APPENDIX 1:
Certificate of Title and Survey Plans

WESTERN AUSTRALIA

REGISTER NUMBER	
100/D68092	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
1	2/5/2005

VOLUME 1936 FOLIO 855

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 100 ON DIAGRAM 68092

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

LAND GROUP (WA) - PINJAR RD PTY LTD OF 11 DELAWNEY STREET, BALCATTA
(T N094660) REGISTERED 18/8/2015

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. THE LAND THE SUBJECT OF THIS CERTIFICATE OF TITLE EXCLUDES ALL PORTIONS OF THE LOT DESCRIBED ABOVE EXCEPT THAT PORTION SHOWN IN THE SKETCH OF THE SUPERSEDED PAPER VERSION OF THIS TITLE. VOL 1936 FOL 855.
2. *N094661 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 18/8/2015.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

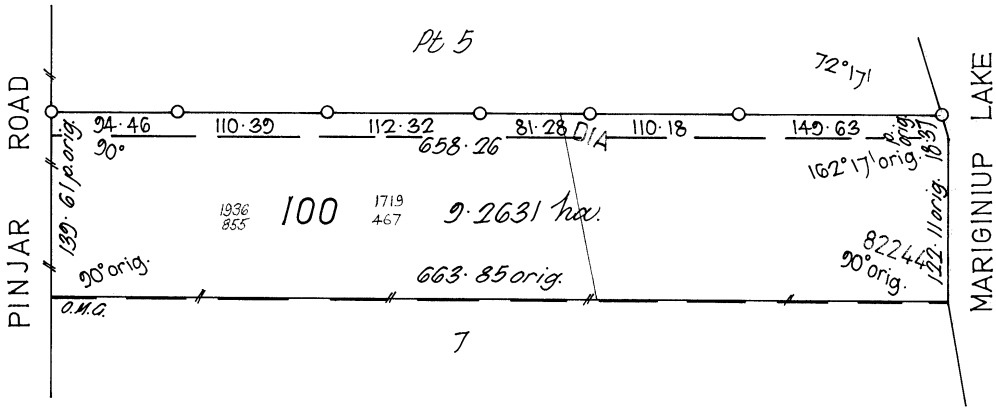
The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents of for local govenment, legal, surveying or other professional advice.

SKETCH OF LAND: 1936-855 (100/D68092)
PREVIOUS TITLE: 1719-467
PROPERTY STREET ADDRESS: 206 PINJAR RD, MARIGINIUP.
LOCAL GOVERNMENT AUTHORITY: CITY OF WANNEROO

NOTE 1: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING N094661

Town or District.	Number of Lot or Location.	Field Book.	Scale.	Certificate in which Land is Vested.	Area
MARIGINIUP	Lot 6 & Pt. Lot 5	51230	1:4000	Vol. 2221. Fol. 669.	

LIMITED IN DEPTH TO 60·96 metres



JOHN GIUDICE & ASSOC.
Licensed Surveyors
197 High Street, Fremantle
335 6371

CERTIFICATE

I hereby certify that this survey was performed by me personally (or under my own personal supervision, inspection and field check) in strict accordance with the Licensed Surveyors (Guidance of Surveyors) Regulations, 1961.

Date 11/4/85 K. A. Hill
Licensed Surveyor

Approved by Town Planning Board

66227
Date 16 April 1985 Chairman

Approved	On	Registered	Diagram No.
Examined 9/5/85 Date 15·5·85 Inspector of Plans and Surveys	Plan CP Marigiminup 5A2 Diagram Index Plan SWAM 2000 10.10	$40 72847 17-4-85 MB	68092

16117/11/81—2M—S/630 DKT DIA 16981

Public Plan Scale 10,000 2.2

DIA 68092

APPENDIX 2:
MNG Detail Survey

This survey has been completed to CLASS 2/3 Accuracy
Hard Stand Areas are to Class 2 Accuracy
Horizontal Accuracy ± 20mm
Vertical Accuracy ± 20mm
All other Areas are to Class 3 Accuracy
Horizontal Accuracy ± 30mm
Vertical Accuracy ± 50mm
This note is an integral part of this plan

Existing boundaries have been extracted from Landgate's Spatial Cadastral Database, which is only a model of the cadastre. The depicted boundary locations are a graphical representation only, as they have not been re-established by survey. MNG does not guaranteed the position unless stated otherwise. Re-establishment of lot boundaries by a Licensed Surveyor is recommended for any works on or about a boundary.
This note is an integral part of this plan

Underground services have been compiled from information obtained from a Dial-Before-You-Dig search. Service locations have not been verified by MNG. Alignments are indicative only. Prior to demolition, excavation or construction, users should satisfy themselves to the currency of services, which may have been altered or new services installed on or near the subject site. Refer to the date and method of acquisition.
This note is an integral part of this plan

Surface features and levels have been surveyed to meet the requested scope of works accuracy. The surface may be contoured to depict topography or defined only by spot heights. For clarity on hard copy some level information is not shown, refer to 3D digital file. Above ground indicators (markers) of underground services are located where visible. Third parties utilising this information should confirm the capture accuracies meet requirements prior to use.
This note is an integral part of this plan.

Rev.	Description	Drawn	Date	Checked
C	Additional Tree Removed	TKI	17/01/2017	MAD
B	Tree Details Updated	TKI	17/01/2017	MAD
A	Initial Issue	GBH	13/09/2016	MAD

SCALE 1:750 @ A1

0 25 50 75

ALL DISTANCES ARE IN METRES

For a true to scale reproduction of this plan, plot it to A1 with the Paging Scaling set to None.

The contents of this plan are current and correct as of the date stated within the revision panel. All consultants and persons wishing to utilise this data should satisfy themselves of this plans currency by contacting the McMullen Nolan Group.

Surveyor:- WJB
Survey Date:- 7/09/2016
Precal/Cad:- WALIS

bsi. ISO 9001 Quality Management — AS/NZS 4801:2001 Occupational Health and Safety Management

FS 565311 OSH 591267

N

The boundaries shown on this plan were not re-established as part of this survey, therefore this plan does not guarantee their accuracy. Existing easements, encumbrance or interest are not depicted and a title search is recommended to obtain this information. Re-establishment of the cadastral boundaries is recommended for any proposed works on or near existing boundaries.

MCMULLEN NOLAN GROUP
Level 1, 2 Sabre Crescent
Jandakot, W.A. 6164
PO Box 3526, Success
W.A. 6964, Australia
Offices in: Broome, Bunbury, Kununurra, Newman, Port Hedland

Tel: (08) 6436 1599
Fax: (08) 6436 1500
info@mngsurvey.com.au
www.mngsurvey.com.au
ABN 90 009 363 311

LOT 100 (#206) PINJAR ROAD MARIGINIUP DETAIL SURVEY

CLIENT: HOME GROUP WA

Project Mngr.: Mark DOBSON | Datum: PCG94 / AHD

100229- DE - 001 - C
Job Number / Type / Plan Number / Revision

APPENDIX 3:
Bowden Tree Consultancy Arboriculture Assessment

14th November 2016

bowden
expertise in urban tree science

Paul Silvestro
Managing Director
HomeGroup WA
11 Delawney Street
BALCATTA W.A. 6021

Dear Paul,

ARBORICULTURAL ASSESSMENT AT LOT 100 #206 PINJAR RD MARIGINIUP

Please find enclosed the results of the arboricultural assessment undertaken recently for the trees located within the proposed development at Lot 100, 206 Pinjar Road, Mariginiup.

Where recommendations for remedial arboricultural work have been made, it is imperative that it is undertaken as outlined in the Australian Standard 4373-2007: Pruning of Amenity Trees and/ or Australian Standard 4970-2009: Protection of Trees on Development Sites. It is also strongly advised that any remedial pruning works be undertaken by, or supervised by, a qualified arborist (AQF Level 3 in Arboriculture).

If you have any questions regarding the assessment or if I can be of service to you again in the future, please feel free to contact me.

Yours sincerely,

Brad Bowden
Principal
Bowden Tree Consultancy®

B.Sc. Sustainable Forestry
Dip. Arboriculture & Parks Management
ISA Certified Arborist – Municipal Specialist AU-0020AM & Tree Risk Assessment Qualified (TRAQ)

1.0 Introduction

1.1 Scope of Report

1.2 The purpose of this report is to summarise the results of the walkby arboricultural assessment and provide recommendations for the eight mature eucalypt trees (*Eucalyptus* spp.*)* located within the proposed residential development at Lot 100, 206 Pinjar Road, Mariginiup. The site visit and visual tree assessment was undertaken from ground level on the 9th November 2016 at 0830hrs and was accurate at the time of inspection. No soil excavation, below ground assessment or detailed inspection was undertaken unless specified (exception – tree number six). Viewing conditions were fine. Concern has been raised by the tree services contractor responsible for recent tree works regarding the termite infestation identified at the trunk basal area of the Tasmanian blue gum tree (*Eucalyptus globulus)* known as tree number six. This report should be read in conjunction with the PiCUS summary report outlining the results of the sonic tomography testing undertaken for tree number six to evaluate the internal condition and remaining amount of solid wood.

