

William Hovell Drive Duplication:
Updated Aboriginal and Historical Cultural Heritage
Assessment.



Report Prepared for SMEC

7 March 2022

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Information in the report covered by the above categories should be redacted before being made available to the general public. This information should only be made available to those persons with a just and reasonable need for access.

Acknowledgements

This report would not have been possible without the assistance of the following people and organisations in the preparation of this report:

- ❖ Paul House - Mirrabee
- ❖ Wally Bell – Buru Ngunawal Aboriginal Corporation
- ❖ James Mundy – Ngarigu Currawong Clan
- ❖ Adrian Brown – King Brown Tribal Group

Abbreviations

CHA – Cultural Heritage Assessment

RAO – Representative Aboriginal Organisation registered under *Heritage Act 2004*

PAD – Potential Archaeological Deposit

SHE – Statement of Heritage Effects

WSP – WSP Australia Pty Ltd

UDP – Unanticipated Discovery Plan

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EXECUTIVE SUMMARY

Past Traces Pty Ltd has been engaged by SMEC to update the Cultural Heritage Assessment (CHA) completed (on behalf of WSP) for the proposed duplication of William Hovell Drive from Coppins Crossing Road to Drake Brockman Drive in Holt (Past Traces 2018, 2021). The proposed area covers the road easement with an adjoining 20m on each boundary for an approximate length of 4.7km.

The study area is shown in Figure 1 in a regional context and in detail in Figure 2.

Additional information has been requested from the ACT Heritage Council (dated 16/08/2021) following review of the 2021 CHA. This additional information is in regards to the following:

- ❖ The degree of impact to the heritage listed Kama Woodlands requires clarification
- ❖ Additional information on the impacts of the works on the two boundary Cypress trees at the Weetangera Cemetery is required.
- ❖ Clarification of the impacts to WHPAD1 is required.

Consultation with the Aboriginal Representative Aboriginal Organisations (RAOs) was undertaken in accordance with ACT Heritage guidelines and the *Heritage Act 2004* for the 2018 and 2021 assessment. As the 2022 revision provides additional clarification but no change to mitigation measures or heritage impacts, no additional consultation was undertaken.

As a result of the assessment completed for the project the following findings and recommendations apply:

Natural Heritage

- A section of the listed Kama Woodlands is located within the road reserve. Impacts would occur to a small section of the larger listing with no significant impact or decrease in heritage values resulting from the impacts within the road reserve.
- As heritage impacts would occur within the Kama Woodlands, there are known heritage impacts from the proposed project. As a result, submission of a Statement of Heritage Effects (SHE) for approval to the ACT Heritage Council is required. A SHE is provided within this CHA for approval by the ACT Heritage Council prior to works commencing.

Aboriginal Heritage

- No Aboriginal heritage sites would be impacted by the project as impacts can be avoided through design. No impacts would occur to the site WHD1 or the three areas of PAD (WHPAD1, WHPAD3 and WHPAD5) located within the road corridor.
- Barrier fencing must be installed to demarcate the site boundaries with a buffer zone of a minimum of 5m. Barrier fencing would consist of star pickets with high visibility flagging and would be installed by or under the direction of the RAOs and heritage team. A short letter report detailing completion would be provided to ACT Heritage. After submission, works may commence in these areas.
- The areas of PAD identified within the study area should be avoided by the proposed works. If, due to alteration in design, these areas are to be impacted then a program

of subsurface testing of the impacted areas of PAD would be required to determine the presence of cultural material.

Historical Heritage

- No historical heritage sites would be impacted by the project as impacts can be avoided through design. Barrier fencing must be installed to delineate the extent of construction in the vicinity of the Weetangera Cemetery to prevent accidental impacts. The placement of barrier fencing must be on the exterior boundary of heritage curtilages.
- In the vicinity of the two cypress trees that are included within the Weetangera Cemetery listing, works must remain either 10m away from the dripline, or if this isn't possible, ensure that the works do not impact more than 10% of the TPZ and have certification from an arborist that the impact will not be significant. Barrier fencing must be installed at either 10m or in line with arborist advice prior to works commencing in this section, and remain for the duration of all construction. No impacts are permissible to the Cypress Trees or any area of the Weetangera Cemetery listing.
- If the 10m buffer cannot be achieved and arborist advice indicates potential harm than further approvals will be required for works to proceed.
- Design where practical should be undertaken to reduce the potential for indirect impacts due to higher visibility and visitor impacts to the Weetangera Cemetery. This could take the form of screening landscaping on the road verge.

General

- The location of heritage sites and requirements for impact avoidance shall be communicated to project manager and personnel engaged on the project. Heritage site information will be included in site inductions.
- All Aboriginal objects and places are protected under the ACT *Heritage Act 2004*. It is an offence to disturb an Aboriginal site without approvals granted by the ACT Heritage Council. Should any Aboriginal objects be encountered during works then works must cease immediately in the vicinity of the find, and the find should not be moved until assessed by a qualified archaeologist with the participation of the RAOs. Adherence to the Unexpected Discovery Plan (UDP) attached at Appendix 2 is required.

1 INTRODUCTION

1.1 PROJECT BACKGROUND

Past Traces Pty Ltd has been engaged by SMEC to update the Cultural Heritage Assessment (CHA) completed (on behalf of WSP) for the proposed duplication of William Hovell Drive from Coppins Crossing Road to Drake Brockman Drive in Holt (Past Traces 2018,2021). The study area covers the road easement with an adjoining 20m on each boundary for an approximate length of 4.7km.

The duplication of William Hovell Drive is required to address the increased traffic flows resulting from the development of the Molonglo Valley and the West Belconnen region. As a major arterial road to the City, the current single lane configuration is no longer adequate.

The study area is shown in Figure 1 in a regional context and in detail in Figure 2.

The CHA is being updated to provide the additional information that has been requested from the ACT Heritage Council (dated 16/08/2021) following review of the 2021 CHA. The additional information required is in relation to:

- ❖ The degree of impact to the heritage listed Kama Woodlands requires clarification
- ❖ Additional information on the impacts of the works on the two boundary Cypress trees at the Weetangera Cemetery is required.
- ❖ Clarification of the impacts to WHPAD1 is required.

To address these requirements, this updated CHA reviewed construction plans against the heritage locations and proposed mitigation measures. To determine Ecological (Natural heritage) impacts, consultation with the projects ecologist to determine the extent of impact to the Kama Woodlands has been undertaken.

1.2 PROPOSED WORKS AND IMPACTS

The proposal would result in the area of the duplicated road being highly disturbed with excavation and displacement of soils. The immediate surrounds would also be impacted by machinery movement and the storage of materials. All of these construction activities will compact and impact on soils within the impact areas.

Due to the highly destructive nature of the works, the study area extends over the existing road reserve and an additional 20m outside of the road reserve to allow for works encroachment and the additional space required for 'cut and fill' for road levelling.

Any heritage sites in the vicinity of works would be impacted by the proposed construction. As the project is at a final design phase, the Aboriginal and Historical heritage sites identified in the 2018 CHA have been avoided through design.

The Kama Woodland would be impacted within the road reserve and the degree of impact and relevant mitigation and management measures requires assessment and determination as components of the CHA.

1.3 ABORIGINAL CONSULTATION

Consultation with the Aboriginal Representative Aboriginal Organisations (RAOs) was undertaken in accordance with ACT Heritage guidelines and the *Heritage Act 2004* for the 2018 and 2021 assessment. As no additional areas are included in the updated report, and as no alterations have occurred to the design or mitigation measures no additional consultation with the RAOs has been undertaken for the 2022 updated version of the CHA.

The RAOs consulted for the project and who participated in the field surveys, findings of significance and development of mitigation measures are Mirrabee, King Brown Tribal Group, Buru Ngunawal Aboriginal Corporation and the Ngarigu Currawong Clan.

The process of consultation to the development of this CHA is provided in Appendix 1.

1.4 REPORT AIMS AND FORMAT

To address these requirements, this CHA reviewed heritage studies undertaken since the original field survey, reviewed the 2018 field notes and topographic maps to define landforms and area of potential, and assessed impacts since their recording against these reports. To determine Ecological (Natural heritage) impacts, consultation with the projects ecologist to determine the extent of impact to the Kama Woodlands has been undertaken.

The following is a summary of the major aims of the CHA:

- ❖ Review heritage register listings within the study area.
- ❖ Conduct review of 2018 CHA and heritage studies completed since 2018 in the area.
- ❖ Review previous work to determine identifiable patterns in Aboriginal site distribution and landform potential
- ❖ Review mapping to determine landforms and assess potential
- ❖ Consult with Aboriginal and statutory stakeholders
- ❖ Identify impacts to all identified Aboriginal and historic cultural heritage sites and places as a result of the proposed works
- ❖ Develop recommendations to minimise or mitigate impacts to cultural heritage values within the study area.

