**PLAN 2**

**PLANNING APPLICATION PLN-20-0002**

**995 BISHOPSBOURNE ROAD, BISHOPSBOURNE**

**ATTACHMENTS**

A Application & plans

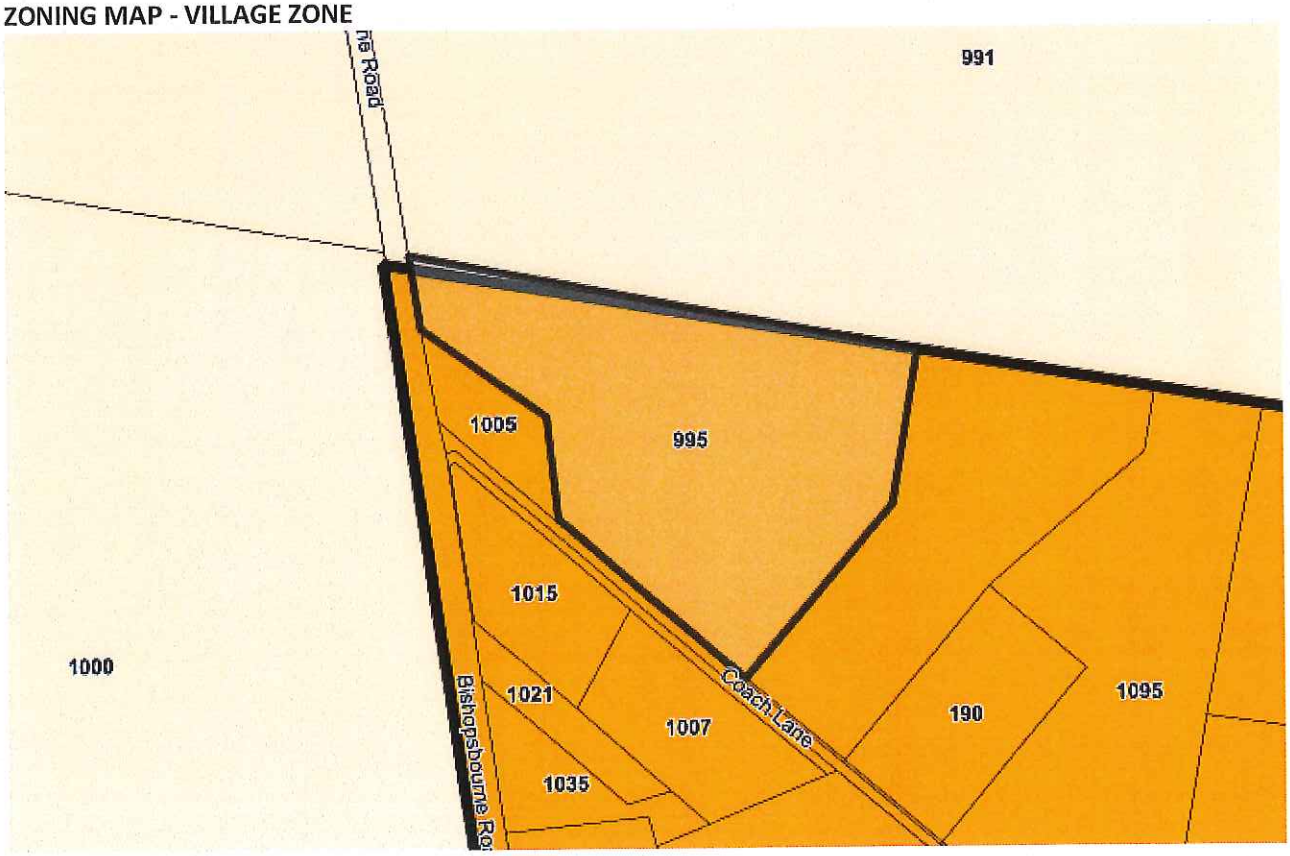
B Responses from referral agencies

C Representations & applicant's response

PLN-20-0002

AERIAL PHOTOGRAPH & SERVICES MAP for 995 BISHOPSBOURNE ROAD, BISHOPSBOURNE

ZONING MAP - VILLAGE ZONE




EXHIBITED

# PLANNING APPLICATION

## Proposal

**Description of proposal:** Subdivision - 5 lots, 1 balance and associated works

*(attach additional sheets if necessary)*

If applying for a subdivision which creates a new road, please supply three proposed names for the road, in order of preference:

1..... 2..... 3.....

***Site address:*** 995 Bishopsbourne Road, Bishopsbourne

*CT no:* CT 140563/7

*Estimated cost of project* $..... *(include cost of landscaping, car parks etc for commercial/industrial uses)*

*Are there any existing buildings on this property?* *Yes* / (*No*)

*If yes – main building is used as* .....

If variation to Planning Scheme provisions requested, justification to be provided:

Refer to response in Planning Submission in relation to Clause 16.4.2 Subdivision – Performance Criteria P1, P3 and P4, Clause E4.6.1 Use and Road or Rail Infrastructure – Performance Criteria P3, Clause E4.7.2 Management of Road Accesses and Junctions – Performance Criteria P2 and Clause E4.7.4 Sign Distances at Accesses, Junctions and Level Crossings - Performance Criteria P1.

*(attach additional sheets if necessary)*

Is any signage required? No

*(if yes, provide details)*

OWNER IVAN JOHN BADCOCK

FOLIO REFERENCE C.T. 140004-13

GRANTEE PART OF 4220 ACRES, GRANTED TO CHARLES SWANSTON & JOHN WARD GLEADOW

# PLAN OF SURVEY

BY SURVEYOR PETER NOEL ANDERSON
CAMPBELL SMITH PHELPS PEDLEY
3-23 BRISBANE ST. LAUNCESTON of land situated in the

LOCATION

TOWN OF BISHOPSBOURNE

SCALE 1:4000 LENGTHS IN METRES

REGISTERED NUMBER
**SP 140563**

EFFECTIVE FROM 13 FEB 2004
~~APPROVED~~
Alice Kawa
Recorder of Titles

| MAPSHEET MUNICIPAL CODE No. 123 (4839) | LAST UPI No. 5604439 | LAST PLAN No. SP 140004 | ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN |
|---|---|---|---|

LOT 4 & 7 IS COMPILED FROM C.T.140004-13 AND THIS SURVEY


EXHIBITED

| SCHEDULE OF EASEMENTS<br>NOTE: THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED. | Registered Number<br>SP140563 |
|---|---|



## EASEMENTS AND PROFITS

Each lot on the plan is together with:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
(2) any easements or profits a prendre described hereunder.
Each lot on the plan is subject to:-
(1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
(2) any easements or profits a prendre described hereunder.
The direction of the flow of water through the drainage easements shown on the plan is indicated by arrows.

Lot 4 on the plan is subject to a Water Channel Easement appurtenant to the Rivers & Water Supply Commission over the area marked "Water Channel Easement 6.00 wide" shown passing through Lot 4 on the plan.

Lot 7 on the plan is subject to a Water Channel Easement appurtenant to the Rivers & Water Supply Commission over the area marked "Water Channel Easement 6.00 wide" shown passing through Lot 7 on the plan.

**Interpretation**
"Water Channel Easement" means the full and free right and liberty to draw water for irrigation purposes and to drain water (whether rain, storm, spring, soakage or seepage water) through the existing irrigation channels passing through each lot subject thereto together with the right to enter thereon for the purpose of clearing and maintaining the irrigation channel provided that all reasonable precautions shall be taken to ensure as little disturbance as possible to the surface of the land and that the surface of the land will be restored as nearly as possible to its original condition.

**RESTRICTIVE COVENANTS**
The Owner of each Lot on the plan covenants with the owner or owners of each other lot on the plan ~~and with the owner or owners of the lands comprised in Folios of the Register volume 138226 folio 5 and volume 140004 folio 6~~ and with each and every part thereof to the intent that the burden of this covenant shall run with and bind the covenantor's lot and every part thereof and that the benefit thereof shall be annexed to and devolve with each and every part of each other lot on the plan ~~and with each and every part of the lands comprised in Folios of the Register volume 138226 folio 5 and volume 140004 folio 6~~ to observe the following stipulations:

Ivan J. Badcock

(USE ANNEXURE PAGES FOR CONTINUATION)

| | |
|---|---|
| SUBDIVIDER: Ivan John Badcock and Henry & Anne Crocker<br>FOLIO REF: 138227/3 and 138226/5<br>SOLICITOR & REFERENCE: Douglas & Collins (Barry Sproal) | PLAN SEALED BY: Northern Midlands Council<br>DATE: 07-NOV-2003<br>27/003/263 REF NO.<br>Council Delegate |
| **NOTE:** The Council Delegate must sign the Certificate for the purposes of identification. | |

EXHIBITED

| ANNEXURE TO SCHEDULE OF EASEMENTS<br>PAGE 2 OF 2 PAGES | Registered Number<br>SP 140563 |
|---|---|
| SUBDIVIDER: Ivan John Badcock and Henry & Anne Crocker<br>FOLIO REFERENCE: Volume | |

1. Not to construct on such lot any building of which the outer walls or roof are covered with uncoloured galvanised iron;
2. Not to erect or place on such lot or any part thereof any hoarding or structure for use as a bill posting or advertising station; and
3. Not to keep or allow to be kept on such lot or any part thereof any greyhounds or pigs.

SIGNED by the said IVAN JOHN BADCOCK being the registered proprietor of the land comprised in Certificates of Title volume ~~138227~~ 140004 folio ~~3~~ 13 in the presence of:

Ivan J. Badcock

.....
Witness

BARRY DAVID SPROAL
SOLICITOR
DOUGLAS & COLLINS
9-13 GEORGE STREET, LAUNCESTON, TAS
Ph: 6331 5988 Fax: 6331 4987
Email: barrys@douglascollins.com.au

.....
Address

.....
Occupation

**NOTE:** Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.


6ty°

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APPROVED COMPANY ISO 9001 Quality Management Systems QMS Certification Services

| ISSUE | DATE | ISSUED FOR | REV. |
|---|---|---|---|
| 01 | 03.09.19 | PLANNING APPROVAL | |

DIMENSIONS ARE IN MILLIMETRES. DO NOT SCALE. CHECK AND VERIFY ALL DIMENSIONS ON SITE. REFER DISCREPANCIES TO THE SUPERINTENDENT. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH: BUILDING CODE OF AUSTRALIA, APPLICABLE AUSTRALIAN STANDARDS & LOCAL AUTHORITY REQUIREMENTS.

PROJECT: PROPOSAL 5 LOT + BALANCE SUBDIVISION

ADDRESS: 995 BISHOPSBOURNE ROAD BISHOPSBOURNE

FOR: BRENT JOHNSON & CHRISTINE HOWARD

DRAWING: PROPOSAL PLAN OF SUBDIVISION

DESIGNED: A.B. DRAWN: HB CHECKED: A.B.

SCALE: 1:1250 AT A3 SIZE DRAWING SHEET

PROJECT No. 19.182 DRAWING No. P01 REV. -

Our Ref: 19.182

Measured form and function

6ty Pty Ltd
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18 December 2019

Des Jennings
General Manager
Northern Midlands Council
By Email: council@nmc.tas.gov.au

Dear Des,

**PROPOSED 5-LOT SUBDIVISION – 995 BISHOPSBOURNE ROAD, BISHOPSBOURNE**

We have been engaged to prepare and lodge a planning application for a proposal to subdivide the land at 995 Bishopsbourne Road, Bishopsbourne.

The proposed lots will vary between 4,019m$^2$ and 5,792m$^2$. Given that the site is not serviced by reticulated water supply, sewerage and stormwater infrastructure, it is intended that the proposed lots will each accommodate water supply (potable and fire-fighting supplies), wastewater disposal and stormwater disposal within their boundaries in conjunction with future dwelling development.

The Recreation and Open Space Code in the *Northern Midlands Interim Planning Scheme 2013* deals with the provision of public open space as part of subdivision development. The Acceptable Solution A1 in Clause 10.6.1 provides an approval pathway in circumstances where Council's General Manager provides consent in writing to the effect that no land is required for public open space and instead there is to be a cash payment in lieu.

The provision of public open space is not proposed and we are therefore writing to formally request your written consent in accordance with Clause 10.6.1 A1.

Please do not hesitate to contact me should you have any queries on this application.

Yours faithfully
**6ty° Pty Ltd**

Ashley Brook

Ashley Brook
Planning Consultant

Attachments: Proposal plan of subdivision

6ty°

# Planning Submission

## 5-Lot Subdivision

## 995 Bishopsbourne Road, Bishopsbourne

**Prepared for:**

**Northern Midlands Council**

Measured form and function

6ty Pty Ltd
ABN 27 014 609 900

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| | |
|---|---|
| **Issue** | 01 |
| **Date** | 18 December 2019 |
| **Project Name** | 5-Lot Subdivision – 995 Bishopsbourne Road, Bishopsbourne |
| **Project Number** | 19.182 |
| **Author** | Ashley Brook |
| **Document** | "I:\2019\19182\1 Administration\6 Authorities\2 Council\19.182 - Planning Submission.docx" |

# Contents

# 1.0 Introduction

Planning approval is sought to subdivide land at 995 Bishopsbourne Road, Bishopsbourne (the subject site – refer to Figure 1) in order to create 5 rural living lots. This planning submission provides relevant details of the application and an assessment against the applicable provisions of the *Northern Midlands Interim Planning Scheme 2013* (the "Scheme").

**Figure 1 – Aerial Image of the Subject Site**


## 1.1 Planning Overview

| | |
|---|---|
| **Location** | 995 Bishopsbourne Road, Bishopsbourne |
| **Title Information** | Volume 140563 Folio 7 |
| **Land Area** | 4.796 ha |
| **Planning Instrument** | *Northern Midlands Planning Scheme 2013* |
| **Proposed Use** | Residential |
| **Proposed Development** | Subdivision – 5 lots, 1 balance and associated works |
| **Zone** | 16.0 – Village Zone |
| **Applicable Code(s)** | E1.0 – Bushfire-Prone Areas Code<br>E4.0 – Road and Railway Assets Code<br>E10.0 – Recreation and Open Space Code |
| **Status of Application** | Discretionary |

## 1.2 Proposed Development

The application seeks approval to subdivide the site into 5 lots, plus a balance lot, and undertake associated works. The size and configuration of the proposed lots is detailed in Table 1. The proposal plan of subdivision is reproduced in Figure 2.

**Table 1: Size and Configuration of the Proposed Lots**

| Lot No. | Area | Frontage width (Coach Lane) | Depth (minimum) | Rear boundary width |
|---|---|---|---|---|
| 1 | 4,035 $m^2$ | 45 m | 84.56 m | 46.19 m |
| 2 | 4,019 $m^2$ | 40 m | 95.93 m | 41.1 m |
| 3 | 5,154 $m^2$ | 5 m | 119.95 m | 40 m |
| 4 | 5,723 $m^2$ | 5 m | 124.75 m | 40 m |
| 5 | 5,792 $m^2$ | 5 m | 1378.56 m | 40 m |

The balance lot will have an area of 2.235 ha and will have frontages of 46.62 m to Bishopsbourne Road and 63.28 m to Coach Lane. It will contain the existing dwelling, associated outbuildings, a dam and areas of pasture associated with the site.

The associated works will include the provision of a rural standard driveway from Coach Lane for Lots 1-5. This will require the removal of a hawthorn hedge along the northern side of the road to provide adequate sight distances.

**Figure 2 – Aerial Image of the Subject Site**

# 2.0 Location

## 2.1 Subject Site

The site comprises a single lot and is legally comprised in Certificate of Title Volume 140563 Folio 7. It has an area of 4.796 ha. Its western boundary has a width of 48.62 m and abuts Bishopsbourne Road. Its southern boundary has a width of 163.28 m and abuts Coach Lane. Its eastern and northern side boundaries have widths of 255.53 m and 334.52 m respectively. The site contains a 6m wide water channel easement along its southern boundary which accommodates an irrigation channel that feeds an existing dam within the site. The easement will be retained for the benefit of the balance lot.

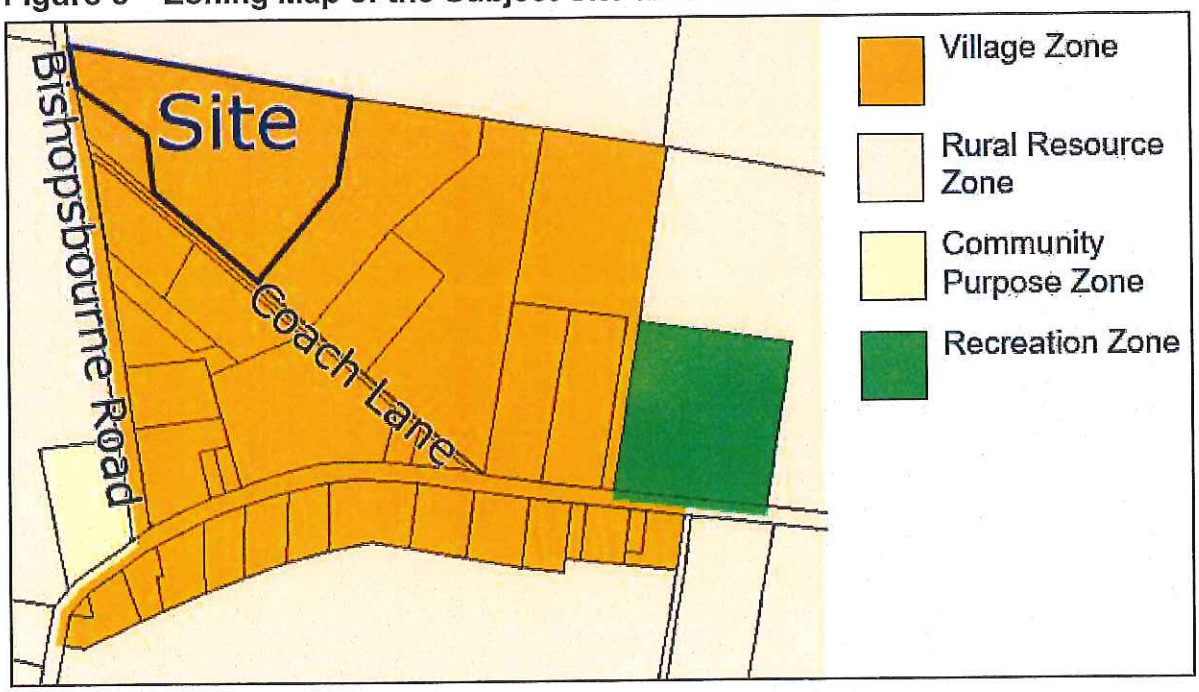
## 2.2 Existing Land Use

The site contains an existing dwelling and outbuildings adjacent to the Bishopsbourne Road frontage, a dam located in the south-west corner of the site adjacent to the Coach Lane frontage and areas of pasture throughout the remainder of the site.

## 2.3 Description of the Surrounding Area

As identified in Figure 3, the site is located in the north-west corner of the Village-zoned area at Bishopsbourne. The surrounding area to the south-east is residential in character, comprising dwellings at a relatively low density in a rural setting. The land to the north and east is zoned Rural Resource and is used for agricultural purposes including a mixture of cropping and grazing.

**Figure 3 – Zoning Map of the Subject Site and Surrounds**



## 2.4 Topography and Drainage

The land within the site is near level and contains a low cover of pasture grass. It contains an artificial dam and irrigation channel adjacent to the Coach Lane frontage. There are no watercourses within close proximity of the site.

## 2.5 Natural Values and Hazards

The site has previously been cleared of forest vegetation. It therefore does not contain a native vegetation community. The pasture (grassland) within the site is bushfire-prone vegetation. The site is also identified within a Bushfire Prone Area of the Scheme overlay maps.

The site is not identified on the overlay maps as being subject to any other natural hazards. It does include any areas shown within a landslide hazard band according to the available mapping on TheLIST database.

## 2.6 Site Servicing

The site is not serviced by reticulated water supply, sewerage or stormwater infrastructure.

## 2.7 Site Access

Bishopsbourne Road is a sealed rural road that connects Bishopsbourne to Meander Valley Road to the north at Carrick and Illawarra Road to the east near Longford. Coach Lane is an unsealed rural access road and the Rural Default Speed Limit of 80km/h applies. It is 600m in length and is accessible from Bishopsbourne Road to west of the site. The Bishopsbourne Road / Coach Lane junction in this location has very low traffic activity and is an uncontrolled intersection with a simple right and simple left layout.

The main access to the site is provided over its Bishopsbourne Road frontage. A farm gate access is provided over the Coach Lane frontage, adjacent to the western side boundary. Both these accesses will be retained for the balance lot.

# 3.0 Supporting Assessments

The application is accompanied by several supporting assessments which are summarised below.

## 3.1 Preliminary On-Site Wastewater and Stormwater Disposal Evaluation

Given that reticulated sewerage and stormwater services are not available, GeoTon (September 2019) was engaged to prepare a preliminary on-site wastewater and stormwater disposal evaluation to assist in addressing the performance criteria in Clause 16.4.3 P3 and P4 of the Scheme. It considers the capacity of the proposed lots to support on-site wastewater and stormwater disposal in accordance with AS/NZS 1547:2012 'On-site domestic-wastewater management' and AS/NZS 3500.3 'Stormwater Drainage'. The preliminary evaluation has been prepared for planning approval and site-assessments will be required having regard to the size and location of future dwelling development on each lot.

### 3.1.1 On-Site Wastewater Disposal

The soils within the site have low permeability and therefore are not suitable for primary wastewater treatment by way of traditional septic tanks and absorption trenches. However, the proposed lots have sufficient available area to accommodate the disposal of secondary treated wastewater by way of aerated wastewater treatment systems (AWTS) and sub-surface irrigation. Approximately 840 $m^2$ (420 $m^2$ effluent disposal area and 420 $m^2$ back-up area) would be required to support a standard 4-bedroom dwelling on tank water. The minimum separation distance between the disposal area and downslope features are as follows:

- 15.0m from downslope sensitive features such as watercourses;
- 1.5m from property boundaries;
- 3.0m from buildings.

Given the size and dimensions of the proposed lots as identified in Table 1, the proposed lots will be capable of accommodating disposal areas which satisfy these separation distance requirements.

### 3.1.2 On-Site Stormwater Disposal

The evaluation identifies that a water storage tank with a minimum dry storage capacity of 3,030 $m^2$ within each lot would be required with suitable orifice to restrict the discharge flowrate for a 5% Annual Exceedance Probability (AEP) to that of a 20% AEP storm event. This is based on an assumed combined roof and paved area of 400$m^2$ within each lot. An absorption bed with a volume of approximately 12.12$m^3$, extending across an area of 20.2$m^2$, would be required to a store a 5% AEP event allowing for overland sheet flow.

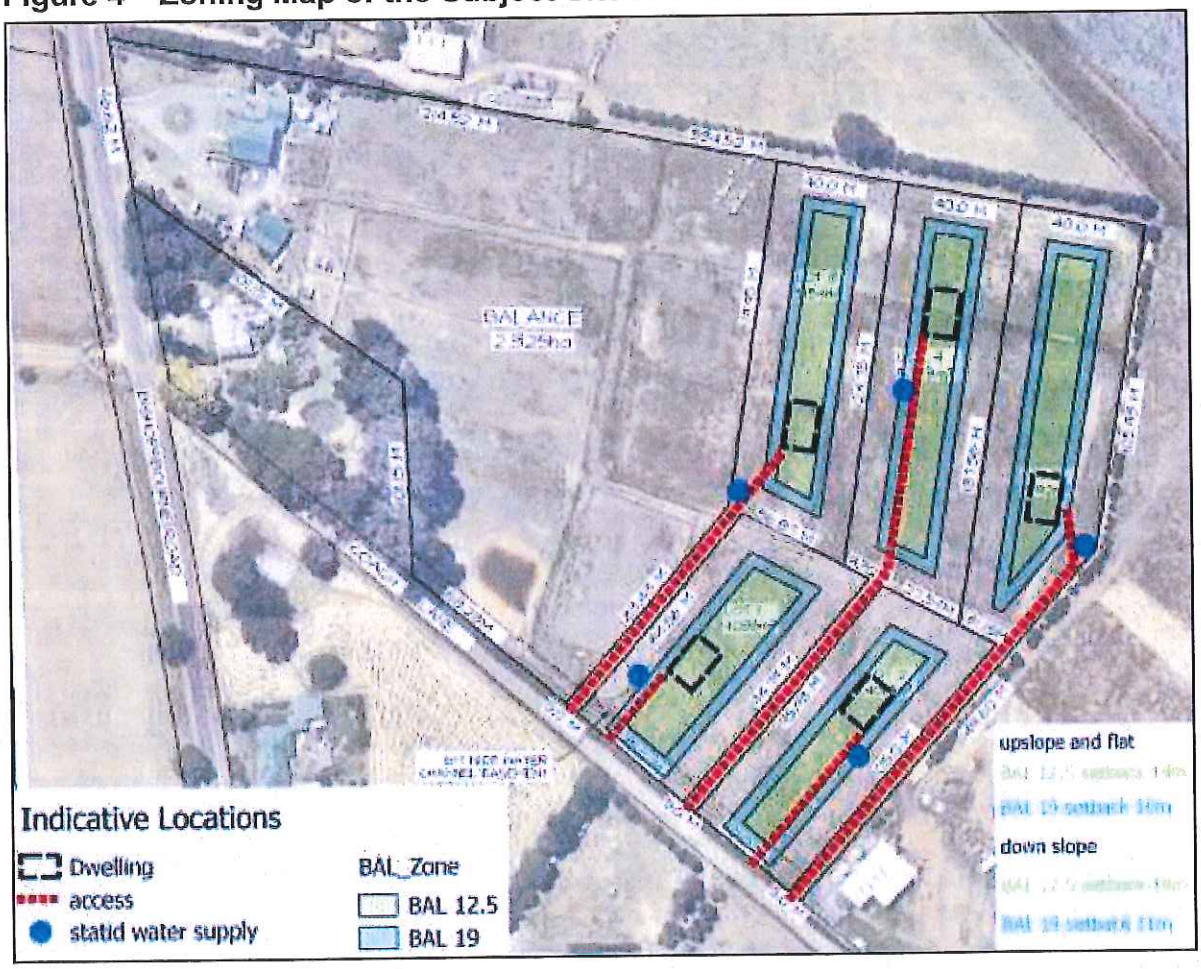
Given the size and dimensions of the proposed lots as identified in Table 1, they will be capable of accommodating stormwater disposal areas.

## 3.2 Bushfire Assessment

Livingston Natural Resource Services (September 2019) was engaged to prepare a Bushfire Hazard Management Report, incorporating a certified Bushfire Hazard Management Plan ("BHMP"), to address the applicable standards in the Bushfire-Prone Areas Code of the Scheme.

As illustrated by Figure 7 below, the certified BHMP demonstrates that each lot within the subdivision is capable of containing a hazard management area (HMA) between bushfire prone vegetation (grassland) and a building area that have dimensions equal to the separation distances required for BAL 19 and BAL 12.5. The relevant dimensions are to 10m to the north, east and west, 11m to the south and 1m from Coach Lane for BAL 19, and 14m to the north, east and west, 16m to the south and 6m from Coach Lane for BAL 12.5.

**Figure 4 – Zoning Map of the Subject Site and Surrounds**




No additional road infrastructure is required to service the subdivision. The vehicular access within each lot will need to comply with the applicable stipulations in the Bushfire-Prone Areas Code. Future dwelling development within each lot will need static fire-fighting water supplies with a minimum capacity of 10,000 litres.