1.3 Executive Summary

1.4 The trees identified within this report provide a range of benefits to the ecosystem, to human beings for environmental and health reasons, and to the climate. Assessment of the trunk basal area of tree number six however has identified extensive degradation attributable to infestation by termites, with further investigation using PiCUS sonic tomography revealing a paucity of internal solid wood (21%) at the cross section. Subsequently, a high failure potential is deduced and where pedestrian/ vehicular traffic and/ or residential dwellings are proposed within close proximity of the tree, a high risk rating would be assessed. Where this is likely to occur, removal of the tree to ground level and grinding of the stump is recommended.

1.5 A walkby assessment of the remaining trees has identified root disturbance and damage at ground level as part of the recent site works. To ensure tree health and longevity is not compromised during the proposed construction and development it is imperative that tree protection measures are utilised as outlined in the Australian Standard 4970 (2009): Protection of Trees on Development Sites. These measures include identifying tree protection zone/s (trunk diameter x 12) for tree/s adjacent to any excavation/ construction, the installation of protective fencing prior to and for the duration of the project to exclude machinery and construction wastes, and the use of mulching and irrigation during seasonal periods of low rainfall.

2.0 Site Investigation

2.1 Tree Locations

Figure 1. **Aerial photo of site with the approximate tree locations (T1-T8) at Lot 100, 206 Pinjar Road, Mariginiup.**

2.2 Tree Protection Zones

Tree #	Species	DBH	TPZ radius
1	river red gum (*Eucalyptus camaldulensis)*	79cm	9.5m
2	lemon-scented gum (*Corymbia citriodora)*	40cm	4.8m
3	tuart (*Eucalyptus gomphocephala)*	88cm	10.6m
4	southern mahogany (*Eucalyptus botryoides*)	74cm	8.9m
5	rose gum (*Eucalyptus grandis)*	51cm	6.1m
6	Tasmanian blue gum (*Eucalyptus globulus)*	107cm	12.9m
7	Sydney blue gum (*Eucalyptus saligna)*	78cm	9.4m
8	southern mahogany (*Eucalyptus botryoides*)	67cm	8.1m

3.0 Discussion and Recommendations

3.1 Discussion

3.2 Tree Root Plate

3.3 Root plate composition for most tree species consists of a structural root zone (SRZ) and an absorbing root zone, responsible respectively for the support/ anchorage of the tree and the uptake of water/ mineral nutrients in solution. Severance of the large diameter woody roots within the structural root zone (the root plate area immediately adjacent to the tree and generally determined as trunk diameter x 5) can compromise tree stability and also result in the loss of a significant proportion of the absorbing roots, subsequently placing considerable stress upon the tree in the short term. The severance of large diameter woody structural roots also provides an entry opportunity for infection by wood decay fungi, increasing the potential for the degradation of wood tissue at the root collar and trunk basal area and compromising tree stability and health condition in the long term. Root development for most tree species generally occurs in the upper layers of the soil profile (0-1m) due to higher levels of organic matter and oxygen as required by the absorbing roots, and where tap or sinker roots exist in naturally occurring local native tree species they are generally located beneath the main trunk section of the tree.

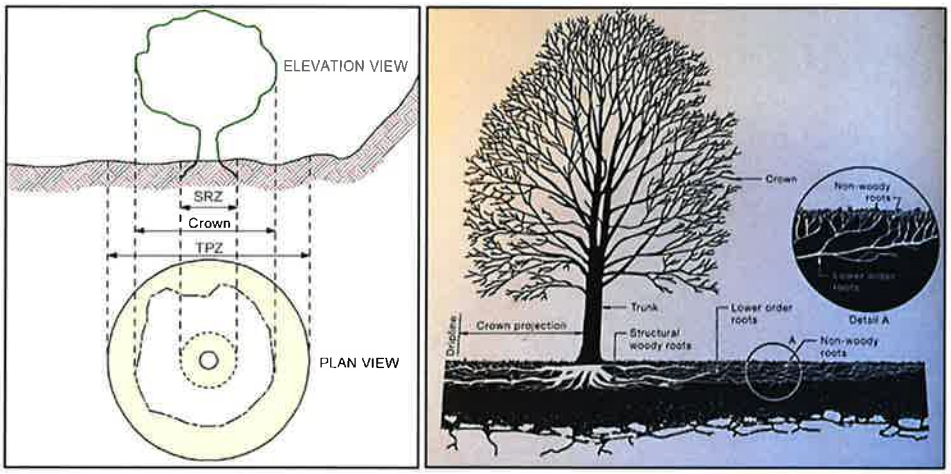


Figure 2. **Comparative views outlining the structural root zone (SRZ) and the non-woody absorbing root zone for cultivated urban trees. Source: AS4970-2009: Protection of Trees on Development Sites.**

3.4 Tree Protection during Construction & Development

3.5 The most important goal of tree preservation on construction/ development sites is the long term survival and stability of the tree/ s. To achieve this goal, three core principles must be recognised and they include:

- To preserve existing trees, the planning/ design/ construction process must respect patterns of tree growth and development, both the above ground crown and the below ground rootplate.
- Tree preservation must focus on preventing construction injury to trees; and includes mitigating soil cut/ fill, trenching and root damage, and collision injury to trunks and branches.
- Mature trees require undisturbed space to retain a healthy root system and growth of the crown.

3.6 Tree protection measures include a range of activities and structures and should be in place prior to any site works including demolition (AS4970, 2009). Protective fencing comprised of 1.8m high chain-wire mesh panels should be erected, where possible, at the periphery of the Tree Protection Zone radius (trunk diameter x 12) for each tree assessed as a material constraint and subsequently retained as part of the project.

Figure 3. **Protective fencing comprised of 1.8m high chain-wire mesh panels and signage providing information (see arrow) regarding access within the fencing should be erected prior to the commencement of construction activities that involve machinery and have the potential for collision injury.**

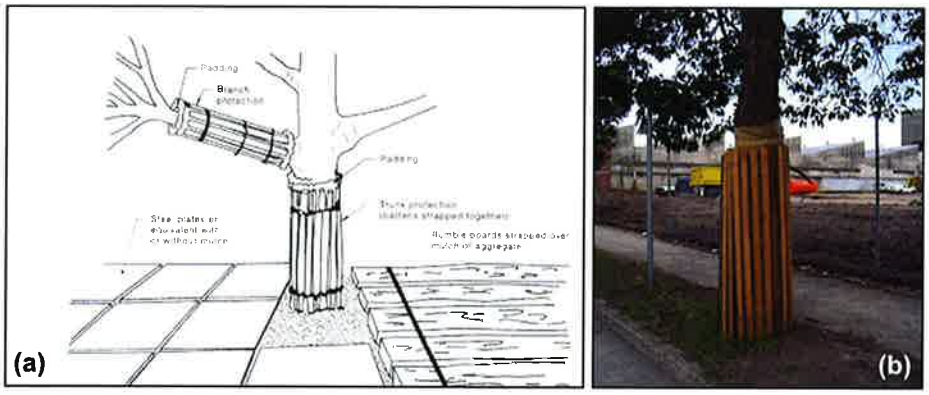


Figure 4. **(a) & (b) At size-restricted locations that do not permit the installation of temporary fencing at the periphery of the tree protection zone radius, the use of padding and boards connected non-invasively to the trunk section and/ or branches of the tree can provide protection against collision injury. Source: AS4970-2009: Protection of Trees on Development Sites.**

3.7 Pruning Wounds

3.8 Large diameter pruning wounds (root or branch) created on mature trees rarely close (occlude with new woundwood tissue) in their entirety and as such consequently provide an entry-opportunity for pest infestation and/ or disease infection by wood decay fungi, and can reduce the useful life expectancy of a mature tree. In many cases the stored carbohydrate (starch) levels within mature trees is simply inadequate for the production of the new woundwood tissue that is required to naturally close pruning wounds. Therefore, where pruning is the only management option for mature trees, correctly positioned pruning that results in small diameter (and less damaging) pruning wounds should be considered as the preferred decision.

3.9 Recommendations

3.10 Where a high pedestrian or vehicle frequency or occupancy such as a residential dwelling is proposed within the fall zone of tree number six, consideration should be given to tree removal (and replacement) due to the compromised structural integrity at the trunk basal area of the tree.

3.11 Tree Protection

- For the remaining seven trees to be retained as part of the proposed works, a tree protection zone (TPZ) as calculated in section 2.2 (pg. 3) should be identified on site and demarcates the area where excavation and subsequent root severance/ loss must be excluded to permit tree preservation into the long term – N.B. Encroachment of 10% into the TPZ on one side of the tree is permissible where an offset or improvement in growing conditions can be demonstrated on another side of the tree. Where excavation is to occur during periods of high temperature and low rainfall, it is recommended to implement a dripper irrigation system or watering regime to deliver water at the periphery of the TPZs (and into the area of absorbing roots). This should be done in conjunction with composted wood chip mulch applied to the open ground area to reduce the loss of soil moisture through evapotranspiration. Additionally, the application of a liquid compost such as Seasol™ as per label directions and into moist soil can be used to improve the soil nutrition status and subsequent tree vitality.

