

PLAN 2

PLANNING APPLICATION PLN-19-0192

TANNERY ROAD, LONGFORD

ATTACHMENTS

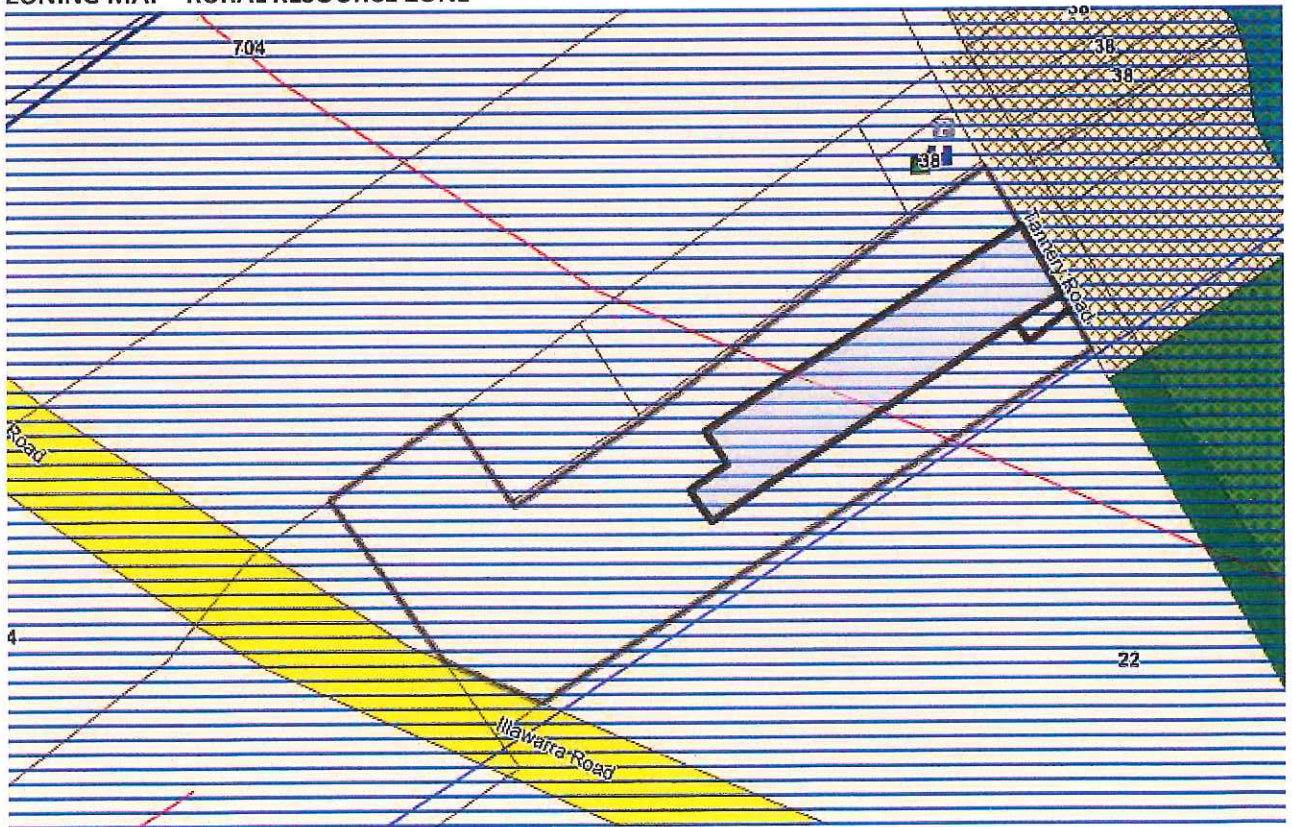
- A Application & plans, correspondence with applicant
- B Responses from referral agencies
- C Representation:

ATTACHMENT A

AERIAL PHOTOGRAPH & SERVICES MAP for TANNERY ROAD, LONGFORD



ZONING MAP - RURAL RESOURCE ZONE



1-235
PLANNING APPLICATION
Proposal

Description of proposal: NEW RESIDENCE

.....
.....
.....
.....
.....

(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: TANNERY ROAD, LONGFORD

.....