## 3.3 Traffic Impact Assessment

Traffic & Civil Services (December 2019) was engaged to prepare a Traffic Impact Assessment ("TIA") to address the applicable standards in the Road and Railway Assets Code of the Scheme.

The TIA identifies that, following future dwelling development, it is expected that the proposed subdivision will increase traffic volumes in Coach Lane from 20 vehicles per day ("vpd") to 50 vpd. The existing traffic volumes are very low and, notwithstanding the proportional increase, will remain very low. The traffic volumes due to the proposal are typical of unsealed rural roads and well within the capacity of Coach Lane. The road is fit for purpose as a rural access road and able to accommodate vehicular accesses associated with the proposed lots. It is noted that sealing of roads to minimise dust is typically only justified where traffic volumes exceed 200 vpd. The simple intersection layout of the Bishopsbourne Road / Coach Lane is adequate to service the proposal and no upgrading is required.

Construction of the proposed vehicular accesses will require the removal of the hawthorn hedge along the northern side of Coach Lane in order to comply with the safe intersection sight distances in Clause E4.7.4 of the Scheme. This involves the removal of the hedge along the frontage of the site. A further 45 m within the road to the east of the site would need to be removed, plus taper trimming for a further 15 m, would be required to meet the relevant acceptable solution in Clause E4.7.4. This would be limited to removal of 30 m, and taper trimming of 10 m, whilst complying with the performance criteria in Clause E4.7.4. It would be possible for a hedge to be replanted along the frontage, within the site, with a sufficient setback to establish the required sight distances.

# 4.0 Planning Assessment

## 4.1 Categorisation of the Development

A proposed development is required to be categorised into a use class in accordance with Clause 8.2.1 of the Scheme. The proposed subdivision development is categorised into the Residential use class, which is defined as follows:

> *use of land for self-contained or shared living accommodation. Examples include an ancillary dwelling, boarding house, communal residence, home-based business, hostel, residential aged care home, residential college, respite centre, retirement village and single or multiple dwellings.*

The use table for the Village Zone in Clause 16.2 identifies that the use class is No Permit Required if for a single dwelling or home-based business, or otherwise it is Permitted.

The status of the application is also dependent upon whether it complies with the acceptable solutions for each applicable standard, or if it relies upon an associated performance criteria. The acceptable solution requirements for the applicable standards are considered in Sections 4.2 to 4.6. The proposal relies on several performance criteria to demonstrate compliance with the applicable standards. A Discretionary permit is therefore sought for the proposal. The applicable performance criteria include:

- Clause 16.4.2 Subdivision – Performance Criteria P1, P3 and P4.
- Clause E4.6.1 Use and Road or Rail infrastructure - Performance Criteria P3.
- Clause E4.7.2 Management of Road Accesses and Junctions - Performance Criteria P2.
- Clause E4.7.4 Sign Distances at Accesses, Junctions and Level Crossings - Performance Criteria P1.

These performance criteria are considered in Section 5.

## 4.2 Village Zone

### 4.2.1 Zone Purpose

The purpose statements for the zone in Clause 16.1.1 of the Scheme state the following:

*16.1.1.1 To provide for small rural centres with a mix of residential, community services and commercial activities.*

*16.1.1.2 To provide for low impact, non-residential uses that support the function of the settlement.*

*16.1.1.3 To provide for the amenity of the residents in a manner appropriate to the mixed use characteristics and needs of a particular settlement.*

The proposed subdivision involves the creation of 5 new residential lots of a size and configuration that will be compatible with the existing residential lots in the surrounding area. Water supply, wastewater disposal and stormwater disposal arrangements will be capable of being accommodated within each lot. The proposal is therefore appropriate to the character of the Bishopsbourne settlement and will provide for the amenity of residents. It is consistent with the zone purpose statements.

The local area objectives for the zone in Clause 16.1.2 state:

*To recognise that growth prospects are constrained by the capacity, quality and reliability of services to the villages, where improvements to services to meet existing needs now depend on decisions by other agencies.*

*Therefore it is the policy of NMC to promote growth by infill, but not expansion, of the settlements at Bishopsbourne, Conara, Deddington, Kalangadoo, Nile, and Poatina.*

The proposed subdivision involves infill within Bishopsbourne. It is therefore consistent within the local area objectives.

The desired future character statement for the zone in Clause 16.1.2 states:

*To retain the scale, density and other qualities which contribute to the village atmosphere in each location.*

The density, configuration and servicing arrangements associated with the proposed lots will be appropriate to the character of the surrounding area. The subdivision is therefore consistent with the desired future character statement.

### 4.2.2 Development Standards

| **Clause 16.4 Development Standards** | | | |
|---|---|---|---|
| Clause 16.4.2 Subdivision | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A1.1 | Each lot must:<br>a) have a minimum area of at least 800m$^2$; and<br>b) be able to contain a 15m diameter circle with the centre of the circle not more than 15m from the frontage; or<br>c) required for public use by the Crown, an agency, or a corporation all the shares of which are held by Councils or a municipality; or | The smallest lot area will be 4,019 m$^2$ (Lot 2).<br>All lots are capable of containing a hypothetical 15m diameter circle. However, the centre of the circle is greater than 15m from the frontage for Lots 3-5, given that they will be internal lots.<br>The proposed lots are not for a purpose listed in A1.1(c)-(f). | Relies on performance criteria given that Lots 3-5 are internal lots. |

| Clause 16.4.2 Subdivision | | | |
|---|---|---|---|
| **Requirement/s** | | **Assessment** | **Compliance** |
| *A1.1* | d) for the provision of utilities; or<br>e) for the consolidation of a lot with another lot with no additional titles created; or<br>f) to align existing titles with zone boundaries and no additional lots are created; and | *See above.* | *Relies on performance criteria.* |
| A1.2 | Lots must have new boundaries aligned from buildings that satisfy the relevant acceptable solutions for setbacks. | The dwelling and outbuildings have a setback from the new boundary shared with Lots 1 and 3 that will be significantly more than the 3 m required by Clause 16.4.1 A1. | Complies with acceptable solution. |
| A2 | Each lot must have a frontage of at least 3.6m. | Each lot will have a frontage width of at least 5m. | Complies with acceptable solution. |
| A3 | Each lot must be connected to a:<br>a) reticulated water supply; and<br>b) reticulated sewerage system. | Reticulated water supply and sewerage services are not available. | Relies on performance criteria. |
| A4 | Each lot must be connected to a reticulated stormwater system. | A reticulated stormwater system is not available. | Relies on performance criteria. |

## 4.3 Bushfire-Prone Areas Code

The BHMP which accompanies the application certifies that the proposed subdivision meets the acceptable solution requirements for the applicable standards in the code, as identified in the following table.

| **Clause E1.6 Development Standards** | | | |
|---|---|---|---|
| Clause E1.6.1 Subdivision: Provision of hazard management areas | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A1 | a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant the provision of hazard management areas as part of a subdivision; or | The certified BHMP provides an exemption under Clause E1.4 for the balance, which will contain the existing dwelling, on the basis that the level of risk will not be increased. | Complies with relevant acceptable solution requirement A1(a) in relation to the balance. |
| | b) The proposed plan of subdivision:<br>i) shows all lots that are within or partly within a bushfire-prone area, including those developed at each stage of a staged subdivision;<br>ii) shows the building area for each lot;<br>iii) shows hazard management areas between bushfire-prone vegetation and each building area that have dimensions equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas; and | The certified BHMP identifies hazard management areas within Lots 1-5 that achieve the required separation distances for BAL 19, as well as BAL 12.5. | Complies with the relevant acceptable solution requirement A1(b). |

| Clause E1.6.1 Subdivision: Provision of hazard management areas | | | |
|---|---|---|---|
| **Requirement/s** | | **Assessment** | **Compliance** |
| *A1 (b)* | iv) is accompanied by a bushfire hazard management plan that addresses all the individual lots and that is certified by the TFS or accredited person, showing hazard management areas equal to, or greater than, the separation distances required for BAL 19 in Table 2.4.4 of Australian Standard AS 3959 – 2009 Construction of buildings in bushfire-prone areas; and | | *Complies (see above).* |
| | c) If hazard management areas are to be located on land external to the proposed subdivision the application is accompanied by the written consent of the owner of that land to enter into an agreement under section 71 of the Act that will be registered on the title of the neighbouring property providing for the affected land to be managed in accordance with the bushfire hazard management plan | The hazard management areas associated with the proposed subdivision do not include any land external to the site. | Not applicable. |

| Clause E1.6.2 Subdivision: Public and fire fighting access | | | |
|---|---|---|---|
| **Requirement/s** | | **Assessment** | **Compliance** |
| A1 | a) TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant specific measures for public access in the subdivision for the purposes of fire fighting; or | The certified BHMP provides an exemption under Clause E1.4 for the balance, which will contain the existing dwelling, on the basis that the level of risk will not be increased. | Complies with relevant acceptable solution requirement A1(a) in relation to the balance. |
| | b) A proposed plan of subdivision showing the layout of roads, fire trails and the location of property access to building areas is included in a bushfire hazard management plan that:<br>i) demonstrates proposed roads will comply with Table E1, proposed private accesses will comply with Table E2 and proposed fire trails will comply with Table E3; and<br>ii) is certified by the TFS or accredited person. | The certified BHMP that the vehicular access within each lot will need to comply with the applicable stipulations in Table E2B. | Complies with the relevant acceptable solution requirement A1(b). |

| Clause E1.6.3 Subdivision: Provision of water supply for fire fighting purposes | | | |
|---|---|---|---|
| **Requirement/s** | | **Assessment** | **Compliance** |
| A2 | In areas that are not serviced by reticulated water by the water corporation: | | |
| | a) The TFS or an accredited person certifies that there is an insufficient increase in risk from bushfire to warrant provision of a water supply for fire fighting purposes; | The certified BHMP provides an exemption under Clause E1.4 for the balance, which will contain the existing dwelling, on the basis that the level of risk will not be increased. | Complies with relevant acceptable solution requirement A1(a) in relation to the balance. |
| | b) The TFS or an accredited person certifies that a proposed plan of subdivision demonstrates that a static water supply, dedicated to fire fighting, will be provided and located compliant with Table E5; or | The certified BHMP requires new habitable buildings within Lots 1-5 to each be supplied with a static water supply of at least 10,000 litres, with a fitting suitable for TFS access in accordance with Table E5. | Complies with the relevant acceptable solution requirement A2(b). |
| | c) A bushfire hazard management plan certified by the TFS or an accredited person demonstrates that the provision of water supply for fire fighting purposes is sufficient to manage the risks to property and lives in the event of a bushfire. | The type of certification described in A2 (c) has not been sought. | Not applicable. |

## 4.4 Road and Railway Assets Code

| Clause E4.6 Use Standards | | | |
|---|---|---|---|
| Clause E4.6.1 Use and road or rail infrastructure | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A3 | For roads with a speed limit of more than 60km/h the use must not increase the annual average daily traffic (AADT) movements at the existing access or junction by more than 10%. | The future establishment of dwellings on the proposed lots will increase daily vehicles movements from 20 to 50, which represents an increase of 250%. | Relies on performance criteria. |

| Clause E4.7 Development Standards | | | |
|---|---|---|---|
| Clause E4.7.2 Management of Road Accesses and Junctions | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A2 | For roads with a speed limit of more than 60km/h the development must not include a new access or junction. | The proposed development involves provision of a rural standard driveway from Coach Lane for Lots 1-5 | Relies on performance criteria. |
| Clause E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A1 | Sight distances at<br>a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4; and<br>b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia; or<br>c) If the access is a temporary access, the written consent of the relevant authority has been obtained. | The requirements of E4.7.4 are capable of being satisfied by removing the hawthorn hedge along the northern side of Coach Lane. The extent of the hedge required to be removed to the east of the site can be limited, whilst enabling safe movement of traffic however this relies on the performance criteria. | Relies on performance criteria. |

## 4.5 Car Parking and Sustainable Transport Code

Clause E6.2.1 of the Scheme identifies that the code applies to all use and development. On the other hand, the application does not seek approval to establish a residential use. The parking requirements relevant to each lot will be determined in conjunction with specific proposals for future use and development. The current application does not affect the issues dealt with by the code directly, and it does not apply to the subdivision in accordance with Clause 7.5.2 (b) of the Scheme.

## 4.6 Recreation and Open Space Zone

| **Clause E10.6 Development Standards** | | | |
|---|---|---|---|
| Clause E10.6.1 Provision of Public Open Space | | | |
| **Requirement/s** | | **Assessment** | **Compliance** |
| A1 | The application must:<br>a) include consent in writing from the General Manager that no land is required for public open space but instead there is to be a cash payment in lieu. | Consent from Council's General Manager is sought in conjunction with the lodgement of the application. | Complies with acceptable solution upon receipt of the advice from Council's General Manager. |

# 5.0 Performance Criteria

The proposal relies on several performance criteria in the zone and code provisions to demonstrate compliance with the applicable standards. The applicable performance criteria are addressed below.

## 5.1 Clause 16.4.2 Subdivision - Performance Criteria P1

| Objective | |
|---|---|
| Objective<br>a) Provides for appropriate wastewater disposal and stormwater management in consideration of the particular characteristics or constraints of the land; and<br>b) To ensure the area and dimensions of lots are appropriate for the mixed use characteristics of the locality; and<br>c) To encourage residential development that respects the village character; and<br>d) Provides frontage to a road at a standard appropriate for the use; and<br>e) To further the local area objectives and desired future character statements for the area, if any. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A1 No acceptable solution. | P1 Subdivision must:<br>a) provide for each lot, sufficient useable area and dimensions to allow for:<br>i) a dwelling to be erected in accordance with the setback standards; and<br>ii) on-site parking and manoeuvrability for domestic vehicles; and<br>iii) adequate private open space; and<br>iv) vehicular access from the road to a building area on the lot, if any; and<br>b) have regard to:<br>i) the topographical or natural features of the site; and<br>ii) the pattern of existing development; and<br>iii) the ability of vegetation to provide buffering; and |

| Acceptable Solutions | Performance Criteria |
|---|---|
| | *P1* *(b)* iv) any features of natural, historical or cultural significance; and<br>v) the presence of any natural hazards; and<br>c) have regard to the local area objectives and desired future character statements, if any. |

The requirements in the performance criteria are addressed as follows.

a) As identified in Table 1, the proposed lots will vary between 4,019m$^2$ and 5,792m$^2$ and will have a minimum width (excluding access strips) of 40m. Therefore, they will be of a size and will have dimensions that will provide sufficient area to allow for future dwelling development to be constructed in accordance with the setback standards. A minimum 3m side and rear boundary setback applies in accordance with Clause 16.4.1 A4. The lots will also provide sufficient area for on-site vehicular access and parking, the provision of private open space and the accommodation of water supply (potable and fire-fighting supplies), wastewater disposal and stormwater disposal.

b) Existing residential lots within Bishopsbourne have varying sizes and configurations. There are existing lots that are both smaller and larger than the proposed lots. The lots are located within a rural setting. The proposed internal lots (Lot 3-5), accessed from an unsealed rural access road, will not be out of character with the existing pattern of lots within the settlement.

The preliminary on-site wastewater and stormwater disposal evaluation demonstrates that the lots are capable of accommodating on-site disposal systems, having regard to the topographical features of the site. The land that is proposed to be subdivided is near level and contains a low cover of pasture grass. It does not contain any significant natural features, including native vegetation or watercourses. Given the size of the lots, which provide the ability for future dwellings to comply with the boundary setback standards, the retention or provision of vegetation for buffering is not required. There are no features of natural, historical or cultural significance associated with the site that are shown on the Scheme overlay maps or shown on a statutory heritage list. The BHMP demonstrates the bushfire hazard associated with the site is capable of being satisfactorily managed within the boundaries of each lot.

c) As demonstrated in Section 4.2.1, the proposal is consistent with the purpose statements, local area objectives and desired future character statement for the Village Zone.

The proposal complies with the performance criteria.

## 5.2 Clause 16.4.2 Subdivision - Performance Criteria P3

| Objective | |
|---|---|
| Objective<br>a) Provides for appropriate wastewater disposal and stormwater management in consideration of the particular characteristics or constraints of the land; and<br>b) To ensure the area and dimensions of lots are appropriate for the mixed use characteristics of the locality; and<br>c) To encourage residential development that respects the village character; and<br>d) Provides frontage to a road at a standard appropriate for the use; and<br>e) To further the local area objectives and desired future character statements for the area, if any. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A3 Each lot must be connected to a:<br>a) reticulated water supply; and<br>b) reticulated sewerage system. | P3 Each now lot created must be:<br>a) in a locality for which reticulated services are not available or capable of being connected; and<br>b) capable of accommodating an on-site wastewater management system |

The requirements in the performance criteria are addressed as follows.

a) There are no reticulated water supply or sewerage services available at Bishopsbourne.

b) The preliminary on-site wastewater and stormwater disposal evaluation demonstrates that each of the lots are capable of accommodating on-site wastewater disposal systems.

The proposal complies with the performance criteria.

## 5.3 Clause 16.4.2 Subdivision - Performance Criteria P4

| Objective | |
|---|---|
| Objective<br>a) Provides for appropriate wastewater disposal and stormwater management in consideration of the particular characteristics or constraints of the land; and<br>b) To ensure the area and dimensions of lots are appropriate for the mixed use characteristics of the locality; and<br>c) To encourage residential development that respects the village character; and<br>d) Provides frontage to a road at a standard appropriate for the use; and<br>e) To further the local area objectives and desired future character statements for the area, if any. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A4 Each lot must be connected to a reticulated stormwater system. | P4 If the proposed site is unable to be connected to a reticulated stormwater system then all runoff from the subdivision can only be released from the site in a manner that will not cause an environmental nuisance, and that will prevent erosion, siltation or pollution of any watercourses, coastal lagoons, coastal estuaries, wetlands or inshore marine areas, having regard to:<br>i) the intensity of runoff that already occurs on the site before any development has occurred for a storm event of 1% Annual Exceedance Probability (predevelopment levels); and<br>ii) how the additional runoff and intensity of runoff that will be created by the subdivision for a storm event of 1% Annual Exceedance Probability, will be released at levels that are the same as those identified at the pre-development levels of the subdivision; and |

| Acceptable Solutions | Performance Criteria |
|---|---|
| | *P4* iii) whether any on-site storage devices, retention basins or other Water Sensitive Urban Design (WSUD) techniques are required within the subdivision and the appropriateness of their location; and<br>iv) overland flow paths for overflows during extreme events both internally and externally for the subdivision, so as to not cause a nuisance. |

The preliminary on-site wastewater and stormwater disposal evaluation identifies that a water storage tank with a minimum dry storage capacity of 3,030 $m^2$ within each lot would be required with suitable orifice to restrict the discharge flowrate for a 5% Annual Exceedance Probability (AEP) to that of a 20% AEP storm event. This is based on an assumed combined roof and paved area of 400$m^2$ within each lot. An absorption bed with a volume of approximately 12.12$m^3$, extending across an area of 20.2$m^2$, would be required to a store a 5% AEP event allowing for overland sheet flow. Given the size and dimensions of the proposed lots, they will be capable of accommodating stormwater disposal areas in a manner that will not cause an environmental nuisance or any erosion, siltation or pollution of watercourses.

The proposal complies with the performance criteria.

## 5.4 Clause E4.6.1 Use and Road or Rail Infrastructure - Performance Criteria P3

| Objective | |
|---|---|
| To ensure that the safety and efficiency of road and rail infrastructure is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A3 For roads with a speed limit of more than 60km/h the use must not increase the annual average daily traffic (AADT) movements at the existing access or junction by more than 10%. | P3 For limited access roads and roads with a speed limit of more than 60km/h:<br>a) access to a category 1 road or limited access road must only be via an existing access or junction or the use or development must provide a significant social and economic benefit to the State or region; and<br>b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be for a use that is dependent on the site for its unique resources, characteristics or locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and<br>c) an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users. |

The requirements in the performance criteria are addressed as follows.

a) The proposed subdivision does not involve access to a category 1 road or limited access road. The performance criteria requirement in P3(a) therefore does not apply.

b) The proposed subdivision does not involve an access or junction to a limited access road or a category 1, 2 or 3 road. The performance criteria requirement in P3(b) therefore does not apply.

c) The TIA demonstrates that the increase in vehicle movements associated with the proposed subdivision, which will utilise Coach Lane and its intersection with Bishopsbourne Road to the west of the site, will be very low and will maintain an adequate level of safety and efficiency.

The proposal complies with the relevant performance criteria requirement in P3(c).

## 5.5 Clause E4.7.2 Management of Road Accesses and Junctions - Performance Criteria P2

| **Objective** | |
|---|---|
| To ensure that the safety and efficiency of roads is not reduced by the creation of new accesses and junctions or increased use of existing accesses and junctions. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A2 For roads with a speed limit of more than 60km/h the development must not include a new access or junction. | P2 For limited access roads and roads with a speed limit of more than 60km/h:<br>a) access to a category 1 road or limited access road must only be via an existing access or junction or the use or development must provide a significant social and economic benefit to the State or region; and<br>b) any increase in use of an existing access or junction or development of a new access or junction to a limited access road or a category 1, 2 or 3 road must be dependent on the site for its unique resources, characteristics or locational attributes and an alternate site or access to a category 4 or 5 road is not practicable; and<br>c) an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users. |

The requirements in the performance criteria are addressed as follows.

a) The proposed subdivision does not involve access to a category 1 road or limited access road. The performance criteria requirement in P3(a) therefore does not apply.

b) The proposed subdivision does not involve an access or junction to a limited access road or a category 1, 2 or 3 road. The performance criteria requirement in P3(b) therefore does not apply.

c) The TIA identifies that Coach Lane is fit for purpose as a rural access road and has adequate capacity to accommodate vehicular accesses associated with the proposed Lots 1-5.

The proposal complies with the relevant performance criteria requirement in P3(c).

## 5.6 Clause E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings - Performance Criteria P1

| **Objective** | |
|---|---|
| To ensure that use and development involving or adjacent to accesses, junctions and level crossings allows sufficient sight distance between vehicles and between vehicles and trains to enable safe movement of traffic. | |
| **Acceptable Solutions** | **Performance Criteria** |
| A1 Sight distances at<br>a) an access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4; and<br>b) rail level crossings must comply with AS1742.7 Manual of uniform traffic control devices - Railway crossings, Standards Association of Australia; or<br>c) If the access is a temporary access, the written consent of the relevant authority has been obtained. | P1 The design, layout and location of an access, junction or rail level crossing must provide adequate sight distances to ensure the safe movement of vehicles. |

The TIA indicates that the extent of the hedge required to be removed to the east can be reduced from 45 m plus taper trimming for a further 15 m, as required to satisfy Table E4.7.4, to 30 m plus taper trimming of 10 m whilst enabling safe movement of traffic. The proposal complies with the performance criteria.

# 6.0 Conclusion

The proposed development involves a 5-lot subdivision and associated works at 995 Bishopsbourne Road, Bishopsbourne.

The proposed development complies with the applicable Scheme standards in the Village Zone and relevant code provisions, including the following performance criteria:

- Clause 16.4.2 Subdivision – Performance Criteria P1, P3 and P4.
- Clause E4.6.1 Use and Road or Rail infrastructure - Performance Criteria P3.
- Clause E4.7.2 Management of Road Accesses and Junctions - Performance Criteria P2.
- Clause E4.7.4 Sign Distances at Accesses, Junctions and Level Crossings - Performance Criteria P1.

It is therefore submitted that a discretionary permit can be issued for the use and proposed development in accordance with Section 57 of the *Land Use Planning and Approvals Act 1993*.

# Bushfire Hazard Management Report:

# Subdivision

# 995 Bishopsbourne Road, Bishopsbourne.

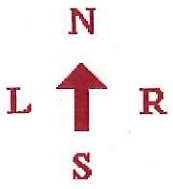
**Report for:** **6TY Pty Ltd**

**Property Location: 995 Bishopsbourne Rd, Bishopsbourne**

**Prepared by:** Scott Livingston

Livingston Natural Resource Services
12 Powers Road
Underwood, 7268

**Date:** 27th September 2019



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| | |
|---|---|
| **Client:** | 6ty Pty Ltd obo B Johnson & C Howard |
| **Property identification:** | 995 Bishopsbourne Road, Bishopsbourne, CT 140563/7, PID2268473. Current zoning: Village, Northern Midlands Interim Planning Scheme 2013. |
| **Proposal:** | A 6 lot subdivision is proposed from existing title CT 140563/7 at 995 Bishopsbourne Road. |
| **Assessment** | A field inspection of the site was conducted to determine the Bushfire Risk and Bushfire Attack Level. |

Assessment by: Scott Livingston

Master Environmental Management, Natural Resource Management Consultant.

Accredited Person under part 4A of the Fire Service Act 1979: Accreditation # BFP-105.

# Contents



*LIMITATIONS*

This report only deals with potential bushfire risk and does not consider any other potential statutory or planning requirements. This report classifies type of vegetation at time of inspection and cannot be relied upon for future development or changes in vegetation of assessed area.

## DESCRIPTION

A 6 lot subdivision is proposed from existing title CT 140563/7at 995 Bishopsbourne Road, Bishopsbourne. The property is zoned Village, *Northern Midlands Planning Scheme, 2013*. The proposed balance Lot contains an existing dwelling and is considered exempt from Bushfire Provisions for the purposes of subdivision. The balance lot has frontage to Bishopsbourne Road and lots 1-5 Coach Lane and is not serviced by a reticulated water supply. The property pasture with managed land around the dwelling on the balance lot. Surrounding land is a mosaic of pasture (grassland) with occasional shelter belts and managed land around dwellings.

See Appendix 1 for maps and site plan. Appendix 2 for photos.

## BAL AND RISK ASSESSMENT

The land is considered to be within a Bushfire Prone Area due to proximity of bushfire prone vegetation, greater than 1 ha in area (grassland).

***VEGETATION AND SLOPE***

| Lot 1 & 2 | **North East** | **South East** | **South West** | **North West** |
|---|---|---|---|---|
| Vegetation within 100m Subdivision boundaries | 0-100m grassland | 0-100m grassland, part | 0-10m low threat (road), 10-100m grassland | 0-100m grassland |
| Slope (degrees, over 100m) | Flat/ Upslope | Flat/ Upslope | Down slope 0-5° | Flat/ Upslope |
| BAL Rating at boundary | BAL FZ | BAL FZ | BAL 29 | BAL FZ |
| BAL Rating with HMA | BAL12.5* | BAL12.5* | BAL12.5* | BAL12.5* |

*May be increased to BAL 19 with smaller HMA

| Lot 3, 4 & 5 | **North** | **East** | **South** | **West** |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| Vegetation within 100m Subdivision boundaries | 0-100m grassland | 0-100m grassland | 0-100m grassland | 0-100m grassland |
| Slope (degrees, over 100m) | Flat/ Upslope | Flat/ Upslope | Down slope 0-5° | Flat/ Upslope |
| BAL Rating at boundary | BAL FZ | BAL FZ | BAL FZ | BAL FZ |
| BAL Rating with HMA | BAL12.5* | BAL12.5* | BAL12.5* | BAL12.5* |

*May be increased to BAL 19 with smaller HMA

## ***BUILDING AREA BAL RATING***

Setback distances for BAL Ratings have been calculated based on the vegetation that will exist after development external to the subdivision and have also considered slope gradients. During development it is assumed undeveloped lots may be managed as grassland. Setback requirements may be able to be reduced following development and management of fuel loads on adjacent lots.

