Blocks 1385 and 1565.

The Site is zoned TSZ1 – Transport under the Territory Plan, and runs adjacent to parcels of leased rural land, nature reserves and existing and future urban areas. **Figure 1-1** provides a map of the area and identifies the uses of surrounding land.



Figure 1-1 | Locality Map

1.5 Description of Works

The proposed duplication of William Hovell Drive would occur along the 4.5 km stretch of road between John Gorton Drive and Drake-Brockman Drive in the districts of Molonglo Valley and Belconnen, which is the only remaining unduplicated section of William Hovell Drive. The objectives for this duplication works are:

- To improve the overall road condition and safety.
- To reduce the rate of vehicular crashes.
- To relieving the morning and afternoon congestion from West Belconnen; and
- To promote active travel and support sustainable transport.

The project comprises the following:

- Upgrading and duplicating the existing road to a dual carriageway including two 3.5 m wide traffic lanes and two on-road cycle lanes
- Construction of a new 3.0m wide off-road marked pedestrian path
- A signalised intersection to Drake-Brockman Drive including traffic islands and zebra crossings
- Relocation of water mains to accommodate new intersection to Drake-Brockman Drive
- Tie in works to the existing road network
- Retaining wall structures
- Two acoustic walls
- Biodiversity mitigation measures, as required by conditions under the Notice of Decision
- Upgrade of access road to Old Weetangera Cemetery from Drake-Brockman Drive
- Retention, upgrade and extension of three existing underpasses
- Upgrade of the vehicular access for ACT Rangers to Kama Nature Reserve
- Associated batters, retaining walls, drainage and safety barriers
- Street lighting
- Tree removal, replanting and landscaping
- Median works
- Extension of existing culverts
- Ancillary drainage works to connect to existing drainage channels and Deep Creek
- Construction set down areas, compounds and stockpiles.

The environmental footprint of the project is approximately 31.9 ha (including 8 ha of the existing road). This has been derived by adopting a 10 m construction buffer around the Project.

A general arrangement plan of the proposed road duplication is provided in Appendix A and is reproduced in **Figure 1-2**.

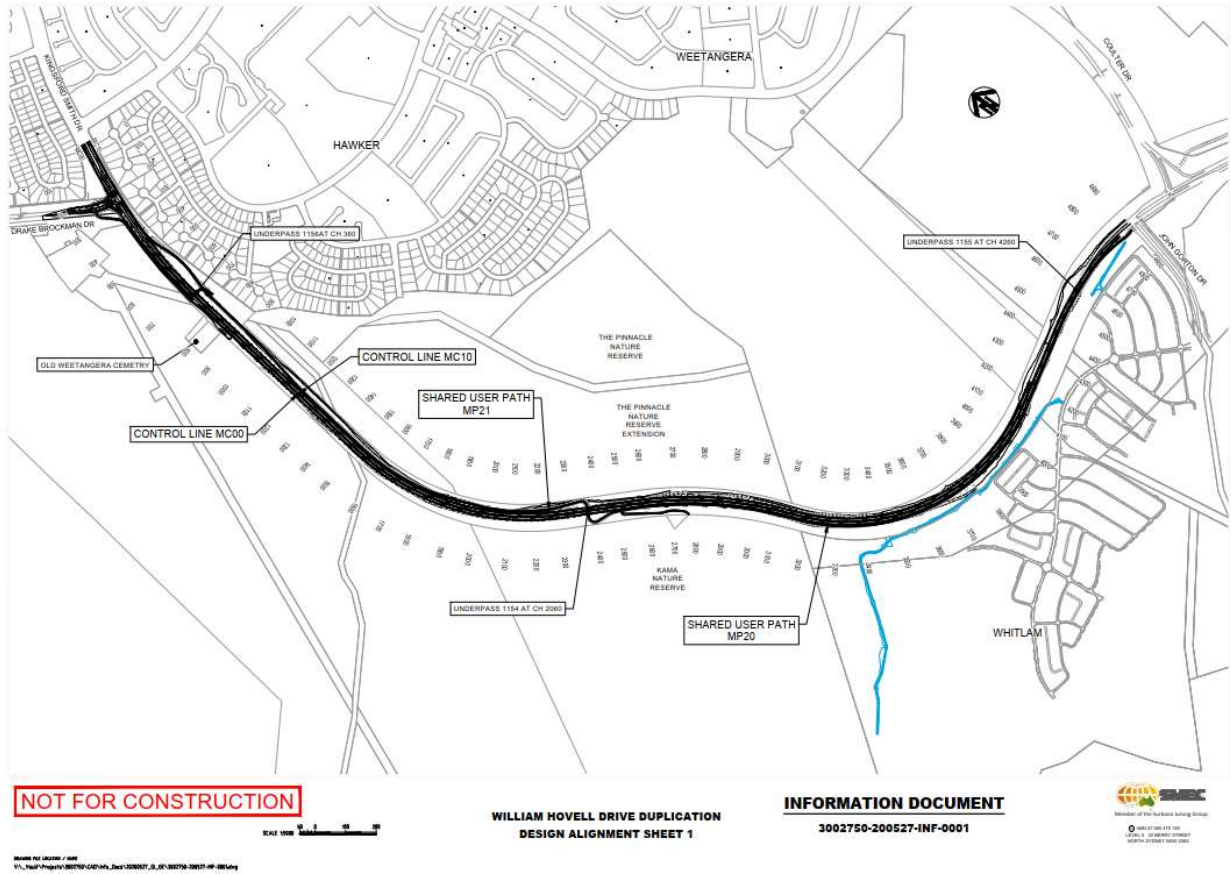


Figure 1-2 | General Overview of the William Hovell Drive Road Duplication Project

1.6 Pre-Application Meetings

The project team has been consulting closely with the EPSDD Impact Team and the office of the Conservator of Flora and Fauna since project initiation in early 2020. The intent of early and consistent consultation was to create a collaborative approach between the project team and key stakeholders, and to guide the design team with the objective of avoiding and minimising impact.

SMEC has also consulted closely with utilities owners within the project area (ICON-GNS, Icon Water and Evo Energy) throughout the project. Provision has been made to ensure the alignment and associated infrastructure considers the future anticipated needs of these utility providers, as well as relocation, reconnection and protection of assets.

2 Project Context

2.1 Site Context

The Project site crosses a hillside that sweeps to the south of The Pinnacle Extension Nature Reserve and to the north of the Kama Nature Reserve. From the intersection with John Gorton Drive, William Hovell Drive declines slightly and then steadily increases in gradient toward the Kama and Pinnacle Extension Nature Reserves. The road turns slightly to the north and continues to increase in gradient with the highest point located near the Old Weetangera Cemetery.

Centrally through the alignment, the embankment on the south-western side of William Hovell Drive becomes relatively steep, with views from the road reserve over rural rolling hills toward development in the Molonglo Valley. Mounds of fill from the previous construction of William Hovell Drive are located along the north-eastern side of the alignment and generally obscure views from the road.

Photographs of the site and surrounding landscape are provided below.



Figure 2-1 | Photograph taken looking south-east, adjacent to Whitlam and looking toward John Gorton Drive



Figure 2-2 | Photograph taken looking north-west along William Hovell Drive, to the north of Whitlam



Figure 2-3 | Photograph taken from top of fill mound looking south-west over rural hills toward development in the Molonglo Valley

2.2 Vegetation

A Biodiversity Assessment was undertaken by SMEC for the project and is provided in Appendix A. The assessment included desktop and ecology field survey, interpretation of findings and preparation of a series of mitigation measures where impacts are unavoidable

The following seven broad vegetation communities have been mapped by the current study within the Study Area:

- Grassy Woodland
- Native Grassland
- Native Riparian Sedgeland
- Planted River She-oak Riparian Forest
- Planted Native
- Exotic Riparian Woodland
- Exotic Grassland

The Biodiversity Assessment in the EIS for this project confirms that the project has been designed to avoid and minimise impacts where possible. Offsetting of impacts to Box Gum Woodland is proposed for consideration under the EIS as follows:

Provide an offset against the loss of Box Gum Woodland TEC habitat by protection of land to the west of Kama NR which will preserve nesting habitat for Superb Parrot and retain old growth trees and native grassland understorey, as well as provide a wildfire and invasive species buffer to the west of Kama Nature Reserve.

The location and size of an appropriate offset would be confirmed following approval of the project, in consultation with the EPSDD Offsets Committee. We would anticipate a condition of consent be included to reflect this requirement.

The Biodiversity Assessment suggests the following mitigation measures which would be appropriate for inclusion in DA conditions of consent:

- Preparation of a Flora and Fauna Management Plan as part of the Construction Environment Management Plan, including:
 - A tree management plan (to be determined by the Conservator of Flora and Fauna)
 - Plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and potential revegetation areas
 - Pre-clearing survey requirements
 - Procedures for unexpected threatened species finds and fauna handling
 - Protocols to manage weeds and Pathogens
 - Procedure for stockpiling materials including topsoils and subsoils to be stockpiled separately to avoid mixing in a manner that would facilitate the return of soils to the location of the original source and tracking and treatment of stockpiles.
 - Rubbish removal is to be undertaken prior to construction and throughout construction in retained areas of vegetation in the road reserve.
- Site inductions will be mandatory for all personnel working and visiting the Project area. The site induction will include information on threatened species and ecological communities, identify exclusion zones and the unexpected finds procedure for threatened species. Personnel involved in vegetation clearing and clearing of threatened species habitat will have a more detailed toolbox to ensure all personnel are clear on the clearing procedure and sensitive ecological features of the area to be cleared for that day.
- An offset area to mitigate against the loss of Box Gum Woodland TEC habitat, and to preserve the nesting habitat of Superb Parrot, old growth trees and native grassland understorey
- Exclusion zones to be established prior to construction and remain in place until construction is completed.
- Pre-clearance protocols, particularly for tree removal
- Measures to further minimise the construction footprint and native vegetation/habitat removal.
- Relocation of rocky Pink Tailed Worm Lizard habitat where possible and pre-clearance surveys.
- Revegetation requirements at the conclusion of construction, including planting along the edges of adjoining paddocks to close any vegetation gaps.
- Unexpected Finds Protocol
- Reuse of habitat features such as hollow bearing trees
- Fauna exclusion fencing to prevent wildlife from accessing the road and guide fauna to the underpasses

- Redesign of the southernmost stock crossing (underpass) to encourage macropod movement and direct fauna movements using fencing
- Provide rope bridges and/or glider poles to allow for arboreal fauna to cross the road in key biodiversity corridor areas
- Any connectivity structures should be monitored by remote sensor cameras for a period of three years after construction
- Monitoring of weeds during construction and establishment
- Minimise intrusive lighting in key wildlife corridors, though shorter light poles and shading device
- Fauna identification road signs

2.2.1. ACT registered trees

One registered tree was identified as occurring north of the study area, in the reserve of William Hovell Drive, to the north of the intersection with Drake-Brockman Drive. In the ACT Tree Register, this tree is identified as Tree Number PTR081. Further details recorded for the tree are provided in the table below.

Under the *Tree Protection Act 2005* the following criteria apply to tree PTR081:

(2) Landscape and aesthetic value

The object of this value is to identify trees that are of particular importance to the community due to their substantial contribution to the surrounding landscape. A tree may be considered to be of landscape and aesthetic value if it is situated in a prominent location when viewed from a public place and it:

(a) contributes significantly to the surrounding landscape based on its overall form, structure, vigour and aesthetic values; or

(b) represents an outstanding example of the species, including age, size or habit; or

(c) is an exceptional example of a locally native species that reached maturity prior to urban development in its immediate vicinity.