CT no: CT 245527 , CT 127518 & CT 233429

Estimated cost of project \$ 950,000 EX GST *(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

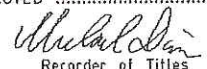
If variation to Planning Scheme provisions requested, justification to be provided:

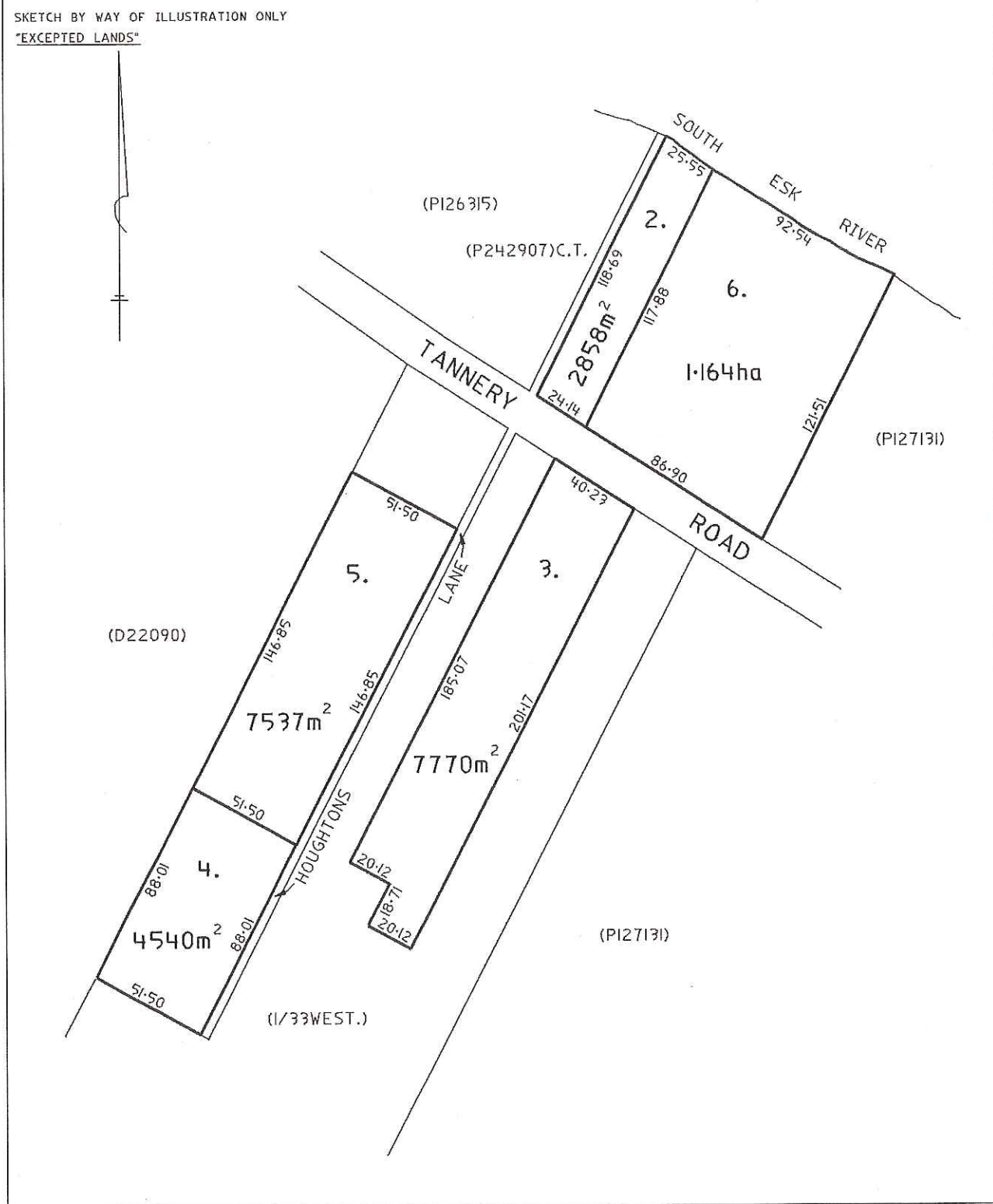
.....
.....
.....
.....
.....

(attach additional sheets if necessary)

Is any signage required? NO *(if yes, provide details)*

EXHIBITED

FILE NUMBER A.16937 GRANTEE PART OF 40-0-0 LOCATED TO SAMUEL CARTER	CONVERSION PLAN LOCATION WESTMORLAND LONGFORD CONVERTED FROM 62/2363 NOT TO SCALE LENGTHS IN METRES		Registered Number P.127518
			APPROVED 15 APRIL 1997  Recorder of Titles
MAPSHEET MUNICIPAL CODE No. 123(5039)	LAST UPI No. 5600624,25,26, 27,28	ALL EXISTING SURVEY NUMBERS TO BE CROSS REFERENCED ON THIS PLAN	DRAWN C.L.