Where no setback is required for fire protection other Planning Scheme setbacks may need to be applied, other constraints to building such as topography have not been considered.

The BAL ratings applied are in accordance with the Australian Standard AS3959-2009, *Construction of Buildings in Bushfire Prone Areas*, and it is a requirement that any habitable building, or building within 6m of a habitable building be constructed to the BAL ratings specified in this document as a minimum.

| **Bushfire Attack Level (BAL)** | **Predicted Bushfire Attack & Exposure Level** |
|---|---|
| BAL-Low | Insufficient risk to warrant specific construction requirements |
| BAL-12.5 | Ember attack, radiant heat below 12.5kW/m$^2$ |
| BAL-19 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5-19kW/m$^2$ |
| BAL-29 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19-29kW/m$^2$ |
| BAL-40 | Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 29-40kW/m$^2$ |
| BAL-FZ | Direct exposure to flames radiant heat and embers from the fire front |

**Setbacks**

| | Grassland |
|---|---|
| **BAL 12.5** | |
| Upslope and flat | 14m |
| Down slope 0-5° | 16m |
| **BAL 19** | |
| Upslope and flat | 10m |
| Down slope 0-5° | 11m |

## *PROPOSED LOT BAL RATING*

It is assumed that lots within the subdivision may continue to be managed as grassland. Lot have a potential building area at BAL19, with a smaller building area available at BAL 12.5. Following development and hazard management on adjacent lots the BAL building areas may change.

| Lot | Habitable Building Setbacks | |
|---|---|---|
| | **BAL 12.5** | **BAL 19** |
| 1-2 | 14m from north western, north eastern and south eastern boundaries, 6m from south western boundary (Coach Lane) | 10m from north western, north eastern and south eastern boundaries, 1m from south western boundary (Coach Lane) |
| 3-5 | 14m from northern eastern & western, boundaries, 16m from southern boundary | 10m from northern eastern & western, boundaries, 11m from southern boundary |

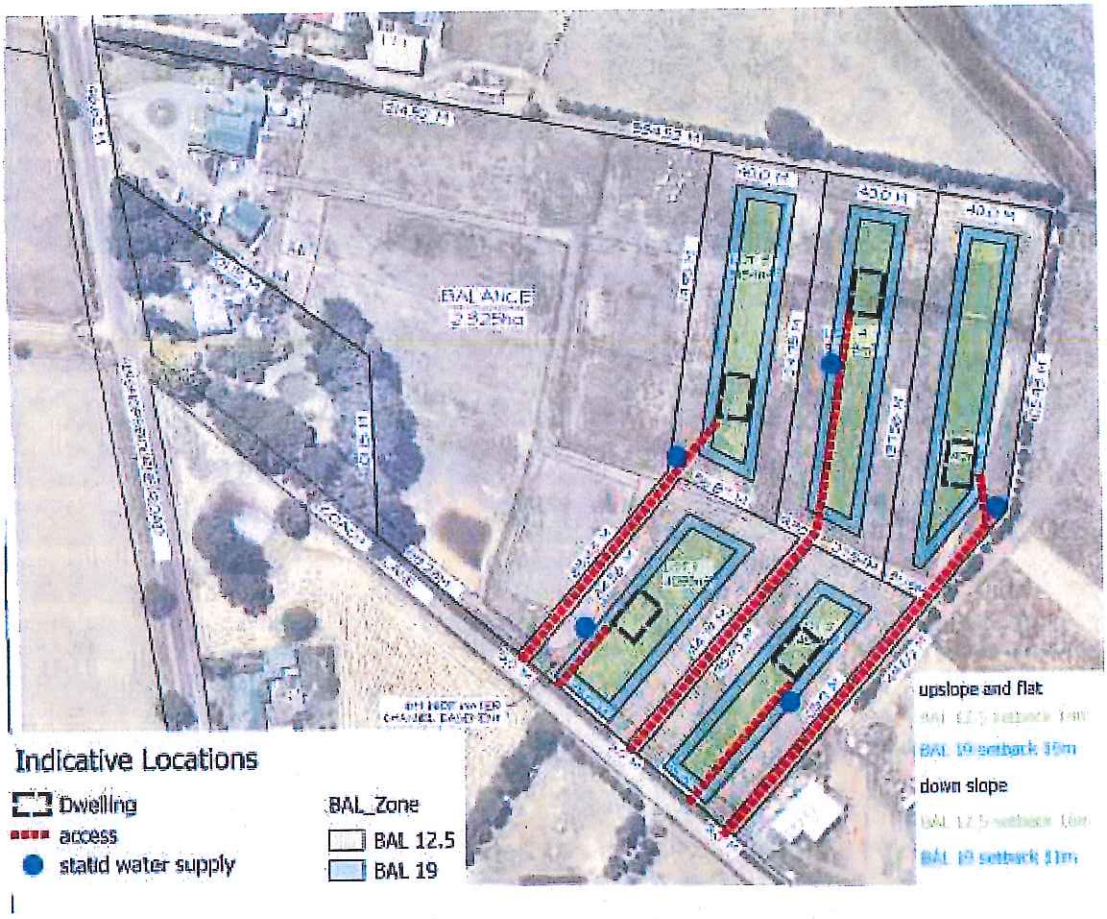
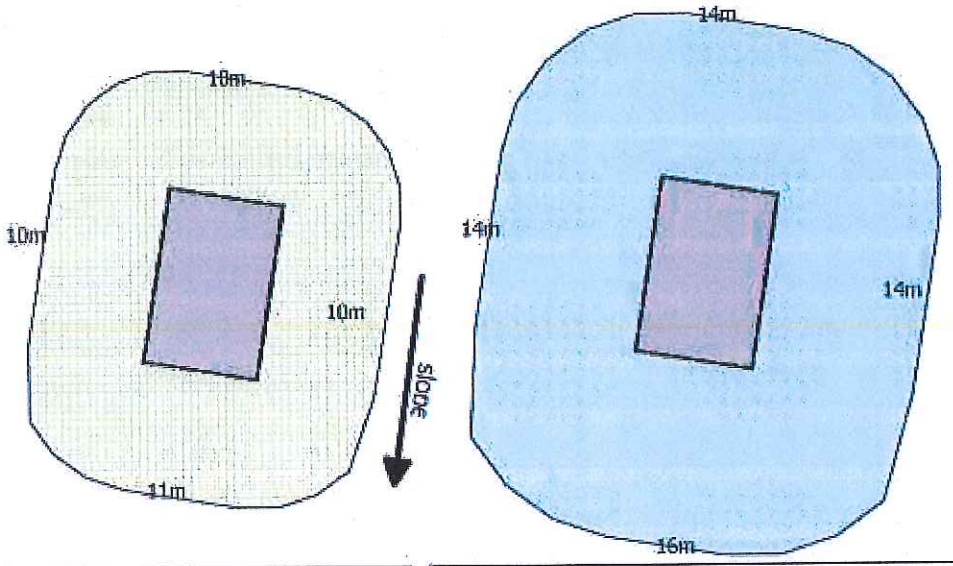



**Figure 1: Building Area BAL Rating**

## HAZARD MANAGEMENT AREAS

All land within the lot must be managed as low threat vegetation for the distances specified below from facades of habitable buildings. Low threat vegetation includes maintained lawns (mown to < 100mm), gardens and orchards.

| Hazard Management Area: Managed Land | | |
|---|---|---|
| **Façade** | **BAL 12.5 Construction** | **BAL 19 Construction** |
| North, east and west | 0-14m | 0-10m |
| South | 0-16m | 0-11m |




| Hazard Management Areas BAL 19 Construction | Hazard Management Areas BAL 12.5 Construction |
|---|---|
| minimum distance from from habitable building facades<br><br>Upslope and flat<br>0-10m managed land<br>downslopes<br>0-11m managed land | minimum distance from from habitable building facades<br><br>Upslope and flat<br>0-14m managed land<br>downslopes<br>0-16m managed land |

## ROADS

Lots will have access from Coach Lane. No additional roads required for the subdivision.

## PROPERTY ACCESS

Access to lots must comply with the relevant elements of Table E2 Access from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code.* Access to the water supply is likely to be in excess of 30m and required to meet Element B.

**Table E2: Standards for Property Access**

| Column 1 | | Column 2 |
|---|---|---|
| **Element** | | **Requirement** |
| **A.** | Property access length is less than 30 metres; or access is not required for a fire appliance to access a water | There are no specified design and construction requirements. |
| **B.** | Property access length is 30 metres or greater; or access for a fire appliance to a water connection point. | The following design and construction requirements apply to property access:<br>(1) All-weather construction;<br>(2) Load capacity of at least 20 tonnes, including for bridges and culverts;<br>(3) Minimum carriageway width of 4 metres;<br>(4) Minimum vertical clearance of 4 metres;<br>(5) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;<br>(6) Cross falls of less than 3 degrees (1:20 or 5%);<br>(7) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;<br>(8) Curves with a minimum inner radius of 10 metres;<br>(9) Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and<br>(10) Terminate with a turning area for fire appliances provided by one of the following:<br>(a) A turning circle with a minimum inner radius of 10 metres; or<br>(b) A property access encircling the building; or |

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| | | |
|---|---|---|
| **C.** | Property access length is 200 metres or greater. | The following design and construction requirements apply to property access:<br>(1) The Requirements for B above; and<br>(2) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres. |
| **D.** | Property access length is greater than 30 metres, and access is provided to 3 or | The following design and construction requirements apply to property access:<br>(1) Complies with Requirements for B above; and<br>(2) Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres. |

## FIRE FIGHTING WATER SUPPLY

The subdivision is not serviced by a reticulated supply. New habitable buildings on Lots 1-4 must have a static water installed to the standards listed in Table 4 of the *Planning Directive No. 5.1 Bushfire-Prone Areas Code.*

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**Table E5 Static water supply for fire fighting**

| Column Element | | Column 2 Requirement |
|---|---|---|
| **A.** | Distance between building area to be protected and water supply | The following requirements apply:<br>a) The building area to be protected must be located within 90 metres of the water connection point of a static water supply; and<br>b) The distance must be measured as a hose lay, between the water point and the furthest part of the building area. |

| Column Element | | Column 2 Requirement |
|---|---|---|
| **B.** | Static Water Supplies | A static water supply:<br><br>a) May have a remotely located offtake connected to the static water supply;<br>b) May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;<br>c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;<br>d) Must be metal, concrete or lagged by non-combustible materials if above ground; and<br>e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by:<br>(i) metal;<br>(ii) non-combustible material; or<br>(iii) fibre-cement a minimum of 6 mm thickness. |
| **C.** | Fittings, pipework and accessories (including stands and tank supports) | Fittings and pipework associated with a water connection point for a static water supply must:<br><br>(a) Have a minimum nominal internal diameter of 50mm;<br>(b) Be fitted with a valve with a minimum nominal internal diameter of 50mm;<br>(c) Be metal or lagged by non-combustible materials if above ground;<br>(d) Where buried, have a minimum depth of 300mm (compliant with *AS/NZS 3500.1-2003 Clause 5.23);*<br>(e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;<br>(f) Ensure the coupling is accessible and available for connection at all times;<br>(g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);<br>(h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and<br>(i) Where a remote offtake is installed, ensure the offtake is in a position that is:<br>(i) Visible;<br>(ii) Accessible to allow connection by fire fighting equipment;<br>(iii) At a working height of 450 – 600mm above ground level; and<br>(iv) Protected from possible damage, including damage by vehicles |

| Column Element | | Column 2 Requirement |
|---|---|---|
| **D.** | Signage for static water connections | The water connection point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must<br>(a) comply with: Water tank signage requirements within AS 2304-2011 *Water storage tanks for fire protection systems; or*<br>(b) comply with water tank signage requirements within *Australian Standard AS 2304-2011 Water storage tanks for fire protection systems*; or<br>(c) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service. |
| **E.** | Hardstand | A hardstand area for fire appliances must be provided:<br>(a) No more than three metres from the water connection point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);<br>(b) No closer than six metres from the building area to be protected;<br>(c) With a minimum width of three metres constructed to the same standard as the carriageway; and<br>(d) Connected to the property access by a carriageway equivalent to the standard of the property access. |

## CONCLUSIONS

A 6 lot subdivision is proposed from existing title 232123/22at 995 Bishopsbourne Road, Bishopsbourne. The area is mapped as bushfire prone.

The proposed Balance Lot contains an existing dwelling and is considered exempt from Bushfire Provisions for the purposes of subdivision There is sufficient area on lot 1 to 5 to provide for BAL 12.5 habitable dwellings these will require a hazard management area – low threat vegetation at specified distances from habitable buildings. Additional building areas are available for BAL 19 construction and will need a reduced hazard management area.

No additional roads are required, access to habitable buildings and water supply on lots 1-5 must comply with the relevant elements of Table E2 Access from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code*

Habitable buildings on Lot 1-5 must have a static water supply installed to the standards listed in Table 4 of the *Planning Directive No. 5.1 Bushfire-Prone* Areas prior to construction of habitable buildings.

## REFERENCES

Northern Midlands (2013) Northern Midlands *Interim Planning Scheme.*

Standards Australia. (2009). *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas.*

Planning Commission (2017), *Planning Directive No. 5.1 Bushfire-Prone Areas Code*

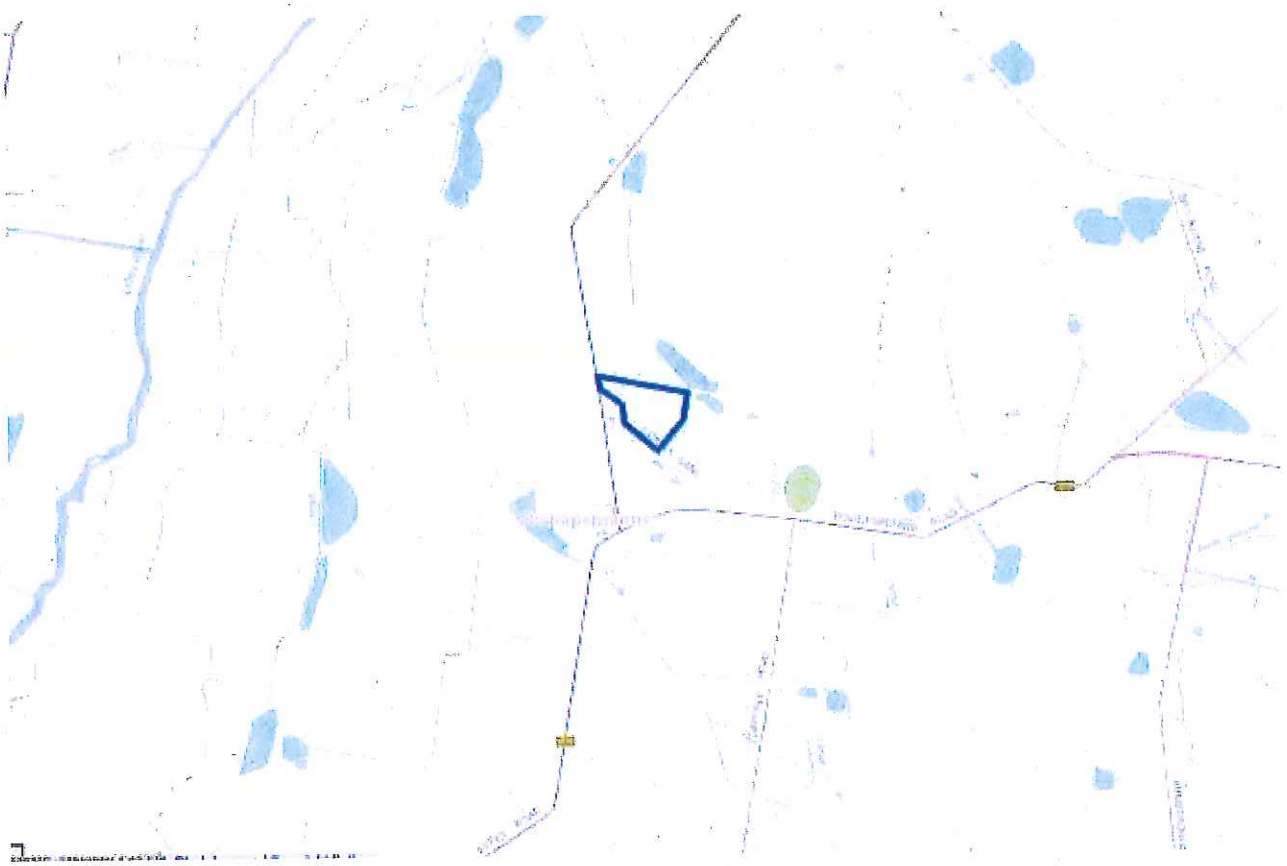


**Figure 2: Location, property in blue**

**Figure 3: Aerial Image**

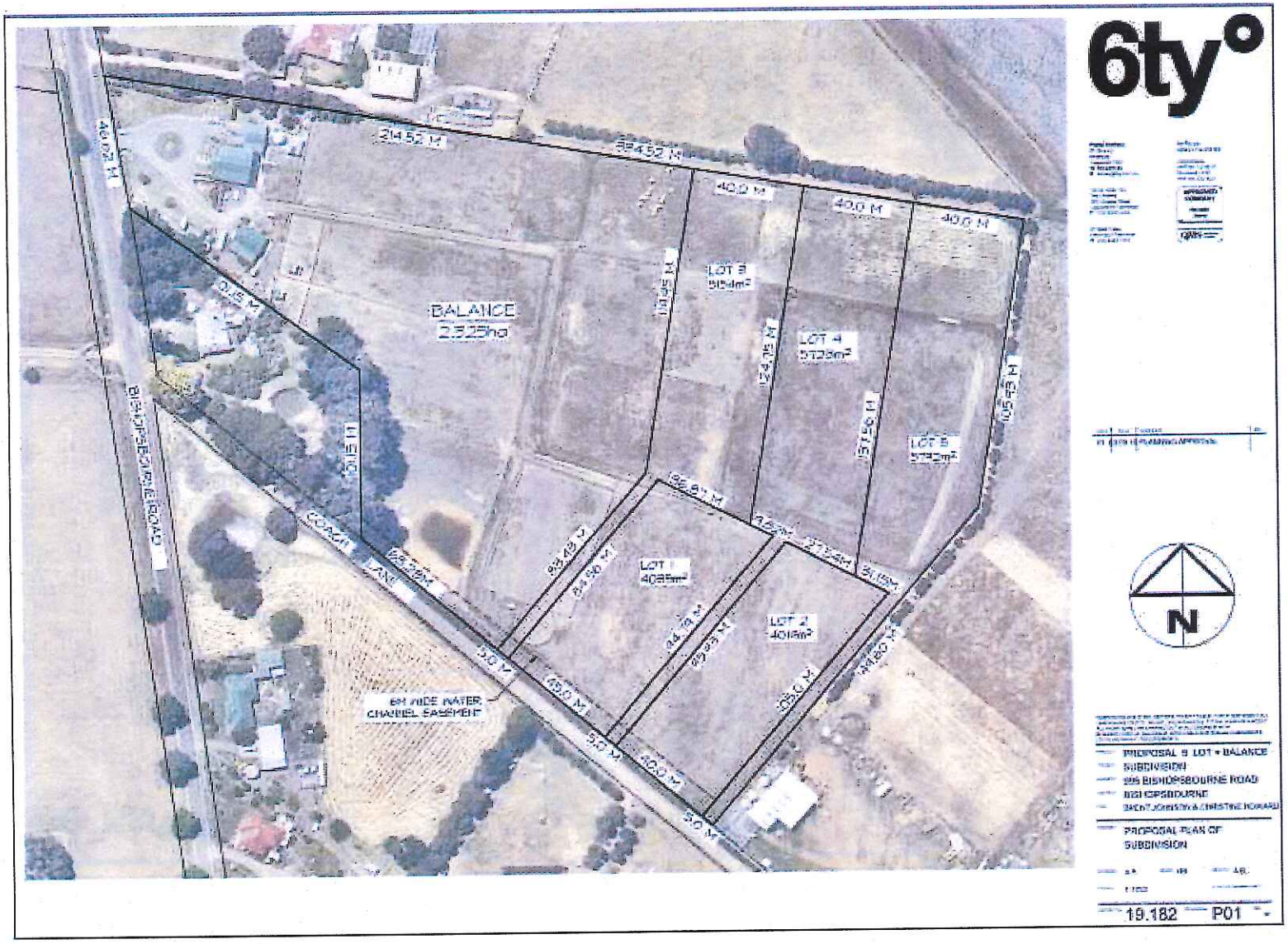


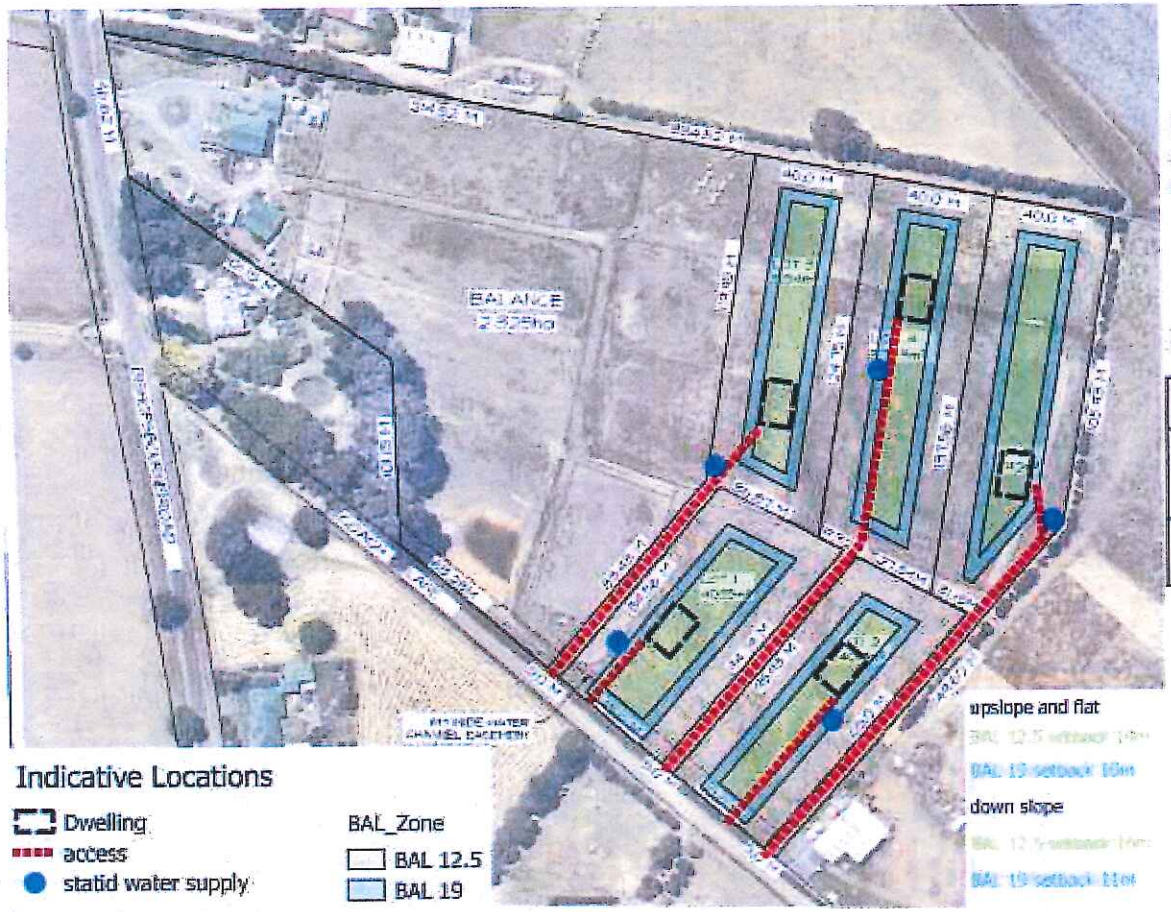

**Figure 4: Proposed Subdivision Plan**

**Figure 5: north across lot1**

**Figure 6: west along Coach Lane, Lots to right**

**Figure 7: north across Lot 2 and 5**

# Bushfire Hazard Management Plan: Lot 1 –5 Subdivision of CT 140563/7 at 995 Bishopsbourne Road




## Construction: BAL 12.5, BAL 19

Buildings in Bushfire Prone Area to be built in accordance with the Building Code of Australia and Australian Standard AS3959

## Building Areas

| Lot | Habitable Building Setbacks | |
|---|---|---|
| | BAL 12.5 | BAL 19 |
| 1-2 | 14m from north western, north eastern and south eastern boundaries, 6m from south western boundary (Coach Lane) | 10m from north western, north eastern and south eastern boundaries, 1m from south western boundary (Coach Lane) |
| 3-5 | 14m from northern eastern & western, boundaries, 16m from southern boundary | 10m from northern eastern & western, boundaries, 11m from southern boundary |

It is important to prepare your Bushfire Survival Plan, read your Community Protection Plan and know your Nearby Safer Place. These can be obtained from your Council or the Tasmanian Fire Service. For more information, visit www.fire.tas.gov.au

Note:
It should be borne in mind that the measures contained in this Bushfire Management Plan cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire and extreme weather conditions.

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Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 27/92019

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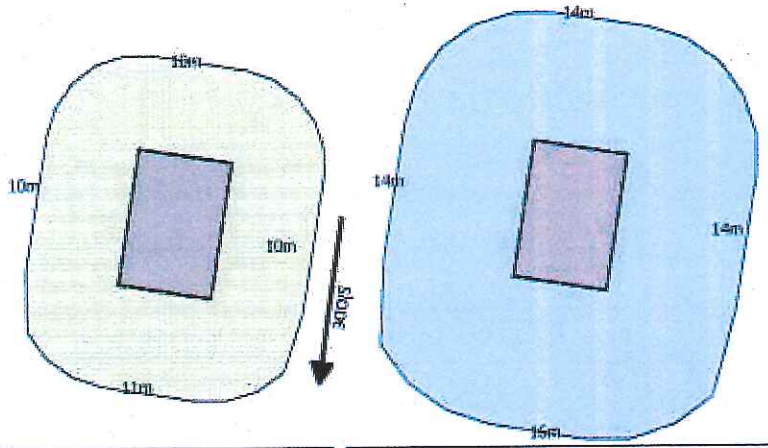


| Hazard Management Areas BAL 19 Construction | Hazard Management Areas BAL 12.5 Construction |
|---|---|
| minimum distance from from habitable bulding facades<br><br>Upslope and flat<br>0-10m managed land<br>downslopes<br>0-11m managed land | minimum distance from from habitable bulding facades<br><br>Upslope and flat<br>0-14m managed land<br>downslopes<br>0-16m managed land |

**Hazard Management Area: Managed Land**

| Façade | BAL 12.5 Construction | BAL 19 Construction |
|---|---|---|
| North, east and west | 0-14m | 0-10m |
| South | 0-16m | 0-11m |

## Hazard Management Areas (HMA)

Hazard management areas include the area to protect the buildings as well as the access and water supplies. All land within the area distances shown above to be managed and maintained in a minimum fuel condition. Other areas of the lot may be managed as grassland.