Table 2-1 | Details of registered tree

Tree identification	PTR081
Species name	<i>Eucalyptus blakelyi</i> (Red Gum)
Street address	William Hovell Drive, Higgins
Description	Four trunks and crown radii ranging from 9-12m
Statement against the Criteria for nomination	<i>This Eucalyptus blakelyi is an exceptional example of a local native species that reached maturity prior to urban development. The tree is being nominated for inclusion to the ACT Tree Register due to its outstanding landscape contribution. This tree is located on urban open space next to William Hovell Drive in Belconnen. The tree contributes significantly to the surrounding landscape due to its large well-balanced spreading crown and low branching habit. The tree is in a very prominent location and easily seen from the street.</i>

The registered tree is located north of the Drake-Brockman Drive intersection in Higgins. Minor pruning to the canopy of the registered tree may be required to accommodate construction activities. It is requested that a condition of consent be included in the consent requiring an arborist to monitor this tree throughout construction activities and ensure sufficient tree protection measures are in place. If required, minor pruning should be permitted to be undertaken to maintain the health of this tree during the course of construction.

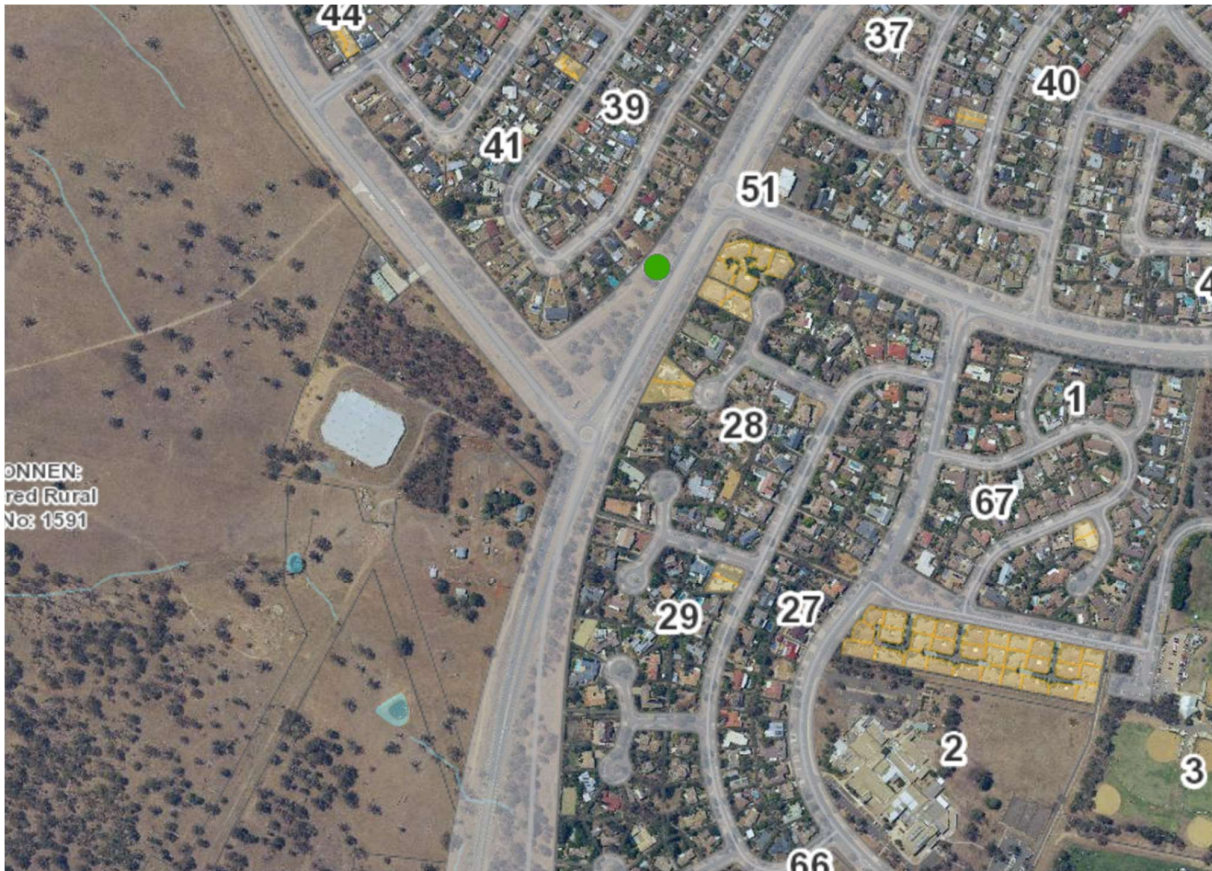


Figure 2-4 | Location of Registered Tree (PTR081) annotated with the green dot (source: ACTmapi, 2021)

2.3 Noise and vibration

SLR Consultants Pty Ltd have prepared an operational noise assessment of the Project in accordance with the *Roads ACT Noise Management Guidelines* (TCCS, 2018). The Noise Impact Assessment, presented in **Appendix D**, considers existing and predicted traffic noise levels at adjacent buildings (current and proposed), and includes an assessment based on the predicted maximum traffic flow.

The Noise Assessment identified 34 sensitive residential receivers along the Project alignment. These dwellings are in the new suburb of Whitlam and the existing suburb of Hawker (Florina Place, Kurundi Place, Mainoru Place, Elsey Place and Dungowan Place). Current noise levels were measured between 64dB(A) and 69.8dB(A).

The noise model produced by SLR established existing noise levels (2020), target noise levels in accordance with the *Roads ACT Noise Management Guidelines* and predicted maximum noise levels (2031). The Noise Assessment found non-compliances at three noise sensitive receptors (refer to **Table 2-2** below).

It is noted that these predicted increases in noise levels would occur incrementally as traffic volumes gradually increase on WHD. The 'predicted increase' is representative of the maximum traffic volume (at 2031) and not at the immediate commencement of road operation (expected in 2022). It is accepted that a difference of up to 2dB(A) is within the range of noise modelling accuracy and is not noticeable to the human ear.

Table 2-2 | Future traffic noise levels

Receptor	Address	2020 Noise Level dB(A) LA _{eq} (15 hour)	2031 Predicted Noise Level dB(A) LA _{eq} (15 hour)	Predicted increase dB(A)
Target Noise Level dB(A) LA_{eq}(15 hour)		60	60	
06	13 Florina Place, Hawker	58	62	3.4
08	12 Kurundi Place, Hawker	57	61	4.1
34	Whitlam Estate	60	62	2.3

Given the locations of existing receivers with respect to the current and proposed WHD road reserve, construction and operational vibration impacts are not considered to be significant. Isolated construction activities may result in minor vibration impacts which are either barely perceptible or not perceptible for nearby receivers.

Nearby residents would be notified of the works prior to the commencement of construction. Any potential noise impacts are expected to be minor and short-term in duration. Nonetheless, construction work outside of the recommended standard hours would not be undertaken without prior agreement with the ACT EPA and notification/consultation with affected residents.

The Noise Assessment considered various mitigation treatments to reduce road traffic noise at these sensitive receivers, including changes to the road pavement surface and acoustic noise barriers. The preferred mitigation measure is the installation of two noise walls – one within the road reserve to the rear of the properties in Hawker and a noise wall providing additional height beyond the existing retaining wall located to the north of Whitlam.

These noise barriers up to 2.5m high would reduce noise at affected receptors to levels compliant with the assessment criteria. Noise barriers have been recommended as part of this proposal as they offer a long-term approach to road noise mitigation and are suitable in this instance.

As the noise walls would effectively reduce noise levels in Whitlam to acceptable levels, there may be an opportunity to remove the construction requirements for noise affected dwellings in the Whitlam Estate Development Plan, however, this would be subject to separate assessment.

2.4 Existing Land Use

The Project is contained within the road reserve extending from John Gorton Drive in the south to Drake-Brockman Drive in the north. The Project will tie into the existing dual carriageway to the east of John Gorton Drive and includes a signalised intersection at Drake-Brockman Drive. The Project area currently contains a two-way road on the northern side and a one-way road on the southern side, with 90 kmph speed limit and a designated on-road cycle lane in each direction.

Surrounding land uses include rural leases, suburban areas and nature reserves. The new suburb of Whitlam is currently under construction by the Suburban Land Agency on the parcel of land extending west of John Gorton Drive and south of the Project, to the eastern edge of the Kama Nature Reserve. The Whitlam concept master plan is provided in **Figure 2-5** below. The Whitlam master plan includes the Deep Creek Water Quality Control Pond which will follow the existing alignment of Deep Creek and accept runoff from the new residential area in accordance with the Water Sensitive Urban Design General Code.



Figure 2-5 | Masterplan of the new suburb of Whitlam. Project area outlined in blue

Development on the northern side of William Hovell Drive comprises rural leases and the Pinnacle Extension Nature Reserve. Towards the intersection with Drake-Brockman Drive, the rear of residential properties in Hawker are visible from the road reserve.

Together, the Pinnacle Nature Reserve and Kama Nature Reserve form a regional ecological link or biodiversity corridor. These nature reserves facilitate the movement of species through habitat patches existing in the landscape. Retaining connectivity is a key consideration of this project, as it is critical to facilitating the movement of genes, individuals, species and populations, and to mitigate the isolation of species and the loss of biodiversity.

The Kama Nature reserve is a 155 ha parcel of land, sharing its northern boundary with William Hovell Drive and extending from the western side of the new suburb of Whitlam. The Kama Nature Reserve was established as a nature reserve in 2008 and was listed on the ACT Heritage Register in 2012 for its natural heritage values.

According to the Molonglo River Reserve: Kama Operational Plan 2014 (ACT Government) “Kama is part of a key corridor between the Molonglo River and the Belconnen Woodlands.” Kama Nature Reserve is identified as an offset site under The Molonglo Valley Plan for the Protection of Matters of National Environmental Significance (2011; the NES Plan).

The Pinnacle Nature Reserve adjoins the rear of parcels of residential development in Hawker and Weetangera. The 2016 Pinnacle Extension (an offset area under the NES Plan) runs between the western boundary of the Pinnacle Nature Reserve and the north-eastern side of William Hovell Drive. The Pinnacle Extension Nature Reserve is directly north of the Kama Nature Reserve, and together these areas provide an important ecological corridor.

The western side of the Kama Nature Reserve adjoins rural properties (Belconnen Block 1596 and Block 1593) which are provided with a heritage overlay. These properties contain the Old Weetangera Cemetery and the former location of the Weetangera Methodist Church.

Land along the north-eastern side of William Hovell Drive comprises leased rural land and the Pinnacle Extension Nature Reserve (partial Belconnen Block 1616). Land east of the Pinnacle Extension Nature Reserve is designated land under the National Capital Plan and the Territory Plan.

The southern extent of the Project area supports a semi-permanent second order stream, Deep Creek that drains into the Molonglo River. A sedge land, occurring within the western portion of the Project area near Kama Nature reserve, also drains to Molonglo River.

2.5 Zoning

The Project is located within TSZ1 – Transport under the *Territory Plan* as indicated on **Figure 2-6** below. To the north of the Site is Rural Approved lands which are subjected to NCA’s designated areas, to the south of the Site is the new suburb of Whitlam which mostly zoned RZ1 – Suburban with remaining lands zoned PRZ1 – Urban Open Space and FUA – Future Urban Area (in transition to be uplifted).