EXHIBITED

OF D 415

ANNEXURE TO CERTIFICATE OF TITLE FOLIO OF REGISTER

VOL.

4261

FOL.

22



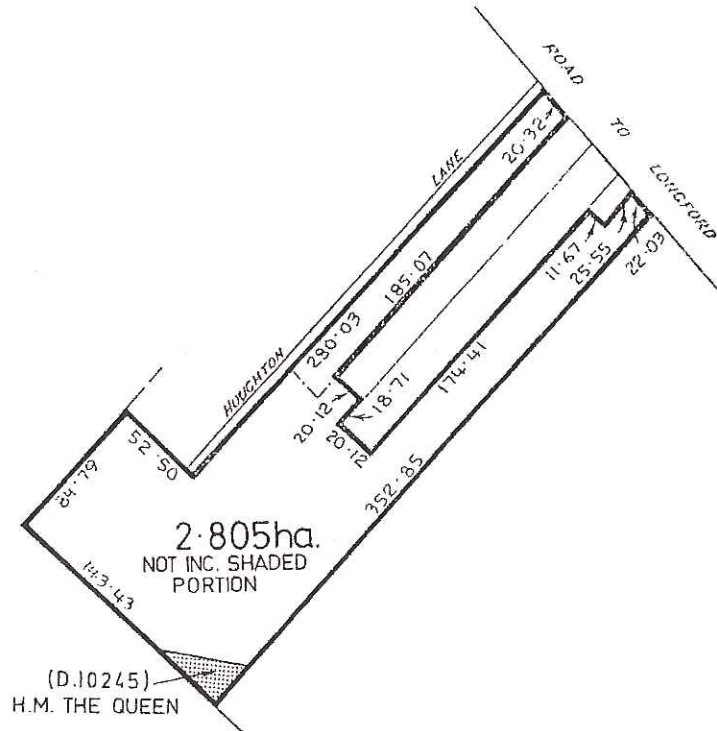
REGISTERED NUMBER

245427

Recorder of Titles

Lot 1 of this plan consists of all the land comprised in the above-mentioned cancelled folio of the Register

PH. MEAS. IN LONGFORD METRES 1/33 WEST



EXHIBITED

ORIGINAL - NOT TO BE REMOVED FROM TITLES OFFICE

R.P. 1469
TASMANIA
REAL PROPERTY ACT, 1862, as amended
NOTE—REGISTERED FOR OFFICE
CONVENIENCE TO REPLACE



CERTIFICATE OF TITLE

Register Book
Vol. Fol.
3164 56

Cert. of Title Vol. 704 Fol. 21

I certify that the person described in the First Schedule is the registered proprietor of an estate in fee simple in the land within described together with such interests and subject to such encumbrances and interests as are shown in the Second Schedule. In witness whereof I have hereunto signed my name and affixed my seal.

R.M. Ayle



Recorder of Titles.
DESCRIPTION OF LAND

PARISH OF LONGFORD LAND DISTRICT OF WESTMORLAND
TEN PERCHES AND EIGHT-TENTHS OF A PERCH on the Plan hereon.

FIRST SCHEDULE (continued overleaf)

ROBERT WALKER of Longford, Farmer.

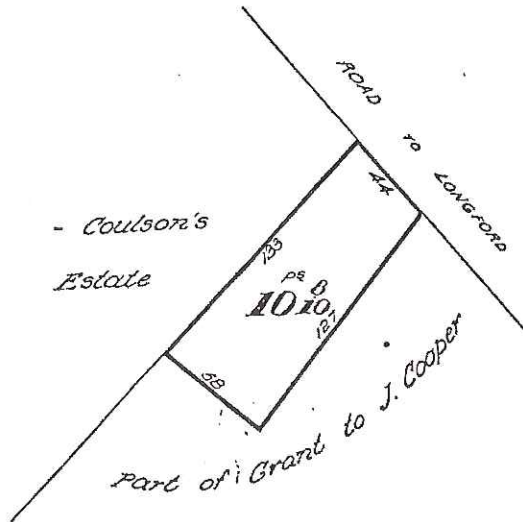
SECOND SCHEDULE (continued overleaf)

NIL

CANCELLED
- 1 MAR 1995
W. Walch
RECORDER OF TITLES
NEW TITLE ISSUED

Lot 1 of this plan consists of all the land comprised in the above-mentioned ORDER OF TITLES ARE NO LONGER SUBSISTING. cancelled folio of the Register

REGISTERED NUMBER
233429



Part of 7A-OR-25Ps. Gtd. to J. Cooper - Meas. in Links 1/33 West.
FIRST Edition. Registered
Derived from C.T. Vol. 704 Fol. 21 - Transfer, A5474 D.C. Walch.