Maintenance Schedule:

- Removal of fallen limbs, leaf & bark litter
- Cut lawns to less than 100mm and maintained
- Remove pine bark and other flammable garden mulch
- Prune larger trees to establish and maintain horizontal and vertical canopy separation

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Date: 27/9/2019

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## Water Supply

a static water supply to following standards must be installed for each building area:

The following requirements apply:

a. the building area to be protected must be located within 90m of the fire fighting water point of a static water supply; and
b. the distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

A static water supply:

a. may have a remotely located offtake connected to the static water supply;
b. may be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
c. must be a minimum of 10,000l per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
d. must be metal, concrete or lagged by non-combustible materials if above ground; and
e. if a tank can be located so it is shielded in all directions in compliance with section 3.5 of *Australian Standard AS 3959-2009 Construction of buildings in bushfire-prone areas*, the tank may be constructed of any material provided that the lowest 400mm of the tank exterior is protected by:
    i. metal;
    ii. non-combustible material; or fibre-cement a minimum of 6mm thickness.

Fittings and pipework associated with a fire fighting water point for a static water supply must:

a. have a minimum nominal internal diameter of 50mm;
b. be fitted with a valve with a minimum nominal internal diameter of 50mm;
c. be metal or lagged by non-combustible materials if above ground;
d. if buried, have a minimum depth of 300mm1;
e. provide a DIN or NEN standard forged Storz 65mm coupling fitted with a suction washer for connection to fire fighting equipment;
f. ensure the coupling is accessible and available for connection at all times;
g. ensure the coupling is fitted with a blank cap and securing chain (minimum 220mm length);
h. ensure underground tanks have either an opening at the top of not less than 250mm diameter or a coupling compliant with this Table; and
i. if a remote offtake is installed, ensure the offtake is in a position that is:
    i. visible;
    ii. accessible to allow connection by fire fighting equipment;
    iii. at a working height of 450 – 600mm above ground level; and
    iv. protected from possible damage, including damage by vehicles.

The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must:

a. comply with water tank signage requirements within *Australian Standard AS 2304-2011 Water storage tanks for fire protection systems*; or
b. Comply with the Tasmania Fire Service Water Supply Guideline published by Tasmania Fire Service

A hardstand area for fire appliances must be:

a. no more than 3m from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like);
b. no closer than 6m from the building area to be protected;
c. a minimum width of 3m constructed to the same standard as the carriageway; and
d. connected to the property access by a carriageway equivalent to the standard of the property access

## Property Access

Access to a to a habitable building and/or water supply point it must be constructed to the following standards:

The following design and construction requirements apply to property access:

a. All-weather construction;
b. Load capacity of at least 20 tonnes, including for bridges and culverts;
c. Minimum carriageway width of 4 metres;
d. Minimum vertical clearance of 4 metres;
e. Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
f. Cross falls of less than 3 degrees (1:20 or 5%);
g. Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
h. Curves with a minimum inner radius of 10 metres;
i. Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads; and
j. Terminate with a turning area for fire appliances provided by one of the following:
    i) A turning circle with a minimum inner radius of 10 metres; or
    ii) A property access encircling the building; or a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

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Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 27/92019

SRL19/545

# BUSHFIRE-PRONE AREAS CODE

## CERTIFICATE[1] UNDER S51(2)(d) LAND USE PLANNING AND APPROVALS ACT 1993

### 1. Land to which certificate applies[2]

***Land that is the Use or Development Site that is relied upon for bushfire hazard management or protection.***

**Name of planning scheme or instrument:** Northern Midlands Interim Planning Scheme 2013

**Street address:** 995 Bishopsbourne Road, Bishopsbourne

**Certificate of Title / PID:** CT 140563/7, PID2268473

***Land that is not the Use or Development Site that is relied upon for bushfire hazard management or protection.***

**Street address:**

**Certificate of Title / PID:**

### 2. Proposed Use or Development

[1] This document is the approved form of certification for this purpose, and must not be altered from its original form.

[2] If the certificate relates to bushfire management or protection measures that rely on land that is not in the same lot as the site for the use or development described, the details of all of the applicable land must be provided.

**Description of Use or Development:**

6 lot subdivision from 1 existing title

**Code Clauses:**

☒ **E1.4 Exempt Development**

☐ **E1.5.1 Vulnerable Use**

☐ **E1.5.2 Hazardous Use**

☒ **E1.6.1 Subdivision**

## 3. Documents relied upon

**Documents, Plans and/or Specifications**

**Title:** Proposal 5 lot + Balance Subdivision

**Author:** 6TY Pty Ltd

**Date:** 8/9/2019 **Version:** 1

**Bushfire Hazard Report**

**Title:** Bushfire Hazard Management Report, 995 Bishopsbourne Road

**Author:** Scott Livingston

**Date:** 27/9/2019 **Version:** 1

**Bushfire Hazard Management Plan**

**Title:** Bushfire Hazard Management Plan 995 Bishopsbourne Road

**Author:** Scott Livingston

**Date:** 27/9/2019 **Version:** 1

**Other Documents**

**Title:**

**Author:**

**Date:** **Version:**

## 4. Nature of Certificate

☐ **E1.4 – Use or development exempt from this code**

| | Assessment Criteria | Compliance Requirement | Reference to Applicable Document(s) |
|---|---|---|---|
| ☒ | E1.4 (a) | Insufficient increase in risk | Bushfire Hazard Management Plan 995 Bishopsbourne Road- Balance Lot only |

☐ **E1.5.1 – Vulnerable Uses**

| | Assessment Criteria | Compliance Requirement | Reference to Applicable Document(s) |
|---|---|---|---|
| ☐ | E1.5.1 P1 | Residual risk is tolerable | |
| ☐ | E1.5.1 A2 | Emergency management strategy | |
| ☐ | E1.5.1 A3 | Bushfire hazard management plan | |

☐ **E1.5.2 – Hazardous Uses**

| | Assessment Criteria | Compliance Requirement | Reference to Applicable Document(s) |
|---|---|---|---|
| ❑ | E1.5.2 P1 | Residual risk is tolerable | |
| ❑ | E1.5.2 A2 | Emergency management strategy | |
| ❑ | E1.5.2 A3 | Bushfire hazard management plan | |

❑ **E1.6 – Development standards for subdivision**

**E1.6.1 Subdivision: Provision of hazard management areas**

| | Assessment Criteria | Compliance Requirement | Reference to Applicable Document(s) |
|---|---|---|---|
| ❑ | E1.6.1 P1 | Hazard Management Areas are sufficient to achieve tolerable risk | |
| ❑ | E1.6.1 A1 (a) | Insufficient increase in risk | |
| ☒ | E1.6.1 A1 (b) | Provides BAL 19 for all lots | Bushfire Hazard Management Plan 995 Bishopsbourne Road |
| ❑ | E1.6.1 A1 (c) | Consent for Part 5 Agreement | |

**E1.6.2 Subdivision: Public and fire fighting access**

| | Assessment Criteria | Compliance Requirement | Reference to Applicable Document(s) |
|---|---|---|---|
| ❑ | E1.6.2 P1 | Access is sufficient to mitigate risk | |
| ❑ | E1.6.2 A1 (a) | Insufficient increase in risk | |
| ☒ | E1.6.2 A1 (b) | Access complies with Tables E1, E2 & E3 | Bushfire Hazard Management Plan 995 Bishopsbourne Road |

| E1.6.3 Subdivision: Provision of water supply for fire fighting purposes | | | |
|---|---|---|---|
| | **Assessment Criteria** | **Compliance Requirement** | **Reference to Applicable Document(s)** |
| ❑ | E1.6.3 A1 (a) | Insufficient increase in risk | |
| ❑ | E1.6.3 A1 (b) | Reticulated water supply complies with Table E4 | |
| ❑ | E1.6.3 A1 (c) | Water supply consistent with the objective | |
| ❑ | E1.6.3 A2 (a) | Insufficient increase in risk | |
| ☒ | E1.6.3 A2 (b) | Static water supply complies with Table E5 | Bushfire Hazard Management Plan 995 Bishopsbourne Road |
| ❑ | E1.6.3 A2 (c) | Static water supply is consistent with the objective | |

## 5. Bushfire Hazard Practitioner[3]

| | | | |
|---|---|---|---|
| **Name:** | Scott Livingston | **Phone No:** | 0438 951 021 |
| **Address:** | 12 Powers Road | **Fax No:** | |
| | Underwood | **Email Address:** | scottlivingston.lnra@gmail.com |
| | Tasmania 7250 | | |
| **Accreditation No:** | BFP – 105 | **Scope:** | 1, 2, 3A, 3B, 3C |

## 6. Certification

*I, certify that in accordance with the authority given under Part 4A of the Fire Service Act 1979 –*

*The use or development described in this certificate is exempt from application of Code E1 – Bushfire-Prone Areas in accordance with Clause E1.4 (a) because there is an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measure in order to be consistent with the objectives for all the applicable standards identified in Section 4 of this Certificate.* ☐

*or*

*There is an insufficient increase in risk from bushfire to warrant the provision of specific measures for bushfire hazard management and/or bushfire protection in order for the use or development described to be consistent with the objective for each of the applicable standards identified in Section 4 of this Certificate.* ☐

*and/or*

*The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and can deliver an outcome for the use or development described that is consistent with the objective and the relevant compliance test for each of the applicable standards identified in Section 4 of this Certificate.* ☒

[3] A Bushfire Hazard Practitioner is a person accredited by the Chief Officer of the Tasmania Fire Service under Part IVA of *Fire Service Act 1979*. The list of practitioners and scope of work is found at www.fire.tas.gov.au.

**Signed:**

*certifier*

**Date:** 27/9/2019 **Certificate No:** SRL19/54S

# CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE ITEM

**Section 321**

Form **55**

To: B & J Johnson *Owner /Agent*

995 Bishopsbourne Road *Address*

Bishopsbourne 7301 *Suburb/postcode*

**Qualified person details:**

Qualified person: Scott Livingston

Address: 12 Powers Road Phone No: 0438 951 021

Underwood 7268 Fax No:

Licence No: BFP-105 Email address: scottlivingston.lnrs@gmail.com

Qualifications and Insurance details: Accredited Bushfire Assessor

BFP 105, 1,2,3A,3B, 3C

*(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items*

Speciality area of expertise: Bushfire Assessment

*(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)*

**Details of work:**

| | | | |
|---|---|---|---|
| Address: | 995 Bishopsbourne Road | Lot No: | 1-5 |
| | Bishopsbourne 7301 | Certificate of title No: | 232123/22 |

The assessable item related to this certificate: Bushfire Attack Level (BAL)

*(description of the assessable item being certified)*

*Assessable item includes –*

- *a material;*
- *a design*
- *a form of construction*
- *a document*
- *testing of a component, building system or plumbing system*
- *an inspection, or assessment, performed*

**Certificate details:**

Certificate type: Bushfire Hazard

*(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)*

This certificate is in relation to the above assessable item, at any stage, as part of - *(tick one)*

building work, plumbing work or plumbing installation or demolition work: X

or

a building, temporary structure or plumbing installation: ☐

In issuing this certificate the following matters are relevant –

| | |
|---|---|
| Documents: | Bushfire Attack Level Assessment Report and Bushfire Hazard Management Plan |
| Relevant calculations: | NA |

Australian Standard 3959

- Planning Directive No.5.1 *Bushfire-Prone Areas Code*
- Building Amendment Regulations 2016
- Director of Building Control, Determination
  - Application of Requirements for Building in Bushfire Prone Areas. (Aug 2017)
- Guidelines for development in bushfire prone areas of Tasmania

*Substance of Certificate:* *(what it is that is being certified)*

1. Assessment of the site Bushfire Attack Level (BAL) to Australian Standards 3959
2. Bushfire Hazard Management Plan

Assessed as -BAL 19, BAL 12.5

Proposal is compliant with DTS requirements, clauses 4.1, 4.2, 4.3 & 4.4 Directors Determination Requirements for Building in Bushfire Prone Areas (v2.1)

*Scope and/or Limitations*

**I certify the matters described in this certificate.**

| | *Signed:* | *Certificate No:* | *Date:* |
|---|---|---|---|
| Qualified person: |  | SRL19/54S | 27/9/2019 |

GEOTON Pty Ltd
Geotechnical Consultants

**Geoton Pty Ltd** ABN 81 129 764 629
PO Box 522 Prospect TAS 7250
Unit 24, 16-18 Goodman Court
Invermay TAS 7248
Tel (+61) (3) 6326 5001
**www.geoton.com.au**

27 September 2019

Reference No. GL19275Ab

Mr Brent Johnson & Ms Christine Howard
995 Bishopsbourne Road
BISHOPSBOURNE TAS 7301

Dear Sir and Madam

**RE: Preliminary On-site Wastewater and Stormwater Disposal Evaluation**
**995 Bishopsbourne Road, Bishopsbourne**

We have pleasure in submitting herein our report detailing the results of a preliminary on-site wastewater and stormwater disposal evaluation conducted at the above site.

Should you require clarification of any aspect of this report, please contact Anne Foster or the undersigned on 03 6326 5001.

For and on behalf of

**Geoton Pty Ltd**

**Tony Barriera**

Director – Principal Geotechnical Engineer

# 1 INTRODUCTION

At the request of Mr Ashley Brook of 6ty° Pty Ltd, Geoton Pty Ltd has carried out a limited scope investigation for Mr Brent Johnson & Ms Christine Howard at the site of a proposed residential subdivision at 995 Bishopsbourne Road, Bishopsbourne.

We understand that the proposed subdivision of the property will create 5 lots (proposed Lots 1 to 5) with a remaining balance. All existing structures will be contained within the balance.

The purpose of the investigation is to determine if the proposed new lots to be subdivided can support on-site wastewater and stormwater disposal systems in accordance with AS/NZS 1547:2012 "On-site domestic-wastewater management" and AS/NZS 3500.3 "Stormwater Drainage" for the purposes of subdivision approval.

It should be noted that this is a preliminary assessment for subdivision approval and that site-specific assessments for the proposed new lots will be required by the developers/owners once the actual location and sizes of residential developments are known.

A site plan was provided by 6ty° Pty Ltd (Project No. 19.182, Drawing No. P01, dated 3 September 2019) showing the lot layout.

# 2 FIELD INVESTIGATION

The field investigation was conducted on 13 September 2019 and involved the drilling of 6 boreholes by 4WD mounted auger rig to the investigated depths of 2.0m. In addition, the permeability of the site was tested using a Constant Head Permeameter.

The logs of the boreholes are included in Appendix A and their locations are shown on Figure 1 attached.

# 3 SITE CONDITIONS

The site is on the corner of Bishopsbourne Road to the west and Coach Lane to the south. Proposed Lots 1 to 5 are currently undeveloped, while the balance is developed with an existing dwelling and a shed in the north-western corner of the site and there is a small dam near the southern boundary. Proposed Lots 1 to 5 are between 4,019m$^2$ and 5,792m$^2$ in size, with the balance having an area of 2.325ha. The ground surface of the lots to be subdivided are generally near level with a low cover of pasture grass.

The MRT Digital Geological Atlas 1:25,000 Series, indicates that the site is located on Cretaceous aged sediments with this being generally confirmed by our field investigation.

Examination of the LIST Landslide Planning Map indicates that the site is not mapped within a known landslide hazard band.

The investigation indicated that the soil profile is relatively uniform across the area assessed at the site. The boreholes generally encountered sandy/gravelly silt or

gravelly clay topsoil to depths of 0.3m, underlain by medium to high plasticity silty and gravelly clay to the investigated depths of 2.0m.

The boreholes did not reveal any signs of seepage over the investigated depths, although the topsoil in most boreholes was wet from recent rainfall.

Full details of the soil conditions encountered are presented on the borehole logs.

# 4 EFFLUENT DISPOSAL

## 4.1 Permeability of Soil and Soil Classification

The soil has been classified as follows:

- Texture – Heavy clay (Table E1 from AS1547-2012);
- Structure – Massive (Table E4 from AS/NZS1547-2012); and
- Category – 6 (Table E1 from AS/NZS1547:2012).

The permeability at the site was measured to be 0.01m/day. For massive Category 6 soils the indicative permeability from AS1547 Table L1 is <0.06m/day. Therefore, the measured permeability is consistent with that of massive Category 6 soils.

- Adopted Permeability – 0.01m/day.

## 4.2 Disposal and Treatment Method

The soil within the proposed effluent disposal area is assessed as having sufficient depth and clay content to provide an adequate attenuation period for the breakdown of pathogens within the treated effluent.

**As the site contains category 6 soils that have a very low permeability, primary treated effluent (eg septic tank and absorption trenches) shall not be suitable for disposal within these soils.**

Based on the findings of the investigation and provided the setback distances are adhered to, this site assessment indicates that proposed Lots 1 to 5 are suitable and have suitable available area for the disposal of secondary treated effluent by way of Aerated Wastewater Treatment Systems (AWTS) and sub-surface irrigation.

## 4.3 Setbacks

The minimum separation distance between the disposal area and downslope features is based on Appendix R from AS/NZS 1547:2012 "Recommended Setback Distances for Land Application Systems". As per Table R1 from AS/NZS 1547:2012 the following setbacks are required for secondary treated effluent:

- 15.0m from downslope sensitive features such as watercourses;
- 1.5m from property boundaries;
- 3.0m from buildings.

## 4.4 Example of Minimum System Requirements

**Aerated Wastewater Treatment System (AWTS)**

About 840m$^2$ (420m$^2$ for the effluent disposal area and 420m$^2$ as a backup area) would be required for an AWTS and sub-surface irrigation system to support a standard 4-bedroom dwelling on tank water within the assessed area of the site.

# 5 ON-SITE STORMWATER DETENTION DESIGN

## 5.1 General

In accordance with AS/NZS 3500.3 – Stormwater Drainage, on-site detention storage must be provided to limit the peak rate of piped stormwater discharge and overland flows from the site as follows:

- For the developed land a storm event generated by a 5% Annual Exceedance Probabilities (AEP) is to be restricted to a flowrate of less than the 5 years ARI, i.e., 20% AEP of the undeveloped land.

## 5.2 Rainfall Intensity Design Events

The Intensity-Frequency-Design (IFD) rainfall curve and table for the site was generated from the Bureau of Meteorology IFD data website (BOM 2016).

In accordance with AS/NZS 3500.3 – Stormwater Drainage, Section 3.3.5, the design rainfall depth/intensity for anywhere in Australia shall be for a five-minute duration.

The five-minute duration design rainfall depth for the design AEP event is as follows:

- **5% AEP = 7.57mm**

The storage quantity is calculated using the following formula:

$$Q = CDA$$

where Q is quantity in m$^3$;

C is coefficient of runoff (taken as unity 1.0);

D is depth of the Storm in mm; and

A is the area of the catchment (roof and paved area) that rainfall will runoff in m$^2$.

The event flowrate is calculated by dividing storage quantity by the storm duration of 5 min, i.e. 300 seconds.

## 5.3 Detention Method

For example, a total roof and paved area of **400m$^2$** the stormwater quantity and flowrate for a design event are calculated as follows.

The stormwater quantity:

$Q_5$= 1.0 x 7.57 / 1000 x 400 = **3.03m$^3$**.

The flow rate:

$q_5$= 3.03 / 300 = 0.010m³/s = **10.1L/s**.

The stormwater for a design event is to be stored in a **detention tank**, then discharged through a restricted outlet into an **absorption/detention bed (gravel filled)** with a low flowrate. The gravel filled absorption/detention bed is designed to fill up to the natural ground during large rain events and be discharged as sheet flow.

The stormwater quantity for a 5% AEP storm event from the roof and paved areas is calculated as 3.03m³. Therefore, a detention tank with at least **3,030 litres** dry storage capacity is required with an orifice to restrict the discharge flowrate to that of 20% AEP storm event. The outlet will require an inspection opening to ensure the orifice is maintained and does not become blocked.

For a detention bed a volume of approximately 12.12m³ will be required to store a 5% AEP event taking into consideration a porosity of 0.25 for the coarse gravel and allow overland sheet flow.

- Bed length = 10.1m
- Bed width = 2m
- Bed depth = 0.6m

Therefore, an area of approximately 20.2m² is required for disposal of stormwater for a total roof and paved area of 400m².

# 6 CONCLUSIONS

The results of the investigation indicate that the proposed new Lots 1 to 5 have sufficient available area suitable for the disposal of domestic effluent by way of secondary treated wastewater via aerated wastewater treatment systems, including sufficient reserve area. There is sufficient area suitable for the disposal of stormwater via detention tanks and absorption/detention beds and allowing overland sheet flow.

**References:**

Bureau of Meteorology Rainfall

IFD Data System: http://www.bom.gov.au/water/designRainfalls/ifd/

AS/NZS 3500.3 – Stormwater Drainage

AS/NZS 1547- 2012 On-site domestic-wastewater management

Preliminary On-site Wastewater and Stormwater Disposal Evaluation

**Attachments:**

Limitations of report

Figure 1 – Site Plan

Site Photograph

Appendix A – Borehole Logs & Explanation Sheets

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# Geotechnical Consultants - Limitations of report

These notes have been prepared to assist in the interpretation and understanding of the limitations of this report.

## Project specific criteria

The report has been developed on the basis of unique project specific requirements as understood by Geoton and applies only to the site investigated. Project criteria are typically identified in the Client brief and the associated proposal prepared by Geoton and may include risk factors arising from limitations on scope imposed by the Client. The report should not be used without further consultation if significant changes to the project occur. No responsibility for problems that might occur due to changed factors will be accepted without consultation.

## Subsurface variations with time

Because a report is based on conditions which existed at the time of subsurface exploration, decisions should not be based on a report whose adequacy may have been affected by time. For example, water levels can vary with time, fill may be placed on a site and pollutants may migrate with time. In the event of significant delays in the commencement of a project, further advice should be sought.

## Interpretation of factual data

Site assessment identifies actual subsurface conditions only at those points where samples are taken and at the time they are taken. All available data is interpreted by professionals to provide an opinion about overall site conditions, their likely impact on the proposed development and recommended actions. Actual conditions may differ from those inferred to exist, as it is virtually impossible to provide a definitive subsurface profile which includes all the possible variabilities inherent in soil and rock masses.

## Report Recommendations

The report is based on the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete and therefore the report recommendations can only be regarded as preliminary. Where variations in conditions are encountered, further advice should be sought.

## Specific purposes

This report should not be applied to any project other than that originally specified at the time the report was issued.

## Interpretation by others

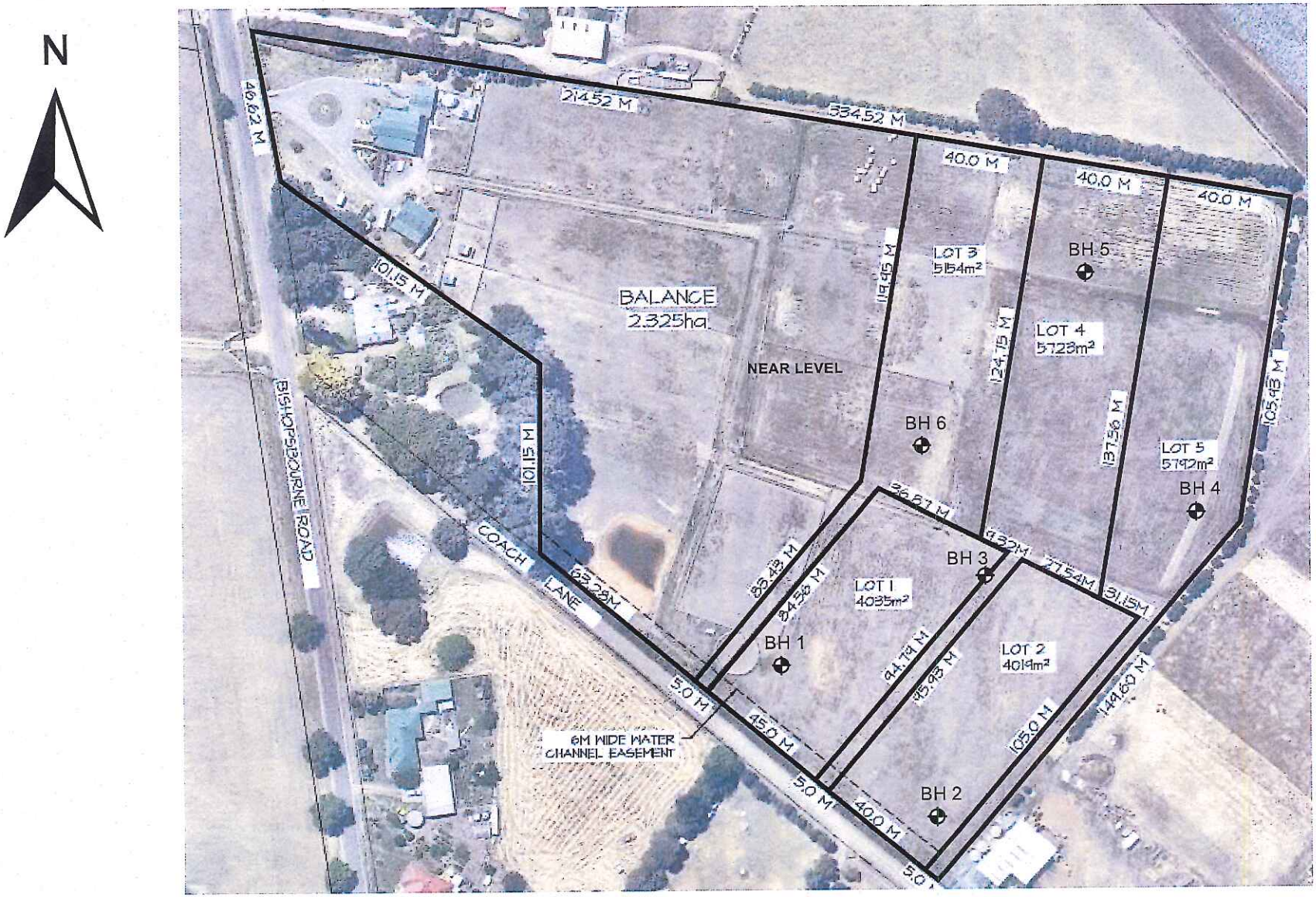
Geoton will not be responsible for interpretations of site data or the report findings by others involved in the design and construction process. Where any confusion exists, clarification should be sought from Geoton.

## Report integrity

The report as a whole presents the findings of the site assessment and the report should not be copied in part or altered in any way.

## Geoenvironmental issues

This report does not cover issues of site contamination unless specifically required to do so by the client. In the absence of such a request, Geoton take no responsibility for such issues.