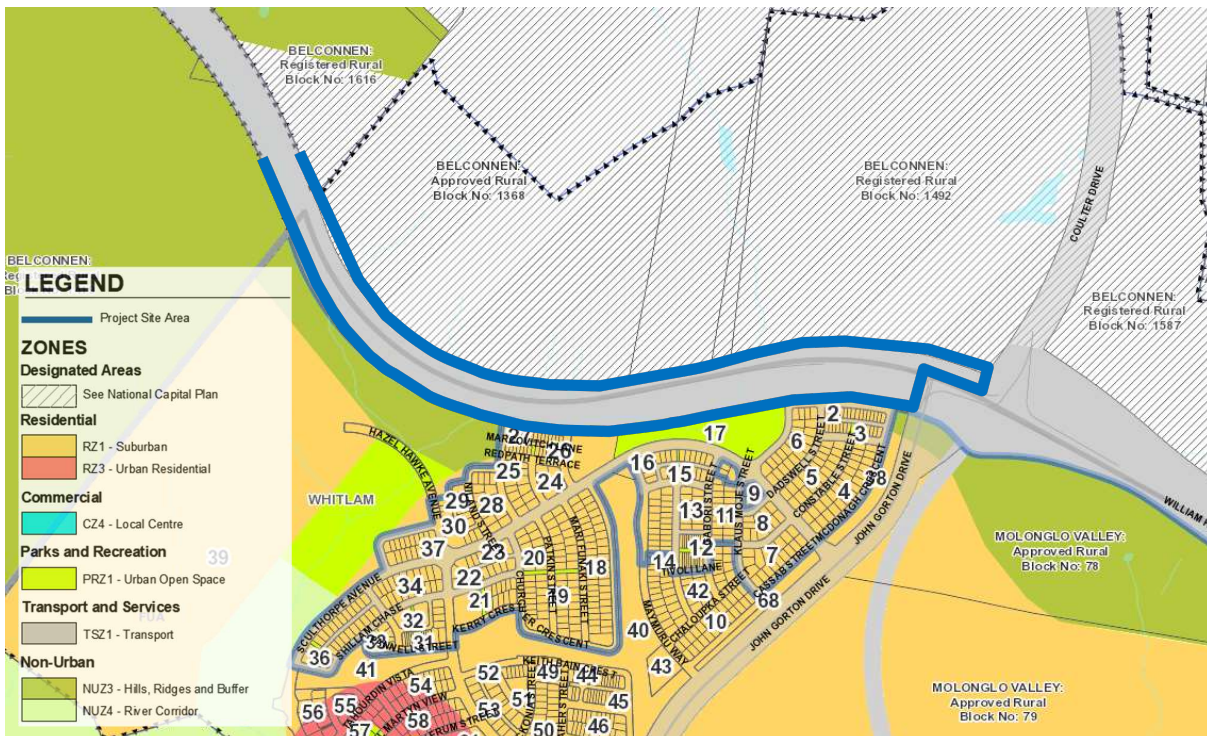


Figure 2-6 | Zoning map (source: ACTmapi, 2021)

2.6 Overlays

The north-western portion of the site is mapped with Public Land – Line overlay zone. No additional overlay zones are applicable under the *Overlays and Clearance Zone Policies*.

2.7 Land Custodianship

The entire area of the Site is currently an unleased land under the custodianship of Roads ACT, which acts as an agency of TCCS.

3 Consultation

Initial consultation has been undertaken by TCCS throughout the PSP Design Stage (January to November 2020) with relevant stakeholders and government agencies to inform the development of the proposal, including ACT Equestrian, ACT Pedal Power, Friends of the Pinnacle Nature Reserve (FOTPN) the Uniting Church, the Conservator of Flora and Fauna (Liaison Officer), Environmental Planning and Sustainable Development Directorate Impact Team, Suburban Land Agency and Parks and Conservation Service. Consultation has also been ongoing throughout the preliminary design with Icon Water, Jemena, Telstra, Evo Energy, iiNet/TPG, NBN Co. and Optus.

Large open forum type community consultation has not occurred due to COVID restrictions and no confirmation on construction funding. Following lodgement of the draft EIS, TCCS intend to provide regular updates on the project through the www.cityservices.act.gov.au website.

3.1 Notification of DA

The planning approval process will involve a public exhibition of this impact track development application, concurrently with the EIS, for a period of at least 35 working days. This will provide interested stakeholders an opportunity to comment on the project.

4 Legislative Context

The *Planning and Development Act 2007* (the *Act*) sets out the requirements for obtaining development approval for works (development) proposed to be undertaken, unless the works are specifically exempt from requiring such approval.

The subject site is located within TSZ1 – Transport zone under the *Territory Plan*. Development is subject to the requirements of the Transport and Services Zone Development Code and the relevant Precinct Codes, Development and General Codes as detailed in **Table 4-1** below.

Table 4-1 | Assessment of Applicable Codes

Territory Plan	Relevance
Overlays and Clearance Zone Policies	Applicable, refer to Section 4.3
Precinct Code	
Molonglo Valley District Precinct Map	Applicable, refer to Section 4.1 .
Objectives and Development Tables	
TSZ1 Transport Zone	Applicable, refer to Section 4.2 .
Development Code	
Transport and Services Zones Development Code	Applicable, refer to Section 4.4 .
General Codes	
Parking and Vehicular Access General Code	Not applicable.
Bicycle Parking General Code	Not applicable.
Access and Mobility General Code	Not applicable.
Crime Prevention through Environmental Design General Code	Not applicable, refer to Section 4.7 .
Community and Recreation Facilities Location Guidelines General Code	Not applicable.
Communication Facilities and Associated Infrastructure General Code	Not applicable.
Signs General Code	Applicable, refer to Section 4.6 .
Water Use and Catchment General Code	Not applicable.

Territory Plan	Relevance
Home Business General Code	Not applicable.
Waterways: Water Sensitive Urban Design General Code	Not applicable.
Planning for Bushfire Risk Mitigation General Code	Applicable, refer to Section 4.7 .
Residential Boundary Fences General Code	Not applicable.
Lease Variation General Code	Not applicable.

4.1 Molonglo Valley District Precinct Map

No additional provisions apply to the Site under the Molonglo Valley District Precinct Map

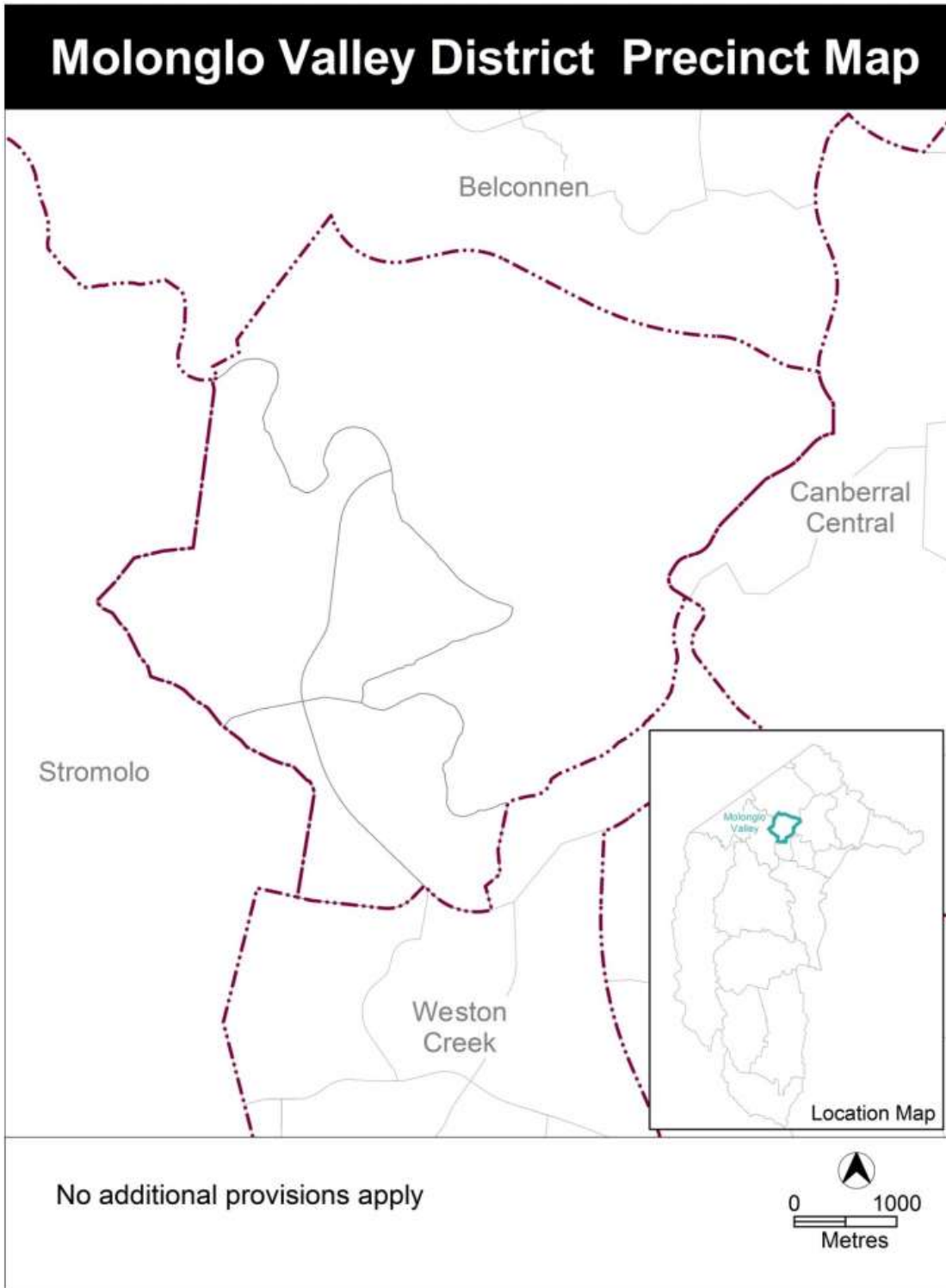


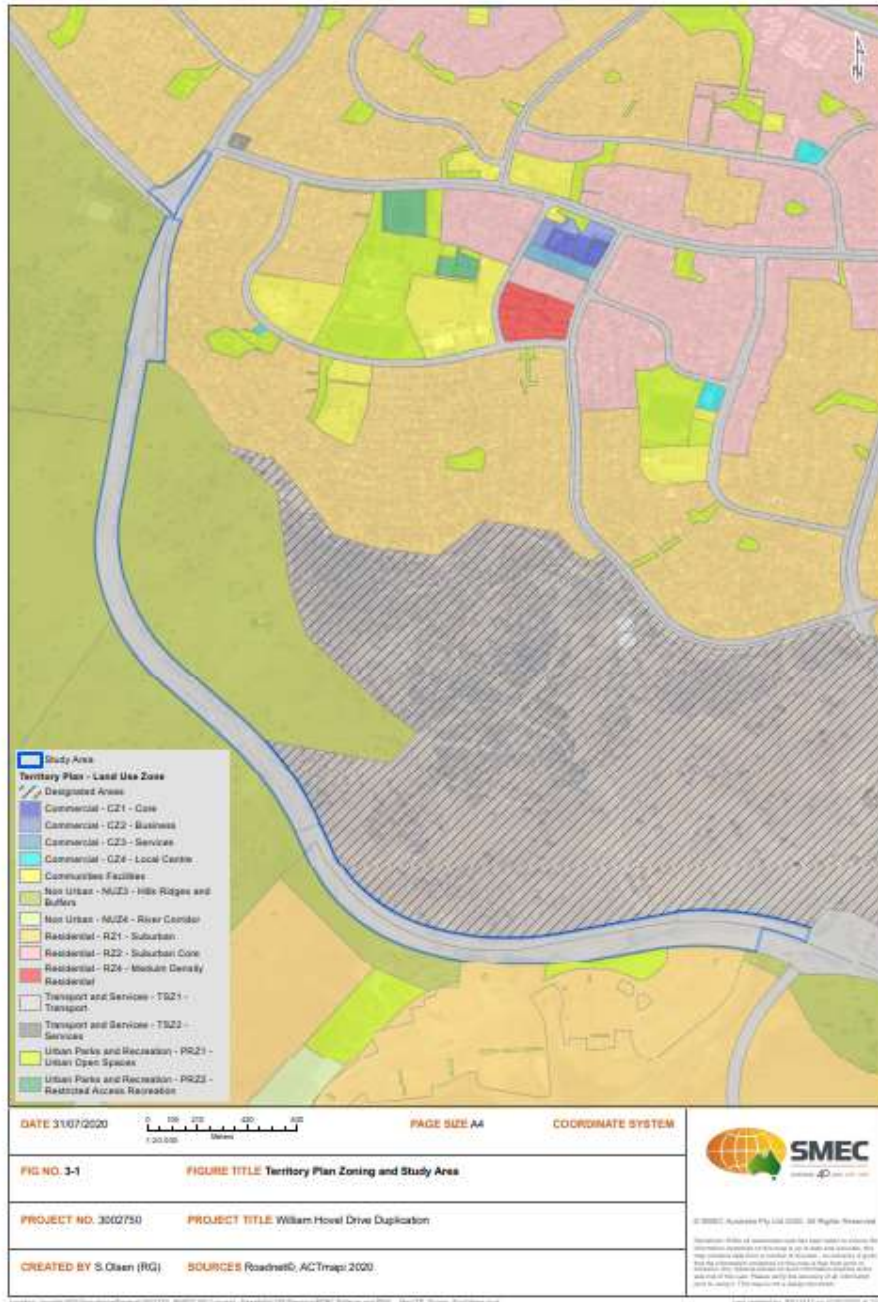
Figure 4-1 | Molonglo Valley District Precinct Map (source: Territory Plan, 2021)

4.2 Objectives and Development Tables

TSZ1 – Transport Zone Objectives

- a) *Make provision for a transport network that can provide for the efficient, safe and convenient movement of people and goods*
- b) *Ensure that major roads, light rail and transport infrastructure are developed in a comprehensive manner, including the provision of appropriate landscaping, street furniture and lighting, traffic control devices, and noise attenuation measures*
- c) *Provide for active travel and public transport.*

The proposal meets the objectives of the TSZ1 – Transport Zone Objectives by providing an efficient, safe and convenient movement of road users. The duplication of William Hovell Drive will improve the existing road network with the provision of a duplicated road with additional capacity, a new shared path, upgraded pedestrian underpasses, new drainage, signalised intersection to Drake-Brockman Drive, street lighting, new road furniture and upgraded landscaping.