Figure 1: Regional Context

Legend
Study Area



1:40,000
0 250 500 1,000 1,500
Meters

GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017



Figure 2: Study Area

Legend

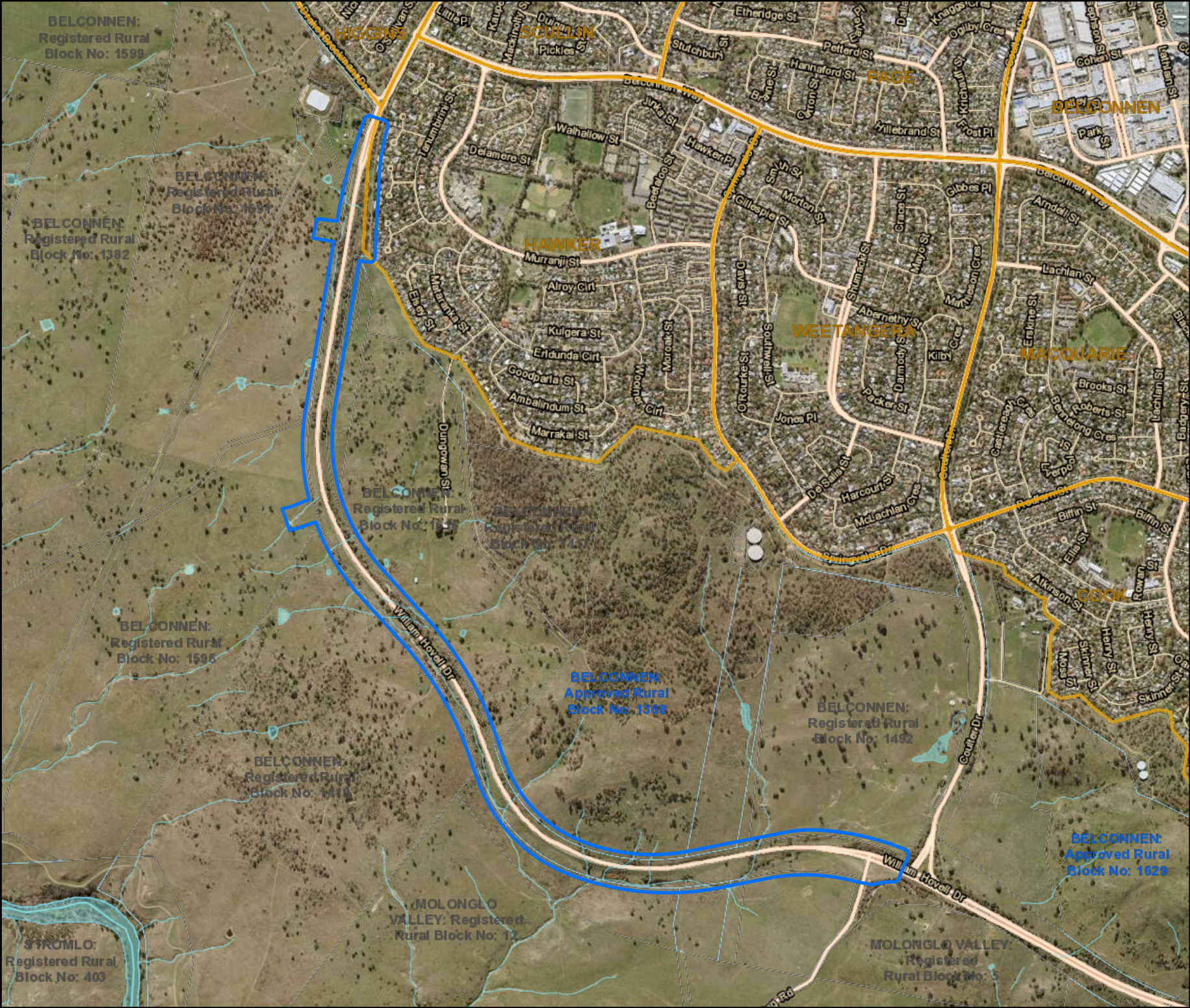
 Study Area



1:20,000
0 100 200 400 600
Meters

GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017



2 BACKGROUND INFORMATION

The following section briefly summarises the geology and landforms, flora and fauna of the study area. The discussion focuses on those elements of the natural environment that may have influenced past human behaviour and archaeological site formation processes.

2.1 REVIEW OF LANDSCAPE CONTEXT

2.1.1 *Geology and Topography*

The William Hovell Drive study area is underlain by the Walker and Mt Painter Volcanics. These late Silurian volcanic systems consists mainly of rhyolitic and dacitic tuffs. Quartz will be present naturally within this formations along with shales. A common geological feature of the area is highly weathered bedrock. Thin shallow soils characterise the area, highly acidic and easily erodible. A duplex soil system overlaying clay bedrock appears in profile across the area.

The Burra soil landscape is described as being on 'undulating to rolling low hills and alluvial fans over the Silurian Volcanics (Jenkins 2000:44). The Burra Group soils are moderately deep and well drained Kurosols and Chromosols. Shallow earthy sands (Lithosols) are present on upper slopes and crests. Red and Brown Kandosols and Kurosols occupy mid slopes and most lower slopes. Brown chromosols are present along minor drainage lines (Jenkins 2000:44).

The topography of the area consists of gently undulating hills and fans, interspersed with small drainage lines and minor tributary creek lines which drain to the south west to the Molonglo River. The immediate road reserve has been subject to modification with the original construction of William Hovell Drive and original soils would have been removed and displaced within this section.

The geology of the study area is shown in Figure 3 with soil landscapes shown in Figure 4.

2.1.2 *Flora and Fauna*

The natural vegetation across the study area has been cleared for pastoral grazing and now consists of open paddocks with pockets of remnant woodland tree species such as Yellow box or Blakely Red Gum and limited areas of native grassland. Prior to the clearance of the natural vegetation the area would have supported a mixed woodland on the ridge tops and rolling hills with natural temperate grasslands along the flatter slopes close to the creek lines. These communities supported a wide range of edible plant and fauna species. Fauna present would range from small marsupials (i.e. possums), to avian species and macropods.


The Molonglo River to the south of the study area would have focused activity including camping sites with a variety of resources, such as fish, yabbies, turtles and in the past platypus. Tributary creeks also focused mammal and birdlife providing hunting opportunities and access to water supplies. Creek lines also supplied fibrous material for weaving into twine for use in a range of activities as well as providing edible tubers and reeds (Percival and Stewart 1971).

Figure 3: Geology

Legend

 Study Area

Geology

-  Deakin Volcanics
-  Mount Painter Volcanics
-  Walker Volcanics
-  Water



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0 100 200 400 600
Meters

GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017

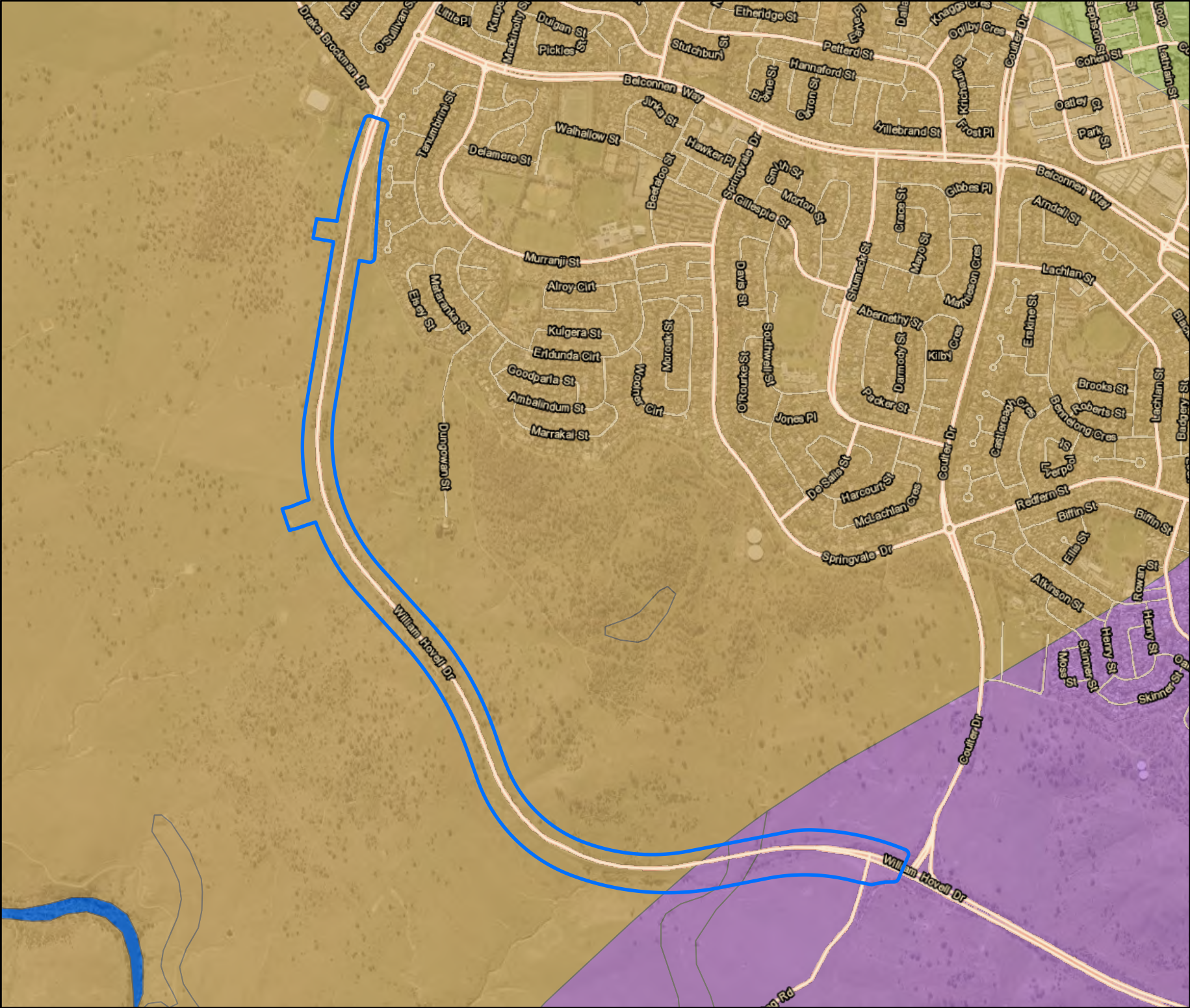







Figure 4: Soils

Legend

-  Study Area
- ACT Soil Landscapes**
-  Burra
-  Campbell
-  Lower Molonglo variant b
-  Williamsdale