- Consider the installation of protective temporary fencing at the TPZ periphery of each retained tree and/ or adequately supervise contractors to alleviate the potential for collision injury (impact) from construction machinery, and also to avoid the deposition of construction wastes such as concrete wash, paints and oils into the tree protection zone area of the rootplates.

4.0 Appendix I

4.1 Arboricultural Terminology

4.2 Crown – the leaves and branches of a tree measured from the lowest branch on the trunk to the top of the tree.

4.3 DBH - diameter of the main trunk, measured at breast height approximately 1.3m above ground level for urban trees.

4.4 Deadwooding – the removal of dead, diseased or damaged branch wood from the crown of the tree.

4.5 Dripline – the width of the crown of the tree, measured by the lateral extent of the foliage. Fall zone = 1.5 times tree height.

4.6 First order structural branch – the large branches arising from the trunk that form the main structure of the crown.

4.7 Included bark defect (v-shaped union) – ingrown bark from adjacent parts of the tree that are in contact with each other; usually forks, acutely angled branches or basal stems – often a high failure potential.

4.8 Reduction prune – pruning to reduce the extension of a branch, back to a lateral branch that is at least one-third the diameter of the branch being removed.

4.9 Root collar – area at the base of the tree were the roots and trunk merge.

4.10 Second order branch – a branch arising from a first order structural branch.

4.11 Structural root zone (SRZ) – the zone of the root plate most likely to contain roots that are critical for anchorage and the stability of the tree; generally, trunk diameter x 5.

4.12 Targets – an object, person or structure that would be damaged or injured in the event of tree or branch failure is referred to as the target or target area. The hazard evaluation of the target area is relative to the expected use and occupancy of that area.

4.13 Topping and Lopping – deleterious tree and branch reduction work often at indiscriminate points and generally resulting in weakly attached regrowth branches.

4.14 Tree Protection Zone (TPZ) – the zone of the root plate most likely to contain roots that are critical for anchorage as well as the absorbing roots responsible for the uptake of water and essential plant nutrients; generally determined as trunk diameter x 12.

5.0 Appendix II

5.1 Author Formal Qualifications

5.2 Bachelor of Science (Sustainable Forestry) – 2012
Edith Cowan University, Joondalup & Murdoch University, Murdoch, WA.

5.3 Diploma of Applied Science (Horticulture) – 2000
Major studies Arboriculture and Parks/ Gardens management
University of Melbourne, Burnley campus, VIC.

5.4 Certificate IV (TAE40110) in Training & Assessment – 2014
Plenty Training, Robina, QLD.

5.5 Certificate of Horticultural Practice – 1994
Challenger TAFE, Murdoch campus, WA.

5.6 Additional Certifications

5.7 ISA Certified Arborist Municipal Specialist (AU-0020AM) - 2012
International Society of Arboriculture
www.isa-arbor.com/certification/benefits/credentialsExplained.aspx

5.8 ISA Tree Risk Assessment Qualification (TRAQ) - 2013
International Society of Arboriculture
http://www.isa-arbor.com/certification/becomequalified/becomequalified.aspx

5.9 Limitation of Liability

5.10 Bowden Tree Consultancy are tree specialists who use their qualifications, education, knowledge, training, diagnostic tools and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of this assessment and report.

5.11 Bowden Tree Consultancy cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways that the arboriculture industry does not fully understand. Conditions are often hidden within trees and below ground. Unless otherwise stated, observations have been visually assessed from ground level. Bowden Tree Consultancy cannot guarantee that a tree will be healthy or a low risk of harm under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed.

5.12 Treatment, pruning and removal of trees may involve considerations beyond the scope of Bowden Tree Consultancy's service, such as property boundaries and ownership, disputes between neighbours, sight lines, landlord-tenant matters and other related incidents. Bowden Tree Consultancy cannot take such issues into account unless complete and

accurate information is given prior or at the time of the site inspection. Likewise, Bowden Tree Consultancy cannot accept responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measures undertaken.

5.13 In the event that Bowden Tree Consultancy recommends retesting or inspection of trees at stated intervals, or installs any cable/s, bracing systems and support systems, Bowden Tree Consultancy must inspect the system installed at intervals of not greater than 12 months, unless otherwise specified in written reports. It is the client's responsibility to make arrangements with Bowden Tree Consultancy to conduct the re-inspection.

5.14 Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk. All written reports must be read in their entirety; at no time shall part of the written assessment be referred to unless taken in full context with the whole written report. If this written report is to be used in a court of law, or any other legal situation, Bowden Tree Consultancy must be advised in writing prior to the written assessment being presented in any form to any other party.

5.15 Business Details

5.16 Bowden Tree Consultancy®
ABN: 51925884945
Post Office Box 104 DARLINGTON W.A. 6070
M: 0438 936 679
E: info@bowdentree.com.au
W: www.bowdentree.com.au

5.17 Literature Cited

5.18 Standards Australia, (2009). *AS4970-2009 Protection of Trees on Development Sites*, Sydney: SAI Global

5.19 Standards Australia, (2007). *AS4373-2007 Pruning of Amenity Trees*, Sydney: SAI Global

BOWDEN TREE CONSULTANCY®

ABN: 51925884945

Address: P.O. Box 104 Darlington W.A. 6070

Phone: 0438 936 679

Email: info@bowdentree.com.au

Website: www.bowdentree.com.au

PiCUS Sonic Tomograph Test and Summary Report

Prepared for: Paul Silvestro at Homegroup WA

Date of Test: 10 November 2016

Site Details: Lot 100, #206 Pinjar Road, Mariginiup

A BASIC KEY TO ANALYSING PiCUS REPORTS

The following points will assist when you visually assess the test results against the tree.

a) Sensor one is always located to the northern side of the tree unless specified. This may vary slightly depending on where sensor point one is located on the trunk. Where aerial testing of branches above ground level has been undertaken, the north point arrow generally indicates the topside of the branch.

b) The test height is always measured at sensor one unless specified.

c) The red line in the photograph of the tree demonstrates the approximate height at which the test was conducted.

d) The red ring in the test result (2 dimensional tomogram picture) when included is the t/R ratio. The t/R ratio red line is set at 15 percent.

e) In some test results the degree measurement may be included; this could be the open section of a wound or hollow, or it may be an area of active fungus or degradation. These areas are always identified with blue lines.

f) In some test results other measurements may be mentioned; this will be an approximate measurement of the depth of decay or fungus. This is shown with a blue line. Crack detect is displayed with a yellow line and is used to identify wood tissue separation. Solid and damaged wood percentages at the test point are outlined at the top of the tomogram, aligned with the brown and blue/ violet colour coding respectively.

g) In some cases, depending on the genus and species of the fungus, the active fungus wood area may not be visible to human eyes.

h) In most cases, depending on the genus and species of the fungus, the incipient wood affected area will not be visible to human eyes.

i) The PiCUS Sonic Tomograph is mostly accurate with the colour coding produced; at times the test image produced may vary to what will be visually observed when the test area is exposed. It is important that only trained professionals make comments and recommendations regarding any test results cross examinations.

j) In some test results there will be an overlay of lines from sensor to sensor; where the lines actually cross one and other is the accurate point of the test result, and the colour reading should be taken from this point.

k) The rating system for the tree's condition at the test point is based on sound wood percentages in the test result:

Excellent	Very Good	Good	Average	Further Management
Above 90%	60 - 89%	40 – 59%	20 - 39%	<20%

Yours sincerely,

Brad Bowden
Principal
Bowden Tree Consultancy®

B.Sc. Sustainable Forestry
Dip. Arboriculture & Parks Management
ISA Certified Arborist – Municipal Specialist AU-0020AM & Tree Risk Assessment Qualified (TRAQ)

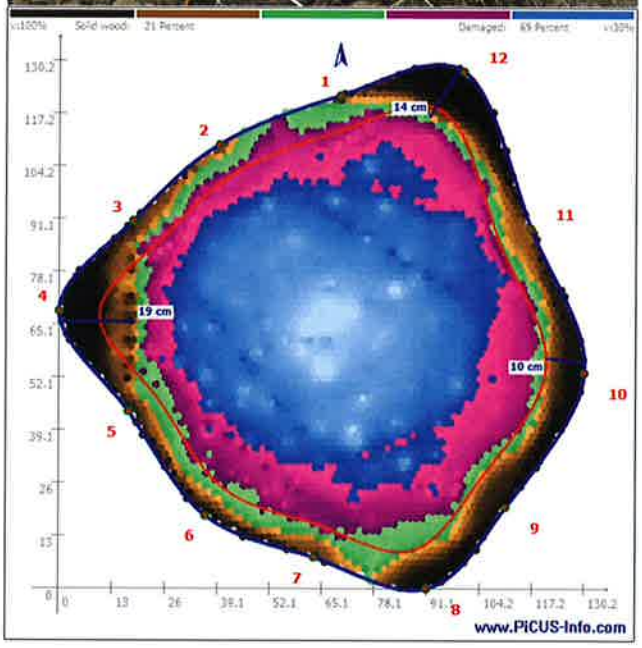
Botanical Name ***Eucalyptus globulus***
Common Name **Tasmanian blue gum**
Test Height **50mm above ground level**
Test Circumference **4070mm at test height**

The PiCUS® Sonic Tomograph test result indicates 21% of the test area is solid (high density) wood. There is 10% incipient wood (wood being altered). The remaining 69% is active degradation (low density) wood or cavity.