The proposal is for duplication and upgrade works of a **'road reserve'** or **'public road'** that is not listed as a prohibited use in the TSZ1 Transport Zone Development Table. The project is specified in Schedule 4 of the Act as requiring impact track assessment.

Part 4.2 and 4.3 of the Act detail the activities, areas and processes when an EIS is required. These are detailed in **Table 4-2** and **Table 4-3**. The Project requires the preparation of an EIS as it is likely to have a significant impact on species listed under the *Nature Conservation Act 2014* (NC Act) and the EPBC Act. Due to this significant impact, an EIS is required to be prepared for the Project under the P&D Act. It is noted that an EIS application (EIS 202000014) has been lodged with the EPSDD concurrently as the lodgement of this development application.

Table 4-2 | Schedule 4 Planning and Development Act EIS Triggers – Activities

Item	Development Proposal	Comment
1	<p>Proposal for construction of a transport corridor including a major road, a dedicated bus way, a railway, or a light rail corridor, on any land, other than on land designated under the territory plan as a future urban area or in a transport and services zone, if the proposal is likely to have a significant adverse environmental impact on—</p> <ul style="list-style-type: none"> (a) air quality so as to be detrimental to the health of persons in an adjoining residential, commercial or community facility zone; or (b) ambient noise or vibration so as to be detrimental to the health of persons in an adjoining residential, commercial or community facility zone 	<p>N/A – the Project will not have significant detrimental air quality, noise or vibration impact on adjoining zones. There may be some localised impacts during construction, however these are not expected to be significant or long lasting.</p>
2	<p>Proposal that involves —</p> <ul style="list-style-type: none"> (a) electricity transmission line construction, including additions or realignment works, outside an existing easement or exceeding 500m in length, that are intended to carry underground or above ground transmission lines with a voltage of 132kV or more; or (b) a coal electricity generating station; or (c) an electricity generating station (other than a coal electricity generating station) including gas, wind, hydroelectric, geothermal, bio-material, solar power or co-generation— <ul style="list-style-type: none"> i. that is capable of supplying— <ul style="list-style-type: none"> A. the amount of electrical power prescribed by regulation; or B. if no amount is prescribed— 4MW or more of electrical power; or ii. in a location or of a kind or nature prescribed by regulation; or (d) an electricity generating station if the temperature of water released from the station into a body of water (other than an artificial body of water) is likely to vary by more than 2°C from the ambient temperature of the body of water 	<p>N/A</p>
3	<p>Proposal for construction of a water storage dam —</p> <ul style="list-style-type: none"> (a) that will be at least 15m high when measured from the lowest point of the general foundations to the crest of the dam; or (b) that will be at least 10m high when measured from the lowest point of the general foundations to the crest of the dam if— <ul style="list-style-type: none"> (i) the crest is not less than 500m in length; or (ii) the water storage capacity of the reservoir formed by the dam at normal operating level is at least 1 000 000 m³; or (iii) the recommended design flood discharge dealt with by the dam is at least 2000m³ per second; or (c) in the river corridor zone under the territory plan unless the conservator of flora and fauna produces an 	<p>N/A</p>

Item	Development Proposal	Comment
	<p>environmental significance opinion that the proposal is not likely to have a significant adverse environmental impact; or</p> <p>(d) on a continuously flowing river in a non-urban zone under the territory plan unless the conservator of flora and fauna produces an environmental significance opinion that the proposal is not likely to have a significant adverse environmental impact</p>	
4	<p>Proposal for construction of an airport or airfield (other than a helicopter landing facility used exclusively for emergency services purposes, including medical evacuation, fire fighting, retrieval or rescue)</p>	N/A
5	<p>Proposal for construction of a wastewater treatment plant (including a plant for the treatment of sewage or other effluent) that—</p> <p>(a) will be less than 1km from the boundary of a residential block or unit in a residential or commercial zone; or</p> <p>(b) will be able to treat each day more than —</p> <p>(i) 2 500 people equivalent capacity; or</p> <p>(ii) 750kL; or</p> <p>(c) will have capacity to store more than 1kt of sewage, sludge or effluent; or</p> <p>(d) will incinerate sewage or sewage products; or</p> <p>(e) will have a capacity to treat more than 100ML of wastewater (excluding stormwater) each year; but</p> <p>(f) is not —</p> <p>(i) a plant for the treatment of stormwater; or</p> <p>(ii) a small-scale wastewater treatment plant (including a plant for the treatment of sewage or other effluent but not including a small-scale plant prescribed by regulation); or</p> <p>(iii) a residential on-site wastewater treatment system (including a septic tank)</p>	N/A
6	<p>Proposal for construction of a petroleum storage facility with a storage capacity greater than 500kL of petroleum products at 1 time</p>	N/A
7	<p>Proposal for construction of a permanent venue for the conduct of motor racing events</p>	N/A
8	<p>Proposal for use of land for a commercial landfill facility, other than for the disposal of virgin excavated natural material (or other earth and rock fill that is inert waste) if—</p> <p>(a) the intended capacity of the facility is more than 5kt each year, or 20kt in total; or</p> <p>(b) the facility will be—</p> <p>(i) in an area with a high water table, highly permeable soils, sodic soils or saline soils; or</p> <p>(ii) less than 2km from the boundary of a residential block or unit in a residential or commercial zone</p>	N/A

Item	Development Proposal	Comment
9	<p>Proposal for the construction of a waste management facility that is—</p> <ul style="list-style-type: none"> (a) an incineration facility for the destruction by thermal oxidation of waste including biological, veterinary, medical, clinical, dental, quarantine and municipal waste; or (b) for the sterilisation of clinical waste; or (c) for the storage, treatment, disposal, processing, recycling, recovery, use or reuse of regulated waste 	N/A
10	<p>Proposal for a waste transfer station or recycling facility that sorts, consolidates or temporarily stores solid waste (including municipal waste) for transfer to another site for disposal, storage, reprocessing, recycling, use or reuse, if the transfer station —</p> <ul style="list-style-type: none"> (a) is intended to handle more than 30kt of waste each year; or will be less than 1km from the boundary of a residential block or unit in a residential or commercial zone; but (b) is not a small-scale waste management facility, on or near a residential block or near a residential unit, consisting of wheelie bins, small hoppers, or other small waste management bins or enclosures for the use of people living on the residential block or in the residential unit 	N/A
11	<p>Proposal that involves storage of the placard quantity of a Schedule 11 hazardous chemical on land, or in a building or structure on the land, that, immediately before the commencement day, was not registered as premises in the placard quantity register, unless the authority produces an environmental significance opinion indicating that the proposal is not likely to have a significant adverse environmental impact.</p>	N/A

Table 4-3 | Schedule 4 Planning and Development Act EIS Triggers – Areas and Processes

Item	Development Proposal	Comment
1	<p>Proposal that is likely to have a significant adverse environmental impact on 1 or more of the following, unless the conservator of flora and fauna provides an environmental significance opinion indicating that the proposal is not likely to have a significant adverse environmental impact:</p> <ul style="list-style-type: none"> (a) a critically endangered species; (b) an endangered species; (c) a vulnerable species; (d) a conservation dependent species; (e) a regionally threatened species; (f) a regionally conservation dependent species; (g) a provisionally listed threatened species; 	<p>Yes – the Project has the potential to impact on listed species. This has been confirmed through the referral of the project under the EPBC Act (refer to Appendix C).</p>

Item	Development Proposal	Comment
	<ul style="list-style-type: none"> (h) a listed migratory species; (i) a threatened ecological community; (j) a protected native species; (k) a Ramsar wetland; (l) any other protected matter 	
2	<p>Proposal involving —</p> <ul style="list-style-type: none"> (a) the clearing of more than 0.5ha of native vegetation in a native vegetation area, other than on land that is designated as a future urban area under the territory plan, unless the conservator of flora and fauna produces an environmental significance opinion that the clearing is not likely to have a significant adverse environmental impact; or (b) the clearing of more than 5.0ha of native vegetation in a native vegetation area, on land that is designated as a future urban area under the territory plan, unless the conservator of flora and fauna produces an environmental significance opinion that the clearing is not likely to have a significant adverse environmental impact 	<p>Yes – the Project would require clearing of more than 0.5 ha of native vegetation.</p>
3	<p>Proposal for development in a reserve, unless—</p> <ul style="list-style-type: none"> (a) the conservator of flora and fauna produces an environmental significance opinion that the proposal is not likely to have a significant adverse environmental impact; or (b) the proposal is for minor public works to be carried out by or for the Territory in accordance with a minor public works code approved by the conservator of flora and fauna under the Nature Conservation Act 2014, section 318A 	<p>N/A – the Project does not involve works in a reserve.</p>
4	<p>Proposal that is likely to have a significant adverse environmental impact on —</p> <ul style="list-style-type: none"> (a) a domestic water supply catchment; or (b) a water use purpose mentioned in the territory plan (water use and catchment general code); or (c) a prescribed environmental value mentioned in the territory plan (water use catchment general code) of a natural waterway or aquifer 	<p>N/A</p>
5	<p>Proposal that is likely to result in environmentally significant water extraction or consumption, other than a proposal for an urban lake, pond or retardation basin or a wastewater reuse scheme—</p> <ul style="list-style-type: none"> (a) in an existing urban area or on land that has been designated as a future urban area; and (b) that is designed in accordance with the water sensitive urban design general code under the territory plan 	<p>N/A</p>

Item	Development Proposal	Comment
6	<p>Proposal that is likely to have a significant adverse impact on the heritage significance of a place or object registered under the Heritage Act 2004, unless—</p> <ul style="list-style-type: none"> (a) the heritage council produces an environmental significance opinion that the proposal is not likely to have a significant adverse impact; or (b) the proposal is the demolition of a building that is affected residential premises, and the heritage council has approved a statement of heritage effect in relation to the proposal <p>Note 1 Affected residential premises—see the dictionary.</p> <p>Note 2 Statement of heritage effect—see the Heritage Act 2004, s 61G.</p>	<p>No, the current design will avoid impact and provide a buffer to identified places of heritage significance. Refer to Statement of Heritage Effect in Appendix G).</p>
7	<p>Proposal involving land included on the register of contaminated sites under the Environment Protection Act 1997 unless the authority produces an environmental significance opinion indicating that the proposal is not likely to have a significant adverse environmental impact</p>	<p>N/A</p>
8	<p>Proposal, other than on land in an existing urban area or land that is designated under the territory plan as a future urban area, with the potential to adversely affect the integrity of a site where significant environmental or ecological scientific research is being conducted by a government entity, a university or another entity prescribed by regulation</p>	<p>N/A</p>

An assessment against the Transport and Services Zone Development Code has been conducted and provided within this report, refer to **Table 4-4** for details.

4.3 Overlays and Clearance Zone Policies

The *Overlays and Clearance Zone Policies* outlines the 'purposes for which public land is reserved is indicated on the Map by a houndstooth border and by a map code'. The north-western portion of the site is mapped with Public Land – Line overlay zone.