1:20,000

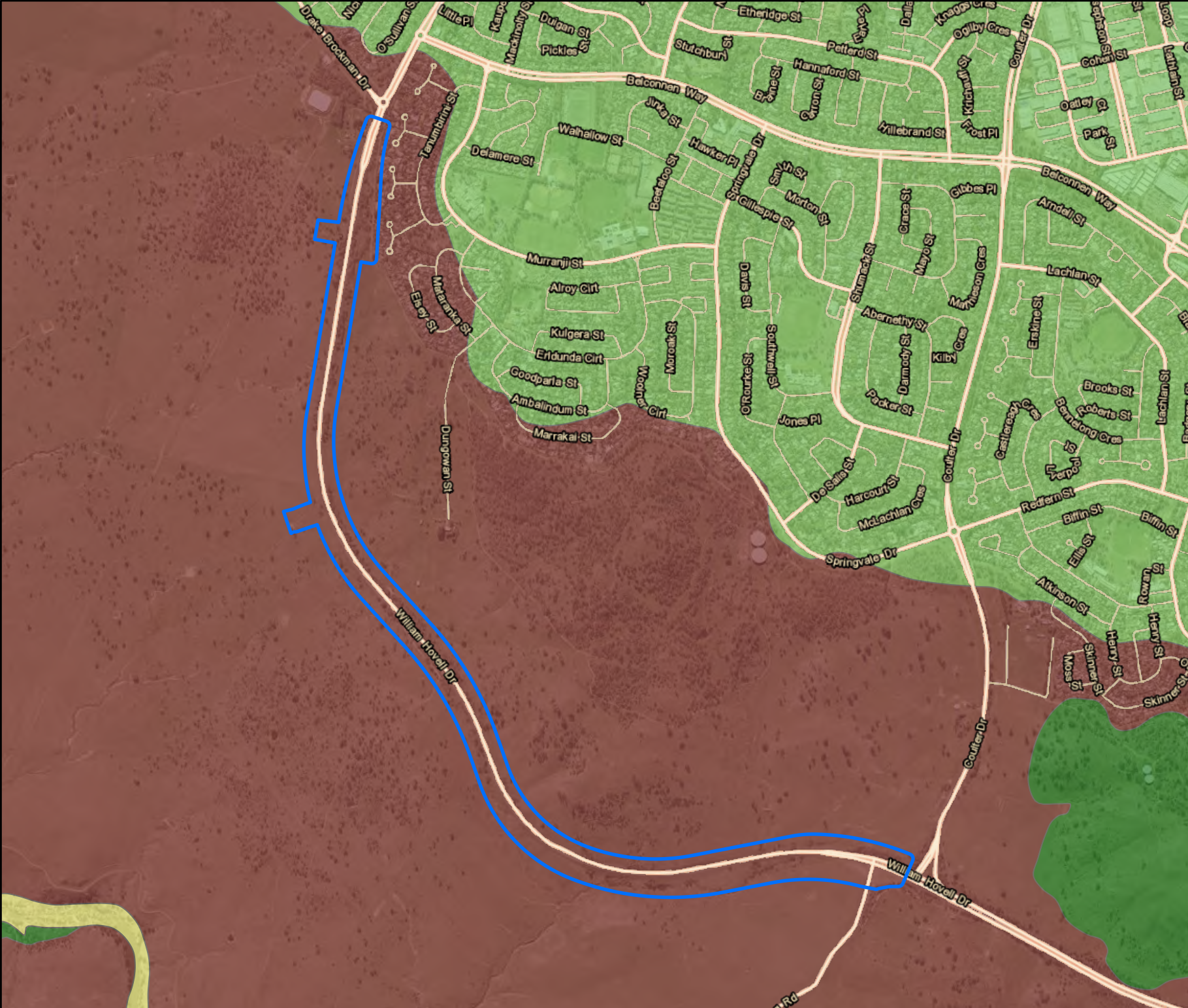
0 100 200 400 600



Meters

GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017



2.1.3 Natural Heritage Search of ACT Heritage Register

The Kama Woodlands Nature Reserve is located on Blocks 1419, 1386, and parts of 1596 and 181 Belconnen. In addition the listing extends into the verge of William Hovell Drive adjacent to blocks 1419, 1386 and 1596, Belconnen. The Kama Woodlands were gazetted in 2012 to the ACT Heritage register for natural heritage values. The listing extends to the verge of William Hovell Drive and a detailed ecological report has been completed by SMEC for the Woodlands, resulting in a finding that 1.16ha of the Woodlands will be impacted within the road reserve, which will have a negligible impact on the listed values.

The Kama Woodlands Nature Reserve is listed due to the following:

The Kama Woodland/Grassland, Belconnen is significant because it includes examples of two endangered ecological communities (Yellow Box-Red Gum Grassy Woodland and Natural Temperate Grassland) together with the natural boundary (ecotone) between them. The landscape relationship between the two vegetation communities is important because it is considered to be similar to the vegetation patterns that existed prior to European settlement.




This place is also significant because there is a high diversity of native species in the Kama Woodland/Grassland including uncommon native forbs, woodland birds and riparian species. The Kama Woodland/Grassland provides important ecological connectivity between the lower Molonglo River and The Pinnacle (ACT Heritage Listing No NI2012—541 – Statement of Significance).

As a listed place, impacts cannot occur that are detrimental to any of the heritage values. Based on a review of the project mapping, impacts would occur within the listing boundaries. The location of the Kama Woodlands listing in relation to the proposed works is shown in Figure 5. The significance and degree of these impacts will be assessed and discussed in Section 3.

Figure 5: Karma Nature Reserve



Legend

-  Study Area
-  Nature Reserve
-  World Transportation

Kama Nature Reserve

The Pinnacle Nature Reserve

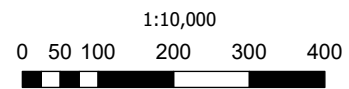
William Hovell Dr

Durgowan St

Marrakai St

William Hovell Dr

William Hovell Dr



GDA 1994 MGA Zone 55

Imagery © ACTmapi

2.2 REVIEW OF HISTORIC CONTEXT

Historical background for the study area has been provided in the 2018 CHA with the main land use history and impacts summarised in the following sections.

2.2.1 *Historic Land use*

The study area was historically part of the larger grazing properties in the region. The study area was originally settled as part of the Palmerville (Ginninderra) station owned by George Palmer established in 1826. In 1829 Palmer applied for a further 14 blocks along Ginninderra Creek (Gillespie 1992). The Dixon 1837 map of landholding show this section of the Northern Molonglo under the control of Palmer.

With the passing of the Robertson Land Acts of 1861 many larger properties were broken into smaller settlements. The Parish Map of Weetangera (1912) shows the major landholder as still being Palmer but the Schumack family of Weetangera now are present to the east and the Kilbys have gained Land End in the northern section adjacent to the holdings of William Plummer. William and other members of the Plummer family are buried at the Weetangera Methodist Cemetery. The land allocations from the 1912 Parish map are shown on Figure 6.

Mary Smith married Cameron Ewan, the school teacher at Weetangera who with Levi Plummer constructed the Weetangera Methodist Church in 1872. The Church was dedicated in 1873 and continued to hold services till 1952. The church was demolished in 1955 to allow for suburban expansion. The Methodist cemetery that was located adjacent to the church is located on the verge of William Hovell Drive in Holt and is listed on the ACT Heritage Register.

The Federal Territory Feature Map (1915) shows the location of the Methodist Church and the Kilby's property. The FTF Map notes that the area has been used for cultivation and cleared of trees along the study area. The FTF Map is shown on Figure 7.

2.2.2 *Historic search of ACT Heritage Register*

A search of the ACT Heritage Register was requested in March 2018 for the original heritage assessment and an online search of the heritage overlays identified one registered historical site located adjacent to the study area.

The Weetangera Methodist Cemetery was gazetted in 2004 to the ACT Heritage Register for its early historical association with the settlement of the early and the Methodist community. The Methodist Church and Cemetery and their relationship to the Kilby, Cameron, Smith and Plummer families has been mentioned in the previous section. The registered curtilage for the site ends at the road reserve easement. Registered features include as a main component, the two Cypress trees at the entrance gate. The study area extends 20m to the exterior of the road reserve and would therefore affect the listing. The location of the heritage listing in relation to the proposed works is shown on Figure 8.

As a listed place, any impacts must be avoided if possible, and within this section the study area may not extend past the designated road reserve boundary to avoid direct impacts. Indirect impacts to the entrance trees and the cemetery may result through increased visitation and visibility from the extended road corridor. The potential for these indirect impacts needs to be investigated through the field survey and avoided through careful planning of road verges and site points.

The degree of impact from the project and the required mitigation measures for each of the heritage listings is discussed in Section 3.