## Legend

BH 1 ⊕ Approximate Borehole Location

| | | | |
|---|---|---|---|
| GEOTON Pty Ltd | | | |
| date | 24/09/2019 | drawn | AF |
| scale | As Shown | approved | TB |
| original size | A3 | rev | |

client: MR BRENT JOHNSON & MS CHRISTINE HOWARD

project: 995 BISHOPSBOURNE ROAD BISHOPSBOURNE

title: SITE PLAN

project no: GL19275A

figure no. 1

1-337

**PLATE 1 - View of the site looking to the northeast**

| | | | | | |
|---|---|---|---|---|---|
| GEOTON Pty Ltd | | | | client: MR BRENT JOHNSON & MS CHRISTINE HOWARD | |
| title: PHOTOGRAPH | | | | project: 995 BISHOPSBOURNE ROAD BISHOPSBOURNE | |
| date: | 13/09/2019 | original size | A4 | project no: GL19275A | figure no. PLATE 1 |

# Appendix A

**Borehole Logs**

**GEOTON Pty Ltd**

**Geotechnical Consultants**

PO Box 522 Prospect TAS 7250
Unit 24, 16-18 Goodman Court, Invermay TAS
Tel (03) 6326 5001

# ENGINEERING BOREHOLE LOG

F340

Borehole no. BH1
Sheet no. 1 of 1
Job no. GL19275A

| | | | |
|---|---|---|---|
| Client : | Mr Brent Johnson & Ms Christine Howard | | Date : 13/09/19 |
| Project : | Preliminary Onsite Wastewater and Stormwater Site Evaluation | | Logged By : AF |
| Location : | 995 Bishopsbourne Road, Bishopsbourne | | |
| Drill model : | Drilltech | Easting: Slope: 90° | RL Surface : |
| Hole diameter : | 150mm | Northing: Bearing: - | Datum : |

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Sandy Silt, low plasticity, brown, fine to coarse grained sand, with fine gravel | M | MD | |
| | | | | | | | CL | Gravelly CLAY - low plasticity, brown, fine gravel | W | F | W≈LL |
| | | | | | 0.50 | | CI | Silty CLAY - medium plasticity, orange/brown, with fine gravel | M | St | W<PL |
| | | | | | 0.75 | | CH | Silty CLAY - high plasticity, light grey mottled red | M | VSt | W≈PL |
| | | | | | 1.00 | | | | | | |
| | | | | | 1.25 | | | | | | |
| | | | | | 1.50 | | | | | | |
| | | | | | 1.75 | | | | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH1 terminated @ 2.0m | | | |

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# ENGINEERING BOREHOLE LOG

Borehole no. BH2
Sheet no. 1 of 1
Job no. GL19275A

| | | | |
|---|---|---|---|
| Client : | Mr Brent Johnson & Ms Christine Howard | | Date : 13/09/19 |
| Project : | Preliminary Onsite Wastewater and Stormwater Site Evaluation | | Logged By : AF |
| Location : | 995 Bishopsbourne Road, Bishopsbourne | | |
| Drill model : | Drilltech | Easting: | Slope: 90° RL Surface : |
| Hole diameter : | 150mm | Northing: | Bearing: - Datum : |

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Gravelly Silt, low plasticity, dark brown, fine gravel | M | MD | |
| | | | | | 0.50 | | CL | Gravelly CLAY - low plasticity, orange/ brown, fine gravel | M | St | |
| | | | | | 0.75 | | CI | Silty CLAY - medium plasticity, orange/brown, trace fine gravel | M | St | W<PL |
| | | | | | 1.00 | | | | | | |
| | | | | | 1.25 | | CH | Silty CLAY - high plasticity, light grey mottled red | M | VSt | W≈PL |
| | | | | | 1.50 | | | | | | |
| | | | | | 1.75 | | | | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH2 terminated @ 2.0m | | | |

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# ENGINEERING BOREHOLE LOG

Borehole no. BH3
Sheet no. 1 of 1
Job no. GL19275A

| | | | |
|---|---|---|---|
| Client : | Mr Brent Johnson & Ms Christine Howard | | Date : 13/09/19 |
| Project : | Preliminary Onsite Wastewater and Stormwater Site Evaluation | | Logged By : AF |
| Location : | 995 Bishopsbourne Road, Bishopsbourne | | |
| Drill model : | Drilltech | Easting: Slope: 90° | RL Surface : |
| Hole diameter : | 150mm | Northing: Bearing: - | Datum : |

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Gravelly Silt, low plasticity, dark brown, fine gravel, root fibres | W | MD/ L | |
| | | | | | 0.50 | | Cl | Silty CLAY - medium plasticity, orange/brown | M | St | W<PL |
| | | | | | 0.75 | | CH | Silty CLAY - high plasticity, orange/ brown | M | St | W<PL |
| | | | | | 1.00 | | | Becoming light grey mottled red | | | |
| | | | | | 1.25 | | | | | | |
| | | | | | 1.50 | | | | | | |
| | | | | | 1.75 | | | | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH3 terminated @ 2.0m | | | |

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# ENGINEERING BOREHOLE LOG



Borehole no. BH4
Sheet no. 1 of 1
Job no. GL19275A

| | | | |
|---|---|---|---|
| Client : | Mr Brent Johnson & Ms Christine Howard | | Date : 13/09/19 |
| Project : | Preliminary Onsite Wastewater and Stormwater Site Evaluation | | Logged By : AF |
| Location : | 995 Bishopsbourne Road, Bishopsbourne | | |
| Drill model : | Drilltech | Easting: Slope: 90° | RL Surface : |
| Hole diameter : | 150mm | Northing: Bearing: - | Datum : |

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Gravelly Clay, low plasticity, brown, fine gravel | W | F | W≈LL |
| | | | | | 0.50 | | Cl | Silty CLAY - medium plasticity, brown, with fine gravel | M | St | W<PL |
| | | | | | 0.75 | | | No gravel, becoming orange/brown | | | |
| | | | | | 1.00 | | | | | | |
| | | | | | 1.25 | | CH | Silty CLAY - high plasticity, light grey mottled red | M | St | W≈PL |
| | | | | | 1.50 | | | | | | |
| | | | | | 1.75 | | | | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH4 terminated @ 2.0m | | | |

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# ENGINEERING BOREHOLE LOG

Borehole no. BH5
Sheet no. 1 of 1
Job no. GL19275A

| | | | |
|---|---|---|---|
| Client : | Mr Brent Johnson & Ms Christine Howard | | Date : 13/09/19 |
| Project : | Preliminary Onsite Wastewater and Stormwater Site Evaluation | | Logged By : AF |
| Location : | 995 Bishopsbourne Road, Bishopsbourne | | |
| Drill model : | Drilltech | Easting: Slope: 90° | RL Surface : |
| Hole diameter : | 150mm | Northing: Bearing: - | Datum : |

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Gravelly Clay, low plasticity, brown, fine gravel | W | F | W≈LL |
| | | | | | 0.50 | | CI | Silty CLAY - medium plasticity, orange/brown | M | St | W<PL |
| | | | | | 0.75 | | | | | | |
| | | | | | 1.00 | | CH | Silty CLAY - high plasticity, light grey mottled red | M | VSt | W<PL |
| | | | | | 1.25 | | | | | | |
| | | | | | 1.50 | | | | | | |
| | | | | | 1.75 | | | Pockets of red low plasticity Clayey Silt (10%) | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH5 terminated @ 2.0m | | | |

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# ENGINEERING BOREHOLE LOG

Borehole no. BH6
Sheet no. 1 of 1
Job no. GL19275A

Client : Mr Brent Johnson & Ms Christine Howard — Date : 13/09/19
Project : Preliminary Onsite Wastewater and Stormwater Site Evaluation — Logged By : AF
Location : 995 Bishopsbourne Road, Bishopsbourne

Drill model : Drilltech — Easting: — Slope: 90° — RL Surface :
Hole diameter : 150mm — Northing: — Bearing: - — Datum :

| Method | Support | Penetration | Water | Notes Samples Tests | Depth (m) | Graphic log | Classification Symbol | Material Description | Moisture condition | Consistency density, index | Structure, additional observations |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ADV | N | | | | 0.25 | | | TOPSOIL - Gravelly Clay, medium plasticity, brown, fine gravel | W | F | W≈LL |
| | | | | | 0.50 | | CI | Silty CLAY - medium plasticity, orange/brown, trace fine gravel | M | St | W<PL |
| | | | | | 0.75 | | | | | | |
| | | | | | 1.00 | | CH | Silty CLAY - high plasticity, orange/ brown | M | VSt | W≈PL |
| | | | | | 1.25 | | | | | | |
| | | | | | 1.50 | | | Becoming light grey mottled red | | | |
| | | | | | 1.75 | | | Pockets of red low plasticity Clayey Silt (5%) | | | |
| | | | | | 2.00 | | | | | | |
| | | | | | 2.25 | | | Borehole BH6 terminated @ 2.0m | | | |

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# Investigation Log Explanation Sheet

## METHOD – BOREHOLE

| TERM | Description |
|---|---|
| AS | Auger Screwing* |
| AD | Auger Drilling* |
| RR | Roller / Tricone |
| W | Washbore |
| CT | Cable Tool |
| HA | Hand Auger |
| DT | Diatube |
| B | Blank Bit |
| V | V Bit |
| T | TC Bit |

* Bit shown by suffix e.g. ADT

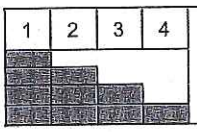
## METHOD – EXCAVATION

| TERM | Description |
|---|---|
| N | Natural exposure |
| X | Existing excavation |
| H | Backhoe bucket |
| B | Bulldozer blade |
| R | Ripper |
| E | Excavator |

## SUPPORT

| TERM | Description |
|---|---|
| M | Mud |
| N | Nil |
| C | Casing |
| S | Shoring |

## PENETRATION




No resistance ranging to Refusal

## WATER

| Symbol | Description |
|---|---|
|  | Water inflow |
|  | Water outflow |
|  | 17/3/08 water on date shown |

## NOTES, SAMPLES, TESTS

| TERM | Description |
|---|---|
| $U_{50}$ | Undisturbed sample 50 mm diameter |
| $U_{63}$ | Undisturbed sample 63 mm diameter |
| D | Disturbed sample |
| N | Standard Penetration Test (SPT) |
| N* | SPT – sample recovered |
| $N_c$ | SPT with solid cone |
| V | Vane Shear |
| PP | Pocket Penetrometer |
| P | Pressumeter |
| $B_s$ | Bulk sample |
| E | Environmental Sample |
| R | Refusal |
| DCP | Dynamic Cone Penetrometer (blows/100mm) |
| PL | Plastic Limit |
| LL | Liquid Limit |
| LS | Linear Shrinkage |

## CLASSIFICATION SYMBOLS AND SOIL DESCRIPTION

Based on AS 1726:2017

## MOISTURE

| TERM | Description |
|---|---|
| D | Dry |
| M | Moist |
| W | Wet |

## CONSISTENCY/DENSITY INDEX

| TERM | Description |
|---|---|
| VS | very soft |
| S | soft |
| F | firm |
| St | stiff |
| VSt | very stiff |
| H | hard |
| Fr | friable |
| VL | very loose |
| L | loose |
| MD | medium dense |
| D | dense |
| VD | Very dense |

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# Soil Description Explanation Sheet (1of 2)

## DEFINITION

In engineering terms, soil includes every type of uncemented or partially cemented inorganic or organic material found in the ground. In practice, if the material can be remoulded or disintegrated by hand in its field condition or in water it is described as a soil. Other materials are described using rock description terms.

## CLASSIFICATION SYMBOL AND SOIL NAME

Soils are described in accordance with the AS 1726: 2017 as shown in the table on Sheet 2.

## PARTICLE SIZE DEFINITIONS

| NAME | SUBDIVISION | SIZE (mm) |
|---|---|---|
| BOULDERS | | >200 |
| COBBLES | | 63 to 200 |
| GRAVEL | Coarse | 19 to 63 |
| | Medium | 6.7 to 19 |
| | Fine | 2.36 to 6.7 |
| SAND | Coarse | 0.6 to 2.36 |
| | Medium | 0.21 to 0.6 |
| | Fine | 0.075 to 0.21 |
| SILT | | 0.002 to 0.075 |
| CLAY | | <0.002 |

## MOISTURE CONDITION

**Coarse Grained Soils**

**Dry** Non-cohesive and free running.

**Moist** Soil feels cool, darkened in colour. Soil tends to stick together.

**Wet** As for moist but with free water forming when handling.

**Fine Grained Soils**

**Moist, dry of Plastic Limited – w < PL**
Hard and friable or powdery.

**Moist, near Plastic Limit – w ≈ PL**
Soils can be moulded at a moisture content approximately equal to the plastic limit.

**Moist, wet of Plastic Limit – w > PL**
Soils usually weakened and free water forms on hands when handling.

**Wet, near Liquid Limit - w ≈ LL**

**Wet, wet of Liquid Limit - w > LL**

## CONSISTENCY TERMS FOR COHESIVE SOILS

| TERM | UNDRAINED STRENGTH $s_u$ (kPa) | FIELD GUIDE |
|---|---|---|
| Very Soft | ≤12 | Exudes between the fingers when squeezed in hand |
| Soft | 12 to 25 | Can be moulded by light finger pressure |
| Firm | 25 to 50 | Can be moulded by strong finger pressure |
| Stiff | 50 to 100 | Cannot be moulded by fingers |
| Very Stiff | 100 to 200 | Can be indented by thumb nail |
| Hard | >200 | Can be indented with difficulty by thumb nail |
| Friable | – | Can be easily crumbled or broken into small pieces by hand |

## RELATIVE DENSITY OF NON-COHESIVE SOILS

| TERM | DENSITY INDEX (%) |
|---|---|
| Very Loose | ≤15 |
| Loose | 15 to 35 |
| Medium Dense | 35 to 65 |
| Dense | 65 to 85 |
| Very Dense | > 85 |

## DESCRIPTIVE TERMS FOR ACCESSORY SOIL COMPONENTS

| DESIGNATION OF COMPONENT | IN COARSE GRAINED SOILS | | IN FINE GRAINED SOILS | TERM |
|---|---|---|---|---|
| | % Fines | % Accessory coarse fraction | % Sand/ gravel | |
| Minor | ≤5 | ≤15 | ≤15 | Trace |
| | >5, ≤12 | >15, ≤30 | >15, ≤30 | With |
| Secondary | >12 | >30 | >30 | Prefix |

## SOIL STRUCTURE

| ZONING | | CEMENTING | |
|---|---|---|---|
| Layer | Continuous across the exposure or sample. | Weakly cemented | Easily disaggregated by hand in air or water. |
| Lens | Discontinuous layer of different material, with lenticular shape. | Moderately cemented | Effort is required to disaggregate the soil by hand in air or water. |
| Pocket | An irregular inclusion of different material. | | |

## GEOLOGICAL ORIGIN

### WEATHERED IN PLACE SOILS

| | |
|---|---|
| Extremely weathered material | Structure and/or fabric of parent rock material retained and visible. |
| Residual soil | Structure and/or fabric of parent rock material not retained and visible. |

### TRANSPORTED SOILS

| | |
|---|---|
| Aeolian soil | Carried and deposited by wind. |
| Alluvial soil | Deposited by streams and rivers. |
| Colluvial soil | Soil and rock debris transported downslope by gravity. |
| Estuarine soil | Deposited in coastal estuaries, and including sediments carried by inflowing rivers and streams, and tidal currents. |
| Fill | Man-made deposit. Fill may be significantly more variable between tested locations than naturally occurring soils. |
| Lacustrine soil | Deposited in freshwater lakes. |
| Marine soil | Deposited in a marine environment. |

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# Soil Description Explanation Sheet (2 of 2)

## SOIL CLASSIFICATION INCLUDING IDENTIFICATION AND DESCRIPTION

| FIELD IDENTIFICATION PROCEDURES (Excluding particles larger than 63 mm and basing fractions on estimated mass) | | | | | GROUP SYMBOL | PRIMARY NAME |
|---|---|---|---|---|---|---|
| COARSE GRAINED SOIL More than 65% of soil excluding oversize fraction is larger than 0.075 mm | (A 0.075 mm particle is about the smallest particle visible to naked eyes) | GRAVEL More than half of coarse fraction is larger than 2.36 mm | CLEAN GRAVEL (Little or no fines) | Wide range in grain size and substantial amounts of all intermediate particle sizes | GW | GRAVEL |
| | | | | Predominantly one size or a range of sizes with some intermediate sizes missing | GP | GRAVEL |
| | | | GRAVEL WITH FINES (Appreciable amount of fines) | Non-plastic fines (for identification procedures see ML and MH below) | GM | Silty GRAVEL |
| | | | | Plastic fines (for identification procedures see CL, CI and CH below) | GC | Clayey GRAVEL |
| | | SAND More than half of coarse fraction is smaller than 2.36 mm | CLEAN SAND (Little or no fines) | Wide range in grain size and substantial amounts of all intermediate sizes | SW | SAND |
| | | | | Predominantly one size or a range of sizes with some intermediate sizes missing | SP | SAND |
| | | | SAND WITH FINES (Appreciable amount of fines) | Non-plastic fines (for identification procedures see ML and MH below) | SM | Silty SAND |
| | | | | Plastic fines (for identification procedures see CL, CI and CH below) | SC | Clayey SAND |

| FINE GRAINED SOIL More than 35% of soil excluding oversize fraction is smaller than 0.075 mm | IDENTIFICATION PROCEDURES ON FRACTIONS <0.075 mm | | | | | |
|---|---|---|---|---|---|---|
| | | DRY STRENGTH | DILATANCY | TOUGHNESS | | |
| | SILT & CLAY (low to medium plasticity, LL ≤ 50) | None to Low | Slow to Rapid | Low | ML | SILT |
| | | Medium to High | None to Slow | Medium | CL, CI | CLAY |
| | | Low to Medium | Slow | Low | OL | ORGANIC SILT |
| | SILT & CLAY (high plasticity, LL > 50) | Low to Medium | None to Slow | Low to Medium | MH | SILT |
| | | High to Very High | None | High | CH | CLAY |
| | | Medium to High | None to Very Slow | Low to Medium | OH | ORGANIC CLAY |
| | Highly Organic Soil | Readily identified by colour, odour, spongy feel and frequently by fibrous texture. | | | Pt | PEAT |

• LL – Liquid Limit.

## COMMON DEFECTS IN SOILS

| TERM | DEFINITION | DIAGRAM |
|---|---|---|
| PARTING | A surface or crack across which the soil has little or no tensile strength. Parallel or sub parallel to layering (e.g. bedding). May be open or closed. |  |
| FISSURE | A surface or crack across which the soil has little or no tensile strength, but which is not parallel or sub parallel to layering. May be open or closed. May include desiccation cracks. |  |
| SHEARED SEAM | Zone in clayey soil with roughly parallel near planar, curved or undulating boundaries containing closely spaced, smooth or slickensided, curved intersecting fissures which divide the mass into lenticular or wedge-shaped blocks. |  |
| SHEARED SURFACE | A near planar curved or undulating, smooth, polished or slickensided surface in clayey soil. The polished or slickensided surface indicates that movement (in many cases very little) has occurred along the defect. |  |

| TERM | DEFINITION | DIAGRAM |
|---|---|---|
| SOFTENED ZONE | A zone in clayey soil, usually adjacent to a defect in which the soil has a higher moisture content than elsewhere. |  |
| TUBE | Tubular cavity. May occur singly or as one of a large number of separate or inter-connected tubes. Walls often coated with clay or strengthened by denser packing of grains. May contain organic matter. |  |
| TUBE CAST | An infilled tube. The infill may be uncemented or weakly cemented soil or have rock properties. |  |
| INFILLED SEAM | Sheet or wall like body of soil substance or mass with roughly planar to irregular near parallel boundaries which cuts through a soil mass. Formed by infilling of open defects. |  |

TRAFFIC & CIVIL SERVICES

# 995 BISHOPSBOURNE ROAD, BISHOPSBOURNE

## 6 LOT SUBDIVISION

## TRAFFIC IMPACT ASSESSMENT
## DEC 2019

# 6 Lot subdivision 995 Bishopsbourne Road, Bishopsbourne

TRAFFIC IMPACT ASSESSMENT

- Final
- Dec 2019

Traffic & Civil Services
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# Contents

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# 1. Introduction

## 1.1 Background

The proposal is to subdivide 995 Bishopsbourne Road, Bishopsbourne into 5 new lots and a balance lot for the existing dwelling. A development permit is required from Northern Midlands Council and this TIA has been prepared to assess the impact of the proposal with recommendations where necessary.

This Traffic Impact Assessment (TIA) must be submitted with the development application and provide the following details:

- The significance of the impact of these movements on the existing road network.
- Any changes required to accommodate the additional traffic.

The TIA has been prepared based on Department of State Growth guidelines.

## 1.2 Objectives

A Traffic Impact Assessment is a means for assisting in the planning and design of sustainable development that considers:

- Safety and capacity
- Equity and social justice
- Economic efficiency
- The environment and future development.

This TIA considers the impact of the proposal on projected traffic volumes expected by 2029.

## 1.3 Scope of Traffic Impact Assessment (TIA)

This TIA considers in detail the impact of the proposal on the local road network which includes Coach Lane and the junctions with Bishopsbourne Road, Bishopsbourne.

## 1.4 References

- RTA Guide to Traffic Generating Developments - 2002
- Northern Midlands Interim Planning Scheme 2013
- Austroads Guide to Road Design: Part 4A: Unsignalised and Signalised Intersections - 2017
- Austroads Guide to Traffic Management: Part 6:Intersections, Interchanges and Crossings – 2019

## 1.5 Statement of Qualifications and Experience

This TIA has been prepared by Richard Burk, an experienced and qualified traffic engineer in accordance with the requirements of the Department of State Growth's guidelines and Council's requirements. Richard's experience and qualifications include:

- 32 years professional experience in road and traffic engineering industry
    - Manager Traffic Engineering at the Department of State Growth until May 2017.
    - National committee membership with Austroads Traffic Management Working Group and State Road Authorities Pavement Marking Working Group
- Master of Traffic, Monash University, 2004
- Post Graduate Diploma in Management, Deakin University, 1995
- Bachelor of Civil Engineering, University of Tasmania, 1987

Richard Burk

BE (Civil) M Traffic Dip Man. MIE Aust CPEng

Director Traffic and Civil Services Pty Ltd

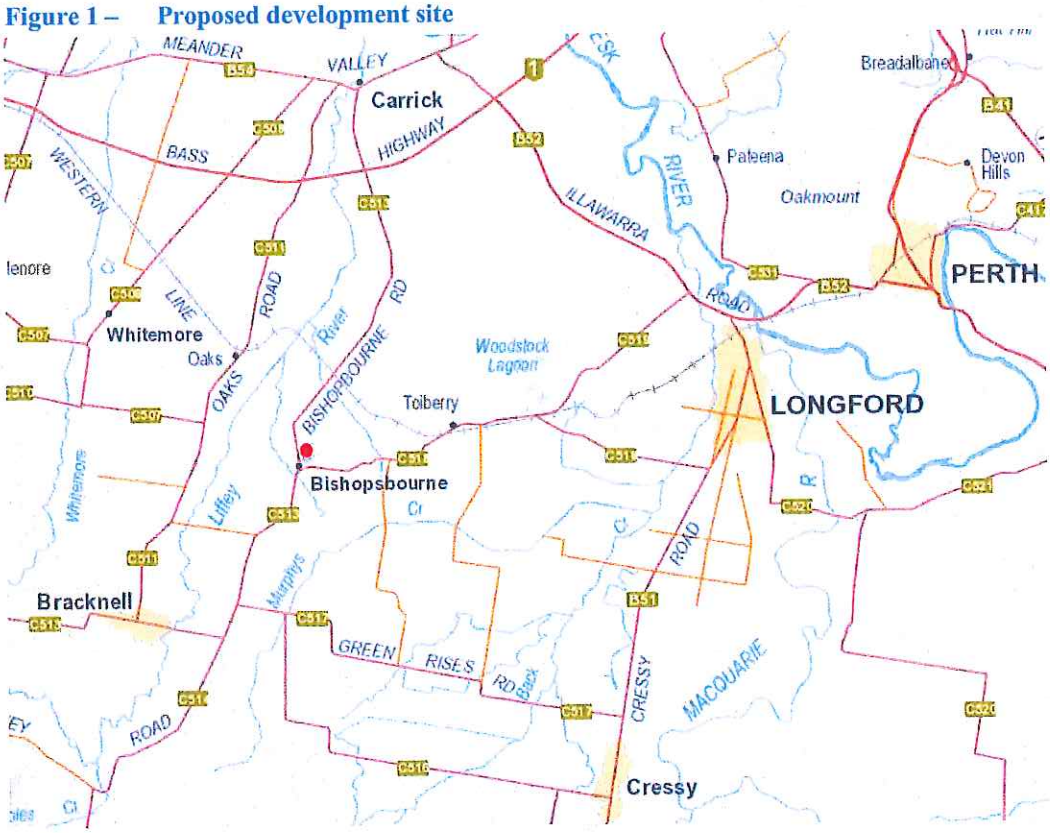
# 2. Site Description

Figures 1 and 2 show the proposed subdivision site with respect to Bishopsbourne.

The 995 Bishopsbourne property has been cleared of trees except for hedgerows on the boundaries and the land is undeveloped and flat.

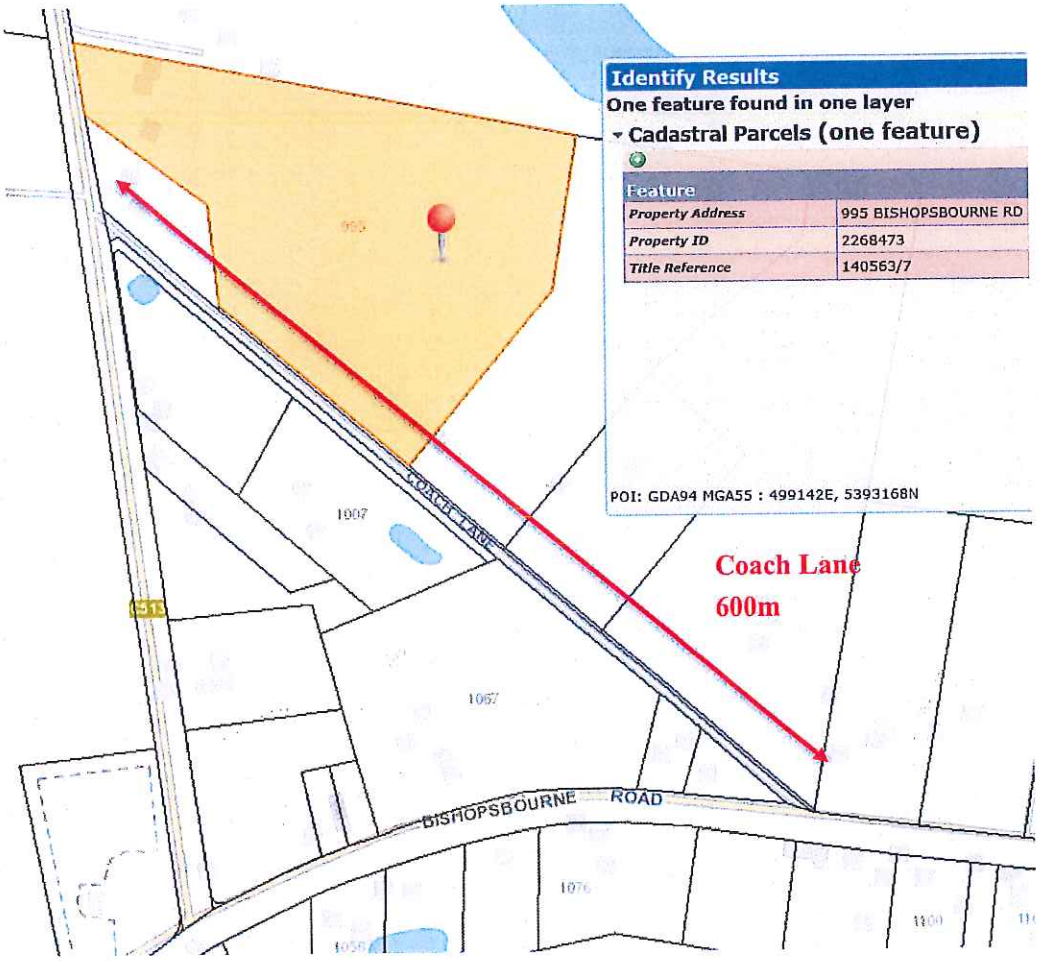
The setting is rural, and the default unsealed rural speed limit of 80km/hr applies on Coach Lane though the road is 600m long and the speed environment is estimated at 50km/h.