A Letter of Authorisation signed by the Land Custodian – Roads ACT is submitted as part of the DA.

4.4 Transport and Services Zone Development Code

Table 4-4 | Assessment against the Transport and Services Zone Development Code (Effective: 21 February 2020)

Rules	Criteria	Compliance
Part A – Zone Specific Controls		
TSZ1 – Transport Zone		
Element 1: Restrictions on Use		
1.1 Use and Form		
Not Applicable		
TSZ2 – Services Zone		
Not Applicable		
Part B – General Development Controls		
Element 1: Restrictions on Use		
1.1 Plans of Management		
Not Applicable		
Element 2: Building and Site Controls		
2.1 Subdivision		

Rules	Criteria	Compliance
Not Applicable		
2.2 Demolition		
<p>R9</p> <p>In accordance with section 148 of the Planning and Development Act 2007, the application is accompanied by a Statement of Endorsement from utilities provider (including Water, Sewerage, Stormwater, Electricity and Gas) stating that:</p> <ul style="list-style-type: none"> a) All network infrastructure on or immediately adjacent the site has been identified on the plan b) All potentially hazardous substances and conditions (associated with or resulting from the demolition process) that may constitute a risk to utility services have been identified c) All required network disconnections have been identified and the disconnection works comply with utility requirements d) All works associated with the demolition comply with and are in accordance with utility asset access and protection requirements. 	<p>C9</p> <p>If a Statement of Endorsement is not provided the application will be referred to relevant utilities provider in accordance with the requirements of the Planning and Development Act 2007.</p>	<p>Consistent with C9</p> <p>SMEC and TCCS have regularly consulted with Evo Energy, Icon Water, Jemena and ICON-GNS throughout the development of the PSP plans.</p> <p>Utility Endorsement will be gained prior to demolition, and will form a condition approval on the DA.</p> <p>It is understood that the DA would be referred to the relevant entities for comment, and that a response to comments received may be required prior to the determination of the DA.</p>
2.3 National Capital Plan		

Rules	Criteria	Compliance
There is no applicable rule.	<p>C10</p> <p>Where a development is subject to Special Requirements under the National Capital Plan, or any relevant Development Control Plan prepared under the National Capital Plan, the development is not inconsistent with the Special Requirements or Development Control Plan. Where any provision of this code is inconsistent with Special Requirements under the National Capital Plan, or any relevant Development Control Plan prepared under the National Capital Plan, that provision has no effect.</p>	<p>Not Applicable</p>

ELEMENT 3: Built Form

Not Applicable

The development is for road duplication work which does not present any built form.

ELEMENT 4: Parking and Site Access

4.1 Traffic Generation

There is no applicable rule.	<p>C15</p> <p>The existing road network can accommodate the amount of traffic that is likely to be generated by the development.</p>	<p>Not Applicable</p> <p>Currently William Hovell Drive operates at over 20,000 vehicles per day which significantly exceeds the capacity of a single carriageway road.</p> <p>The proposal is for road duplication and upgrade works to accommodate additional traffic generated by new residential development in the estate of Ginninderry (West Belconnen) and the new suburbs of Strathnairn and Macnamara.</p>
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Rules	Criteria	Compliance
4.2 Vehicle Access and Parking		
There is no applicable rule.	C16 Vehicle access and parking complies with the requirements of the Parking and Vehicular Access General Code.	Not Applicable
4.3 Bicycle Parking		
There is no applicable rule.	C17 Bicycle Parking complies with the requirements of the Bicycle Parking General Code.	Not Applicable
4.4 Pedestrian Movement		
There is no applicable rule.	C18 Safe and convenient movement of public transport passengers, pedestrians and cyclists is provided.	Consistent with C18 Road safety measures have been included (safety barrier, regulatory and warning signage, and line marking) to ensure the safe and convenient movement of vehicles. A shared path is provided along the alignment to provide a grade separated pathway for cyclists and pedestrians, and to maintain existing connectivity to the Bicentennial National Trail
ELEMENT 5: Amenity		

Rules	Criteria	Compliance
5.1 Lighting		
<p>R19</p> <p>External lighting is provided to building frontages, all pathways, roads, laneways and car-parking areas in accordance with Australian Standard AS1158.3.1 <i>Pedestrian Lighting</i>.</p>	<p>C19</p> <p>External lighting is provided in accordance with the Crime Prevention Through Environmental Design General Code.</p>	<p>Complies with R19</p> <p>The proposed new lighting for the Project has been designed to meet the requirements of Category V3 in accordance with Australian Standard AS/NZS 1158.1.1:2005. The V3 category has been applied as William Hovell Drive is an arterial road, and this category is in line with the requirements of TCCS.</p> <p>The new shared user pathway lighting has been designed to meet the requirements of Category PP5 in accordance with Australian Standard AS/NZS 1158.3.1:2020. The PP5 category has been applied for the shared user path, as it is the most similar to category P4 in the superseded version of AS/NZS 1158.3.1. Category P4 has been applied to numerous pathways throughout Canberra.</p> <p>It is noted that new lighting has been designed to minimise light spill to the surrounding nature reserve by using shorter light poles.</p> <p>Refer to Street lighting plans Dwg No. 120114-E200 prepared by ACOR Rudds Consultants Pty Ltd within Appendix A.</p>
<p>R20</p> <p>All external lighting provided is in accordance with AS 4282 <i>Control of the Obtrusive Effects of Outdoor Lighting</i>.</p>	<p>C20</p> <p>All outdoor lighting, including security and car park lighting, is designed and sited to minimise light spill.</p>	<p>Not Applicable</p> <p>The proposed lighting is not classified as outdoor lighting under Australian Standard AS 4282 <i>Control of the Obtrusive Effects of Outdoor Lighting</i>. Whilst the proposal includes an upgraded access to the</p>

Rules	Criteria	Compliance
		Weetangera Cemetery carparking, alterations to the existing car park, including lighting, not proposed.
5.2 Signs		
There is no applicable rule.	<p>C21</p> <p>Signs comply with the Signs General Code</p>	<p>Consistent with C21</p> <p>Refer to Section 4.6 of this report for details.</p>
ELEMENT 6: Environment		
6.1 Assessment of Environmental Effects		
There is no applicable rule.	<p>C22</p> <p>The development application is accompanied by an Assessment of Environmental Effects that addresses the following:</p> <ul style="list-style-type: none"> a) appropriate measures to soften the impact of development on the landscape b) impacts on the character and appearance of any building, area of architectural, historic, aesthetic or scientific interest, or other object or place of special cultural or heritage value c) impacts on public health and safety, including crime prevention 	<p>Consistent with C22</p> <p>A Preliminary Environmental Assessment was prepared for the Project and identified potential significant impact on areas of Box Gum Woodland, Pink-tailed Worm-lizard and potential Golden Sun Moth habitat. The Proponent chose to refer this project to the Commonwealth Department of Agriculture, Water and the Environment to determine whether the Project constitutes a Controlled Action under the Environment Protection and Biodiversity Conservation Act 1999. Confirmation that the Project is a Controlled Action was received on 29 July 2020. It is noted that a full environmental assessment and an application for Environmental Impact Statement (EIS) has been prepared concurrently to enable the project to be considered under the bi-lateral agreement with the Commonwealth, and to permit</p>

Rules	Criteria	Compliance
	<ul style="list-style-type: none"> d) whether public transport services are necessary and, if so, whether they are available and adequate e) impacts on the likely accessibility to facilities and services for users and consumers f) any significant short or long-term effect, that the relevant authority considers the use or development may have on the environment, including social and economic effects and potential cumulative effects g) impacts on the watercourses and drainage characteristics of the area, including water quality h) impacts on the amenity of surrounding land uses, including impacts on air quality, noise, overshadowing, privacy, and the level of wind turbulence generated. 	<p>concurrent notification and assessment of the EIS and Impact Track DA.</p>
6.5 Heritage		
<p>R27</p> <p>In accordance with section 148 of the <i>Planning and Development Act 2007</i>, applications for development on land or buildings subject to interim or full heritage registration are to be accompanied by advice from the Heritage Council stating that the development meets the requirements of the <i>Heritage Act 2004</i>.</p>	<p>C27</p> <p>If advice from the Heritage Council is required, but not provided, then the application will be referred to the Heritage Council in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Consistent with C27</p> <p>Both the Weetangera Cemetery and Kama Woodlands are currently registered to the ACT Heritage Register as holding high heritage significance and no impacts will occur within the registered curtilages. The areas of identified PAD would be fenced during construction to ensure accidental impact does not occur. For further information refer to the Cultural Heritage</p>

Rules	Criteria	Compliance
		<p>Assessment submitted with the EIS (Appendix D to the EIS).</p> <p>It is understood that the DA might be referred to the Heritage Council for comment, and that a response to comments received may be required prior to the determination of the DA.</p>
6.6 Contamination		
<p>R28</p> <p>A statement is provided that the potential for land contamination has been assessed in accordance with the <i>ACT Government Strategic Plan – Contaminated Sites Management 1995</i> and the <i>ACT Environment Protection Authority Contaminated Sites Environmental Protection Policy 2000</i>, and it is demonstrated that the land is suitable for the proposed development.</p>	<p>C28</p> <p>If a statement that the site has been assessed is not provided, the application will be referred to the relevant agency in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Consistent with C28</p> <p>Potential contamination sources along the alignment and within surrounding areas have been identified. Refer to <i>William Hovell Drive Duplication – Detailed Design: Contamination Assessment</i> (SMEC, 2020) submitted with the EIS for further detail.</p> <p>It is understood that the DA might be referred to the EPA for comment, and that a response to comments received may be required prior to the determination of the DA.</p>
6.7 Trees		
<p>R29</p> <p>This rule applies to a development that has one or more of the following characteristics:</p> <p>a) requires groundwork within the tree protection zone of a <i>protected tree</i></p>	<p>This is a mandatory requirement. There is no applicable criterion.</p>	<p>Complies with R29</p> <p>A Tree Management Plan is submitted as part of the DA package. The proposed works will be undertaken in accordance with the requirements of the Tree Management Plan.</p>

Rules	Criteria	Compliance
<p>b) is likely to cause damage to or removal of any <i>protected trees</i></p> <p>The authority shall refer the development application to the Conservator of Flora and Fauna.</p> <p>Notes:</p> <ol style="list-style-type: none"> Under the <i>Planning and Development Regulation 2008</i> a development application for a <i>declared site</i> under the <i>Tree Protection Act 2005</i>, must be referred to the Conservator of Flora and Fauna. The authority will consider any advice from the Conservator of Flora and Fauna before determining the application in accordance with the <i>Planning and Development Act 2007</i>. <i>Protected tree</i> and <i>declared site</i> are defined under the <i>Tree Protection Act 2005</i>. 		<p>Refer to Appendix B for the Tree Removal and Retention plans prepared by Envirolinks Design.</p>
<p>6.8 Erosion and Sediment Control</p>		
<p>R30</p> <p>For sites less than 0.3 of a hectare, a plan is provided to demonstrate that the development complies with the <i>ACT Environment Protection Authority, Environment Protection Guidelines for Construction and Land Development in the ACT, August 2007</i>.</p>	<p>C30</p> <p>If a plan is not provided, the application will be referred to the relevant agency in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Not Applicable</p> <p>The site is larger than 0.3 of a hectare.</p>
<p>R31</p> <p>For development on a site greater than 0.3 of a hectare, the application is accompanied by an</p>	<p>C31</p> <p>If an endorsed Sediment and Erosion Control Plan is not provided the application will be referred to the</p>	<p>Complies with R31</p>