Figure 7: Parish Map

Legend

 Study Area



1:25,000

0 125 250 500 750 1,000



Meters

GDA 1994 MGA Zone 55

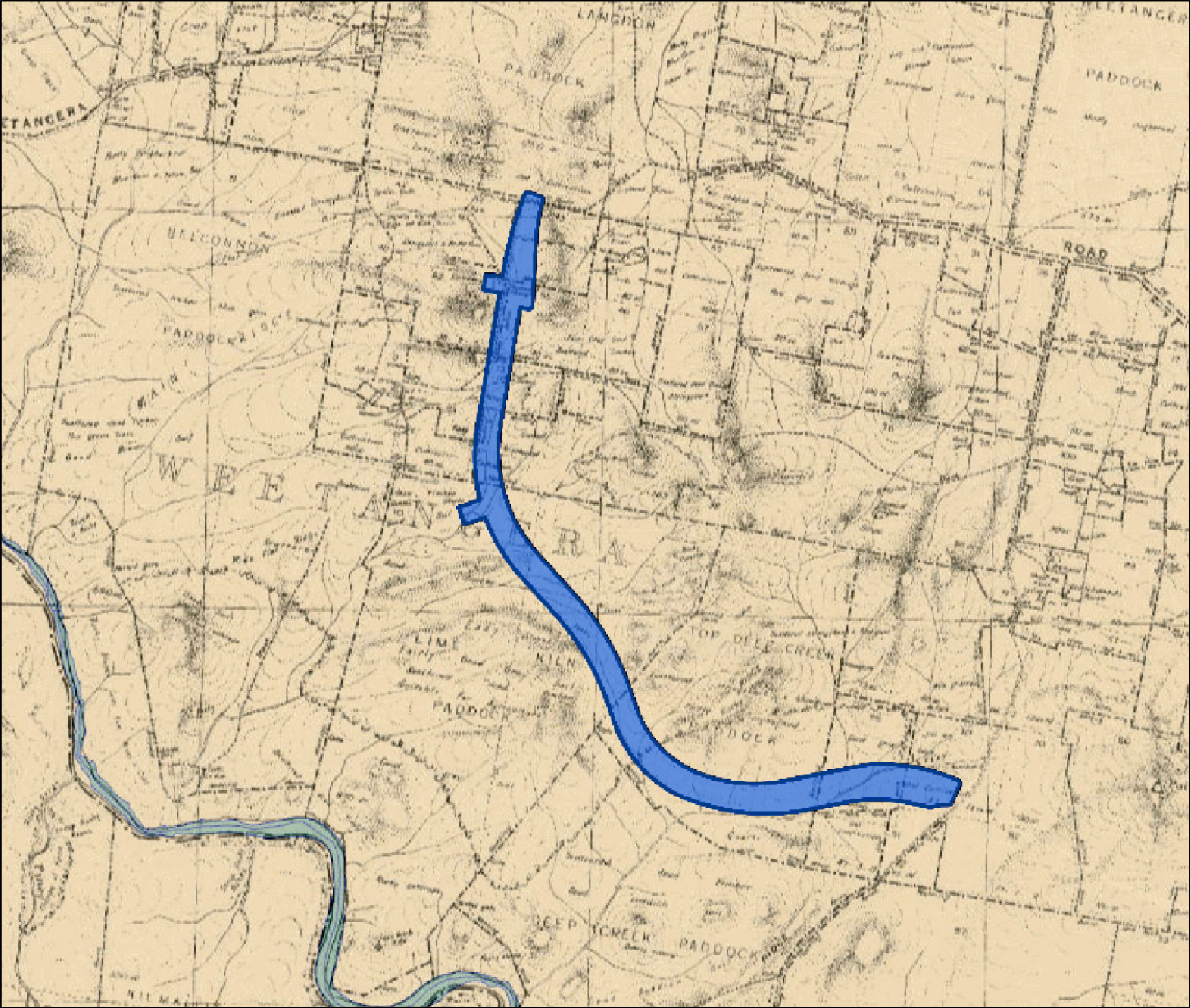
Imagery © ACTmapi 2017



Figure 8: Federation Features

Legend

 Study Area



1:25,000
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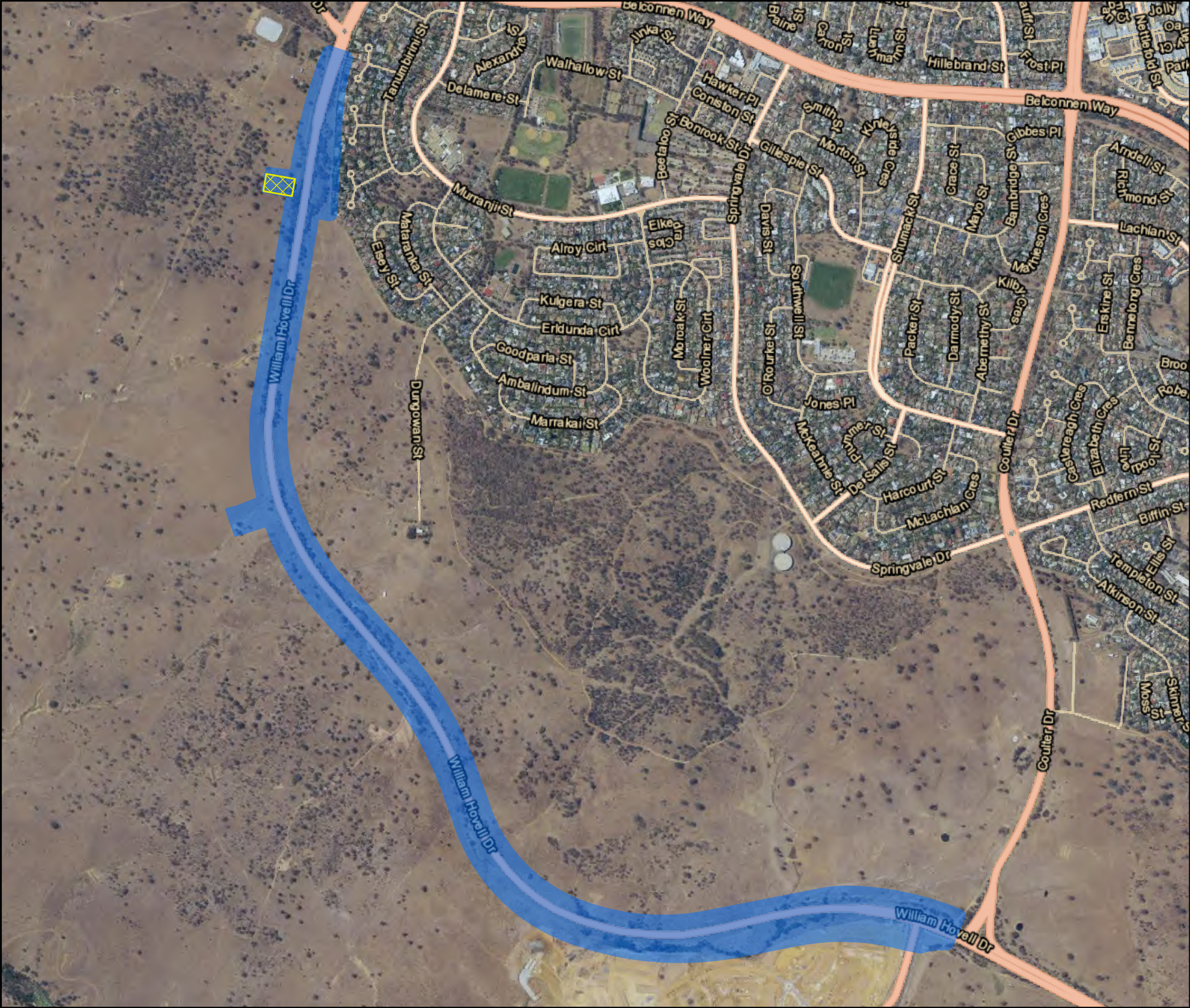





Meters

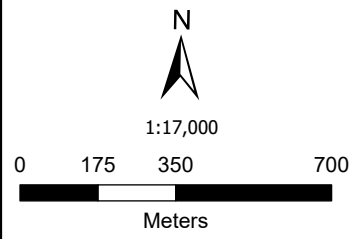
GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017

Figure 8: Weetangera Cemetery



- Legend**
-  Weetangera Cemetery
 -  Study Area
 -  World Transportation



GDA 1994 MGA Zone 55

Imagery © ACTmapi

2.3 REVIEW OF ABORIGINAL ARCHAEOLOGICAL CONTEXT

2.3.1 *Ethnohistoric Setting*

The major language group identified in the Canberra region by Norman Tindale in his seminal work on Aboriginal tribal boundaries are the Ngunnawal people. The Ngambri people hold affiliation with the central area of Canberra, where early accounts of settlers often refer to the group as the Ngambi or Ngamberry. Both groups hold cultural connections through the Canberra Region.

The boundaries of the Ngunnawal according to Tindale ran to the south east where they met the Ngarigo at the Molonglo and the Gundungara to the north of Lake George (Tindale 1974). This distribution with minor amendments is still widely accepted and the review of tribal boundaries undertaken in the 1990s (Horton 1996) confirmed these earlier linguistic divisions. These findings are not accepted by all members of the Aboriginal community and it is beyond the scope of this report to determine connection to country. Currently the ACT Government accepts the ACT to be Ngunnawal/Ngambri Country.

The Molonglo River and the Murrumbidgee River represent the boundary between Ngunnawal and Ngarigo nations. Currently descendants of both Aboriginal groups hold cultural affiliation with the study area and have been consulted for the project.

The traditional lifeways of the Aboriginal people were disrupted by the arrival of European settlers in the 1830's. The impact of new disease, displacement from traditional lands and disruption of hunting practices lead to a decline in the local population, with some remaining families finding employment on the large pastoral stations that had become established in the region. Blanket distribution lists from this period show a continuity of presence with recognised members of Ngambri and Ngunnawal families. How people identified during this period is difficult to know, but in the face of the European presence, the connections between Aboriginal people would have been strengthened into a picture of Aboriginal identity.

2.3.2 *Previous archaeological studies.*

A number of archaeological heritage assessment have been undertaken in the vicinity of the study area. A brief overview of the most relevant studies are provided below, a more detailed listing has been supplied previously in the 2018 CHA. The studies have been small scale and development focused and no regional synthesis has been completed for the region.

Navin Officer in 1991 undertook preliminary archaeological surveys and assessment for the proposed West Belconnen Urban Release Area, which included the current study area. This study comprised three areas A, B & C and covered a large area for field survey. Historical heritage sites were identified to the south of the study area consisting of the Weetangera cemetery and early remains of European settlement of the region.