**Figure 1 – Proposed development site**




*Source: LISTmap*

**Figure 2 – 995 Bishopsbourne Road Property**




*Source: LISTmap*

# 3. Proposal, Planning Scheme and Road Owner objectives

## 3.1 Description of Proposed Development

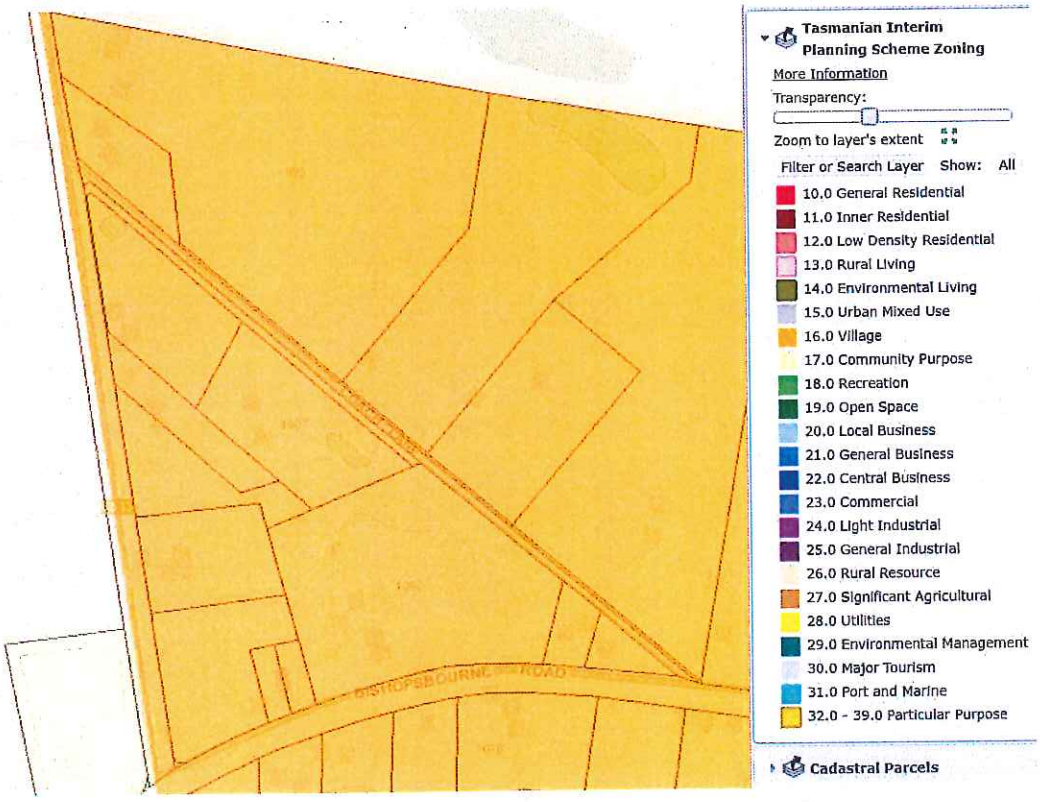
The proposed is to subdivide 995 Bishopsbourne Road, Bishopsbourne into 5 new lots and a balance lot for the existing dwelling as shown in figure 4 consisting of :

- 5 lots between 4,000 and 6,000m² in area accessing Coach Lane
- Balance lot of some 2.3 Ha in area accessed from Bishopsbourne Road with a farm gate access to Coach Lane.

## 3.2 Council Planning Scheme

The proposed development involves land currently zoned Village in accordance with the Northern Midlands Interim Planning Scheme 2013 shown in Figure 3.

**Figure 3 – Northern Midlands Interim Planning Scheme 2013**




*Source: LISTmap*

## 3.3 Local Road Network Objectives

To maintain safe and efficient operation of the Council road network.

**Figure 4 – Subdivision Proposal**

# 4. Existing Conditions

## 4.1 Transport Network

The surrounding road network consists of Council roads with Bishopsbourne Road and Coach lane being the most immediate and impacted roads. Neither road is part of the Tasmanian 26m B Double network, see Appendix C.

### 4.1.1 Bishopsbourne Road

Bishopsbourne Road is sealed and has a rural collector function and connects Bishopsbourne to Meander Valley Road at Carrick and Illawarra Main Road to the east, which are both State Roads.

Bishopsbourne Road has varying traffic activity along its length and at the Coach Lane junction with annual average daily traffic of some 200 vpd estimated from traffic survey data. The road has a 4.8m wide seal and is delineated with guideposts. The posted speed limit is 60km/h as shown in figure 5 and starts 200m north of the Coach Lane junction. The road is in fair condition.

**Figure 5 – Approaching Coach Lane and Bishopsbourne on Bishopsbourne Road**


### 4.1.2 Bishopsbourne Road / Coach Lane Junction

The Bishopsbourne Road / Coach Lane junction is an uncontrolled intersection with a simple right and simple left layout , has very low traffic activity and operates under the priority rule where minor road traffic gives way to major road traffic. On this case it is clear the minor road is Coach Lane as it is an access road only and unsealed.

The junction layout is considered fit for purpose. Figures 6-14 show the key features of the intersection and roads.

**Figure 6 – Bishopsbourne Road / Coach Lane Junction**

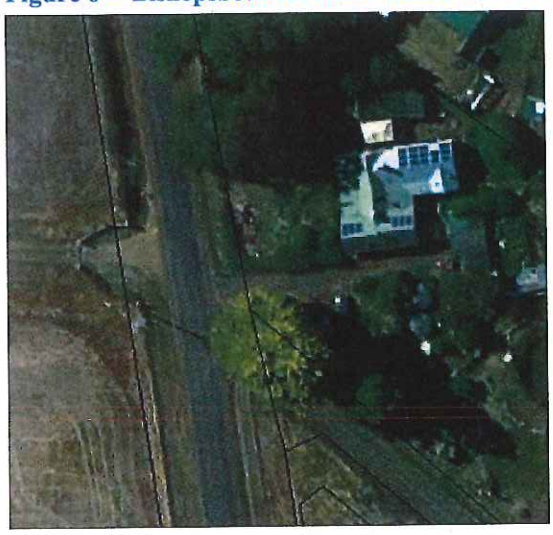


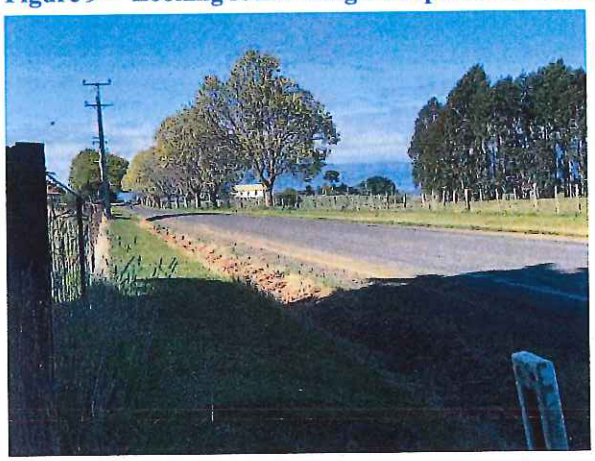
**Figure 7 – Coach Lane western approach to Bishopsbourne Road**

**>80m of approach sight distance is available.**

**Figure 8 – Looking north along Bishopsbourne Road from Coach Lane**

**Available sight distance is >200m**

**Figure 9 – Looking south along Bishopsbourne Road from Coach Lane**



**Available sight distance is >200m**

**Figure 10 – Looking east along Coach Lane from Bishopsbourne Road**

**Figure 11 – Looking north along Bishopsbourne Road towards Coach Lane**

**Figure 12 – Looking south along Bishopsbourne Road towards Coach Lane**

**Street lighting exists at the Bishopsbourne Road / Coach Lane junction.**

**Figure 13 – Bishopsbourne Road seal condition north side of Coach Lane junction**

**Figure 14 - Bishopsbourne Road / Coach Lane Junction drainage.**

### 4.1.3 Coach Lane

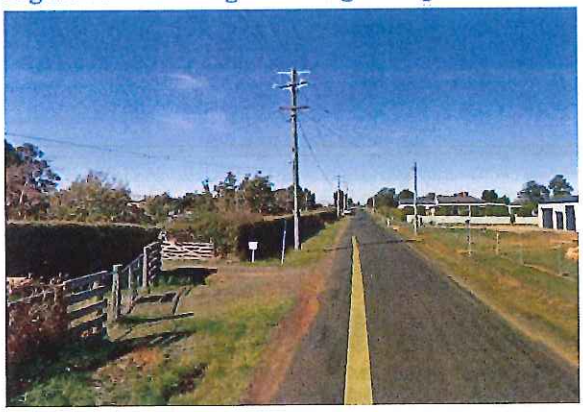
Coach Lane is an unsealed rural access road and a no through road from the Bishopsbourne Road eastern approach. The road has a trafficable width of 4.5m and a low level of traffic activity with an estimated annual average daily traffic of 20 vpd. There is some delineation with guideposts and the General Unsealed Rural Default Speed Limit of 80km/h applies although the speed environment is estimated at 50km/h. Figures 15-19 show key road features.

**Figure 15 – Looking west along Bishopsbourne Road towards Coach Lane east end.**

**Figure 16 – Looking west along Coach lane from Bishopsbourne Road**

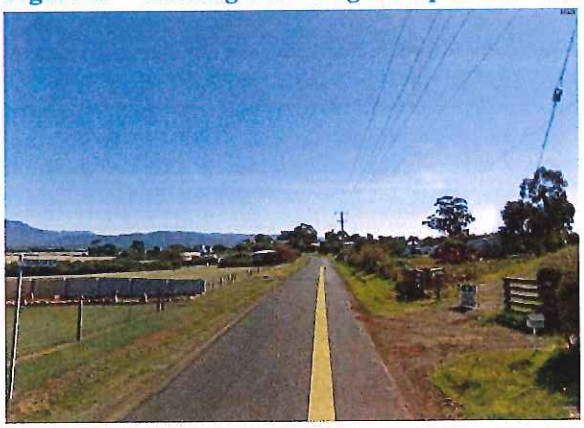

**Figure 17 – Looking east from Coach Lane towards Bishopsbourne Road**

**Figure 18 – Looking east along Bishopsbourne Road from Coach Lane (East end)**



Available sight distance is >200m

**Figure 19 – Looking west along Bishopsbourne Road from Coach Lane (West end)**



Available sight distance is >200m

### 4.1.4 Access to Lots 2,4 and 5 Coach Lane

Potential sight distance in the vicinity of proposed access to lots 2, 4 and 5 is shown in figures 20 and 21.

**Figure 20 – Looking right along Coach Lane from estimated Lots 2,4 and 5 access**

Hawthorne hedge removal required to establish sight distance from normal holding position

**Figure 21 – Looking left along Coach Lane from estimated Lots 2,4 and 5 access**

**Hawthorne hedge removal required to establish sight distance from normal holding position**

### 4.1.5 Access to Lots 1 and 3 via Coach Lane

Potential sight distance in the vicinity of proposed access to lots 1 and 3 is shown in figures 22 and 23.

**Figure 22 – Looking right along Coach Lane from estimated Lot 1 and 3 access**

**Hawthorne hedge removal required to establish sight distance from normal holding position**

**Figure 23 – Looking left along Coach Lane from estimated Lot 1 and 3 access**

**Hawthorne hedge removal required to establish sight distance from normal holding position**

### 4.1.6 Access to Balance Lot via Bishopsbourne Road

Sight distance at the access to the balance lot is shown in figures 24 and 25.

**Figure 24 – Looking north along Bishopsbourne Road from Balance Lot**

Available sight distance>200m

**Figure 25 – Looking south along Bishopsbourne Road from Balance Lot**

Available sight distance>200m

### 4.1.7 Access to Balance Lot via Farm gate on Coach Lane

Sight distance at the farm gate access is shown in figures 26-28.

**Figure 26 – Looking right along Coach Lane from farm gate to balance lot**

**Available sight distance is limited by timber rails at driver height line.**

**100m possible with clearing of site line**

**Figure 27 – Looking left along Coach Lane from farm gate to balance lot**

**Hawthorne hedge and timber rail removal required to establish sight distance from normal holding position**

**Figure 28 – Elevation of balance lot farm gate access from Coach Lane**

### 4.1.8 Sight Distance Summary

Sight distance requirements are summarised in Figure 29.

**Figure 29 – Summary of sight distance requirements**

| Junction Major Rd - Minor Rd | Speed Limit (km/h) | Speed Environment (km/h) | Acceptable Solution: Road frontage sight distance Table E4.7.4 SISD (m) | Current Provision: Road frontage sight distance Available Left(m) | Current Provision: Road frontage sight distance Available Right(m) | Performance Criteria: Road frontage sight distance AS / NZS 2890.1 (m) | Proposed Treatment: Mitigation Left | Proposed Treatment: Mitigation Right |
|---|---|---|---|---|---|---|---|---|
| Bishopsbourne Rd - Coach Lane (West) | 60 | 60 | 105 | >200 | >200 | NA | | |
| Bishopsbourne Rd - Coach Lane (East) | 60 | 60 | 105 | >200 | 200 | NA | | |
| Bishopsbourne Rd - Balance lot | 60 | 60 | 105 | >200 | >200 | NA | | |
| Coach Lane - Balance lot farm gate | 80 | 50 | 80 | 80 | 80 | 45 | T/S & F | F |
| Coach Lane - Access to lot #1 | 80 | 50 | 80 | 80 | 80 | 45 | T/S | T/S |
| Coach Lane - Access to lot #2 | 80 | 50 | 80 | 80 | 80 | 45 | T/S | T/S |
| Coach Lane - Access to lot #3 | 80 | 50 | 80 | 80 | 80 | 45 | T/S | T/S |
| Coach Lane - Access to lot #4 | 80 | 50 | 80 | 80 | 80 | 45 | T/S | T/S |
| Coach Lane - Access to lot #5 | 80 | 50 | 80 | 80 | 80 | 45 | T/S | T/S |

Compliant

Marginal

Compliant subject to Tree/Shrub Removal (T/S) & Fence rail removal (F)

The proposed accesses can satisfy the planning scheme with:

- acceptable solution for Safe Intersection Sight Distance (SISD) which involves removal of 45m of hawthorn hedge and taper trimming of 15m to establish 80m of sight distance for each access.
- performance criteria can be achieved with removal of 30m of hawthorn hedge and taper trimming of 10m to establish 45m of sight distance for each access.

For extent of hawthorn hedge trimming required under either scenario see figures 30a and 30b.

**Figure 30a – Hedge trimming option to establish access sight distance**

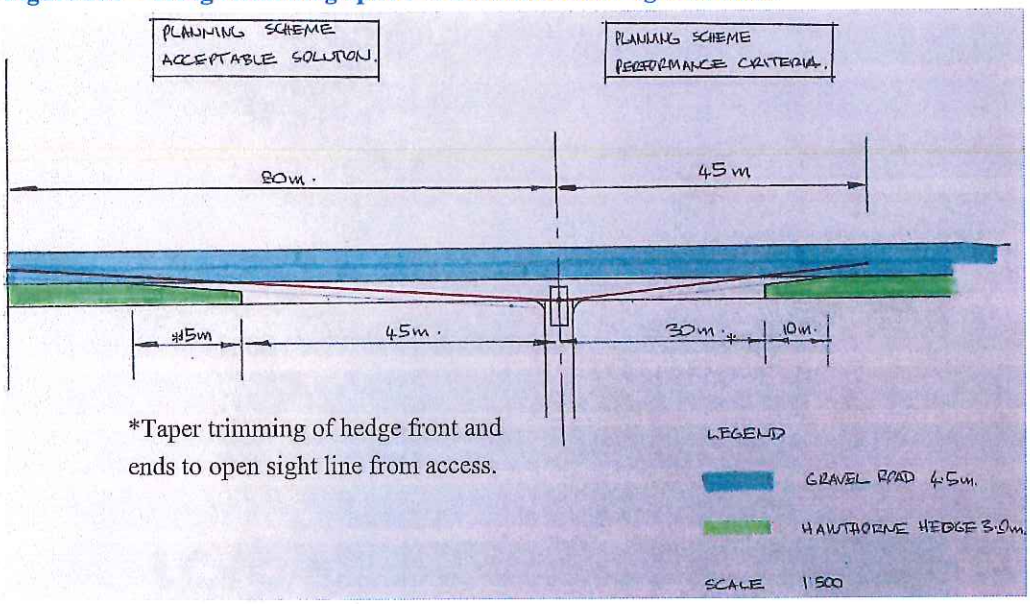



**Figure 30b – Hedge trimming and replanting option to establish access sight distance (where retention of roadside hedge is preferred)**

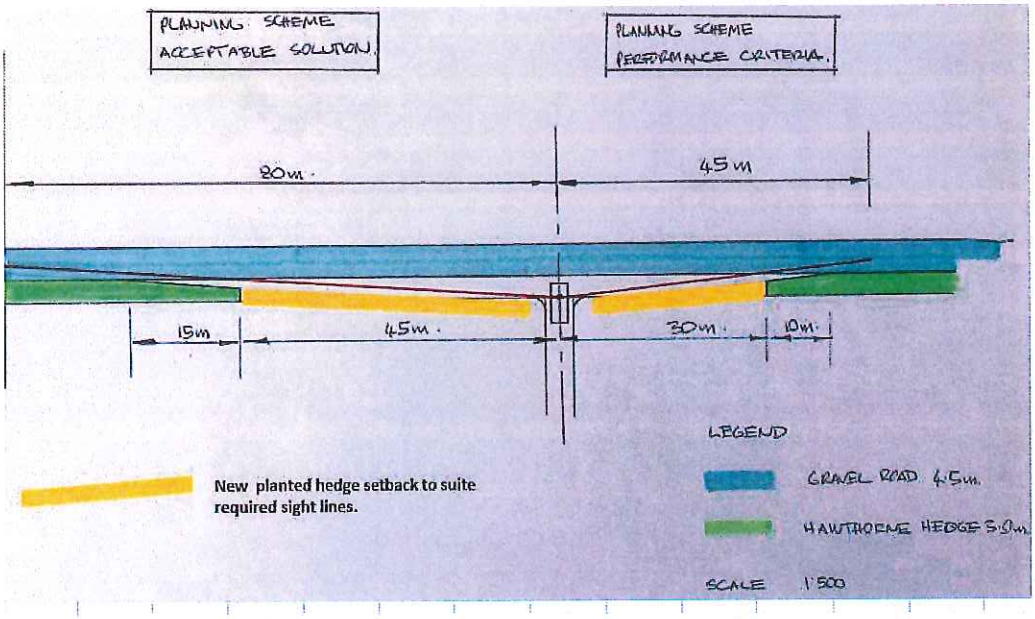


**Figure 31 – Acceptable Solution – 190m of hedge removal required plus taper trimming**


With Acceptable Solution require hawthorn hedge taper trimming of last 15m of the hedge at both ends.

**Figure 32 – Perform. Criteria - 160m of hedge removal required plus taper trimming**


With Performance Criteria require hawthorn hedge taper trimming of last 10m of the hedge at both ends.

## 4.2 Traffic Activity

### 4.2.1 Bishopsbourne Road / Coach Lane Junction

A brief traffic survey was conducted at the junction on Wednesday 9th October 2019, see Appendix A for results. From the survey data it is estimated:

- Bishopsbourne Road has annual average daily traffic of some 200 vpd.
- Coach Lane has annual average daily traffic of 20 vpd.

## 4.3 Crash History

The Department of State Growth is supplied with reported crashes by Tasmania Police. The Department maintains a crash database from the crash reports which is used to monitor road safety, identify problem areas and develop improvement schemes.

The 5-year crash history records no reported crashes involving Coach Lane, see figure 33.

**Figure 33 – 5 Year Reported Crash History at Bishopsbourne**


## 4.4 Services

Overhead power supply poles are located on the southern side of Coach Lane. These poles are considered a low risk traffic hazard due to the minimal traffic activity and relatively low speed environment.

### 4.5 Road Safety Review

A road safety review was conducted of Coach Lane and the junctions with Bishopsbourne Road. No traffic safety issues were identified with the road however it is evident that construction of the proposed accesses will require removal of a substantial section of the hawthorn hedge on the northern side of Coach Lane to satisfy sight distance criteria.

### 4.6 Austroads Safe System Assessment

Coach Lane has been assessed with the Austroads Safe System assessment framework. This framework involves consideration of exposure, likelihood and severity to yield a risk framework score. High risk crash types and vulnerable road user crash types are assessed for each site and aggregated to provide an overall crash risk. Crash risk is considered in terms of three components:

- Exposure (is low where low numbers of through and turning traffic) i.e.1 out of 4
- Likelihood (is low where the infrastructure standard is high) i.e. 1 out of 4
- Severity (is low where the speed environment is low) i.e. 1 out of 4

The Austroads Safe System Assessment process enables the relative crash risk of an intersection or road link to be assessed. Road users are considered along with the most common crash types. The crash risk score is an indication of how well the infrastructure being assessed satisfies the *safe system objective which is for a forgiving road system where crashes do not result in death or serious injury.*

From safe system assessment, the proposed access was determined to be reasonably aligned with the safe system objective with a crash risk score of 20/448 which is a very low risk score, see Appendix B.

# 5. Traffic Generation and Assignment

This section of the report is to determine how traffic generated by the proposal is distributed within the adjacent road network now and ten years future.

## 5.1 Background Traffic Growth

Compound annual traffic growth of 1% on Bishopsbourne Rd and 0% on Coach Lane.

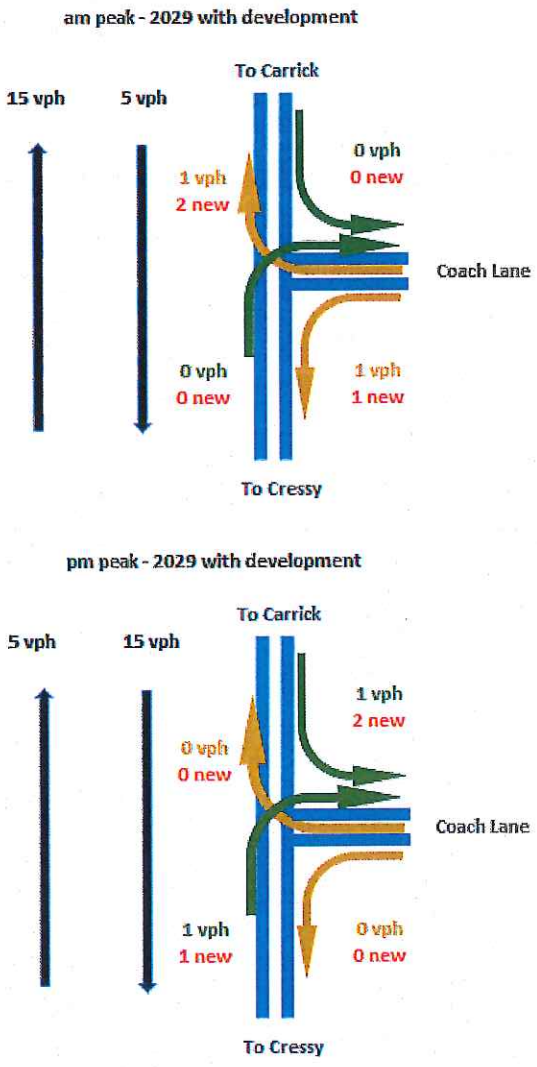
## 5.2 Trip Generation

5 lots zoned Village at 6vpd and 0.6vph during peak times /lot from RTA guidelines. On this basis the proposal will generate 30 vpd and up to 3 vph at peak times.

## 5.3 Trip Assignment

Figure 34 shows projected traffic flow for 2029.

**Figure 34 – Peak hour projections for Bishopsbourne / Coach Lane junction**



# 6. Impact on Road Network

## 6.1 Impact of traffic generated by the proposal

Traffic projections indicate that peak hour traffic on Coach Lane will more than double from 2 to 5 vph. These are very low levels of traffic activity.

## 6.2 Intersection requirements

### 6.2.1 Signage

No signage is considered necessary.

### 6.2.2 Junction warrants

The Bsihopsbourne Road / Coach Lane junction does not require upgrading as the existing simple junction layout is adequate for the projected peak traffic once fully developed.

## 6.3 Impacts on road users

### 6.3.1 Public Transport

No impact.

### 6.3.2 Delivery Vehicles

No impact.

### 6.3.3 Pedestrians and Cyclists

No impact

### 6.3.4 Motorcyclists

No impact.

## 6.4 Other impacts

### 6.4.1 Environmental

No applicable environmental impacts were identified in relation to:

- Noise, vibration or visual impact
- Community severance, pedestrian amenity
- Hazardous loads, air pollution or ecological impacts
- Heritage and Conservation
- The increased traffic activity will increase dust generated on Coach Lane.
    - Sealing of Council roads is a Council matter and not the responsibility of private property owners.
    - Typically, when a gravel road has daily traffic flow of 200vpd Councils can justify sealing as road maintenance costs are reduced and there are other community benefits.
    - Coach Lane traffic is currently some 20vpd and is expected to increase to 50vpd once fully developed. The gravel surface on Coach Lane appears to generate a low amount of dust.

### 6.4.2 Street Lighting and Furniture

The Bishopsbourne Road / Coach lane junction has street lighting as can be seem in figure 11. The proposal does not justify provision of additional street furniture.

## 6.5 Future Development

The proposal appears to be in keeping with the Village zoning of the land. The current traffic management applied to Coach Lane i.e two-way access from the western end via Bishopsbourne Road appears sensible given Coach Lane's function as a local access road.

Eventually Council may entirely close the eastern access to Bishopsbourne Road to preserve calmed operation of Coach Lane.

## 6.6 Northern Midlands Interim Planning Scheme 2013

### 6.6.1 Road and Railway Assets Code E4 requirements

#### Section E4.6.1 Use and road or rail infrastructure

***Acceptable solution A3***

*For roads with a speed limit of more than 60km/hr the use must not increase the annual average daily traffic(AADT) movements at the existing access or junction by more than 10 %.*

- Coach Lane is an unsealed rural standard road, so the Rural Default Speed Limit of 80km/h applies. Current traffic volume on Coach Lane is estimated at 20vpd
- Proposed development will generate an additional 30vpd i.e a 250% increase.
- **Acceptable solution A3 is not achieved.**

***Performance criteria P3***

*For limited access roads and roads with a speed limit of more than 60km/hr an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users.*

- The existing traffic activity is very low and the expected increase in traffic is small so no widening to provide for turning movements at the Bishopsbourne Road / Coach Lane junction is required.
- From road safety review, crash history review and Austroads Safe System Assessment there are no traffic safety or capacity issues with the proposal provided the hawthorn hedge is removed either completely or partially to ensure sight distance to the left and right of at least 45m.
- The existing Bishopsbourne Road / Coach Lane junction is considered fit for purpose.
- **Performance criteria P3 is conditionally satisfied.**

#### Section E4.7.2 Management of Road Accesses and Junctions

***Acceptable solution A2***

*For roads with a speed limit of more than 60km/h the development must not include a new access or junction.*

- The proposal involves 5 new accesses within an 80km/h speed limit.
- **Acceptable solution A2 is not achieved.**

***Performance criteria P2***

*For limited access roads and roads with a speed limit of more than 60km/hr an access or junction which is increased in use or is a new access or junction must be designed and located to maintain an adequate level of safety and efficiency for all road users.*

Coach Lane functions as a rural access road to some 3 titles. The gravel road is 4.5m wide with suitable horizontal and vertical alignment for an access road, is in fair condition and is maintained by Council. Coach Lane is considered suitable for use as an access road.

Traffic activity on Coach Lane is estimated to increase from 20 to 50 vpd due to the proposal. This level of traffic activity is considered normal for unsealed rural council roads and well within the capacity of Coach Lane.