The pest and/ or pathogen is likely to have entered the tree through the rootplate.

The radial amount of solid wood adjacent to sensor number 4 was measured at 19cm, adjacent to sensor number 10 was measured at 10cm and adjacent to sensor number 12 was measured at 14cm.

It is observed that new wood growth increments are evident at sensor numbers 3-6 and 8-12.



CONCLUSION

The test result provides evidence that the tree is still structurally sound at the test point and in average condition. Whilst response growth (new wood) is evident as the tree attempt at self-optimisation, extensive degradation of wood tissue resulting from termite infestation was revealed and is likely to augment the likelihood of failure in the short term. Subsequently, removal to ground level is recommended where a high pedestrian/ vehicle frequency is proposed within/ adjacent to the dripline of the tree.

LIMITATION OF LIABILITY

Bowden Tree Consultancy are tree specialists who use their qualifications, education, knowledge, training, diagnostic tools and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of this assessment and report.

Bowden Tree Consultancy cannot detect every condition that could possibly lead to the structural failure of a tree. Trees are living organisms that fail in ways that the arboriculture industry does not fully understand. Conditions are often hidden within trees and below ground. Unless otherwise stated, observations have been visually assessed from ground level. Bowden Tree Consultancy cannot guarantee that a tree will be healthy or a low risk of harm under all circumstances, or for a specified period of time. Likewise, remedial treatments cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of Bowden Tree Consultancy's service, such as property boundaries and ownership, disputes between neighbours, sight lines, landlord-tenant matters and other related incidents. Bowden Tree Consultancy cannot take such issues into account unless complete and accurate information is given prior or at the time of the site inspection. Likewise, Bowden Tree Consultancy cannot accept responsibility for the authorisation or non-authorisation of any recommended treatment or remedial measures undertaken.

In the event that Bowden Tree Consultancy recommends retesting or inspection of trees at stated intervals, or installs any cable/s, bracing systems and support systems, Bowden Tree Consultancy must inspect the system installed at intervals of not greater than 12 months, unless otherwise specified in written reports. It is the client's responsibility to make arrangements with Bowden Tree Consultancy to conduct the re-inspection.

Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk.

All written reports must be read in their entirety; at no time shall part of the written assessment be referred to unless taken in full context with the whole written report.

If this written report is to be used in a court of law, or any other legal situation, Bowden Tree Consultancy must be advised in writing prior to the written assessment being presented in any form to any other party.

APPENDIX 4:
Bushfire Attack Level Assessment

19 January 2017

Our Ref: HOM PIN/170119LLGA_BAL Assessment.docx

Chief Executive Officer
City of Wanneroo
Locked Bag 1
WANNEROO WA 6946

Dear Sir/Madam

RE: BUSHFIRE HAZARD ASSESSMENT
LOT 100 PINJAR ROAD, MARIGINIUP

Burgess Design Group, on behalf of our client, Land Group WA Pinjar Road Pty Ltd, is pleased to provide the attached Bushfire Hazard Assessment to support the proposed Homestead and Equestrian Facilities at Lot 100 Pinjar Road, Mariginiup.

Background

The Western Australian Planning Commission's (WAPC) State Planning Policy 3.7: *Planning in Bushfire Prone Areas* (SPP3.7) intends to implement effective, risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. SPP3.7 applies to land that has been designated as being bushfire prone by the Fire and Emergency Services Commissioner, as shown on the *Map of Bushfire Prone Areas*.

The subject site is located within a designated bushfire prone area. As such, the provisions of SPP3.7 apply to development within the site.

Bushfire Hazard Assessment

SPP3.7 and the accompanying *Guidelines for Planning in Bushfire Prone Areas* (Guidelines) require that the level of bushfire risk be assessed and suitable management measures be identified and implemented to mitigate the potential impacts of bushfire on life, property and infrastructure.

In accordance with Policy Measure 6.2(a) of SPP3.7, and Section 4.1 of the Guidelines, a Bushfire Hazard Level (BHL) Assessment has been carried out to determine the hazard level applicable to the site (refer **Plan 1: Bushfire Hazard Assessment**). The BHL Assessment has been prepared in accordance with Method 1 as outlined in Australian Standard 3959-2009: *Construction of buildings in bushfire prone areas* (AS3959). A summary of the assessment is provided below.

Vegetation classification:

A site visit was undertaken on 17 January 2017 for the purposes of classifying vegetation at the site and within 100 metres of its boundaries.

The majority of land surrounding the site, and the entirety of the site itself, is either non-vegetated or managed as private gardens, road verges, or orchards. As such, it has been excluded in accordance with Section 2.2.3.2 (e) and (f) of AS3959, as applicable (**Images 1-4)**

Image 1: Subject land – non-vegetated

Image 2: Grazed paddock

Image 3: Orchard

Image 4: Orchard

A parcel of unmanaged grassland is located west of the site, within a City of Wanneroo Drainage Sump (refer **Image 5**). The vegetation is less than 1ha in area, and is not within 100 metres of other vegetation being classified. As such, it has been excluded under Section 2.2.3.2(b) of AS3959.

A further parcel of unmanaged grassland exists south east of the subject site (refer **Image 6**). For the purposes of this assessment, it is assumed to be a permanent risk. As such, this vegetation, together with land within 50 metres of its edge, is considered to have a 'moderate' bushfire hazard level (BHL) rating.

Land east of the subject site ranges from 'open woodland over managed grassland' (**Image 7**) to 'closed scrub' (**Images 8 & 9**) to 'woodland to low woodland over unmanaged grassland' (**Image 10**).

Image 5: Unmanaged grassland (drainage sump)

Image 6: Unmanaged grassland

Image 7: Woodland over managed grassland

Image 8: Closed scrub

Image 9: Closed scrub

Image 10: Woodland to low woodland over unmanaged grassland

In accordance with AS3959, the portion of 'open woodland over managed grassland' has been classified according to its understory (i.e. managed grassland) and has been excluded.

The portion of 'woodland to low woodland over unmanaged grassland', together with land within 100 metres of its edges, has a 'moderate' BHL rating.

The portion of 'closed scrub' has an 'extreme' BHL rating, and land within 100 metres of its edges has a 'moderate' BHL rating

Bushfire Hazard Level:

The majority of land within and surrounding the site is either managed or non-vegetated, is not considered to pose a bushfire risk, and has a '**low**' BHL rating (refer **Plan 1: Bushfire Hazard Level Assessment**). Development within these areas does not require the application of SPP3.7 or the Guidelines. Importantly, this includes all structures proposed as part of this application.

Notwithstanding the above, areas of vegetation to the east and south-east of the site are considered to have a 'moderate' to 'extreme' BHL rating. A Bushfire Attack Level (BAL) Plan has been prepared to illustrate that development falls well outside of the affected area (refer **Plan 2: Bushfire Attack Level Assessment**).

Conclusion

Section 6.2 (a) of SPP3.7 requires that the policy measures be implemented only where the bushfire hazard level or bushfire attack level are above 'low'. This Assessment finds the majority of the site is subject to a 'low' BHL rating, with only a portion along the eastern and south-eastern boundaries affected by a 'moderate' BHL rating.

Importantly, all structures proposed as part of this application fall within a 'Low' BHL rated area. As such, and in accordance with Section 3.2 of the Guidelines, the proposed development does not require the application of SPP3.7 or the Guidelines.