Archaeological Heritage Surveys (1995) were contracted by ACT Parks and Conservation Service to complete an assessment of the lower Molonglo River Corridor. This study area is adjacent to the southern portion of the current study area. Aboriginal sites were located through all landforms and Saunders conclude that sites were most likely in proximity to water and away from steep terrain.

Following the Canberra bushfires in 2003 an archaeological survey was undertaken of the area on the southern side of William Hovell Drive. This field survey identified a number of small artefact scatters which conformed to modelling being in locations overlooking major creek lines. No site cards were submitted and details of these sites are scarce.

Biosis (2012) completed the Molonglo Stage 3 Future Residential Development heritage assessment. This project included field survey over the large area of land on the north side of the Molonglo River. This study area is adjacent to the current study area on the southern termination point. Thirty eight Aboriginal sites were located mainly consisting of small artefact scatters and the historic Kallenia Woolshed considered to hold high cultural significance. Test pitting was undertaken in areas of identified PAD and further studies on the Woolshed in 2013, recovering low density artefacts only in the PAD locations.

Biosis (2014) completed the Molonglo Stage 3 Additional Areas assessment which covered an area of Caswell Drive to Coulter Drive on the northern side of William Hovell Drive. This study area is adjacent to the southern boundary of the current study area. Thirty-eight sites were located, most within the lower foothills of Black Mountain in the most southern section. The sites were located along minor drainage lines and in their location conformed to the accepted site modelling for the region.

Past Traces (2017) completed a survey and subsurface testing over the length of Drake Brockman Drive Holt for a proposed road duplication. This area is adjacent to the northern end of the current study area. The survey identified no heritage sites but was confined to the area of high previous impact of the road reserve.

Past Traces in 2018 completed the original assessment for the duplication of William Hovell Drive. The results of that assessment are repeated in this assessment with updated details. The assessment identified one isolated find and five areas of PAD along Deep Creek. These five areas of PAD (PAD 1 – 5) consist of broad crests (level areas) on small knolls overlooking the creek line. A process of subsurface testing was recommended if the PADs were to be impacted. As the report was not accepted by ACT Heritage, these PADs were not registered on the Heritage register to be provided to applicants.

CHMA in 2018(a) completed an assessment for the Whitlam Stage 1 development, concurrently as the assessment for William Hovell Drive was being undertaken. The report identified 11 Aboriginal heritage sites within the Whitlam Stage 1 area and recommended salvage and subsurface testing in areas of PAD. Two areas of PAD (CLB7 and MVS2) were identified, located on a broad flat crest of a spur landform overlooking Deep Creek within the Whitlam Stage 1 area to the south of the William Hovell Road corridor. These areas of PAD are to the southeast of the areas of PAD identified by Past Traces (2018).

A series of testpits were excavated recovering 93 artefacts from CLB7 and 92 from MSV2. Mixing and inversion of soil profiles due to agricultural impacts was evident throughout. Due to the high number of artefacts, further salvage of the sites was recommended. The additional salvage (CHMA 2018b) consisted of a series of trenches, resulting in the excavation of an additional 11m² area. The additional salvage recovered 638 artefacts at CLB7 and 128 artefacts from MSV2. The significance of the sites was classified as moderate. Following this salvage work, construction occurred throughout the Whitlam development.

Past Traces in 2020 completed an assessment through the current study area for the installation of underground electricity lines for the Molonglo Stage 3 development. The proposed route crossed the areas of PAD 3 and PAD 5. The survey completed for the project identified that the areas of PAD 2 and PAD 4 had been destroyed through the construction works for the Whitlam Development. The most southern end of PAD 3 had also been impacted from the works. RAOs were present, participated in the field survey and concurred that destruction of the areas of PAD had occurred.

As these areas of PAD have been impacted, one of the main purposes of this report, is to provide a condition assessment of the areas of PAD within the study area and the potential impact from the William Hovell Drive Duplication.

2.3.3 *Aboriginal heritage search of ACT Heritage Register*

A search of the ACT Heritage Register and a request for relevant reports was submitted to ACT Heritage in March 2018. A search of the online ACTMAPi heritage overlay was undertaken with no registered sites (Aboriginal or historical) being located within the study area. Aboriginal sites are located to the north east of the study area and south towards the Molonglo River.

These recorded sites consist of artefact scatters, mainly small located on terraces near the creek lines or on ridge crests. The location of these sites is shown on Figure 9.

Following the survey for the 2018 CHA, one Aboriginal heritage site (WHD1) and five areas of PAD were identified within the study area. Details of the site and areas of PAD are discussed in Section 3. The location of these sites is shown in Figure 10.

2.4 ABORIGINAL LAND USE/PREDICTIVE MODEL

The results of previous archaeological surveys in the region indicates that the potential for sites is present in a range of landforms. A pattern of site location that relates to the presence of potential resources for Aboriginal use appears to be present, based on site locations recorded from the studies described in the previous section. A predictive model was developed for the project in the 2018 CHA which identified areas of elevated terrace or broad crest terminal spur lines in association with creeklines to hold the highest potential.

The identification of the five areas of PAD in 2018 was based on the application of this model, and the studies undertaken in the area since that time, especially the subsurface testing and salvage completed within the Whitlam 3 area by CHMA have confirmed the applicability of the model.

2.5 DESKTOP ASSESSMENT SUMMARY

The desktop assessment and review of previous studies has shown that heritage sites (Aboriginal, and Natural) are present within the study area. An historical site is present in the adjoining paddocks to the road alignment and at risk of potential indirect impacts from the project.

Design has been undertaken since the 2018 study to avoid impacts to all of the recorded Aboriginal PAD and site locations. No impacts to Aboriginal heritage are anticipated.



One historical site is present outside of the road reserve but within the extended study area. If works are not confined to the road reserve and mitigation measures applied, the proposed works have the potential to impact on the registered curtilage of the Weetangera Cemetery. No impacts to Historic heritage are anticipated from the project.

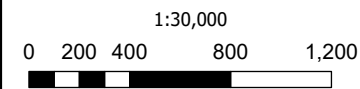
A Natural heritage listing is present for the Kama Woodlands which extends into a section of the road reserve, impacts will occur through this section of the heritage listing. Ecological advice provided for the project has determined this impact to not be significant.

Throughout the road corridor, previous construction of William Hovell Drive has impacted the integrity of soils and vegetation. The road reserve is not actively maintained and has regenerated to a natural bush landscape with a high proportion of weeds and invasive grass. Adjoining paddocks are under rural lease and have suffered stock impacts, fencing and property access tracks.

Figure 8: Previously Recorded Sites

Legend

-  Study Area
-  Previously Recorded Sites



Meters

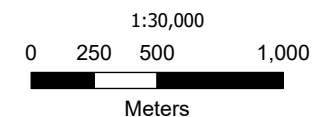
GDA 1994 MGA Zone 55

Imagery © ACTmapi 2017

Figure 10: Areas of PAD and Previously Recorded Sites

Legend

-  Study Area
-  Previously Recorded Sites
-  Site
-  PAD
-  World Transportation



GDA 1994 MGA Zone 55

Imagery © ACTmapi

3 ASSESSMENT RESULTS

As mentioned in the preceding sections, field survey was completed over the study area in 2018 with the methodology and results reported in the 2018 CHA. A summary of the field survey results are provided here for ease of reference. The 2018 CHA is attached at Appendix 2 for additional information.

3.1 FIELD SURVEY METHODOLOGY

Field survey over the study area was undertaken on the 12th and 16th of April 2018 by Lyn O'Brien (Past Traces) and all four members of the RAOs. Field survey consisted of pedestrian transects on the southern and northern borders of William Hovell Drive, across the road reserve sampling all landforms. Although the study area extends for an additional 20m outside of the road reserve, this area was only subject to visual inspection from the boundary of the road reserve. Grass length throughout the paddocks made any survey attempt redundant.

The study area was walked by all participants at an approximate spacing of 5m across all land forms within the study area. The number of participants ensured that all of the area surface was visibly inspected (from road verge to boundary fencing).

3.2 FIELD SURVEY RESULTS

The field survey revealed that impacts to soils and vegetation have occurred throughout the study area. The study area consists of disturbed soils which are shown in uneven land surface, numerous hollows and ridges. On each side of William Hovell Drive the soils have been eroded into banks with a water drainage channel constructed along the length (0.5m wide). This water channel had raised banks on each side and in places these banks had then been planted to provide some landscaping to the road verge. Disturbance lessened with distance to the road with the areas adjacent to the boundary fencing in sections where the boundary was over 15m having suffered little impact.

The field survey identified the following heritage sites within or at risk of impact from the development.

3.2.1 *Historical Heritage - Weetangera Cemetery*

Weetangera Cemetery is listed on the ACT heritage Register (ID20102). The curtilage (registered boundary) for this site extends to the road reserve boundary and specifically includes the two Cypress trees that flank the cemetery entrance. No impacts can occur within the registered site boundary unless there is no alternative and all options have been considered and found to be unacceptable. The cemetery site is of high significance and as a result should not be impacted.

No direct impact to the Weetangera Cemetery will occur as a result of the road widening and indirect impacts are considered to be unlikely. The position of the Weetangera Cemetery on the verge of the widened road has a low potential to increase visitor impacts and vandalism. However, the risks of vandalism is pre-existing and will not markedly increase as a result of the road design. The proposed

road works provide an opportunity to reduce this risk by implementing active screening on the road verge to retain the current levels of visibility of the cemetery from the road.

As the historical site is located directly on the boundary of the road reserve, barrier fencing would be appropriate to maintain a buffer zone from any works to prevent accidental impact, including any future tree planting or landscaping works within the verge. Buffer zones to the listed trees would need to be implemented at a distance of 10m minimum or in accordance with arborist advice. The mitigation measures required for the historical sites is provided in detail in Section 4.