Rules	Criteria	Compliance
Erosion and Sediment Control Plan endorsed by the ACT Environment Protection Authority	relevant agency in accordance with the requirements of the <i>Planning and Development Act 2007</i> .	A Sedimentation and Erosion Control Plan and report is provided in Appendix E .
6.9 Hazardous Materials		
<p>R32</p> <p>For the demolition of single dwelling housing (including garages and carports) constructed* prior to 1985, a Hazardous Materials Survey (including an asbestos survey) is carried out and signed by an appropriately licensed person.</p> <p>The Survey is provided and covers the disposal of hazardous materials, showing that:</p> <ul style="list-style-type: none"> a) Hazardous material disposal (including asbestos) is to be at a licensed disposal facility in the ACT b) If hazardous materials are to be transported for disposal interstate, approval from the Environment Protection Authority is obtained prior to removal of material from the site c) An appropriately licensed contractor is engaged for the removal and transport of all hazardous materials (including asbestos) present at the site <p>* Construction date means the date when the Certificate of Occupancy was issued.</p>	<p>C32</p> <p>If an endorsed Sediment and Erosion Control Plan is not provided the application will be referred to the relevant agency in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Not Applicable</p> <p>No single dwelling housing is included in this application.</p>

Rules	Criteria	Compliance
ELEMENT 7: Services		
7.1 Waste Management		
<p>R33</p> <p>In accordance with section 148 of the <i>Planning and Development Act 2007</i>, the application is accompanied by a Statement of Compliance from the Department of Territory and Municipal Services stating that the waste facilities and management associated with the development are in accordance with the current version of the <i>Development Control Code for Best Practice Waste Management in the ACT</i>.</p>	<p>C33</p> <p>If a Statement of Compliance is not provided the application will be referred to the Department of Territory and Municipal Services in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Consistent with C33</p> <p>Waste associated with construction would be appropriately managed, classified (as necessary) and lawfully disposed.</p> <p>Safeguards would be implemented through the Construction Environment Management Plan to avoid and minimise disturbance to the environment as a result of the construction of the Project.</p> <p>It is understood that the DA might be referred to the relevant entities for comment, and that a response to comments received may be required prior to the determination of the DA.</p>
7.2 Waste Water		
<p>R34</p> <p>Subject to ACTEWAGL approval, all under cover areas drain to the sewer.</p>	<p>This is a mandatory requirement. There is no applicable criterion.</p>	<p>Noted</p>
7.3 Utilities		
<p>R35</p>	<p>C35</p>	<p>Consistent with C35</p>

Rules	Criteria	Compliance
<p>A Statement of Compliance from each relevant utility provider (for water, sewerage, stormwater, electricity and gas) is provided, which confirms that the location and nature of earthworks, utility connections, proposed buildings, pavements and landscape features comply with utility standards, access provisions and asset clearance zones. Note: Where there is a conflict between planning and utility requirements, the utility requirements take precedence over other provisions of this Code.</p>	<p>If a Statement of Compliance is not provided the application will be referred to the Department of Territory and Municipal Services in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Utilities Endorsement will be gained prior to demolition, and will form a condition of approval on the DA.</p> <p>It is understood that the DA might be referred to the relevant entities for comment, and that a response to comments received may be required prior to the determination of the DA.</p>
<p>7.4 Storage</p>		
<p>R36</p> <p>Outdoor storage areas are located behind the building line and screened from view from any road or other public area.</p>	<p>C36</p> <p>Where the proposed use of the site requires open areas for storage of goods and materials, adequate provision is included in the design layout of the site.</p>	<p>Not Applicable</p> <p>No outdoor storage is proposed.</p>
<p>R37</p> <p>Outdoor storage areas do not encroach on required car-parking spaces, driveways exclusively required for vehicular circulation or landscape areas</p>	<p>This is a mandatory requirement. There is no applicable criterion.</p>	<p>Not Applicable</p> <p>No outdoor storage is proposed.</p>
<p>7.5 Servicing and Site Management</p>		
<p>R38</p> <p>In accordance with section 148 of the <i>Planning and Development Act 2007</i>, the application is accompanied by a Statement of Endorsement from the relevant agency stating that the waste facilities</p>	<p>C38</p> <p>If a Statement of Compliance is not provided the application will be referred to the Department of Territory and Municipal Services in accordance with</p>	<p>Consistent with C38</p> <p>Waste associated with construction would be appropriately managed, classified (as necessary) and disposed of. Safeguards would be implemented through the Construction Environment Management</p>

Rules	Criteria	Compliance
<p>and management associated with the development are in accordance with the <i>Design Standards for Urban Infrastructure</i>.</p>	<p>the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Plan to avoid and minimise disturbance to the environment as a result of the construction of the Project.</p> <p>It is understood that the DA might be referred to the relevant entities for comment, and that a response to comments received may be required prior to the determination of the DA.</p>

4.5 Crime Prevention Through Environmental Design General Code

Table 4-5 | Assessment against the Crime Prevention Through Environmental Design General Code (Effective: 16 December 2011)

Rules	Criteria	Compliance
1.1 Neighbourhood Design		
There is no applicable rule.	C1 Design is in accordance with the recommendations of a crime risk assessment as outlined in the ACT Crime Prevention and Urban Design Resource Manual.	Not Applicable
2.1 General Code		
There is no applicable rule.	C2 The development described in Table 1 meet the Crime Prevention Through Environmental Design General Code	Consistent with C2 An assessment is required as the proposal is for a "Road" under Table 1 and includes a shared path with pedestrian/cyclist underpasses.
3.1 Open Space and Community (Shared) Areas - Not Applicable		
3.2 Children's Play Areas - Not applicable		
3.3 Lighting		

Rules	Criteria	Compliance
<p>There is no rule applicable.</p>	<p>C10</p> <p>Provide a schedule of lighting showing that lighting complies with each of the following:</p> <ul style="list-style-type: none"> a) Australian Standard AS1158 Lighting for Roads and Public Spaces Part 3.1: Pedestrian Area (Category P) Lighting – Performance and Design Requirements b) Australian Standard AS1158: Lighting for Roads and Public Spaces Part 2: Computer Procedures for the Calculations of Light Technical Parameters for Category V and Category P Lighting c) Australian Standard AS4282: The Control of Obtrusive Effects of Outdoor Lighting, in the case of security lighting 	<p>Consistent with C10</p> <p>The proposed new lighting for the Project has been designed to meet the requirements of Category V3 in accordance with Australian Standard AS/NZS 1158.1.1:2005. The V3 category has been applied as William Hovell Drive is an arterial road, and this category is in line with the requirements of TCCS.</p> <p>The new shared user pathway lighting has been designed to meet the requirements of Category PP5 in accordance with Australian Standard AS/NZS 1158.3.1:2020. The PP5 category has been applied for the shared user path, as it is the most similar to category P4 in the superseded version of AS/NZS 1158.3.1. Category P4 has been applied to numerous pathways throughout Canberra.</p> <p>It is noted that new lighting has been designed to minimise light spill to the surrounding nature reserve by using shorter light poles.</p> <p>Refer to Street lighting plans Dwg No. 120114-E200 prepared by ACOR Rudds Consultants Pty Ltd within Appendix A.</p>

Rules	Criteria	Compliance
There is no rule applicable.	<p>C11</p> <p>Legitimate users and activities at night are encouraged by lighting:</p> <ul style="list-style-type: none"> a) spaces evenly and consistently (except where accent/feature lighting is necessary) b) inset spaces, entries/exits and paths c) to reduce the casting of shadows that could hide intruders d) directional signage e) building entries f) exterior to interior spaces evenly to allow for surveillance 	<p>Consistent with C11</p> <p>The road and shared path, including underpasses, will be appropriately lit for safety.</p>
There is no rule applicable.	<p>C12</p> <p>Areas that are not intended for night time are not lit and are closed off to pedestrians.</p>	<p>Not Applicable</p> <p>The proposed works are within the public domain.</p>
There is no rule applicable.	<p>C13</p> <p>Damage to light fixtures are minimised by selecting vandal-resistant, high mounted light fixtures. All light bulbs are protected with a suitable lantern bowl.</p>	<p>Consistent with C13</p> <p>External lighting will be mounted at appropriate heights and will be fixed to negate opportunities for vandalism. Refer to plans for specifications.</p>
<p>3.4 Signs</p>		

Rules	Criteria	Compliance
<p>R14</p> <p>A statement is provided that all directional signage will comply with the requirements of AS1742.10 (1991) Manual of Uniform Traffic Control Devices – Pedestrian Control and Protection</p>	<p>This is a mandatory rule. There are no criteria.</p>	<p>Complies with R14</p> <p>Directional signage detailed in Appendix A - Package 15 "Traffic Control Devices".</p>
<p>There is no rule applicable</p>	<p>C15</p> <p>Locate signs so that they comply with each of the following:</p> <ul style="list-style-type: none"> a) they are clearly visible from a distance at all times b) they are not likely to be obscured by growing vegetation c) they are strategically placed at entrances and near activity centres including bus stops, taxi rank and public facilities 	<p>Consistent with C15</p> <p>Signage detailed in Appendix A - Package 15 "Traffic Control Devices".</p>
<p>There is no rule applicable.</p>	<p>C16</p> <p>Provide legible signs for all users:</p> <ul style="list-style-type: none"> a) specify signs of high contrast, with light lettering on dark backgrounds with nonreflective surfaces; b) signs should be developed as a system with a consistent pattern, based on a hierarchy of most important messages. 	<p>Consistent with C16</p> <p>Signage will be clear and legible.</p>

4.6 Signs General Code

Regulatory and warning signages are proposal as part of this application. The selected type of signage is a pole sign.

The Signs General Code is applicable to the design, content and positioning of the proposed signs as detailed in Package 15 of Appendix A “Traffic Control Devices”. An assessment of the Signs General Code is included in **Table 4-6** below.

Table 4-6 | Assessment against the Signs General Code (Effective: 31 March 2008)

Rules	Criteria	Compliance
PART A – GENERAL DEVELOPMENT CONTROLS		
ELEMENT 1: USE		
1.1 Permissible Signs		
R1 The sign type and location comply with Table 1. Signs Permissible in Zones	C1 The Sign meets the requirements of C4.	Complies with R1 The proposed signs are Pole Signs and are permitted under ‘Other’ zones identified on Table 1. It is understood the proposed signs are subject to individual assessment.
1.2 Content of Sign		
R2 The sign content and sign location comply with Table 2. Allowable Signage Content and Location	C2 The Sign meets the requirements of C4	Not Applicable The types of signage proposed are not specified in Table 2.
1.3 Licensing		
R3	C3	Consistent with C3.

Rules	Criteria	Compliance
A fixed Sign that is designed or located so that it encroaches on, over, or into unleased Territory land, has a valid licence agreement with the Territory for the sign that has been issued under Part 9.11 of the <i>Planning and Development Act 2007</i> .	If development approval is granted for a fixed Sign that is designed or located so that it encroaches on, over, or into unleased Territory Land a condition of approval will be imposed requiring the applicant to enter into a licence agreement with the Territory prior to the approval of the encroaching signage taking effect.	All proposed signage is on unleased Territory Land under the land custodianship of Roads ACT and may be subject to the requirement for a license agreement. This can be addressed by way of a condition of consent.

ELEMENT 2: BUILT FORM

2.1-2.5 Awning Fascia Sign, Blind Sign, Business Plates, Canopy Sign, Changeable Message Sign

Not Applicable

2.6 Construction Site Fence Sign

R22 Maximum Surface Area: A 1m x 1m square for each metre of length of the fence.	C22 The Sign meets the requirements of C4.	Noted
R23 Illumination: Not illuminated.	C23 The Sign meets the requirements of C4 and the illumination of the sign: c) minimises the spill effects or escape of light into the night sky; and d) eliminates shadows and promotes the safety of adjoining public areas; and	Complies with R23 All proposed signs are not illuminated.

Rules	Criteria	Compliance
	e) the intensity of lighting and hours of illumination do not unreasonable impact on any residential properties.	
2.7-2.17 Display Home or Development Site Sales Sign, Event Sign, Fence Sign, Flag Pole Sign, Ground Sign, Hamper Sign, High Rise Building Sign, Inflatable Sign, Information Sign, Lantern Sign, Mobile Sign		

Not Applicable

2.18 Pole Sign		
R73 Maximum number: One two-sided pole sign per site.	C73 The Sign meets the requirements of C4.	Complies with R73 Regulatory and warning signage has been shown on design drawings in accordance with TCCS Municipal Infrastructure Technical Specifications, Austroads guides and AS1742. Only one-sided pole signs are proposed.
R74 Maximum surface area: 4.5 square metres per side, for a maximum of two sides.	C74 The Sign meets the requirements of C4.	Complies with R74 Each proposed sign has a surface area of less than 4.5m ² .
R75 Maximum height above ground: 4.5 metres.	C75 The Sign meets the requirements of C4.	Complies with R75 All proposed signs do not exceed 4.5m in height Refer to dwg no's. 3002750-TCD-1831 to 1848 .