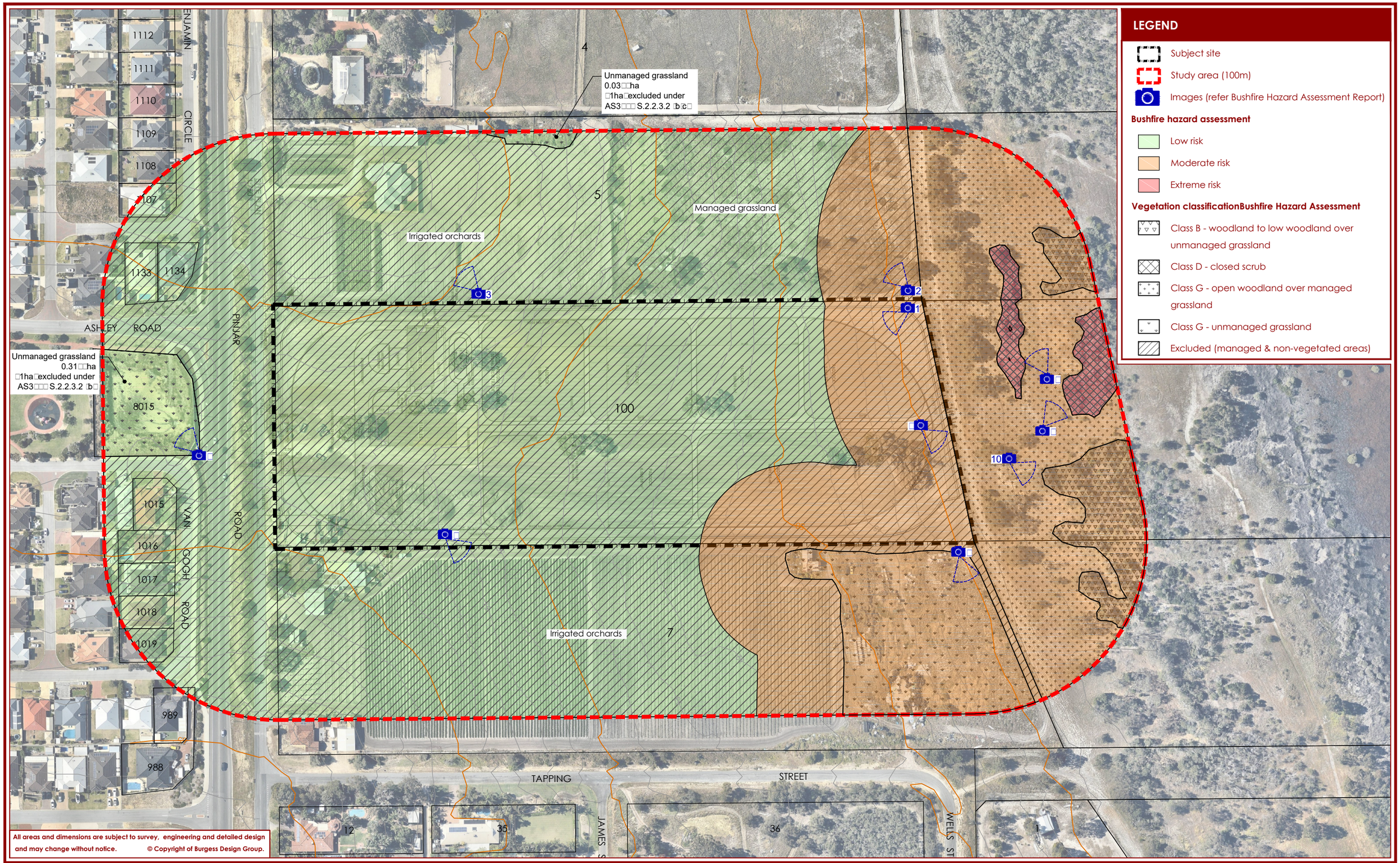
Should you require any additional information or wish to discuss this matter further, please do not hesitate to contact the undersigned or Mitch Bisby of our Office on 9328 6411.

Yours faithfully
BURGESS DESIGN GROUP

MARK SZABO
ASSOCIATE DIRECTOR

ENC

Plan 1: Bushfire Hazard Assessment (HOM PIN 07-01b-01)
Plan 2: Bushfire Attack Level Assessment (HOM PIN 07-01b-02)



All areas and dimensions are subject to survey, engineering and detailed design and may change without notice. © Copyright of Burgess Design Group.

LEGEND

- Subject site
- Study area (100m)
- Images (refer Bushfire Hazard Assessment Report)

Bushfire hazard assessment

- Low risk
- Moderate risk
- Extreme risk

Vegetation classificationBushfire Hazard Assessment

- Class B - woodland to low woodland over unmanaged grassland
- Class D - closed scrub
- Class G - open woodland over managed grassland
- Class G - unmanaged grassland
- Excluded (managed & non-vegetated areas)

NORTH

0 20 40 60 80 100m

SCALE 1:2000 (A3)

PLAN 1: BUSHFIRE HAZARD ASSESSMENT
LOT 100 PINJAR ROAD
MARIGINIUP
CITY OF WANNEROO

BURGESS DESIGN GROUP
TOWN PLANNING + URBAN DESIGN
PO Box 8779, Perth Business Centre 6849
www.burgessdesigngroup.com.au
P (08) 9328 6411
F (08) 9328 4062

Plan No: HOM PIN 07-01b-01 Client: Homegroup WA
Date: 18.01.17 Planner: ZM/MB

LEGEND

- Subject site
- Study area (100m)

Bushfire attack level

- BAL-12.5
- BAL-19
- BAL-29
- BAL-40
- BAL-FZ

BUSHFIRE ATTACK LEVELS					
DISTANCE FROM VEGETATION (m) - DOWNSLOPE >0-5°					
VEGETATION CLASSIFICATION	BAL□F□	BAL□□0	BAL□2□	BAL□1□	BAL□12.□
CLASS B WOODLAND	□13	13□□1□	1□□□2□	2□□□3□	3□□□100

BUSHFIRE ATTACK LEVELS					
DISTANCE FROM VEGETATION (m) - DOWNSLOPE >0-5°					
VEGETATION CLASSIFICATION	BAL□F□	BAL□□0	BAL□2□	BAL□1□	BAL□12.□
CLASS D SCRUB	□□	□□□10	10□□1□	1□□□22	22□□100

BUSHFIRE ATTACK LEVELS					
DISTANCE FROM VEGETATION (m) - DOWNSLOPE >0-5°					
VEGETATION CLASSIFICATION	BAL□F□	BAL□□0	BAL□2□	BAL□1□	BAL□12.□
CLASS B WOODLAND	□13	13□□1□	1□□□2□	2□□□3□	3□□□100

BUSHFIRE ATTACK LEVELS					
DISTANCE FROM VEGETATION □m□□UPSLOPE □ FLAT					
VEGETATION CLASSIFICATION	BAL□F□	BAL□□0	BAL□2□	BAL□1□	BAL□12.□
CLASS G GRASSLAND	□□	□□□□	□□□1□	1□□□20	20□□□0

BUSHFIRE ATTACK LEVELS					
DISTANCE FROM VEGETATION (m) - DOWNSLOPE >0-5°					
VEGETATION CLASSIFICATION	BAL□F□	BAL□□0	BAL□2□	BAL□1□	BAL□12.□
CLASS G GRASSLAND	□□	□□□10	10□□1□	1□□□23	23□□□0

NORTH

0 20 40 60 80 100m

SCALE 1:2000 (A3)

PLAN 2: BUSHFIRE ATTACK LEVEL ASSESSMENT
LOT 100 PINJAR ROAD
MARIGINIUP
CITY OF WANNEROO

BURGESS DESIGN GROUP
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PO Box 8779, Perth Business Centre 6849
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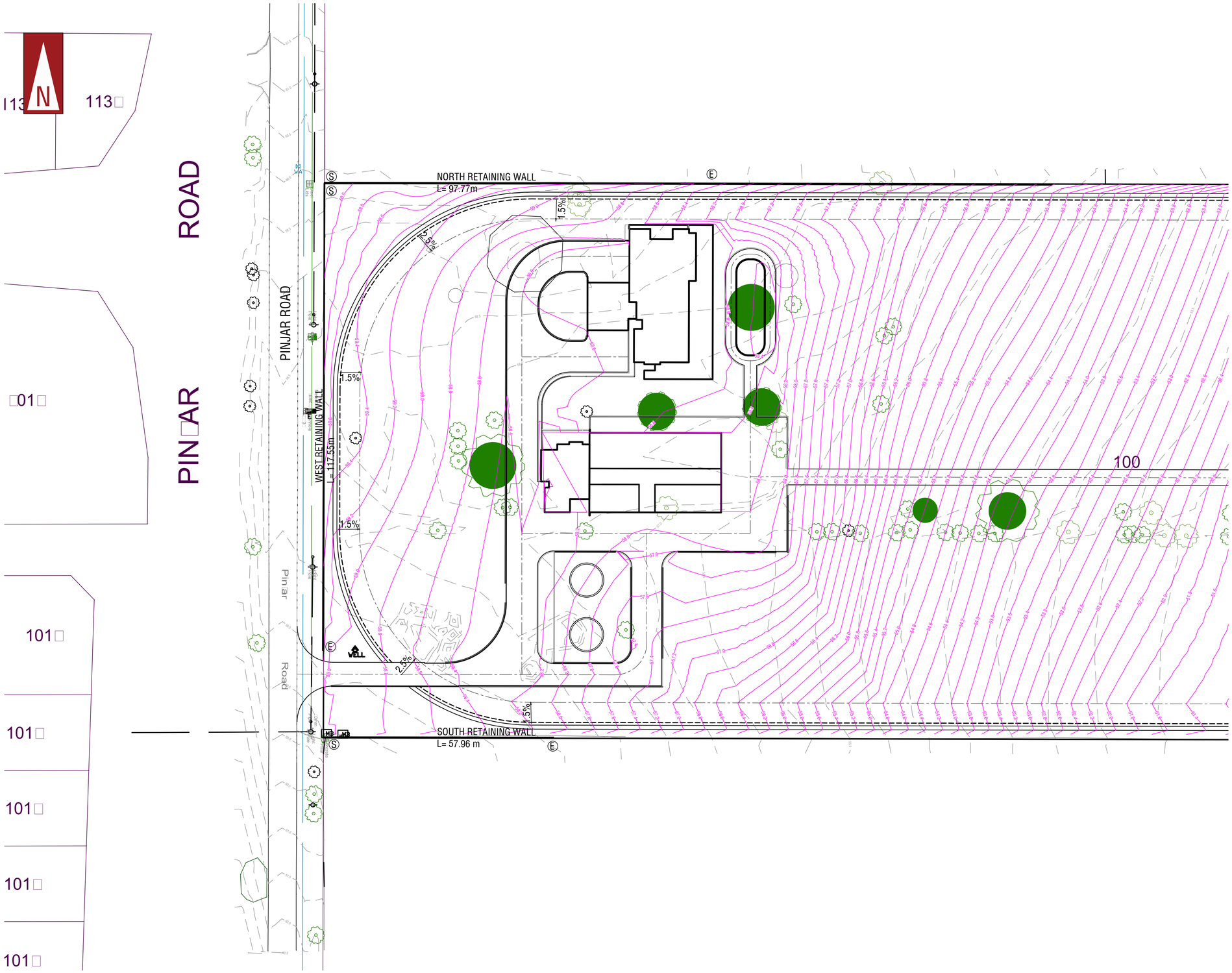
F (08) 9328 4062