The location of the Cemetery to William Hovell Drive and the width of the road reserve are shown in Plate 1 below from the 2018 report.



Plate 1: Weetangera Cemetery road verge.

3.2.2 *Natural Heritage - Kama Woodlands*

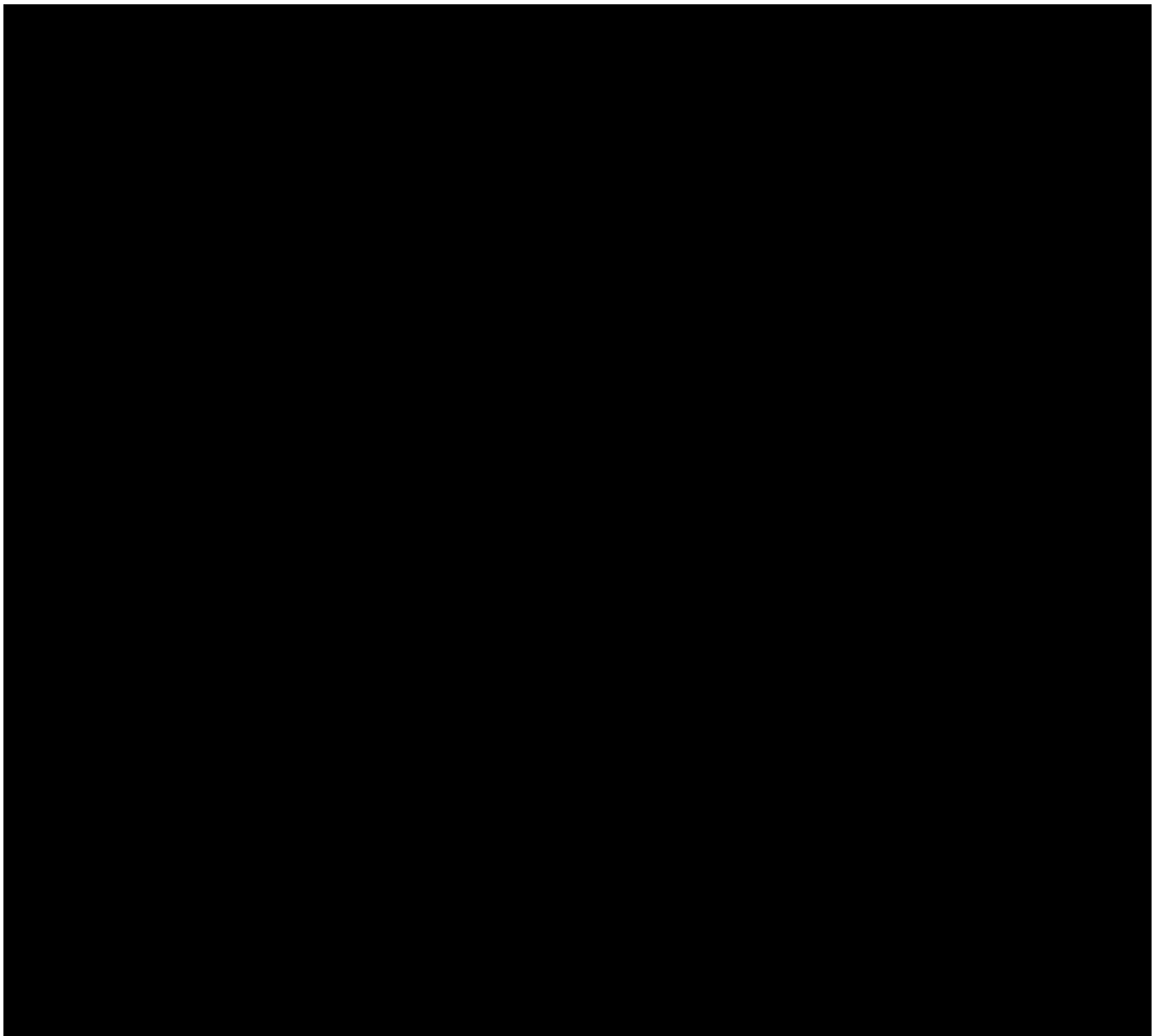
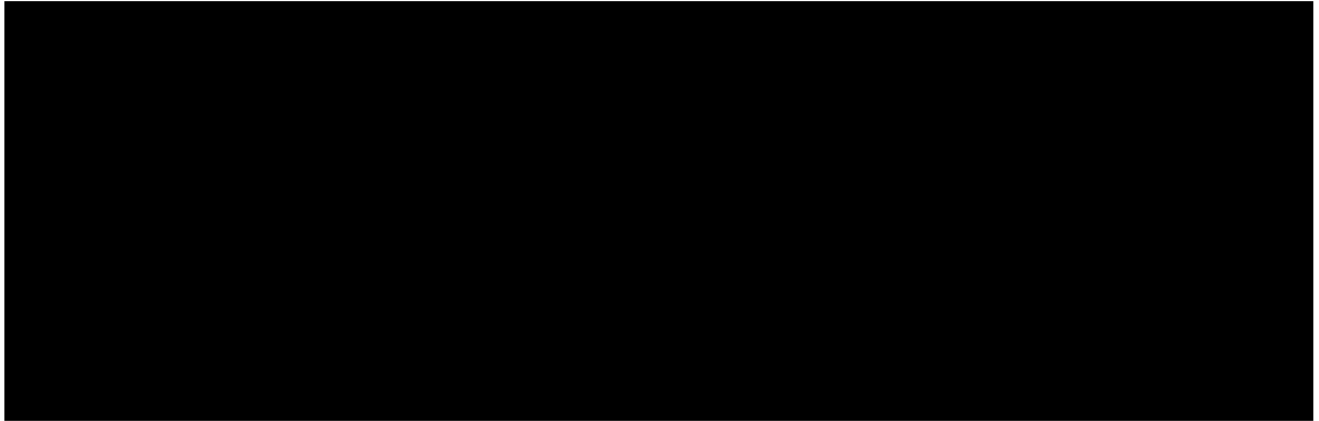
The Kama Woodlands are listed on the ACT Heritage Register for their natural heritage values. The Kama Woodlands contain areas of endangered ecological communities consisting of Yellow Box Woodland and natural temperate grasslands. The boundary of the Kama Woodlands extends to the road reserve. A detailed ecological assessment has been undertaken for the project and consultation has been undertaken with the project ecologist.

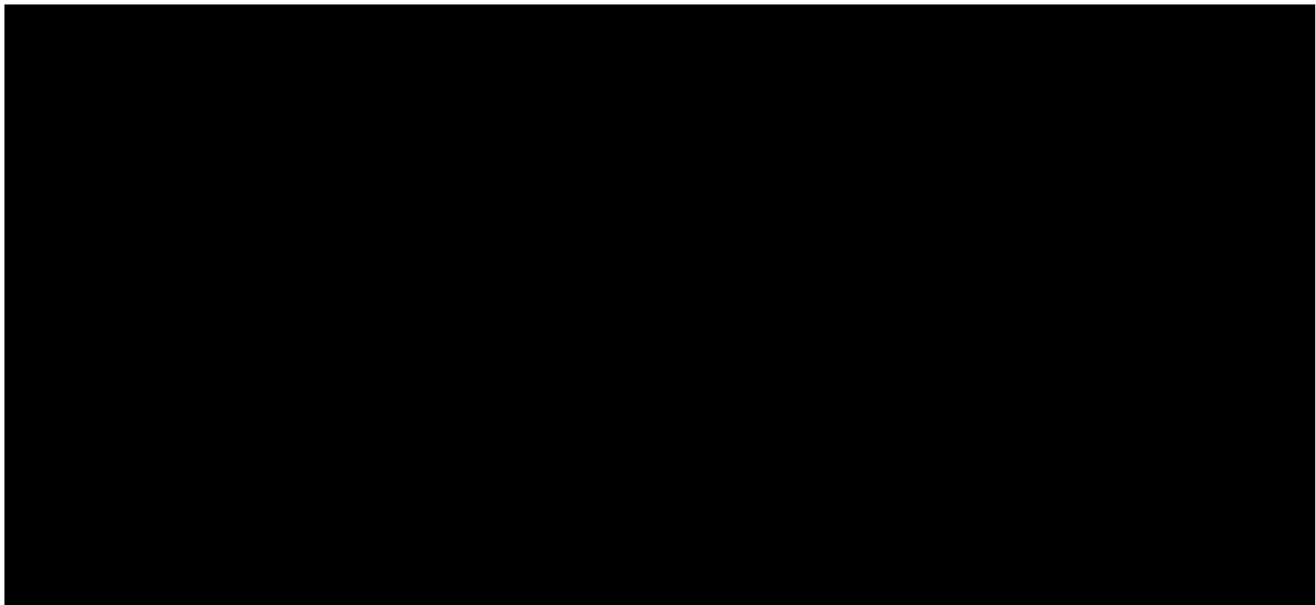
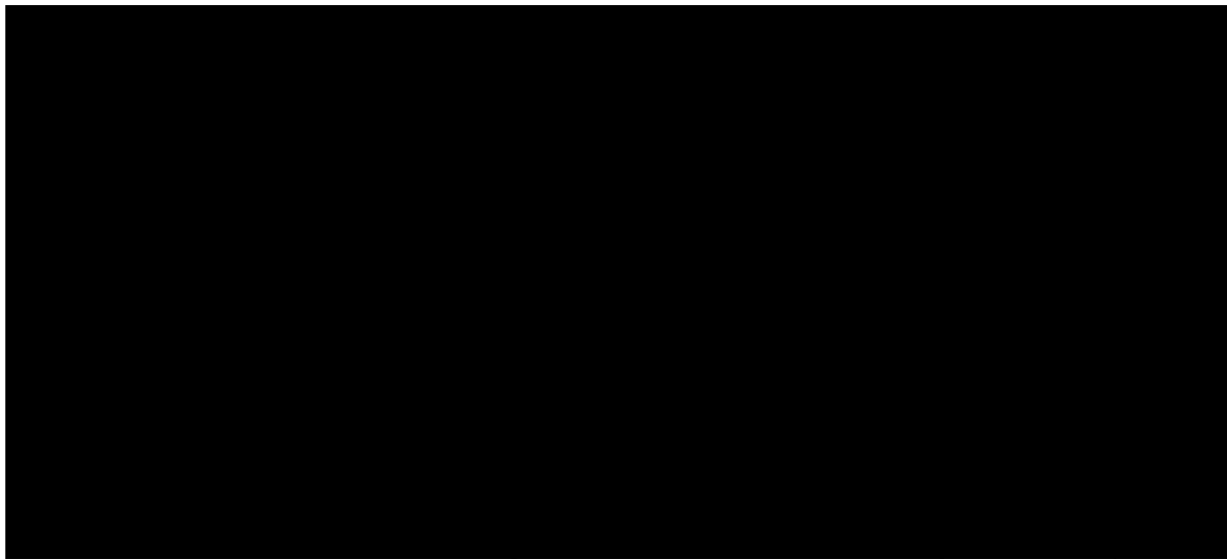
From consultation with the project ecologist the Kama woodlands will be directly impacted by the proposal within a small section (1.16ha) of the Kama Woodlands. These areas contain areas of Box Gum Woodland, no identified species or grasslands are present within the Road Reserve. Mitigation measures such lighting design and retention of trees where possible have been applied for the project. Connectivity works for arboreal mammals (overhead crossing) and wildlife underpasses have also been designed into the road construction to reduce and/or remove impacts.