Rules	Criteria	Compliance
R76 Minimum setback from side boundary: 3 metres.	C76 The Sign meets the requirements of C4.	Not Applicable
R77 Content: Name signs of development estates must include the suburb name.	This is a mandatory rule. There are no criteria.	Not Applicable
R78 Illumination: Not illuminated.	C78 The Sign meets the requirements of C4 and the illumination of the sign: a) minimises the spill effects or escape of light into the night sky; and b) eliminates shadows and promotes the safety of adjoining public areas; and c) the intensity of lighting and hours of illumination do not unreasonable impact on any residential properties.	Complies with R78 All proposed signs are not illuminated.
R79 Minimum setback of 1200mm from the sign to the road kerb/shoulder.	This is a mandatory rule. There are no criteria.	Complies with R79 All proposed signs are setback at least 1.2m from road kerb or shoulder. Refer to dwg no's. 3002750-TCD-1831 to 1848 .
2.19–2.22 Project Sign, Pylon/Column Sign, Roof Sign, Stallboard Sign		

Rules	Criteria	Compliance
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Not Applicable

2.23 Territory Sign

<p>R104</p> <p>The sign meets the specific sign type requirements contained in this code and are constructed by or on behalf of the Territory.</p>	<p>C104</p> <p>The Sign meets the requirements of C4 and are constructed by or on behalf of the Territory.</p>	<p>Complies with R104</p> <p>This proposal including the design and construction of signs are on behalf of the IDPF (TCCS agency).</p>
<p>R105</p> <p>a) Within road reservations and on unleased Territory land signage content is limited to the message requirements of the Territory Government and traffic control; and</p> <p>b) Content is to relate to directional information for identifying locations, buildings, services and events; and</p> <p>c) Commercial business names or logos are not permitted.</p>	<p>C105</p> <p>The Sign meets the requirements of C4.</p>	<p>Complies with R105</p> <p>a) All proposed signs are located within road reservations and the content is for the purpose of traffic control only.</p> <p>b) Traffic and directional content.</p> <p>c) No commercial business names or logos are included.</p>

2.24-2.28 Under Awning Sign, Vertical Banner Building Sign, Vertical Banner Freestanding Sign, Wall Sign, Window Sign

Not Applicable

ELEMENT 3: Sign Construction

3.1 Traffic Safety

Rules	Criteria	Compliance
<p>R132</p> <p>A sign must not:</p> <ul style="list-style-type: none"> a) Obstruct pedestrians’ view of traffic, or vehicle drivers’ view of pedestrians, other traffic, or the road ahead; or b) Create confusion for drivers at critical locations, (such as intersections, traffic signals, or merging and weaving situations), due to the design, message/pictures, colours and location of the sign. 	<p>This is a mandatory rule. There are no criteria.</p>	<p>Complies with R132</p> <p>All signs have been designed in accordance with TCCS Municipal Infrastructure Technical Specifications, Austroads guides and AS1742 to ensure they will not:</p> <ul style="list-style-type: none"> a) Obstruct pedestrians’ view of traffic, or vehicle drivers’ view of pedestrians, other traffic, or the road ahead; or b) Create confusion for drivers at critical locations, (such as intersections, traffic signals, or merging and weaving situations), due to the design, message/pictures, colours and location of the sign. <p>Refer to dwg no’s. 3002750-TCD-1831 to 1848 within Appendix A.</p>
<p>3.2 Installation fixings</p>		
<p>R133</p> <p>No support, fixing, suspension or other systems required for the installation of a sign are exposed, unless designed as an integral feature of the sign.</p>	<p>C133</p> <p>Conduits, wiring, switches or the mounting of other apparatus are discreetly placed and out of general view.</p>	<p>Noted</p>
<p>R134</p> <p>A sign must not be nailed or similarly fixed to a tree.</p>	<p>This is a mandatory rule. There are no criteria.</p>	<p>Complies with R134</p> <p>No proposed sign is nailed or similarly fixed to any tree.</p>

Rules	Criteria	Compliance
		Refer to dwg no's. 3002750-TCD-1831 to 1848 within Appendix A .
3.3 Animated or flashing signs		
R135 Signs do not contain animated or flashing elements.	C135 The sign meets the requirements of C4.	Complies with R135 No animated or flashing signage is proposed.
ELEMENT 4: ENVIRONMENT		
4.1 National Capital Plan		
R136 There are no National Capital Plan requirements that apply to the development.	C136 Where a development is subject to Special Requirements under the National Capital Plan (including any relevant Development Control Plan) the development is not inconsistent with the Special Requirements.	Consistent with C136
4.2 Heritage		
R137 In accordance with section 145(2) of the <i>Planning and Development Act 2007</i> , applications for development on land or buildings subject to interim or full heritage registration are to be accompanied by advice from the Heritage Council stating that the	C137 If advice from the Heritage Council is required, but not provided, then the application will be referred to the Heritage Council in accordance with the requirements of the <i>Planning and Development Act 2007</i> .	Consistent with C137 Consultation with the Heritage Council has occurred throughout the preparation of the PSP design. The project has been designed to avoid identified PAD areas. A Statement of Heritage Effect has been provided as Appendix D to the EIS. It is anticipated

Rules	Criteria	Compliance
development meets the requirements of the <i>Heritage Act 2004</i> .		that the Application be referred to the Heritage Council for comment.
4.3 Trees		
<p>R138</p> <p>In accordance with section 145(2) of the <i>Planning and Development Act 2007</i>, where the development proposal requires groundwork within the tree protection zone of a protected tree, or is likely to cause damage to or removal of, any protected trees, the application must be accompanied by a Tree Management Plan approved under the <i>Tree Protection Act 2005</i>.</p> <p>Note: "Protected tree" is defined under the <i>Tree Protection Act 2005</i>.</p>	<p>C138</p> <p>If an approved Tree Management Plan is required, but not provided, then a draft Tree Management Plan is to accompany the application. The draft Tree Management Plan will be referred to the relevant agency in accordance with the requirements of the <i>Planning and Development Act 2007</i>.</p>	<p>Consistent with C138</p> <p>Refer to landscape plans prepared by Envirolinks Design which include detail of trees to be removed/retained in Appendix B.</p>
4.4 Environmental Control		
<p>R139</p> <p>A sign must not be nailed or similarly fixed to a tree.</p>	<p>This is a mandatory requirement. There is no applicable criterion.</p>	<p>Complies with R139</p> <p>No signage is proposed to be fixed to a tree.</p>

4.7 Waterways: Water Sensitive Urban Design General Code

Table 4-7 | Assessment against the Waterways: Water Sensitive Urban Design General Code (Effective: 21 February 2020)

Rules	Criteria	Compliance
Element 1: Mains water use reduction		
1.1 Mains Water Use Reduction Target		
<p>R1</p> <p>This rule applies to all development currently connected or intended to be connected to mains water supply except any of the following:</p> <ul style="list-style-type: none"> a) development subject to the estate development code b) development for minor alterations or extensions involving 50% or less of the existing floor area. <p>Development achieves a minimum 40% reduction in mains water consumption compared to an equivalent development constructed in 2003.</p> <p>Note: Compliance with this rule is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>This is a mandatory requirement. There is no applicable criterion.</p>	<p>Not Applicable</p> <p>The development is for a major road duplication and no water consumption is proposed.</p>
Element 2: Stormwater Quantity		
2.1 On-site stormwater retention		

Rules	Criteria	Compliance
<p>R2</p> <p>This rule applies to development for at least one of the following:</p> <ul style="list-style-type: none"> a) development on sites greater than 2,000m² involving works that have the potential to alter the stormwater regime of the site, including sites subject to the estate development code b) development within existing urban areas which increases impervious area by 100m². <p>This rule does not apply to any of the following:</p> <ul style="list-style-type: none"> a) development of major roads b) sites identified in a precinct code that stormwater retention requirements for the site have been fully dealt with through an estate development plan. <p>Development complies with at least one of the following:</p> <ul style="list-style-type: none"> a) stormwater retention management measures are provided and achieve all of the following: <ul style="list-style-type: none"> i). Stormwater storage capacity of 1.4kL per 100m² of the total impervious area of the site is provided specifically to retain and reuse stormwater generated on site as a whole 	<p>C2</p> <p>Development complies with all of the following:</p> <ul style="list-style-type: none"> a) It is demonstrated that stormwater retention measures can be more successfully met offsite b) development complies with at least one of the following stormwater retention management measures: <ul style="list-style-type: none"> i). An equivalent volume of stormwater is stored and used at an offsite location within the same catchment or a catchment in proximity to the site as part of a stormwater offset agreement ii). If it is demonstrated that the above stormwater retention measures are unable to be provided, then a contribution to the construction of offsite measures within the same catchment or a catchment in proximity to the site as a means of offset may be approved by the Planning and Land Authority. <p>For this criterion, the meaning of a stormwater offset agreement as defined and detailed in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>Not Applicable</p> <p>The development is for a major road duplication and no water consumption is proposed.</p>

Rules	Criteria	Compliance
<p>ii). Retained stormwater is used on site</p> <p>b) development captures, stores and uses the first 15mm of rainfall falling on the site.</p> <p>For this rule, on-site stormwater retention is defined as the storage and use of stormwater on site.</p> <p>Note: Compliance with this rule is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: ACT Practice Guidelines for Water Sensitive Urban Design defines acceptable uses of stormwater on site.</p> <p>Note: Any site specific stormwater retention requirements for new estates must be nominated on planning control plans submitted with the estate development plan.</p>		
<p>2.2 On-site stormwater detention</p>		
<p>R3</p> <p>This rule applies to development for at least one of the following:</p> <p>a) development on sites greater than 2,000m² involving works that have the potential to alter the stormwater regime of the site, including sites subject to the estate development code</p> <p>b) development within existing urban areas which increases impervious area by 100m²</p>	<p>C3</p> <p>Stormwater detention measures are provided and achieve all of the following:</p> <p>a) ensure that the peak rate of stormwater runoff from the site does not exceed the peak rate of runoff from an unmitigated (rural) site of the same area for the 1 Exceedance per Year (1EY)</p> <p>b) A maximum of 30% of the runoff from the site may bypass the onsite stormwater</p>	<p>Not Applicable</p> <p>The development is for a major road duplication and no water consumption is proposed.</p>

Rules	Criteria	Compliance
<p>This rule does not apply to any of the following:</p> <ul style="list-style-type: none"> a) development of major road b) sites identified in a precinct code indicating that stormwater detention requirements have been fully met. <p>Stormwater detention measures are provided and achieve all of the following:</p> <ul style="list-style-type: none"> a) capture and direct runoff from the entire site b) Stormwater storage capacity of 1kL per 100m² of impervious area is provided to specifically detain stormwater generated on site c) The detained stormwater is designed to be released over a period of 6 hours after the storm event. <p>For this rule on-site stormwater detention is defined as the short term storage and release downstream of stormwater runoff.</p> <p>Note: Compliance with this rule is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: Calculating on-site detention can include 50% of the volume of rainwater tanks where stormwater is used on-site.</p> <p>Note: For new estates any stormwater detention must be nominated on planning control plans submitted with the</p>	<p>detention system where it can be demonstrated that at least one of the following circumstances applies:</p> <ul style="list-style-type: none"> i). Difficult ground levels ii). The nature of the receiving drainage system cannot receive runoff from the entire site iii). The need to retain significant trees or vegetation iv). other demonstrated circumstances. <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: where an estate development plan has partially achieved the stormwater detention measures, this can be taken into account for the detention measures on individual sites.</p>	