Plan No: HOM PIN 07-01b-02 Client: Homegroup WA
Date: 18.01.17 Planner: ZM/MB

APPENDIX 5:
KCTT Earthworks Plans



PLAN

SCALE 1:500

NOTES

1. DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DOCUMENTS AND SPECIFICATION.
2. PRIOR TO CUTTING OR FILLING, THE SITE AREAS SHALL BE CLEARED, AND TOPSOIL STOCKPILED AS SPECIFIED.
3. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.
4. ALL LEVELS SHOWN ARE FINISHED LEVELS AFTER FINAL WORKS. LOT LEVELS ARE FINISHED SAND LEVELS.
5. SOIL STABILISATION AS PER STANDARDS SPECIFICATION.
6. NO TOPSOIL TO BE SPREAD ON LOTS.
7. DUST CONTROL TO BE THE RESPONSIBILITY OF CONTRACTOR.
8. REFER DRG KC00356.000-C950 FOR RETAINING WALL DETAILS
9. EXISTING FEATURES AND LEVELS AS SUPPLIED BY MNG (REF: 100229de-001a.dwg; DATE: 07-09-16).
10. ALL DESIGN LEVELS AND SET OUT POINTS SHALL BE LOCATED FROM BENCH MARKS ESTABLISHED BY A LICENSED SURVEYOR.
11. THE CONTRACTOR SHALL PROVIDE CERTIFICATION THAT EARTHWORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH DRAWING AND THE SPECIFICATION.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE WORKS AND SHALL ORGANISE A DILAPIDATION SURVEY AS REQUIRED.
13. THE CONTRACTOR IS RESPONSIBLE FOR ORGANISING A DEMOLITION LICENCE AND ARRANGING FOR THE REMOVAL OF ALL EXISTING STRUCTURES AND UNSUITABLE MATERIAL OFF SITE.
14. LEVELS ARE RELATIVE TO PCG94.
15. THE CONTRACTOR SHALL OBTAIN 'DIAL BEFORE YOU DIG' SERVICE INFORMATION ON THE AREA AFFECTED BY THE WORKS PRIOR TO ANY CONSTRUCTION.
16. THE CONTRACTOR SHALL REINSTATE ALL PUBLIC OR PRIVATE PROPERTY THAT HAS BEEN AFFECTED BY THE WORKS TO AN ORIGINAL OR SUPERIOR CONDITION OF ITS ORIGINAL STATE.
17. A LICENSED SURVEYOR SHALL BE USED BY THE CONTRACTOR TO SETOUT ALL WORKS ASSOCIATED WITH THE RETAINING WALLS AND BASIN FENCING.
18. THE CONTRACTOR SHALL NOT SCALE OFF OF THESE DRAWINGS. WHERE A DISCREPANCY EXISTS BETWEEN THE MODEL, THE DRAWINGS, THE BOQ, THE SPECIFICATION OR ANY OTHER DOCUMENT OR INSTRUCTION, THE CONTRACTOR SHALL BRING THIS / THESE DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE SUPERINTENDENT. SCALING QUANTITIES FROM THESE DRAWINGS IS NOT AN ACCEPTABLE METHOD OF CALCULATING QUANTITIES.

LEGEND

- PROPOSED KERBING
- EXISTING KERBING
- TREES TO BE REMOVED
- REFER TO ARCHITECTS PLAN
- 17.6 DESIGN FINISHED SURFACE CONTOUR (0.2m INTERVAL)
- 17.5 EXISTING CONTOUR LEVEL (0.5m INTERVAL)
- EXISTING LOT BOUNDARY

WARNING

BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

DIAL 1100 BEFORE YOU DIG

FOR INFORMATION ONLY

NOT TO BE USED FOR CONSTRUCTION PURPOSES

1:250

0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT
C	14/10/16	CK	CK			ISSUED FOR INFORMATION
B	05/10/16	CK	CK			LEVELS AMENDED
A	20/09/16	CK	CK			ISSUED FOR INFORMATION\

KC Traffic and Transport Pty Ltd
ABN 35 148 970 727
7/10 Whipple Street, Balcatta WA 6021
Phone: 08 9441 2700
Website: www.kctt.com.au

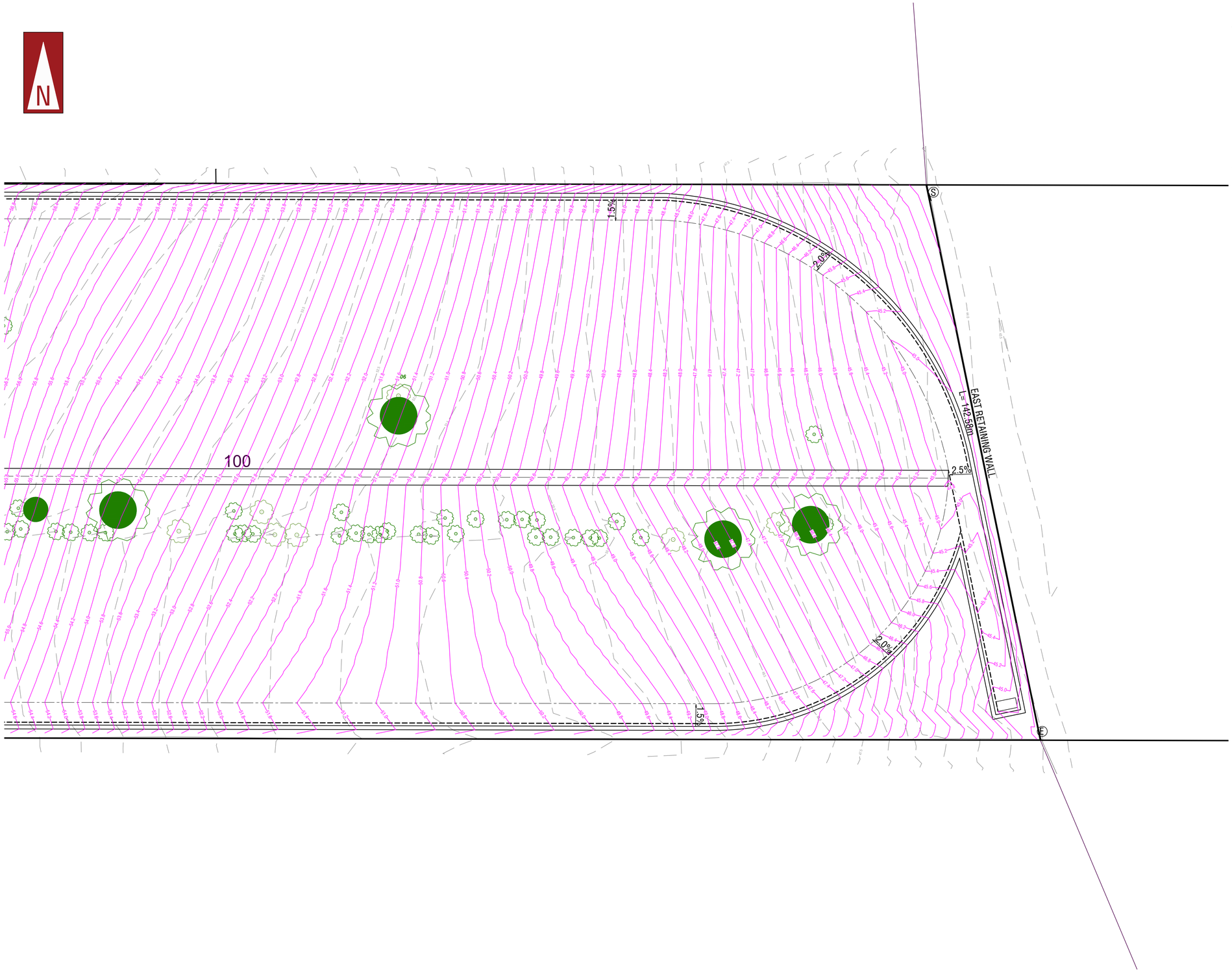
CLIENT: PAUL SILVESTRO

PROJECT: No 264 (Lot 2) and 206 (Lot 100) Pinjar Road Mariginiup

DRAFTER	DRAFTING CHECK	REVIEWED PROJECT MANAGER	APPROVED PROJECT DIRECTOR
V. VUJIC	C. KLEYWEG		
DESIGNED	DESIGN REVIEW		
V. VUJIC	C. KLEYWEG		