As a result of these measures, and the small section of the Woodland impacted by the road proposal, it is considered that no significant impact on natural heritage values will result from the proposal.

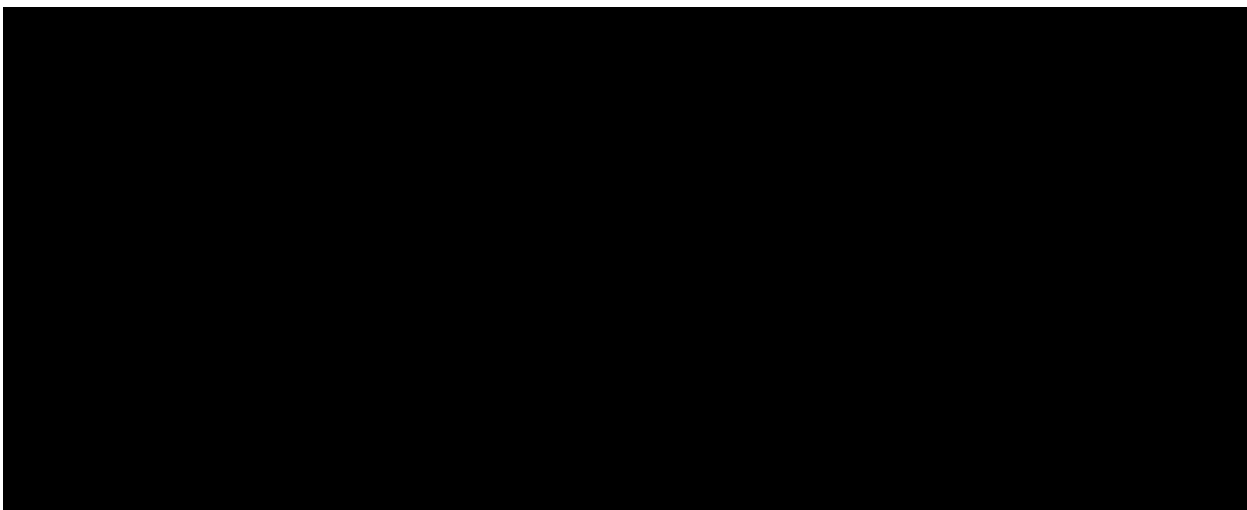
For further details of the assessment of natural heritage impacts and proposed mitigation steps reference should be made to the detailed ecological report.

3.2.3 *Aboriginal Heritage*





The areas of PAD and conditions during the 2018 survey are shown in Plates 2 to 6.



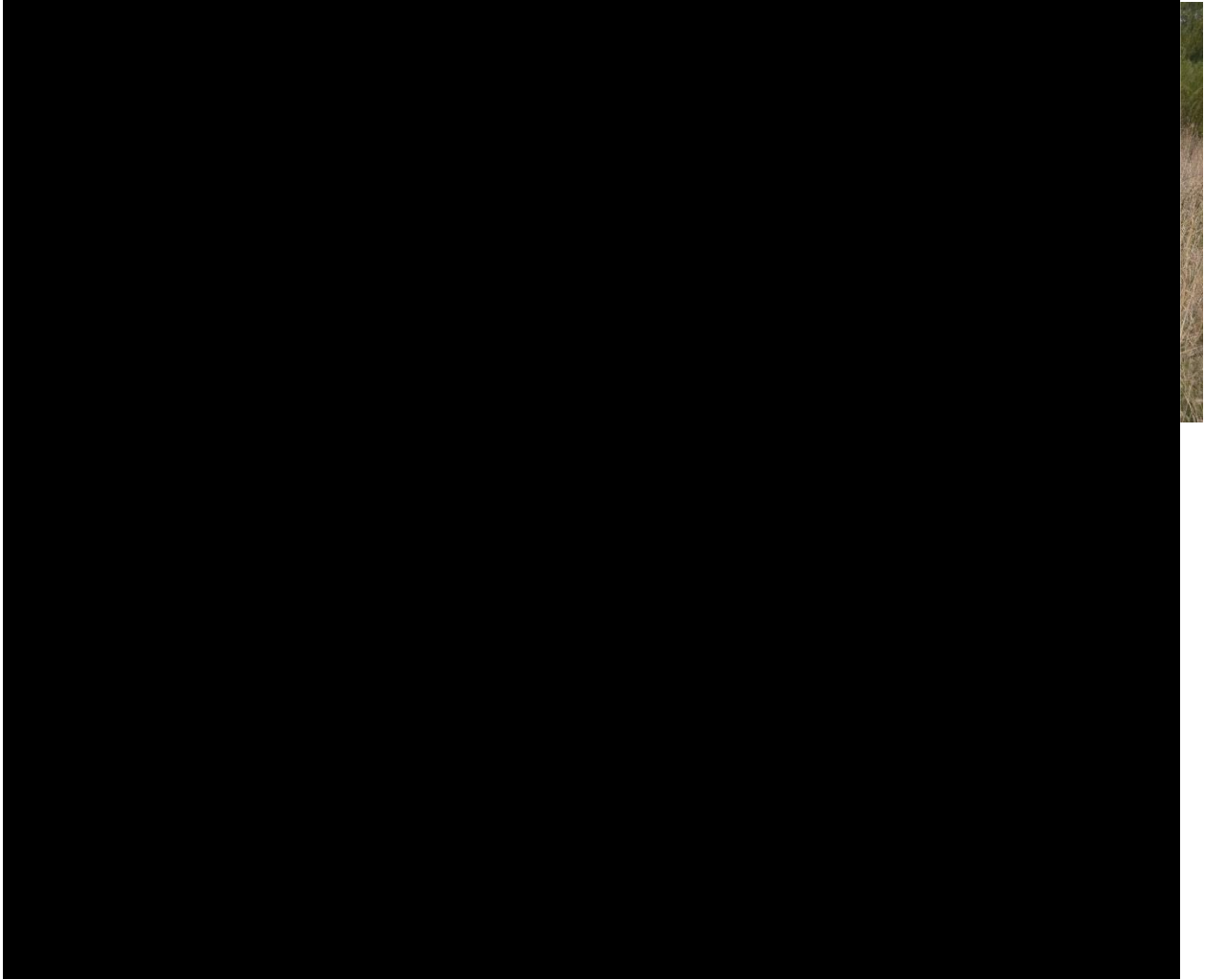


Plate 6: PAD 5 looking southwest

Figure 11: Areas of
PAD Impacted by
Whitlam Development

Legend

-  Study Area
-  Previously Recorded Sites
-  PAD
-  World Transportation



1:6,000

0 50 100 200



Meters

GDA 1994 MGA Zone 55

Imagery © ACTmapi

4 STATEMENT OF HERITAGE EFFECTS

4.1 IMPACT ASSESSMENT

The study area is currently used as the road reserve for William Hovell Drive. The additional 20m on the boundary of the road reserve are currently leased for rural agistment or within Nature Park. The proposed use of the area would involve excavation of soils within road easement, construction of road batters and cut and fill sections, with machinery movements and storage of materials during construction.

Any heritage sites located within the road reserve are at risk of damage through the proposed works. Discussions with project personnel and the placement of the identified heritage sites within the road reserve allows for design of works to avoid all direct and indirect impacts to all registered sites and their curtilage except for the Kama Woodlands.

- ❖ There are no known Aboriginal heritage impacts.
- ❖ There are no known Historical heritage impacts.

Mitigation measures are required to ensure the findings of nil heritage impact consisting of fencing of heritage boundaries and provision of information to workers and contractors on heritage obligations.

The Kama Woodlands listing extends across a section of the road corridor. As impacts cannot be avoided, the degree of impact requires assessment. The assessment of harm resulting from the proposed works is provided in Table 2 against the intrinsic features that hold heritage values (as stated in ACT Heritage Register listing NI2012-541).