Rules	Criteria	Compliance
<p>estate development plan. In particular, where an estate development plan has partially achieved the stormwater detention measures, this can be taken into account for the detention measures on individual sites.</p>		
<p>2.3 Stormwater quantity for major road on sites over 2000m²</p>		
<p>R4</p> <p>This rule applies to development of major roads involving sites greater than 2000m².</p> <p>Development complies will all of the following:</p> <ul style="list-style-type: none"> a) The capacity of existing pipe (minor) stormwater connection to the site is not exceeded in the 1 in 10 year storm event b) The capacity of the existing overland (major) stormwater system to the site is not exceeded in the 1 in 100 year storm event 	<p>C4</p> <p>Development for major roads on sites greater than 2000m² complies with at least one of the following:</p> <ul style="list-style-type: none"> a) A reduction of the 1 in 5 year and 1 in 100 year stormwater peak run off flow to predevelopment levels b) The capacity of the downstream piped stormwater system to its outlet with an open channel is not exceeded in the 1 in 10 year storm event. <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>Complies with R4</p> <p>R4 applies as the development is for a major road duplication involving sites greater than 2,000m². The drainage is configured to ensure the duplication of William Hovell Drive does not place unnecessary pressure on existing stormwater infrastructure.</p> <p>There are 23 culvert crossings within the proposed upgraded section of the road, however these are generally within non-residential areas and capture flows into the nature reserves and open rural areas.</p> <p>The existing transverse drainage lines have been retained to provide consistency with the current drainage arrangement and minimise impact to flora, fauna and nature reserves.</p> <p>The drainage designs and culverts have sufficient capacity to ensure the road is protected from flooding up to the 1 in 100 year storm event.</p>
<p>2.4 On-site stormwater detention for estate development plans</p>		
	<p>C5</p>	<p>Not Applicable</p>

Rules	Criteria	Compliance
<p>There is no applicable rule.</p>	<p>This criterion applies to estate development plans.</p> <p>Stormwater detention measures are provided and the peak rate of stormwater runoff from the estate does not exceed the peak rate of runoff from an unmitigated (rural) site of the same area for minor and major storms.</p> <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: The Major (1% Annual Exceedance Probability (AEP)) and Minor storms are as defined by Transport Canberra and City Services Directorate (TCCS) or the agency responsible for stormwater management.</p> <p>Note: Stormwater detention measures required for each individual block may contribute toward meeting the overall detention requirements for the estate as demonstrated in an estate development plan. Note: Any site specific stormwater detention must be nominated on planning control plans submitted with the estate development plan.</p>	<p>The development is not for an EDP.</p>
<p>Element 3: Stormwater Quality</p>		
<p>3.1 Stormwater Quality Target – sites greater than 2000m²</p>		
<p>R6</p> <p>This rule applies to development for all of the following:</p>	<p>C6</p> <p>It is demonstrated that at least one of the following applies:</p>	<p>Not Applicable</p> <p>The development is for a major road duplication and no water consumption is proposed.</p>

Rules	Criteria	Compliance
<p>a) where the development site is greater than 2,000m²</p> <p>b) where development involves works that have potential to alter the stormwater regime for the site.</p> <p>This rule does not apply to development of major roads.</p> <p>The average annual stormwater pollutant export is reduced when compared with an urban catchment of the same area with no water quality management controls for all of the following:</p> <p>a) gross pollutants by at least 90%</p> <p>b) suspended solids by at least 60%</p> <p>c) total phosphorous by at least 45%</p> <p>d) total nitrogen by at least 40%.</p> <p>Note: Compliance with this rule is consistent with the ACT Practice Guidelines for Water Sensitive Urban Design and is demonstrated by a report by a suitably qualified person, using the MUSIC model. If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance with the rule. If parameters that are non-compliant are used then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate.</p>	<p>a) stormwater quality measures can be more successfully met offsite</p> <p>b) a sensitive downstream environment will be negatively impacted.</p> <p>Development complies with at least one of the following:</p> <p>a) an equivalent load of pollutants is captured at an offsite location as part of a stormwater offset agreement</p> <p>b) if the above stormwater quality measures are unable to be provided, then a contribution to the construction of offsite measures as a means of offset may be approved by the Planning and Land Authority.</p> <p>For this criterion a stormwater offset agreement is defined as detailed in the ACT Practice Guidelines for Water Sensitive Urban Design.</p> <p>Note: Compliance with this criterion is consistent with the ACT Practice Guidelines for Water Sensitive Urban Design and is demonstrated by a report by a suitably qualified person, using the MUSIC model. If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance with the criterion. If parameters that are non-compliant are used then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate.</p>	

Rules	Criteria	Compliance
<p>3.2 Stormwater quality Target – major roads</p>		
<p>R7</p> <p>This rule applies to development of major roads, including the duplication of an existing major road in full or in part.</p> <p>The average annual stormwater pollutant export is reduced when compared with a road catchment of the same area with no water quality management controls for all of the following:</p> <ul style="list-style-type: none"> a) gross pollutants by at least 90% b) suspended solids by at least 60% c) total phosphorous by at least 45% d) total nitrogen by at least 40%. <p>Note: Compliance with this rule is consistent with the ACT Practice Guidelines for Water Sensitive Urban Design and is demonstrated by a report by a suitably qualified person, using the MUSIC model. If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance with the rule. If parameters that are non-compliant are used then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate.</p>	<p>C7</p> <p>If it can be demonstrated that the stormwater quality measures specified in the rule are unable to be provided, then a contribution to the construction of offsite measures as a means of offset may be approved by the Planning and Land Authority.</p> <p>Note: Compliance with this criterion is consistent with the ACT Practice Guidelines for Water Sensitive Urban Design and is demonstrated by a report by a suitably qualified person, using the MUSIC model. If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance with the criterion. If parameters that are non-compliant are used then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate.</p>	<p>Complies with R7</p> <p>Vegetated swales are to be provided within the road reserve on both sides of the road to collect runoff and remove pollutant particles and sediment. Where kerb and gutter is provided, surface water is collected and discharged to vegetated swales.</p> <p>For the portion of the duplication within the Deep Creek catchment, runoff is directed to vegetated swales before being discharged to Deep Creek.</p> <p>A MUSIC model was prepared for the road upgrade to determine if the proposed water quality measures meet the reduction targets.</p> <p>Modelling of the project indicates that the following reductions are achievable:</p> <ul style="list-style-type: none"> • 18.7% TSS (target is 16%) • 10.8% TP (target is 11%) and • 10.6% TN (target is 11%). <p>As shown above, the proposal achieves reasonable compliance with the water quality targets for Deep Creek from the Molonglo 3 – Stormwater Management WSUD Design Strategy (July 2015). The drainage design will be investigated further during detailed design to ensure water quality requirements are met.</p>

Rules	Criteria	Compliance
		Refer to Appendix F for the WSUD MUSIC Model and further discussion in the accompanying EIS.
Element 4: Climate change adaptation		
4.1 Nuisance flooding – sites greater than 2000m²		
There is no applicable rule.	<p>C8</p> <p>This criterion applies to development on sites greater than 2,000m² involving works that have potential to alter the existing drainage and overland flow regime for the site.</p> <p>Overland flow paths are provided and achieve all of the following:</p> <ul style="list-style-type: none"> a) accommodate overland stormwater flows up to the 1%AEP b) reduce nuisance flooding. <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>Consistent with C8</p> <p>As a result of the duplicated road, the area of hardstand would increase and there would be an associated minor increase in peak stormwater runoff. The Project would increase the stormwater drainage to manage the increased surface water for events up to the 1% AEP, while also providing additional protection during and following major storm events. As such, there should be no change with regard to the risk for erosion and scour at the stormwater discharge points or potential for sediment discharge and pollution.</p> <p>The existing transverse drainage systems under the proposed upgrade would be retained where practically possible. There would only be a minor change in flow attenuation between the present day and post construction. The drainage plans provide the details and locations of the proposed culverts to protect the road from flooding for events up to 1% AEP. Refer to Appendix F for the WSUD MUSIC Model for details.</p>
4.2 Green/living infrastructure		

Rules	Criteria	Compliance
<p>R9</p> <p>This rule applies to at least one of the following developments:</p> <ul style="list-style-type: none"> a) Development on sites greater than 2000m² involving works that have potential to alter the stormwater regime for the site b) Development within existing urban areas that increase the impervious area of the site by 100m² or more. <p>Development achieves a minimum of 20% of the site area to be permeable.</p> <p>Note: Compliance with this rule is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>C9</p> <p>It is demonstrated that the development achieves all of the following:</p> <ul style="list-style-type: none"> a) Increases permeable surfaces and living infrastructure through green spaces b) Plants that require irrigation are supported by sustainable water systems such as onsite stormwater harvesting to achieve microclimate benefits c) Promotes evapotranspiration to mitigate extreme temperatures, improve air humidity and overall human comfort. <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	<p>Not Applicable</p> <p>The development is for a major road duplication and it will not alter the stormwater regime for the site. The EIS chapter on Water Quality and Hydrology (Section 6.7.5) details the approach to stormwater management in the project. The use of vegetated swales provides an acceptable level of permeable surfaces in the road reserve to help manage stormwater flows and the water quality of runoff.</p>
<p>Element 5: Entity (Government agency) Endorsement</p>		
<p>5.1 Water infrastructure</p>		
<p>There is no applicable rule.</p>	<p>C10</p> <p>This criterion applies to development that will result in municipal water sensitive urban design infrastructure being handed to the ACT Government.</p> <p>An operation and maintenance plan is to be endorsed by the ACT Government for the water sensitive urban</p>	<p>Noted</p> <p>An Operation and Maintenance Plan will be prepared and endorsed by the EPA during the construction period. This would detail the vegetated swales proposed throughout the project.</p>

Rules	Criteria	Compliance
	<p>design assets that are to be handed to the ACT Government.</p> <p>Note: Compliance with this criterion is demonstrated through a report from a suitably qualified person consistent with the methods specified in the ACT Practice Guidelines for Water Sensitive Urban Design.</p>	

4.8 Planning for Bushfire Risk Mitigation General Code

The ACT Strategic Bushfire Management Plan (SBMP) version 3 (ESA, 2014) is based on the risk assessment process used across the ACT. This bushfire risk assessment process has been used to map bushfire prone areas (BPA) across the ACT that have a high bushfire risk. The Bushfire Prone Areas map defines areas of the ACT that are assessed as being high risk to life and property due to bushfires. Rural areas and areas adjacent to forest and/or grassland are identified as bushfire prone. The site is identified as designated BPA and the Planning for Bushfire Risk Mitigation General Code is applicable to the proposal as shown in **Figure 4-2** below.



Figure 4-2 | Bushfire Prone Areas

The construction compounds for the project will be placed in cleared areas within the alignment. It is likely that a northern and southern compound would be provided to enable the works to be staged. A CEMP would be prepared for the project and would include standard mitigation methods to manage hot works, chemical stage and plant and equipment, particularly on fire-ban days.

Additionally, appropriate asset protection zones would be established around the construction compounds in accordance with ACT Bushfire Management Standards (ACT Emergency Services Commissioner, 2014). Such matters should be imposed as conditions in the notice of decision for the project.

5 Conclusion

As reflected in this Planning Report, the proposal is consistent with all relevant statutory planning requirements and capable of approval by the ACT Planning Authority. In particular, the proposal has been assessed against and satisfied all relevant matters under the *Planning and Development Act 2007* and relevant codes within the *Territory Plan*.

Currently William Hovell Drive operates at over 20,000 vehicles per day which significantly exceeds the capacity of a single carriageway road. The proposal seeks approval for the road duplication and upgrade works for this section of William Hovell Drive to accommodate additional traffic generated by new residential development in the estate of Ginninderry (West Belconnen) and the new suburbs of Strathnairn and Macnamara.

Overall, it is considered that the proposal delivers a significant contribution to the growth of the Molonglo region and presents a positive outcome for the broader community within the ACT. Therefore, it is requested that the Development Application be granted approval.

Appendix A **Civil Engineering Plans**

Appendix B **Landscape Plans**

Appendix C **Biodiversity Assessment**

Appendix D **Noise Impact Assessment**

Appendix E Sediment and Erosion Control

Appendix F **Water Sensitive Urban Design**

Appendix G **Statement of Heritage Effect**

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