TITLE: EARTHWORKS PLAN
SHEET 1 OF 2

SHEET	DATUM	WAPC No.	PROJECT No.	DRAWING No.	REVISION
A1	PCG94	152118	KC00356.012	C100	C
		SCALE 1:250			



NOTES

1. DRAWING SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DOCUMENTS AND SPECIFICATION.
2. PRIOR TO CUTTING OR FILLING, THE SITE AREAS SHALL BE CLEARED, AND TOPSOIL STOCKPILED AS SPECIFIED.
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4. ALL LEVELS SHOWN ARE FINISHED LEVELS AFTER FINAL WORKS. LOT LEVELS ARE FINISHED SAND LEVELS.
5. SOIL STABILISATION AS PER STANDARDS SPECIFICATION.
6. NO TOPSOIL TO BE SPREAD ON LOTS.
7. DUST CONTROL TO BE THE RESPONSIBILITY OF CONTRACTOR.
8. REFER DRG KC00356.000-C950 FOR RETAINING WALL DETAILS
9. EXISTING FEATURES AND LEVELS AS SUPPLIED BY MNG (REF: 100229de-001a.dwg; DATE: 07-09-16).
10. ALL DESIGN LEVELS AND SET OUT POINTS SHALL BE LOCATED FROM BENCH MARKS ESTABLISHED BY A LICENSED SURVEYOR.
11. THE CONTRACTOR SHALL PROVIDE CERTIFICATION THAT EARTHWORKS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH DRAWING AND THE SPECIFICATION.
12. THE CONTRACTOR IS RESPONSIBLE FOR THE WORKS AND SHALL ORGANISE A DILAPIDATION SURVEY AS REQUIRED.
13. THE CONTRACTOR IS RESPONSIBLE FOR ORGANISING A DEMOLITION LICENCE AND ARRANGING FOR THE REMOVAL OF ALL EXISTING STRUCTURES AND UNSUITABLE MATERIAL OFF SITE.
14. LEVELS ARE RELATIVE TO PCG94.
15. THE CONTRACTOR SHALL OBTAIN 'DIAL BEFORE YOU DIG' SERVICE INFORMATION ON THE AREA AFFECTED BY THE WORKS PRIOR TO ANY CONSTRUCTION.
16. THE CONTRACTOR SHALL REINSTATE ALL PUBLIC OR PRIVATE PROPERTY THAT HAS BEEN AFFECTED BY THE WORKS TO AN ORIGINAL OR SUPERIOR CONDITION OF ITS ORIGINAL STATE.
17. A LICENSED SURVEYOR SHALL BE USED BY THE CONTRACTOR TO SETOUT ALL WORKS ASSOCIATED WITH THE RETAINING WALLS AND BASIN FENCING.
18. THE CONTRACTOR SHALL NOT SCALE OFF OF THESE DRAWINGS. WHERE A DISCREPANCY EXISTS BETWEEN THE MODEL, THE DRAWINGS, THE BOQ, THE SPECIFICATION OR ANY OTHER DOCUMENT OR INSTRUCTION, THE CONTRACTOR SHALL BRING THIS / THESE DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE SUPERINTENDENT. SCALING QUANTITIES FROM THESE DRAWINGS IS NOT AN ACCEPTABLE METHOD OF CALCULATING QUANTITIES.

LEGEND

- PROPOSED KERBING
- EXISTING KERBING
- TREES TO BE RETAINED
- TREES TO BE REMOVED
- 17.6 — DESIGN FINISHED SURFACE CONTOUR (0.2m INTERVAL)
- 17.5 — EXISTING CONTOUR LEVEL (0.5m INTERVAL)
- EXISTING LOT BOUNDARY

PLAN

SCALE 1:500

WARNING

BEWARE OF UNDERGROUND SERVICES

The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

DIAL 1100 BEFORE YOU DIG

FOR INFORMATION ONLY

NOT TO BE USED FOR CONSTRUCTION PURPOSES

1:250

0 2.5m 5 7.5 10 12.5 15 17.5 20 22.5 25 27.5 30 32.5 35 37.5

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT
C	14/10/16	CK	CK			ISSUED FOR INFORMATION
B	05/10/16	CK	CK			LEVELS AMENDED
A	20/09/16	CK	CK			ISSUED FOR INFORMATION\

KC Traffic and Transport Pty Ltd
ABN 35 148 970 727
7/10 Whipple Street, Balcatta WA 6021
Phone: 08 9441 2700
Website: www.kctt.com.au

CLIENT: PAUL SILVESTRO

PROJECT: No 264 (Lot 2) and 206 (Lot 100) Pinjar Road Mariginiup

DRAFTER	DRAFTING CHECK	REVIEWED PROJECT MANAGER	APPROVED PROJECT DIRECTOR
V. VUJIC	C. KLEYWEG		
DESIGNED	DESIGN REVIEW		
V. VUJIC	C. KLEYWEG		

TITLE: EARTHWORKS PLAN
SHEET 2 OF 2

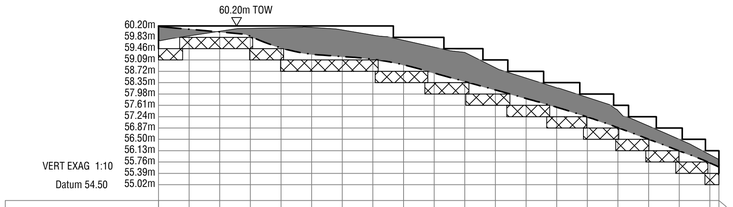
SHEET	DATUM	WAPC No.	PROJECT No.	DRAWING No.	REVISION
A1	PCG94	152118	KC00356.012	C100	C
		SCALE 1:250			

NOTES

1. REFER DRG KC00414.001-C950 FOR TYPICAL RETAINING WALL DETAILS.
2. THE CONTRACTOR SHALL NOT SCALE OFF OF THESE DRAWINGS. WHERE A DISCREPANCY EXISTS BETWEEN THE MODEL, THE DRAWINGS, THE BOQ, THE SPECIFICATION OR ANY OTHER DOCUMENT OR INSTRUCTION, THE CONTRACTOR SHALL BRING THIS / THESE DISCREPANCIES TO THE IMMEDIATE ATTENTION OF THE SUPERINTENDENT. SCALING QUANTITIES FROM THESE DRAWINGS IS NOT AN ACCEPTABLE METHOD OF CALCULATING QUANTITIES.

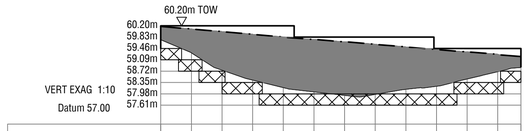
LEGEND

- PROPOSED RETAINING WALLS
- DESIGN GROUND
- TOP OF WALL
- GROUND LEVEL AT BOTTOM OF WALL
- AREA OF RETAINED SOIL
- FOOTING BLOCK



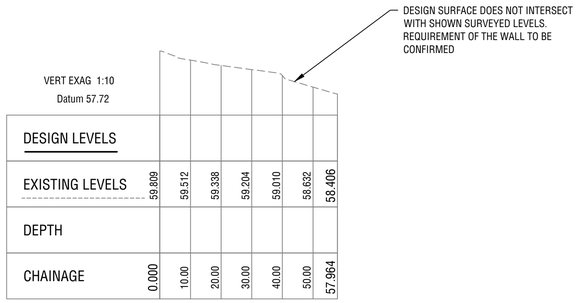
DESIGN LEVELS	60.043	59.954	59.788	59.405	59.195	59.119	59.030	58.847	58.579	58.303	58.027	57.750	57.465	57.148	56.796	56.419	56.041	55.649	55.519
EXISTING LEVELS	59.873	60.023	60.117	60.138	60.149	60.065	59.896	59.729	59.505	59.330	58.833	58.496	58.179	57.863	57.432	56.932	56.497	55.995	55.837
DEPTH	0.171	-0.068	-0.328	-0.733	-0.954	-0.946	-0.865	-0.882	-0.926	-1.027	-0.806	-0.746	-0.714	-0.716	-0.636	-0.513	-0.456	-0.346	-0.324
CHAINAGE	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	150.00	160.00	170.00	180.00	182.964

LONGITUDINAL SECTION - RETAINING WALL NORTH



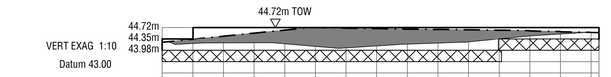
DESIGN LEVELS	60.103	60.017	59.929	59.840	59.760	59.687	59.604	59.517	59.433	59.359	59.277	59.204
EXISTING LEVELS	59.325	58.763	58.436	58.190	58.053	57.939	57.971	58.137	58.237	58.473	58.712	58.850
DEPTH	0.777	1.254	1.493	1.650	1.707	1.748	1.633	1.379	1.197	0.886	0.565	0.354
CHAINAGE	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	117.554

LONGITUDINAL SECTION - RETAINING WALL WEST



DESIGN LEVELS							
EXISTING LEVELS	59.809	59.512	59.338	59.204	59.010	58.632	58.406
DEPTH							
CHAINAGE	0.000	10.00	20.00	30.00	40.00	50.00	57.964

LONGITUDINAL SECTION - RETAINING WALL SOUTH

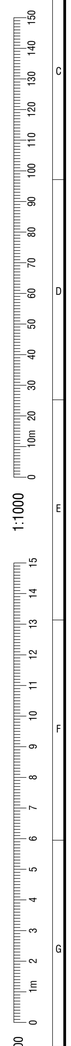


DESIGN LEVELS	44.340	44.440	44.539	44.639	44.717	44.698	44.687	44.669	44.660	44.649	44.637	44.614	44.586	44.559	44.561
EXISTING LEVELS	44.202	44.224	44.227	44.193	44.107	44.061	44.124	44.184	44.217	44.256	44.353	44.450	44.511	44.567	44.559
DEPTH	0.139	0.215	0.312	0.446	0.610	0.637	0.563	0.486	0.443	0.393	0.284	0.164	0.075	-0.008	0.002
CHAINAGE	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	110.00	120.00	130.00	140.00	142.284

LONGITUDINAL SECTION - RETAINING WALL EAST

LONG SECTIONS

SCALE VERTICAL 1:100
SCALE HORIZONTAL 1:1000



WARNING

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The location of underground cables are approximate only and their exact position should be checked on site. No guarantee is given that all existing cables and services are shown. Locate all underground cables and services before commencement of work. Refer to Worksafe Regulation 3.21.