Table 2. Impact Kama Woodland

Heritage Criteria	Impact
An area of Yellow Box-Red Gum Grassy Woodland (an endangered ecological community) that is described as partially modified and retains good species diversity and habitat complexity, including the number of mature age and old growth trees that provide a high density of hollows and other habitat suitable for hollow-dependent animals (such as bats, parrots and treecreepers);	1.16ha of the BGW would be affected within the road reserve. This equates to 0.75% of the Kama Woodland and would not have a significant impact on the extent, diversity or significance of listing.
An area of Natural Temperate Grassland (an endangered ecological community)	No grassland is present within road corridor and no impact to values would result
The natural boundary (an ecotone) between two endangered ecological communities (Yellow	Not present within road corridor and no impact to values would result

Heritage Criteria	Impact
Box-Red Gum Grassy Woodland and Natural Temperate Grassland) that is now rarely found in the ACT and demonstrates the landscape location of the zone of cold air drainage that is often associated with the boundary;	
Habitat for many native plant and animal species including several threatened species: the Brown Treecreeper, Varied Sittella, White-winged Triller and Pink-tailed Worm Lizard;	No listed species identified within road corridor – pre clearing surveys and retention of habitat trees will be implemented for project.
A zone of ecological connectivity between the lower Molonglo River and The Pinnacle (south Belconnen Hills) with a high level of ecological integrity of the area’s natural values within a landscape that is mostly highly altered	Partially impacted by road widening – mitigation measures such as underpasses, overhead paths and fauna friendly lighting will be implemented by the project – no significant impact.

Details on ecological assessment and mitigation measures are provided in the ecological report prepared for the project.

4.1.1 Summary

As a result of the background review, assessment of landforms and current condition, only minor heritage impacts are anticipated from the proposed road duplication works to the Kama Woodland Reserve. These heritage impacts are not considered to be significant.

No impacts will occur to the Aboriginal or historical heritage sites, if the management recommendations developed for the project and provided in the following section are implemented.

4.2 MANAGEMENT RECOMMENDATIONS

As a result of the updated heritage assessment completed for the project the following findings and recommendations apply:

Natural Heritage

- A section of the listed Kama Woodlands is located within the road reserve. Impacts would occur to a small section of the larger listing with no significant impact or decrease in heritage values resulting from the impacts within the road reserve.
- As heritage impacts would occur within the Kama Woodlands, there are known heritage impacts from the proposed project. As a result, submission of a Statement of Heritage

Effects (SHE) for approval to the ACT Heritage Council is required. A SHE is provided within this CHA for approval by the ACT Heritage Council prior to works commencing.

Aboriginal Heritage

- No Aboriginal heritage sites would be impacted by the project as impacts can be avoided through design. No impacts would occur to the site WHD1 or the three areas of PAD (WHPAD1, WHPAD3 and WHPAD5) located within the road corridor.
- Barrier fencing must be installed to demarcate the site boundaries with a buffer zone of a minimum of 5m. Barrier fencing would consist of star pickets with high visibility flagging and would be installed by or under the direction of the RAOs and heritage team. A short letter report detailing completion would be submitted to ACT Heritage. After submission, works may commence in these areas.
- The areas of PAD identified within the study area should be avoided by the proposed works. If, due to alteration in design, these areas are to be impacted then a program of subsurface testing of the impacted areas of PAD would be required to determine the presence of cultural material.

Historical Heritage

- No historical heritage sites would be impacted by the project as impacts can be avoided through design. Barrier fencing must be installed to delineate the extent of construction in the vicinity of the Weetangera Cemetery to prevent accidental impacts. The placement of barrier fencing must be on the exterior boundary of heritage curtilages.
- In the vicinity of the two cypress trees that are included within the Weetangera Cemetery listing, works must remain either 10m away from the dripline, or if this isn't possible, ensure that the works do not impact more than 10% of the TPZ and have certification from an arborist that the impact will not be significant. Barrier fencing must be installed at either 10m or in line with arborist advice prior to works commencing in this section, and remain for the duration of all construction. No impacts are permissible to the Cypress Trees or any area of the Weetangera Cemetery listing.
- If the 10m buffer cannot be achieved and arborist advice indicates potential harm than further approvals will be required for works to proceed.
- Design where practical should be undertaken to reduce the potential for indirect impacts due to higher visibility and visitor impacts to the Weetangera Cemetery. This could take the form of screening landscaping on the road verge.

General

- The location of heritage sites and requirements for impact avoidance shall be communicated to project manager and personnel engaged on the project. Heritage site information will be included in site inductions.
- All Aboriginal objects and places are protected under the ACT *Heritage Act 2004*. It is an offence to disturb an Aboriginal site without approvals granted by the ACT Heritage Council. Should any Aboriginal objects be encountered during works then works must

cease immediately in the vicinity of the find, and the find should not be moved until assessed by a qualified archaeologist with the participation of the RAOs. Adherence to the Unexpected Discovery Plan (UDP) attached at Appendix 2 is required.

5 REFERENCES

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- Stewart, K and Percival, B. (1997). *Bush Foods of New South Wales*. Sydney: Royal Botanic Gardens.
- Tindale, N. (1974). *Aboriginal Tribes of Australia*. Canberra: ANU Press.

Appendix 1. Aboriginal consultation

RAO	Date and type of contact	Response
All RAOs	15 th March 2018 – phone call to all RAOs to arrange participation in field work for 12 th April Follow up email to Wally Bell and Matilda House	Paul House – will send rep James Mundy – will send rep Carl Brown – will send rep Wally Bell - will send rep
All RAOs	12 th April 2018 – field survey and on site meeting	Reuben house Karen Denny Robert Mundy. All agreed with recommendations – one site found and low significance of area – no further work required
All RAOs	16 th April 2018 – field survey and on site meeting	Karen Denny Reuben House Robert Mundy Justin Brown Five areas of PAD identified, but distant to works near southern boundary – no anticipated impacts
All RAOs	17/4/2018 - Draft Report emailed/circulated for comments	15/5/2018 – RAO phoned/emailed to discuss. No objections to report.
All RAOs	12/4/2021 – Phone call to each RAO to discuss project and impacts from previous works to areas of PAD and impacts from road duplication. Follow up emails sent to all	
All RAOs	13/4/2021 - Draft report sent to all RAOs by email for their review and comments	
ALL RAOs	20/4/2021 – Email sent to all RAOs requesting any feedback on the Draft report	No response to date.

Appendix 2. 2018 CHA

Appendix 3. Unexpected Discovery Plan

The process outlined in the unanticipated discovery provides guidance to project personnel so that obligations in accordance with the *Heritage Act 2004* can be met.

If any items are uncovered during the course of works, which are considered to possibly be of Aboriginal or historical significance the following unanticipated discovery plan should be implemented. All Aboriginal and significant historical heritage places or objects are protected under the *Heritage Act 2004*. Offence provisions (Section 74 and Section 75) of the Act apply to impacting heritage sites. Any unanticipated find of potential heritage value should follow the process outlined below to avoid breaching obligations under the Act.

1. UNEXPECTED DISCOVERY OF ABORIGINAL CULTURAL HERITAGE

If suspected Aboriginal Heritage items (isolated stone artefacts, artefact scatters, archaeological deposits or scarred trees) are found then the following management process must be implemented:

1. Work must immediately stop in the area within a buffer zone of 10 metres from the primary grid coordinate.
2. ACT Heritage (132281) must be informed of the suspected find asap and within 5 working days.
3. A suitably qualified heritage advisor and the Representative Aboriginal Organisation (RAOs) must be engaged to assess the potential site.
4. If the items are not considered to be Aboriginal, activity may recommence.
5. If the items are considered to be Aboriginal, the Proponent, RAOs and the Cultural Heritage Advisor, will discuss the possibility of avoiding and minimising harm to the Aboriginal cultural heritage, and the Proponent must avoid or minimise harm to the Aboriginal cultural heritage, where possible.
6. If the items are considered to be Aboriginal, an assessment report will need to be prepared and submitted to the ACT Heritage Council. After approval from the ACT Heritage Council, the artefacts should be recorded and salvaged in accordance with the approved methodology.
7. After approval of the salvage report, works can recommence.

2. UNEXPECTED DISCOVERY OF HISTORICAL CULTURAL HERITAGE

If suspected historical items are found then the following management process must be followed:

1. Work must immediately stop in the area within a buffer zone of 10 metres from the primary grid coordinate.
2. ACT Heritage must be contacted on 13 22 81 for advice.
3. A suitably qualified heritage advisor needs to be engaged to assess the potential site.
4. If the items are not considered to be historically significant, activity may recommence.
5. If the items are considered to be historically significant, a management recommendation should be given by the heritage advisor.

-
6. Following approval by ACT Heritage Council and completion of the management recommendation, the activity may then recommence.

3. UNEXPECTED DISCOVERY OF HUMAN REMAINS

If any suspected human remains are discovered during any works, all activity in the areas must cease immediately. The following contingency plan describes the actions that must be taken in instances where human remains or suspected human remains are discovered. Any such discovery at the activity area must follow these steps.

Discovery:

- If any suspected human remains are found during any activity, works in the vicinity must cease.
- All personnel should leave the area immediately
- The remains must be left in place, and protected from harm or damage.

Notification:

- The ACT Federal Police must be notified immediately. All details of the location and nature of the human remains must be provided to the relevant authorities.
- If there are reasonable grounds to believe that the remains are Aboriginal, ACT Heritage must be contacted immediately on 13 22 81.
- The Project Manger must be contacted immediately.

Process:

- If the remains are considered to be Aboriginal by the AFP an appropriate management and mitigation, or salvage strategy will be implemented following consultation with the RAOs and ACT Heritage Council through ACT Heritage.