From Austroads Safe Systems Assessment Coach Lane is considered to have a very low crash risk with a score of 20/448 .The road is considered safe with increased access as proposed.

Accordingly, in terms of safety, efficiency and road standard Coach Lane is considered fit for purpose as a rural access road and able to accommodate the proposed 5 accesses and **Performance Criteria P2 is satisfied.**

## Section E4.7.4 Sight Distance at Accesses, Junctions and Level Crossings

***Acceptable solution A1 a)***
*An access or junction must comply with the Safe Intersection Sight Distance shown in Table E4.7.4.*

- For a 50km/h frontage speed require 80m of SISD.
- Figure 29 summarises sight distance requirements and availability and shows that SISD requirements of Table E4.7.4 can be satisfied for the proposed accesses with removal of 190m of the hawthorn hedge plus 2 *15m tapered sections at both ends as per figure 31.

**Acceptable solution A1 a) can be satisfied**, alternatively

***Performance criteria P1***
*The design, layout and location of an access, junction or rail level crossing must provide adequate sight distances to ensure the safe movement of vehicles.*

- The proposed accesses can satisfy P1 with removal of 160m of hawthorn hedge plus a 10m tapered sections at the eastern end as per figure 32.
- These accesses satisfy sight distance requirements for accesses in accordance with AS/NZS 2890.1 Off street car parking -Figure 3.2. For a 50km/h frontage speed require 45m of sight distance.

**Accordingly, Performance Criteria P1 can be satisfied.**

**If the hawthorn hedge is considered to have heritage value, then removal of the least amount of hedge possible would be preferred and so Performance Criteria P1 should be followed in that case, otherwise Acceptable Solution A1.**

# 7. Recommendations and Conclusions

This traffic impact assessment has been prepared to assess the proposed 5 lot plus balance lot subdivision of 995 Bishopsbourne Road, Bishopsbourne. Traffic projections for 2029 show an increase in peak hour traffic activity from 2vph to 5vph due to the proposal. Though the traffic activity more than doubles, the increase is from a very low base so the impact on traffic safety and capacity is negligible.

From review of the planning scheme, existing roads, crash history, proposed access locations and road safety; no traffic capacity or safety concerns have been identified apart from the sight distance issues at the proposed access points due to the hawthorn hedge.

The following recommendations are made:

***Recommendation #1*** – *The hawthorn hedge on Coach Lane be removed or removed and replanted sufficient to establish sight distance for lots 1 to 5:*

- *If the hawthorn hedge has heritage value, then removal of 160m of hedge plus 10m of taper trimming at both ends of the remaining hedge is required as per figure 32.*
- *If the hawthorn hedge has no heritage value, then removal of at least 190m of hedge plus 15m of taper trimming at the both ends of the remaining hedge is required as per figure 31.*
- *Some hedge could be removed and setback, see figure 30b, to ensure lines of sight.*

***Recommendation #2*** – *The hawthorn hedge on Coach Lane east of the existing farm gate to the Balance Lot be removed sufficient to establish sight distance:*

- *If the hawthorn hedge has heritage value, then removal of 30m of hedge plus 10m of taper trimming of the remaining hedge is required.*
- *If the hawthorn hedge has no heritage value, then removal of at least 45m of hedge plus 15m of taper trimming of the remaining hedge is required.*

***Recommendation #3*** – *The timber rails restricting sight distance at the existing farm gate to the Balance Lot be removed sufficient to establish sight distance.*

***Recommendation #4*** – *The proposed accesses be constructed to Northern Midlands Council Standard.*

In summary this report demonstrates that the proposal can satisfy the Northern Midlands Interim Planning Scheme 2013 requirements of Road and Railway Assets Code E4.

Overall, it has been concluded that the proposed development should not create any traffic capacity or traffic safety issues for road users.

Based on the finding of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.

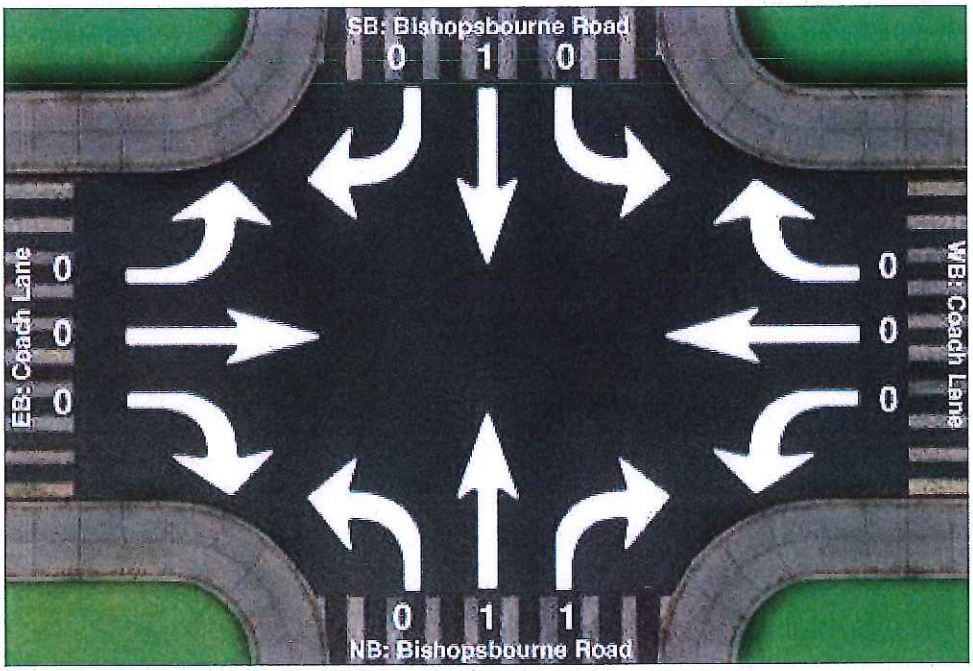
# Appendices

# Appendix A – Turning count 9th Oct 2019

# Bishopsbourne Road / Coach Lane junction

## Intersection Count Summary

**Location:** Bishopsbourne Road at Coach Lane, Bishopsbourne
**GPS Coordinates:** Lat=-41.613118, Lon=146.986861
**Date:** 2019-10-09
**Day of week:** Wednesday
**Weather:**
**Analyst:** B Burk




## Intersection Count Summary

10:20 - 10:34

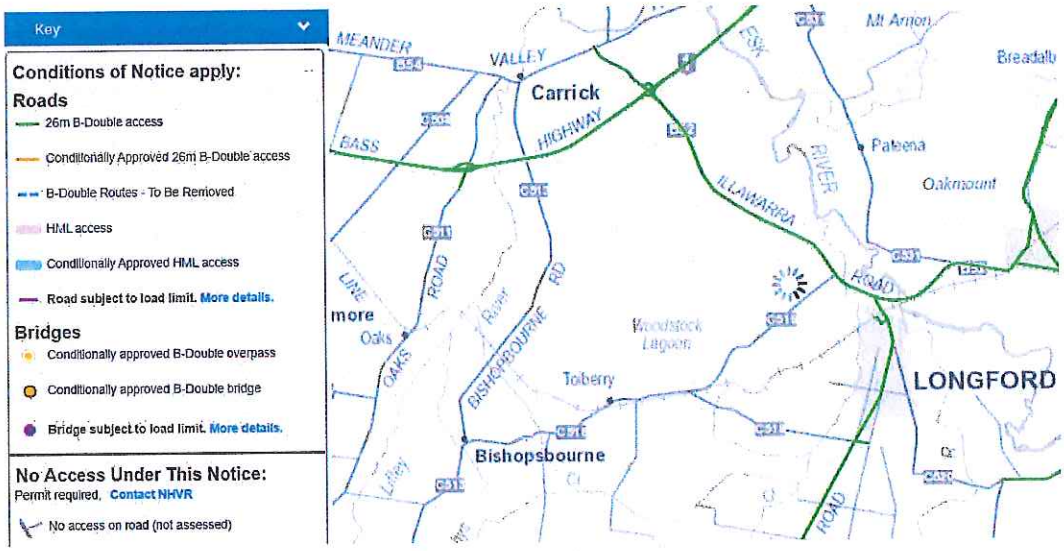
| | SouthBound | | | Westbound | | | Northbound | | | Eastbound | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | |
| Vehicle Total | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 3 |

# Appendix B – Safe System Assessment

**Safe System Assessment** **Existing situation Coach Lane**

| | | Run-off-road | Head-on | Intersection | Other | Pedestrian | Cyclist | Motorcyclist | |
|---|---|---|---|---|---|---|---|---|---|
| Exposure | Justification (AADT 40vpd) | Very low traffic volume and no reported crashes. | Very low traffic volume and no reported crashes. | Low traffic volume on major Road (200vpd) and minor road (40vpd)and no reported crashes, simple junction layout. | Some heavy vehicles | Some occasional pedestrian activity ( 20 pedestrian movements per day) | Low volumes | Low volumes | |
| | Score /4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Likelihood | Justification | 4.5m wide straight gravel road in fair condition, some delineation with guideposts, no through road, level ground on roadsides occasional roadside hazards i.e trees and poles within the clear zone | 4.5m wide straight gravel road in fair condition, some delineation with guideposts, no through road, level ground on roadsides occasional roadside hazards i.e trees and poles within the clear zone | Simple junction layout with good sight distance and forgiving roadsides | Road suitble for some heavy vehicles | Edge of road suitable for pedestrians | No specific facilities provided | Variable gravel road surface for motorcyclists | |
| | Score /4 | 1 | 1 | 2 | 1 | 1 | 1 | 2 | |
| Severity | Justification (80km/h speed limit) | Odd roadside hazard - low to moderate speed environment (50 km/h) | Low to moderate speed environment (50 km/h) | Moderate speed environment (60km/h on major road). | Low to moderate speed environment (50 km/h) | moderate to high speed for pedestrians | moderate to high speed for cyclists | moderate to high speed for motor cyclists | |
| | Score /4 | 1 | 2 | 2 | 1 | 3 | 3 | 3 | Total /448 |
| Product | Total Score /64 | 1 | 2 | 4 | 1 | 3 | 3 | 6 | 20 |

# Appendix C – Tas. 26m B Double Network



**REFERRAL OF DEVELOPMENT APPLICATION PLN-20-0002 TO WORKS & INFRASTRUCTURE DEPARTMENT**

**Property/Subdivision No:** 101000.346
**Date:** 17 January 2020
**Applicant:** 6ty° Pty Ltd
**Proposal:** 6-lot subdivision & vegetation removal (vary frontage width diameter & access provisions; un-serviced area)
**Location:** 995 Bishopsbourne Road, Bishopsbourne

W&I referral PLN-20-0002, 995 Bishopsbourne Road, Bishopsbourne

Planning admin: W&I fees paid.

**Jonathan - if you require further information, advise planning section as soon as possible – there are only 14 days from receipt of permitted applications and 21 days from receipt of discretionary applications to stop the clock.**

Please inspect the property and advise regarding stormwater/drainage, access, traffic, and any other engineering concerns.

| | |
|---|---|
| Is there is a house on one of the lots? | *Yes* |
| Is it connected to all Council services? | *Stromwater detained internally* |
| Are any changes / works required to the house lot? | *No* |
| Are the discharge points for stormwater, infrastructure that is maintained by Council? (This requires a check to ensure the downstream infrastructure is entirely owned, maintained, operated by Council and have been taken over as Council assets.) | *N/A* |

**Stormwater:**

| | |
|---|---|
| Does the physical location of stormwater services match the location shown on the plan? (Requires an on-site inspection) | *N/A* |
| Is the property connected to Council's stormwater services? | *No* |
| If so, where is the current connection/s? | *N/A* |
| Can all lots access stormwater services? | *N/A* |
| If so, are any works required? | *No* |
| Is stormwater detention required | *Not as part of subdivision permit* |
| Has a stormwater detention design been submitted | *N/A* |
| If so, is it designed for 20- year ARI with overland flow path to road or any other low risk Council approved place of discharge. | *N/A* |
| If no to above , has the design for 100 – year ARI been done. | *N/A* |
| If yes to any of the above, does it comply with Councils stormwater policy | *N/A* |
| Is the design approved by works & infrastructure | *N/A* |
| Please quote drawing numbers and any other relate documentation (email etc.) | *#:* |
| Additional Comments/information | *N/A* |
| **Stormwater works required:** | |
| *None* | |

| | |
|---|---|
| Is there kerb and gutter at the front of the property? | *No* |
| Are any kerb-and-gutter works required? | *No* |

**Road Access:**

| | |
|---|---|
| Does the property have access to a made road? | *Yes* |
| If so, is the existing access suitable? | *Yes* |
| Does the new lot/s have access to a made road? | *Yes* |
| If so, are any works required? | *No* |
| Is off-street parking available/provided? | *Yes* |
| **Road / access works required:** | |
| *Investigate whether road can be sealed* | |
| Is an application for vehicular crossing form required? | *Yes* |
| Is a footpath required? | *No* |
| Extra information required regarding driveway approach and departure angles | *No* |
| Are any road works required? | |
| Are street trees required? | *No* |
| Additional Comments: | An Engineer's design **is not** required. |

Engineer's comment:

**WORKS & INFRASTRUCTURE DEPARTMENT CONDITIONS**

**STANDARD CONDITIONS FOR SMALL SUBDIVISIONS**

W.2 Access (Rural)

a) A driveway crossover apron must be constructed from the edge of Coach Lane to the property boundary of each lot in accordance with LGAT standard drawing TSD R03.

b) Access works must not commence until an application for vehicular crossing has been approved by Council.

W.3 As constructed information

As Constructed Plans and Asset Management Information must be provided in accordance with Council's standard requirements.

W.4 Municipal standards & certification of works

Unless otherwise specified within a condition, all works must comply with the Municipal Standards including specifications and standard drawings. Any design must be completed in accordance with Council's subdivision design guidelines to the satisfaction of the Works & Infrastructure Department. Any construction, including maintenance periods, must also be completed to the approval of the Works & Infrastructure Department.

W.5 Works in Council road reserve

a) Works must not be undertaken within the public road reserve, including crossovers, driveways or kerb and guttering, without prior approval for the works by the Works Manager.

b) Twenty-four (24) hours notice must be given to the Works & Infrastructure Department to inspect works within road reserve, and before placement of concrete or seal. Failure to do so may result in rejection of the vehicular access or other works and its reconstruction.

W.8 Pollutants

a) The developer/property owner must ensure that pollutants such as mud, silt or chemicals are not released from the site.

b) Prior to the commencement of the development authorised by this permit the developer/property owner must install all necessary silt fences and cut-off drains to prevent soil, gravel and other debris from escaping the site. Material or debris must not be transported onto the road reserve (including the nature strip, footpath and road pavement). Any material that is deposited on the road reserve must be removed by the developer/property owner. Should Council be required to clean or carry out works on any of their infrastructure as a result of pollutants being released from the site the cost of these works may be charged to the developer/property owner.

*Jonathan Galbraith (Engineering Officer)*
*Stormwater discussed with Cam Oakley 24/2/20 – Agreed that the lots are large enough for internal detention which can be designed at the building permit stage.*
*Leigh McCullagh (Works Manager) Road width and surface discussed 3/3/20*
*Date: 3/3/20*

## Rosemary Jones

**From:** Des Jennings
**Sent:** Friday, 17 January 2020 11:56 AM
**To:** NMC Planning
**Subject:** Request for cash in lieu of POS

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

**Categories:** Sent to ECM

Hi Rosemary,

It is agreed to accept the cash in lieu of open space.

Can you also confirm the amount we are charging per lot? Thanks Des

*Des Jennings*

General Manager | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: des.jennings@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

NORTHERN MIDLANDS COUNCIL

employer of choice

*Tasmania's Historic Heart*

**From:** NMC Planning <planning@nmc.tas.gov.au>
**Sent:** Friday, 17 January 2020 11:50 AM
**To:** Des Jennings <des.jennings@nmc.tas.gov.au>
**Subject:** Request for cash in lieu of POS

Good morning Des,

Please see attached documents requesting cash in lieu for a 6 lot subdivision at Bishopsbourne.

Kind regards,

*Rosemary Jones*

Administration Officer - Community & Development | Northern Midlands Council
Council Office, 13 Smith Street (PO Box 156), Longford Tasmania 7301
T: (03) 6397 7303 | F: (03) 6397 7331
E: rosemary.jones@nmc.tas.gov.au | W: www.northernmidlands.tas.gov.au

NORTHERN MIDLANDS COUNCIL

employer of choice

*Tasmania's Historic Heart*

Please note that due to the high volume of enquiries received, officers will be available for phone and face to face appointments to discuss building and planning matters at the following times:

- Monday - between 9:00am and 12:00pm
- Wednesday - between 2:00pm and 5:00pm
- Friday - between 9:00am and 12:00pm

NORTHERN MIDLANDS COUNCIL

| REFERRAL TO: | ENVIRONMENTAL HEALTH OFFICER |
|---|---|
| Reference no: | PLN-20-0002; 2268473 |
| Site: | 995 Bishopsbourne Road, Bishopsbourne |
| Proposed development: | 6-lot subdivision & vegetation removal (vary frontage width diameter & access provisions; un-serviced area) |
| Applicant: | 6ty°<br>P.O. Box 63<br>Riverside Tas 7250 |
| Owner: | Brent Johnson & Christine Ruth Howard |
| Referral date: | 17.01.2020 |
| Timeline: | Starting date: 02 January 2020<br>Advertised on: 18 Jan 2020<br>Closing date: 03 Feb 2020 |
| NMC contact: | Planning@nmc.tas.gov.au |
| Attachments | Application & plans |

***Effluent Disposal for low density subdivision***

A preliminary on-site wastewater evaluation report has been provided by Geoton Pty Ltd. The report has been prepared in accordance with the AS/NZS 1547: 2012 and concludes that each of the proposed lots are capable of accommodating all secondary treated wastewater from a 4 bedroom dwelling. In addition, there is sufficient area available on each proposed lot for an equivalent size reserve wastewater disposal area.

Chris Wicks
Environmental Health Officer
*21 January 2020*

29-1-2020

Damien & Amanda
Whiteley
1007 Bishopsbourne Rd
Bishopsbourne 7301
amanda.hodgetts@bigpond.com

General Manager

We are writing this letter in regards to the application
- Ref no: PLN-20-0002
- Site: 995 Bishopsbourne Road
  Bishopsbourne 7301

Proposal: 6-lot Subdivision & Vegetation removal
(vary frontage width diameter & access provisions; un-serviced area)

We have many concerns about this application but our main concern is the speed limit on Coach lane and the extra traffic on a already busy road.
We understand that the current speed limit is 80 kph. Our children walk this road twice a day, five days a week to catch a School bus and our concern is for there Safety.
We would like to ask if the speed limit could be reduced to 40 kph and signs be put up at either end of the Coach Lane This laneway is already a very busy road with trucks, tractors and cars and 80 kph in a town boundary is way to fast.
We also are concerned about the width of the road. If the subdivision was to go ahead there is no way that there would be enough room for two cars to pass and nowhere for our kids to get over so they are not in the path of the cars.
We are not in favor of this Subdivision and would really like to See all representations you recieve looked into properly.

As parents all we want is for our Children to be able to walk safely to and from a school bus.
Extra traffic also means more dust. Dust is not healthy and having dust blow around our house and in our windows is terrible.
We hope that you take the time to look into everything we have written in our letter.

Thankyou

Damien and Amanda Whiteley

Damien's Contact Details
Mobile : 0417 583 263
email : damien.whiteley@elders.com.au

Ivan Badcock
1095 Bishopsbourne Road
Bishopsbourne 7301

Email: - ibadcock@hotmail.com
Telephone – Home – 6397 3558
Mobile – 0439 653 597


28 January 2020

Mr. Des Jennings
General Manager
Northern Midlands Council
13 Smith St
Longford 7301

Dear Des re 6 – lot subdivision, 995 Bishopsbourne Rd., Bishopsbourne
Your Reference PLN – 20 – 0002

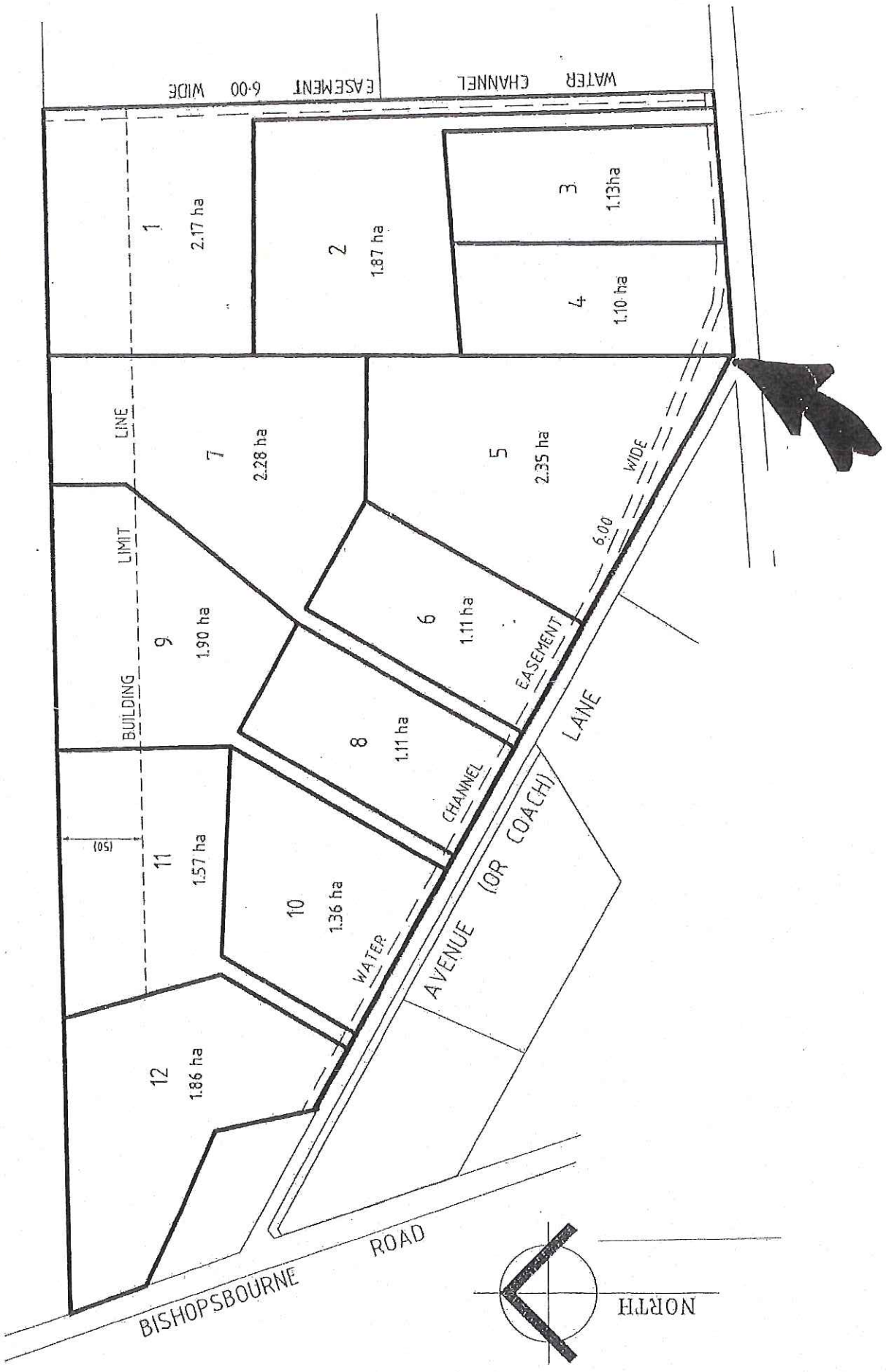
Thanks for your advices received 20 January 2020. My comments are as follows-

1. The establishment of five lot subdivision, plus the existing dwelling is not in keeping with the current town layout, most holdings being larger. My recommendation is to limit the area to three blocks, existing and two new blocks. This was the layout when the subdivision was first approved in 1999. See attached plan showing Lot 10 (1.36ha), Lot 11 (1.57ha) and Lot 12 (1.86ha).
2. Road Sealing – the original plan required sealing as a dust control measure but when the plan was amended to reduce block numbers along Coach Lane the requirement was waived, with a gravel road permitted. As dust will still be an issue, pavement sealing is recommended.
3. Hedge Removal – this was an issue when the subdivision was first approved and retention was a requirement of approval. Should it be a sight and safety issue a reduction in height of the hawthorn hedge should be sufficient, thus retaining retention of the hedge. (See attached Examiner newspaper report of 18/12/1898).
4. Coach Lane Access – Currently this is via the western entrance from the Bishopsbourne road with the eastern junction shut off by a gate, this for safety reasons. It is requested that this not be changed.

Yours faithfully

Ivan Badcock

Ivan Badcock



# Subdivision approved, but the hedge remains

A 12-block, 21ha subdivision in Bishopsbourne was given the go-ahead yesterday by the Resource Management and Planning Appeal Tribunal.

The subdivision, off Coach Lane, was approved on condition that:

- The 100 year-old, historic hawthorn hedge running down the lane was protected; and
- The irrigation channels to existing and new blocks be protected and maintained.

Developer Ivan Badcock said he would now proceed with the subdivision of one block and others as sold.

The tribunal rejected neighbouring farmer Peter Scott's claims that the subdivision would affect the quality of water in his dam, interrupt the irrigation flow and create a weed problem for his truffle crop.

It also rejected the probability that new residents would complain about existing farm practices but conceded that domestic animals, such as dogs, were a potential problem.

General Manager
Northern Midlands Council

Peter and Janette Scott
991 Bishopsbourne Road
Bishopsbourne 7301
Jcscott991@gmail.com
Mobile: 0448269802

28th January 2020

To the General Manager and Councillors of the Northern Midlands Council,

This is our third representation to the Council regarding a subdivision proposal for next door to our farm. The first was in 1998/99 when the land was subdivided into 7 lots, the second was in 2004 when one lot next door to us was subdivided into 3 lots and now we have this 5 lot subdivision.

Each time we have gone through the process to try to safeguard our right to farm. It is now proposed that the adjoining block be made into 5 extra lots, 3 of which are on our boundary fence, which we currently utilise as a stock laneway. It is our opinion that these blocks, being within 100 metres of our existing sheep yards may well create a conflict of interest as the noise and smell from here is in a direct north-westerly direction of the proposed house sites. (see Attached sheet No. 1) This is a working farm with, at times, constant noise from sheep movements in and out of the nearby laneway, lamb weaning etc.

As per Attached sheet No. 2, a 50-metre building exclusion zone was put in place when the original subdivision was granted.

To add to our concerns, we were impacted over a period of 5 years from the incessant barking of the neighbour's dogs, which we complained to the Council about, lodging formal complaints, with no resolution. With 5 new lots, we are concerned a repetition of this distressing occurrence.

Over the past 20 years we have been subjected to 3 major cat problems with toxoplasmosis, verified by the DPI through lamb carcass testing, resulting, in the worst case, of the loss of close to 100 lambs. This will only increase as a problem in this area with more domestic pets on smaller blocks adjoining farmland.

At the granting of the permit to Ivan Badcock for the original subdivision in 1999, one condition imposed by the Council was the protection of the existing hawthorn hedge on Coach Lane. This was one condition the villagers opposed to the development were adamant was necessary as it was deemed to be around 100 years old. (Attached sheet No. 3) and newspaper article of the decision (Attached sheet No. 4). From the submission there seems to be no regard, with large parts to be removed.