DIAL 1100 BEFORE YOU DIG

PRELIMINARY DRAWING

NOT TO BE USED FOR CONSTRUCTION PURPOSES

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT
A	05/10/16	CK	CK			ISSUED FOR INFORMATION

KC Traffic and Transport Pty Ltd
ABN 35 148 970 727
7/10 Whipple Street, Balcatta WA 6021
Phone: 08 9441 2700
Website: www.kctt.com.au

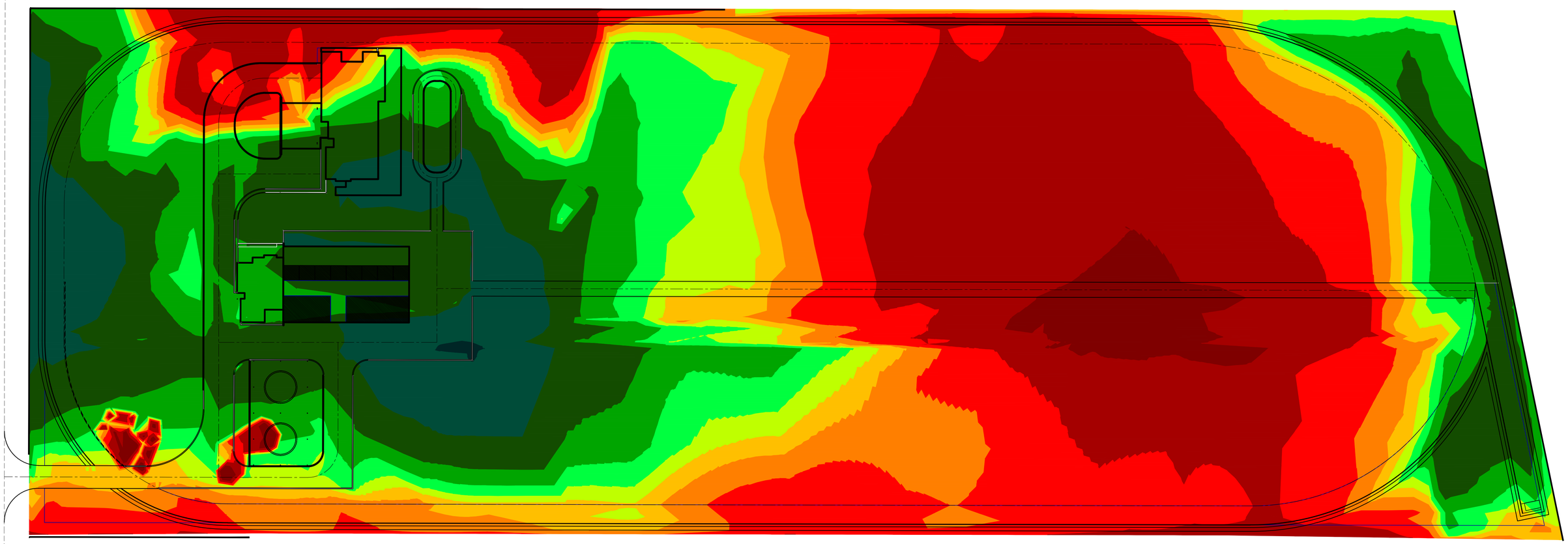
CLIENT: PAUL SILVESTRO

PROJECT: No 264 (Lot 2) and 206 (Lot 100) Pinjar Road Mariginiup

DRAFTER	DRAFTING CHECK	REVIEWED PROJECT MANAGER	APPROVED PROJECT DIRECTOR
V. VUJIC	C. KLEYWEG		
DESIGNED	DESIGN REVIEW		
V. VUJIC	C. KLEYWEG		

TITLE: RETAINING WALLS LONGITUDINAL SECTION

SHEET	DATUM	WAPC No.	PROJECT No.	DRAWING No.	REVISION
A1	PCG94	152118	KC00356.012	C110	A
		SCALE: AS SHOWN			



PLAN
SCALE N.T.S.

LEGEND		
FROM	TO	COLOR
-999.00	-10.00	
-10.00	-5.00	
-5.00	-4.00	
-4.00	-3.00	
-3.00	-2.00	
-2.00	-1.00	
-1.00	-0.50	
-0.50	-0.25	
-0.25	-0.10	
-0.10	0.00	
0.00	0.10	
0.10	0.25	
0.25	0.50	
0.50	1.00	
1.00	2.00	
2.00	5.00	
5.00	999.00	

PRELIMINARY DRAWING
NOT TO BE USED FOR CONSTRUCTION PURPOSES

1:500
0 5m 10 15 20 25 30 35 40 45 50 55 60 65 70 75

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT
B	05/10/16	CK	CK			LEVELS AMENDED
A		CK	CK			ISSUED FOR INFORMATION

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT

KC Traffic and Transport Pty Ltd
ABN 33 148 970 727
7/10 Whipple Street, Balcatta WA 6021
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Website: www.kctt.com.au

CLIENT: PAUL SILVESTRO
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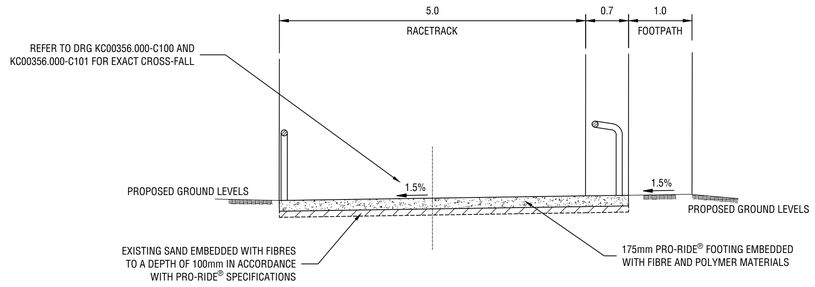
DRAFTER	DRAFTING CHECK	REVIEWED PROJECT MANAGER	APPROVED PROJECT DIRECTOR
V.VUJIC	C. KLEYWEG		
DESIGNED	DESIGN REVIEW		
V.VUJIC	C. KLEYWEG		

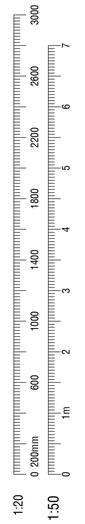
TITLE: EARTHWORKS PLAN
DEPTH RANGE

SHEET	DATUM	WAPC No.	PROJECT No.	DRAWING No.	REVISION
A1	AHD	152118	KC00356.012	C150	B
		SCALE			



TYPICAL RACETRACK CROSS SECTION

SCALE 1:50



FOR INFORMATION ONLY

NOT TO BE USED FOR CONSTRUCTION PURPOSES

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT
A	24/10/16	CK	CK			

REV No.	DATE	DRAFTING CHECK	DESIGN REVIEW	REV'D P.MGR	APP'D P.DIR	AMENDMENT

KC Traffic and Transport Pty Ltd
ABN 35 148 970 727
7/10 Whipple Street, Balcatta WA 6021
Phone: 08 9441 2700
Website: www.kctt.com.au

CLIENT: PAUL SILVESTRO

PROJECT: No 264 (Lot 2) and 206 (Lot 100) Pinjar Road Mariginiup

DRAFTER	DRAFTING CHECK	REVIEWED PROJECT MANAGER	APPROVED PROJECT DIRECTOR
V. VUJIC	DJ. MARICIC		
DESIGNED	DESIGN REVIEW		
V. VUJIC	C. KLEYWEG		

TITLE: RACETRACK - STANDARD DETAILS

SHEET	DATUM	WAPC No.	PROJECT No.	DRAWING No.	REVISION
A1	PCG94	152118	KC00356.012	C900	A

SCALE: AS SHOWN

'*' INDICATES A COPY OF AN ORIGINAL SIGNED DRAWING

D:\BoxSync\Box Sync\KCTT Projects\KC00000 Current Projects\KC00356.000 No 264 (Lot 2) and 206 (Lot 100) Pinjar Road Mariginiup\Outgoing\Drawings\KC00356.000-C900 24-Oct-16 17:16:39 Uber