In 2004 when Leonie Rowlings, who owned the lot next door to us (995) applied to subdivide into 3 lots, one condition imposed by the Council concerned the sealing of Coach Lane to her proposed 3 lots (Attachment sheet No. 5). Subsequently the permit expired, and the subdivision lapsed. Is this condition to be imposed for this development, should it proceed?

Regarding Coach Lane as a Bishopsbourne resident, we are concerned about the intersection if more vehicles are to be travelling along there, as the current angle onto Bishopsbourne Road is highly dangerous and should be redesigned to cope with the additional traffic.

To sum up, we have experienced severe emotional and financial impact on our lives over the past 20 years with the land being rezoned into village on our boundary and then these subsequent subdivisions. We have no personal quarrel with our existing neighbours, but they must understand how this affects our day-to-day farming life.

Peter Scott and Janette Scott

P & J Scott

ATTACHMENT 1.

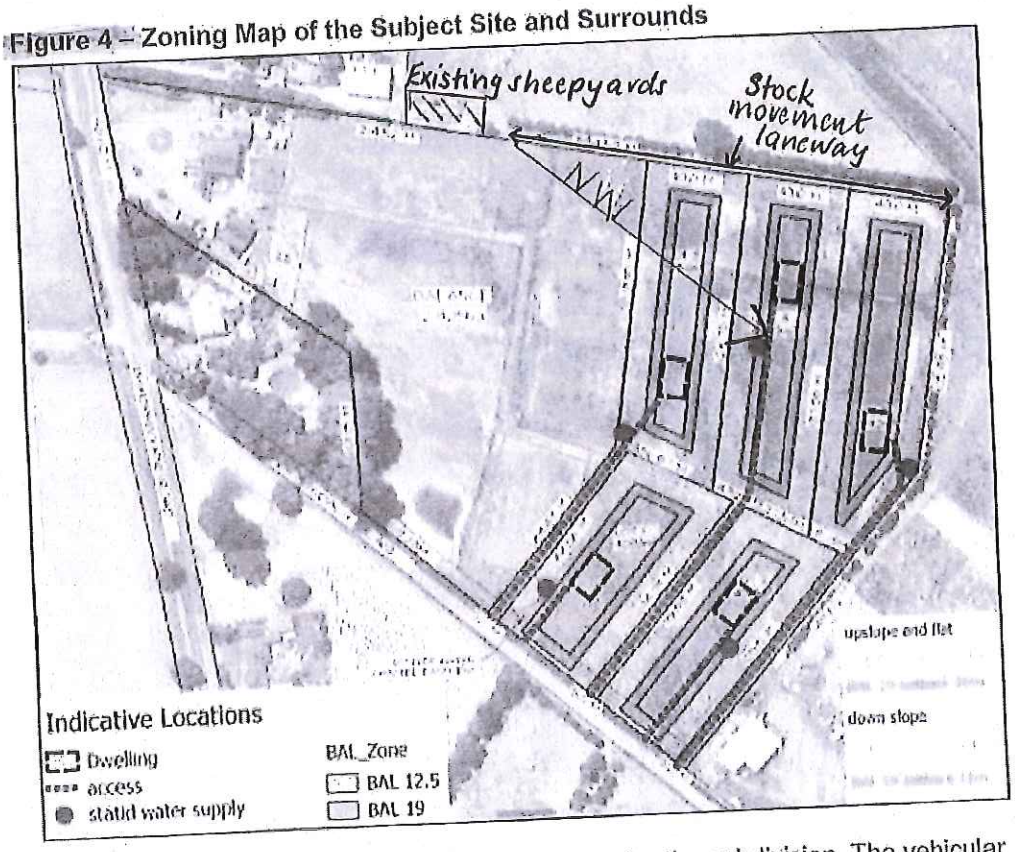


## 3.2 Bushfire Assessment

Livingston Natural Resource Services (September 2019) was engaged to prepare a Bushfire Hazard Management Report, incorporating a certified Bushfire Hazard Management Plan ("BHMP"), to address the applicable standards in the Bushfire-Prone Areas Code of the Scheme.

As illustrated by Figure 7 below, the certified BHMP demonstrates that each lot within the subdivision is capable of containing a hazard management area (HMA) between bushfire prone vegetation (grassland) and a building area that have dimensions equal to the separation distances required for BAL 19 and BAL 12.5. The relevant dimensions are to 10m to the north, east and west, 11m to the south and 1m from Coach Lane for BAL 19, and 14m to the north, east and west, 16m to the south and 6m from Coach Lane for BAL 12.5.

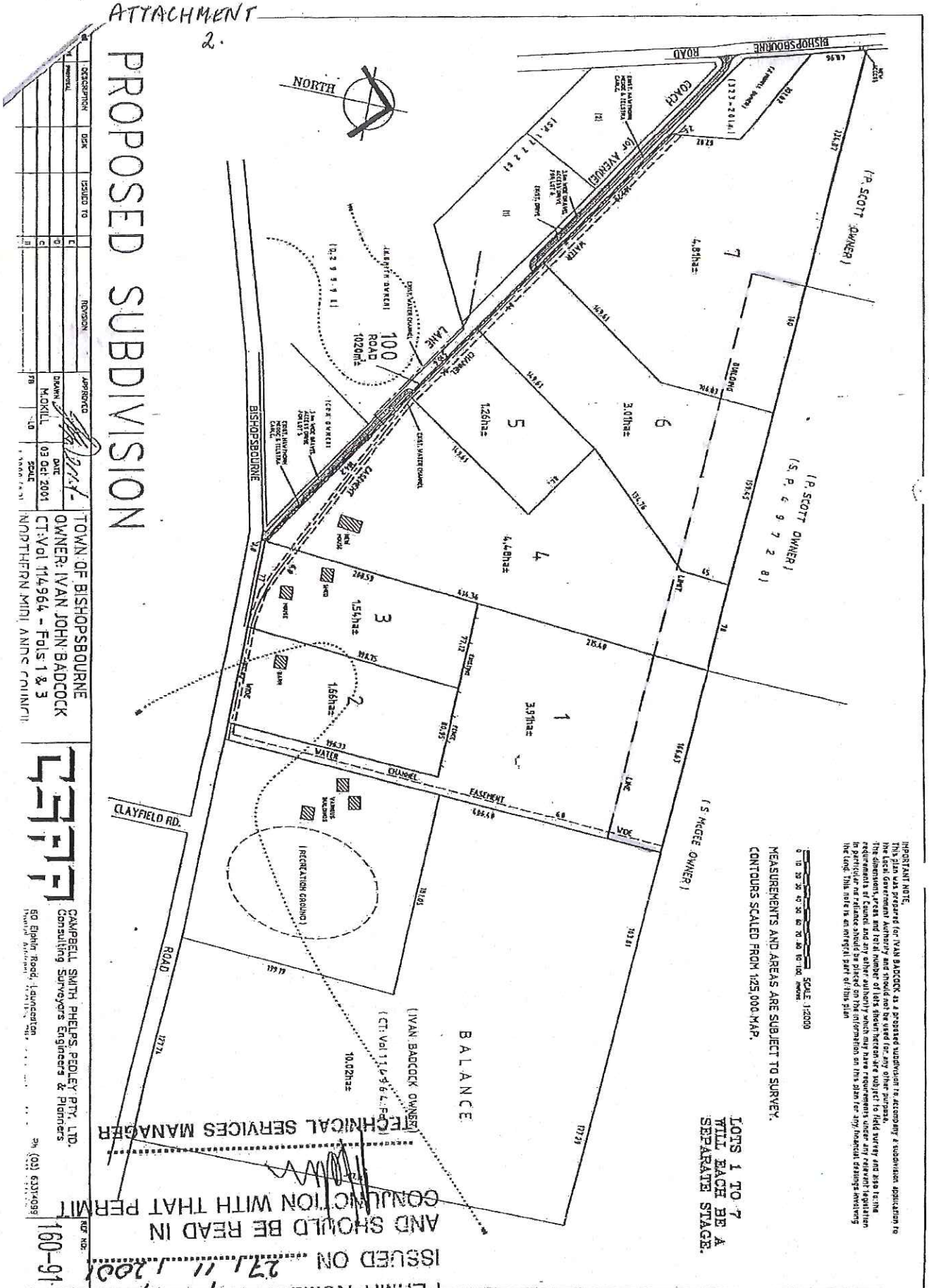
**Figure 4 – Zoning Map of the Subject Site and Surrounds**




No additional road infrastructure is required to service the subdivision. The vehicular access within each lot will need to comply with the applicable stipulations in the Bushfire-Prone Areas Code. Future dwelling development within each lot will need static fire-fighting water supplies with a minimum capacity of 10,000 litres.

EXHIBITED

ATTACHMENT 2.




| | DESCRIPTION | DATE | ISSUED TO | DIVISION | APPROVED |
|---|---|---|---|---|---|
| A | PRELIMINAL | | E | | |
| B | | | D | | |
| C | | | C | | DRAWN |
| D | | | B | | M.O'KILL |
| E | | | A | | LD |

TOWN OF BISHOPSBOURNE
OWNER: IVAN JOHN BADCOCK
CT:Vol 114964 - Fols 1 & 3
NORTHERN MIDLANDS COUNCIL

DATE 03 Oct 2001
SCALE 1:2000

CAMPBELL SMITH PHELPS PEDLEY PTY. LTD.
Consulting Surveyors Engineers & Planners
60 Elphin Road, Launceston
Phone (03) 6331 4099

REF NO. 160-91

ATTACHMENT 3

NORTHERN MIDLANDS COUNCIL

# Northern Midlands Planning Scheme 1995

## Planning Permit 27/003/263

In accordance with Division 2 of the *Land Use and Planning Approvals Act 1993*, the Northern Midlands Council (Planning Authority) hereby grants a permit –

To: Campbell Smith Phelps Pedley obo I Badcock
Of: PO Box 284
LAUNCESTON TAS 7250



**ADDRESS OF LAND:**

1095 Bishopsbourne Road, Bishopsbourne P/N: 101000.34

**THIS PERMIT ALLOWS FOR:**

The land to be used and developed for a *7 lot subdivision* in accordance with application 27/003/263 and the endorsed drawing numbered P1 and subject to the following conditions:

**1. Layout not Altered**
The use and/or development as shown on the endorsed documents must not be altered without the written consent of the Technical Services Manager.

**2. Sealing of Plans**
The final plan of survey will not be sealed until all conditions have been complied with.

**3. Access Road**
(i) The owners of lots 5 & 6 shall maintain their sections of the crushed rock access road in a good and trafficable condition.
(ii) Driveway accesses to all lots shall be constructed in accordance with Standard Drawing 1012 as attached.
(iii) Accesses to the proposed lots from Coach Lane, shall, to the satisfaction of Council, be constructed so as to protect the existing hawthorn hedge on the north east side of Coach Lane as far as possible.

**4. Easements**
Water channel easements shall be created on the plan in favour of all lots and the Rivers and Water Supply Commission.

**5. Payment in Lieu of Public Open Space**
The applicant shall provide a sum of $1,600-00 as a contribution in lieu of public open space payable proportionally to the number of lots in each stage.

**6. On Site Disposal Systems**
On-site disposal systems must be designed, installed and located in accordance with AS1547 (*Disposal Systems for Effluent from Domestic Premises*) and AS3500 (*National Plumbing and Drainage Code*).

P.O. Box 156
Longford Tas 7301

Telephone (03) 6397 7303
Facsimile (03) 6397 7331
www.tasmaniacentral.tas.gov.au

ATTACHMENT 4.

# Subdivision approved, but the hedge remains

A 12-block, 21ha subdivision in Bishopsbourne was given the go-ahead yesterday by the Resource Management and Planning Appeal Tribunal.

The subdivision, off Coach Lane, was approved on condition that:

- The 100 year-old, historic hawthorn hedge running down the lane was protected; and
- The irrigation channels to existing and new blocks be protected and maintained.

Developer Ivan Badcock said he would now proceed with the subdivision of one block and others as sold.

The tribunal rejected neighbouring farmer Peter Scott's claims that the subdivision would affect the quality of water in his dam, interrupt the irrigation flow and create a weed problem for his truffle crop.

It also rejected the probability that new residents would complain about existing farm practices but conceded that domestic animals, such as dogs, were a potential problem.

Attention: Mr. Michael Kelly MHA

From: Peter + Jan Scott
Bishopsbourne

Re Bishopsbourne Subdivision.

ATTACHMENT 5.

ATTACHMENT 4

# NORTHERN MIDLANDS COUNCIL

## REFERRAL OF DEVELOPMENT APPLICATION P04-286 TO ENGINEERING DEPARTMENT (MARK McGOVERN)

Property no: 101000.346
Date: 27-Aug-2004
Applicant: L Rowlings
Proposal: 3 Lot Subdivision
Location: 995 Bishopsbourne Road, Bishopsbourne

**SEWERAGE:**

Sewerage **is not** available to the land.

Refer to Environmental Health Officer for suitability of on-site disposal.

**ROAD ACCESS:**

Type and location of access required:
Lot 9 to retain existing access from Bishopsbourne Road unless otherwise requested.
Construct rural accesses to Lots 7 & 8 (and Lot 9 if requested) from Coach Lane in accordance with Standard Drawing 1012.
Accesses to the proposed lots from Coach Lane, shall, to the satisfaction of Council, be constructed to protect the existing hawthorn hedge on the north east side of Coach Lane as far as possible.

***Additional Roadworks***
The previous subdivision, under which Ms Rowlings' lot was created, required the owners of lots with access to Coach Lane to maintain their sections of the crushed rock access road in a good and trafficable condition.

Council's General Manager, Gerald Monson, has advised that approvals have now been obtained for the proposed unmade street scheme for Coach Lane, Bishopsbourne and the work is programmed to commence during January 2005. When the scheme is completed, the final costs will be ascertained and accounts issued, which is estimated to be approximately $1500 per the four landowners who have agreed to the street construction scheme.

It is unclear from the subdivision plan if an access is required to the eastern end of the balance lot (Lot 9) from Coach Lane. If access at this point is required, the applicant would be required to seal Coach Lane from its northwestern end at Bishopsbourne Road to the eastern boundary of Lot 9 (approximately 260m). It is approximately 350m from this point to the southeastern end of Coach Lane. If no access is required to Lot 9, this should be noted on the plan and the applicant would be responsible for sealing the

lane from its northwestern end at Bishopsbourne Road to the eastern side of the access to Lot 7 (a minimum distance of approximately 190m).

**WATER SUPPLY:**

Council **cannot supply** water.

Water works required:
The site does not have access to Council's water services and, in accordance with the Council's policy, a service will not be provided to the dwelling. Accordingly the development must provide a tank sufficient to meet their domestic needs and fire-fighting needs.

**Water and Fire Protection**
An on-site storage tank, of which a minimum quantity of 20,000 litres shall be exclusively reserved and accessible for fire-suppression purposes and contain couplings as approved by the Tasmanian Fire Service, shall be provided (in accordance with the water supply requirements of the Tasmanian Fire Service Publication, *Planning Conditions for Development in Bushfire-Prone Areas).*

**STORMWATER:**

All lots **can** be served to water storage tanks or by on-site disposal.

Kerb and gutter **is not** required.

**ADDITIONAL COMMENTS:**

***Easements***
Water channel easements shall be created on the plan in favour of all lots and the Rivers & Water Supply Commission.

An Engineer's design **is not** required.

Estimate of cost of works (for calculation of bond) **$ N/A**

Mark McGovern
**ENGINEERING OFFICER**

Date: 10 September 2004

The General Manager

Northern Midlands Council

PO Box 156,

Longford, Tasmania, 7301

Dear Mr Jennings,

Re Development Plan Application 20-0002

As outlined in this planning development application, we take this opportunity to submit an objection to this proposed 5 Lot development at 995 Bishopsbourne Road, Plan 20-0002 and have outlined our concerns below.

We are residents of Bishopsbourne at 1005 Bishopsbourne Road, Certificate of Title Volume 212897 Folio 1, and as neighbours of the applicants at 995 Bishopsbourne Road, we will be directly and adversely impacted by this proposed development.

We have concerns in these areas that have not been addressed in the planning application.

**1 Impact on the current village environment.**

Our purchase of 1005 Bishopsbourne Road in 2011 was influenced by the rural village setting with open space and widely spaced houses. Our outlook and our lifestyle will be adversely affected and changed by the concentration of dwellings proposed in this application. This concentration of dwellings does not match the distribution of houses and blocks in the remainder of the village. The original subdivision of this land was done with a specific intention to provide larger blocks to maintain a rural village setting and to avoid a concentration of dwellings in any one area – we support this approach.

Please note that the aerial photos used in this application are old photos and the apparent barrier of vegetation shown on our eastern boundary is no longer there. This will result in a direct and open view of all dwellings, associated outbuildings and activities if this application proceeds to development. This significantly and adversely changes the village setting that attracted us to Bishopsbourne in 2011.

**2 Increased traffic flow on Coach Lane.**

Coach Lane is a single lane gravel road that adjoins our southern boundary. The stated 250% increase in average daily traffic movement along Coach Lane is significantly higher than the expected traffic flow at purchase in 2011. Please also refer to a letter written recently from the Bishopsbourne Progress Association to the Northern Midlands Council regarding traffic flow in Coach Lane.

**2.1 Increased Dust Levels.**

The traffic assessment of Coach Lane was done during September/October 2019 at a time when the soil was still retaining some moisture and dust levels were not reflective of the dust levels experienced during other parts of the year.

Our concerns include an increased likelihood of dust settling on and in our residence and particularly on our roof, therefore increasing potential contaminants in our collected rainwater used for our drinking and household use. While we have tried to maintain a vegetation barrier between our house and Coach Lane, some dust does reach our house. We accepted the existing level at purchase in 2011 but are now concerned the 250% increase in traffic flow from this proposed development will result in a higher road dust load both on our residence and in our drinking water which will be to our detriment.

The science of climate change indicates we are likely to experience significantly increased lengths of dry periods which will exacerbate this issue for us. As well, periods of high road use associated with building activity on these potential blocks will increase this issue further for us.

We are also aware through local communications that Council has, in the past, required Coach Lane be sealed should any further development take place along it. We support the continuation of this requirement.

### 2.2 Road Safety

We have a safety concern with the expected increase in traffic entering and exiting Coach Lane. The entry of Coach Lane to Bishopsbourne Road is at approximately 45 degrees and not as a right angle as shown in some of the diagrams. Our driveway immediately adjoins the entry of Coach Lane onto Bishopsbourne Road. We would like a further assessment of this junction to make sure it is deemed safe and suitable for the increase in traffic flow and will not place us at increased risk as we use our exit onto Bishopsbourne Road.

The traffic report recorded a 60 kph speed zone for Bishopsbourne Road and an 80 kph speed zone for Coach Lane. However, the report did not record that this speed limit on Bishopsbourne Road is regularly and frequently exceeded by traffic using Bishopsbourne Road and which potentially makes exit from the 45 degree entry from Coach Lane more hazardous. Approach to this junction at 80 kph on Coach Lane would also be hazardous.

## 3 Drainage

The drainage plan addresses stormwater run off from each possible dwelling but does not address times of prolonged and/or heavy rainfall over the whole area. As stated, the area is flat and the soil has low permeability and after prolonged or heavy rainfall, the soil becomes saturated and subsequent rainfall accumulates on the surface as surface water which can remain there for a period of days to weeks depending on weather conditions.

As the level of this surface water rises, there is overground flow towards and into the eastern and southern parts of our property. To date our house has not been affected to our knowledge during its 140 year presence on this site, due largely to this area of flat ground that allows this water to spread out. We have a concern that the earthworks associated with developing driveways and the building of dwellings and sheds will result in an increase in the level of a significant amount of area in this development that will direct more surface water into our property that may then threaten our house.

The science of climate change indicates that rainfall events will increase in intensity and this will exacerbate this problem for us.

4 Visual Amenity and History.

Currently, our outlook to the east is of a pleasant rural setting and is something we did not expect to change following our settling here.

This outlook will be significantly disrupted by the proposed concentration of dwellings and compounded by sheds and other outbuildings. Further, we are concerned that above ground power lines will further detract from our outlook.

We are also concerned about the proposal to remove the old heritage (120 years plus according to local information) hawthorn hedge along Coach Lane. This hedge was required by Council to be preserved during the initial development of these blocks and we do not support the removal of this piece of local history. Our own observation is that this hedge also forms an important shelter for small birds found in the area.

In conclusion, we are aware this development is driven by the desire for monetary gain by the applicant but we feel strongly that this should not be at the ongoing expense of the residents in the village.

Yours sincerely

Sue and Simon Bewg

1005 Bishopsbourne Road

Bishopsbourne

S Bewg 28/01/2020

Susan M Bewg 28/1/20.

0403 050 359

27 Coach Lane

Bishopsbourne. 7301

31.01.2020

The General Manager

Northern Midlands Council

Smith St.

Longford. 7301

Re PLN 20-0002 195 Bishopsbourne Rd.

Dear Sir,

I refer to the proposed 6 plot subdivision on Coach Lane Bishopsbourne and wish to object on the following grounds.

1, The "heritage" hedge is proposed to be cut for entrances in several places, basically destroying the heritage value of the hedge, and destroying the wind break it currently gives us from the dust on the gravel road.

2, The dust problem for us will become immense as there will be multiple cars going in multiple driveways, one long driveway right on our boundary.

3, The gravel road was to be tarsealed if any subdivision was put through on Bishopsbourne Rd, and we were advised by M&A Prewer that they did not subdivide because of this requirement.

4 Coach Lane is essentially one Lane so traffic going in and out need to be very careful in passing as the speed limit currently in Bishopsbourne is 60 kph. If our truck or any machinery comes out from our place then passing is not possible and one vehicle needs to wait, which is what currently happens with our only neighbour currently.

Further traffic on this road from a subdivision might not consider waiting for larger vehicles.

Yours faithfully

BM & DR Dobson.

Our Ref: 19.182

Measured form and function

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10 March 2020

Planning Department
Northern Midlands Council
By Email Only: planning@nmc.tas.gov.au

Dear Sir/Madam,

**PLN-20-0002 – SUBDIVISION, 995 BISHOPSBOURNE ROAD, BISHOPSBOURNE – RESPONSE TO REPRESENTATIONS**

Please find the following response to the issues raised in the representations to PLN-20-0002 for Council's consideration.

## 1. Traffic Impacts within Coach Lane

The application includes a Traffic Impact Assessment ("TIA") prepared by Traffic & Civil Services (December 2019) which considers the impact of increased traffic volumes as a result of the subdivision and future dwelling development. It is anticipated that the traffic volumes in Coach Lane will increase from 20 vehicles per day ("vpd") to 50 vpd. The existing traffic volumes are very low and will remain very low. The volumes are typical of unsealed rural roads and well within the capacity of Coach Lane.

Notwithstanding that Coach Lane is subject to a default speed limit of 80km/h, the TIA estimates the actual speed environment is 50km/h given the road characteristics. Any proposal to change the posted speed limit would determined by the Commissioner for Transport upon receipt of any application recommendation from the Department of State Growth, and is outside the scope of this planning application.

The TIA considers potential impacts for the full range of road users, including pedestrians. Having regard to the vehicle speed environment, the TIA identifies that there will be no adverse impacts for pedestrians given the very low traffic volumes and because the edge of the road is suitable for the occasional pedestrian activity associated with Coach Lane.

## 2. Existing Coach Lane / Bishopsbourne Road Intersections

The TIA identifies that the intersection of Coach Lane with Bishopsbourne Road to the west of the site has a simple layout that is fit for purpose. It is adequate for the anticipated traffic volumes associated with the proposal. The available safe intersection site distances ("SISDs") viewed from Coach Lane in both directions, for the posted speed limit of 60km/h along Bishopsbourne Road, exceed the requirements in Table E4.7.4 of the *Northern Midlands Interim Planning Scheme 2013* ("Scheme") by 90%. Therefore, even if there are vehicles that exceed the posted speed limit in Bishopsbourne Road, the available SISDs are adequate.

The application does not include any proposal to alter the existing access restrictions that apply at the eastern end of Coach Lane.

## 3. Request for Coach Lane Sealing and/or Widening

There is no applicable standard under the Scheme which would require the road to be sealed and widened. Additionally, such works are not considered to be warranted given the very low traffic volumes in Coach Lane at present and as a result of the proposal. The TIA identifies that the road, in its current form, is suitable for use as an access road. Further, the maintenance costs involved in sealing gravel roads, in order to minimise dust, can typically only justified where traffic volumes exceed 200 vpd. There are other existing properties that use Coach Lane for vehicular access, and it is anticipated that traffic volumes on the road as a result of the proposal will be 50 vpd.

Therefore, in the event that Council requires the road to be upgraded, it is considered that any requirements imposed on our client should be limited to the making of a contribution for those works.

## 4. Hawthorn Hedge Removal

The removal of the hedge is required in order for the proposed vehicular accesses associated with the lots within the subdivision to comply with the safe intersection site distance requirements in Clause E4.7.4 of the Scheme. The requirements in the current Scheme have been introduced since the previous subdivisions associated with the site and adjacent properties were approved. The hedge is not an item, and is not associated with a place, that is listed in the Local Historic Heritage Code of the Scheme or the Tasmanian Heritage Register.

If required by Council, it would be possible to lower the height of the hedge allowing it to be retained provided the requirements of Clause E4.7.4 are satisfied. This would be preferable to replanting a new hedge, within the site, with a sufficient setback to establish the required sight distances.

## 5. Consistency with the Current Lot Layout and Rural Setting within Bishopsbourne

The subject site and the remainder of the Bishopsbourne settlement is zoned Village under the Scheme. The minimum lot size in the Village Zone is 800m$^2$. The proposed lots will vary between 4,019m$^2$ and 5,792m$^2$ in area. Therefore, notwithstanding the lot sizes created by previous subdivisions associated with the site and adjacent properties, the proposal is well above the minimum lot density that is allowable under the Village Zone provisions.

In any event, the existing residential lots within Bishopsbourne have varying sizes and configurations. There are existing lots that are both smaller and larger than the proposed lots. Therefore, it is considered that the subdivision will not be out of character with the existing pattern of lots within the settlement and will provide for the amenity of residents.

Future dwelling development will need to comply with the development standards for the Village Zone, which will ensure that adequate privacy, separation, open space and sunlight for existing and future residents will be provided.

## 6. Potential Conflict with Adjoining Farmland

The adjoining farmland is located within a Rural Resource Zone to the north of the site. The site is zoned Village which subdivision allows to a higher density than is currently proposed. The zone provisions do not contain any use standards applicable to the management of domestic animals, or any development standards requiring an increased setback from land within the Rural Resource Zone. The 50m building limit line referred to in the relevant representation is not registered on the title for the site. Notwithstanding, the proposed lots adjoining the farmland (Lots 3-5) will have a minimum depth, measured from the shared boundary, of 119.95m. This aspect of the subdivision design ensures that future dwellings on those lots will be capable of being located to minimise the potential for land use conflict.

## 7. Drainage

The preliminary stormwater assessment which accompanies the application has been prepared by suitably qualified geotechnical consultants (Geoton September 2019) in accordance with the relevant standard AS/NZS 3500.3 – Stormwater Drainage. The assessment demonstrates that each lot will be capable of accommodating stormwater disposal within their boundaries via detention tanks and absorption/detention beds.

Please do not hesitate to contact me should any clarification be required.

Yours faithfully
**6ty° Pty Ltd**

Ashley Brook

Ashley Brook
Planning Consultant