EXHIBITED

25 November 2019

launceston
Suite 5 - 50-54 St John Street
Launceston, Tas 7250

hobart
8 Nottingham Court
Lindisfarne, Tas 7015

post
PO Box 5285
Launceston, Tas 7250

Erin Boer
Urban and Regional Planner
Northern Midlands Council
PO Box 156
Longford
TAS 7301

Re: New Residence, Tannery Road, Longford. PLN-19-0192

Dear Erin,

In response to the request for additional information, I provide the following supplementary information:

1) Floor Prone Areas Code

Response to flood prone areas code queries are addressed in the attached report from JMG. If you have any further queries on this matter please advise. The author of the report has suggested further discussing with you if there is still any uncertainty

2) Performance criteria of rural resource zone & Revised land capability report

Response to Ag report queries are addressed in the attached report from TP Jones

I also advise further in regards to 26.4.1, clause P4:

b) Existing hedge rows which are not affected by new works will be retained to maintain natural buffers

c) Proposed development setbacks are similar to adjoining development to the Northwest. There is no nearby development to the south or south east

d) Nature of potential land use is addressed in the Land Capability Report. Residential use will not have any negative effect to potential adjoining properties

e) N/A. Setback to road is 50m and is an acceptable solution

3) Revised Site Plan

An updated site plan is attached. The location of the neighbouring building has been approximated as best as possible from ListMap aerial photos

4) Site Specific Study

An attached copy of the the proforma site specific study has been competed and signed by the owner

mob 0438 581 834
tel (03) 6331 5870

email info@mjarchitecture.com.au
url www.mjarchitecture.com.au

abn 54 127 325 517

EXHIBITED

Please contact me if you require any further information or clarification

Yours Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke extending to the right.

Michael Jirku
Director

Attached: AG report (Prepared by TP Jones Agronomy Services)
Flood report (Prepared by JMG)

EXHIBITED

Amended
27.02.20

1-241

REV	REVISION DETAILS	DATE
A	ISSUED FOR PLANNING PERMIT	20/1/19
B	ISSUED FOR PLANNING PERMIT	20/02/20

PRELIMINARY DRAWING
NOT FOR CONSTRUCTION



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marchitecture

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www.marchitecture.com.au

PROJECT	NEW RESIDENCE TANNERY ROAD, LONGFORD
CLIENT	ROBERT DUFF-SILSBY
DRAWING	COVER SHEET
PROJECT No.	1811
DATE	28/11/19
REVISION	B
DRAWING No.	D00.00

NEW RESIDENCE, TANNERY ROAD, LONGFORD
PRELIMINARY DRAWING
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PROJECT DETAILS		
TITLE REFERENCE:	CTP45927, CT 127616, CT 238429	
SOIL CLASSIFICATION:	TBA	
WIND CLASSIFICATION:	TBA	
BAL RATING:	TBA	
CLIMATE ZONE:	7	
ARCHITECT ACCREDITATION No.:	CC247558	
DRAWING SCHEDULE		
DRAWING No.	DRAWING NAME	REV No.
D00.00	COVER SHEET	B
D01.01	BLOCK PLAN	B
D01.02	SECTION	B
D02.01	GROUND FLOOR PLAN	B
D02.02	ELEVATIONS	B
D03.01	PERSPECTIVES	B
D03.02	PERSPECTIVES	B



LOCATION OF NEW RESIDENCE

EXHIBITED

Amended
27.02.20

1-242

REV	REVISION DETAILS	DATE
A	ISSUED FOR PLANNING PERMIT	29/10/18
B	ISSUED FOR PLANNING PERMIT	29/10/18

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PROJECT

NEW RESIDENCE
TANNERY ROAD, LONGFORD

CLIENT

ROBERT DUFF-SILSBY

DRAWING

BLOCK PLAN

PROJECT NO.

1811

DATE

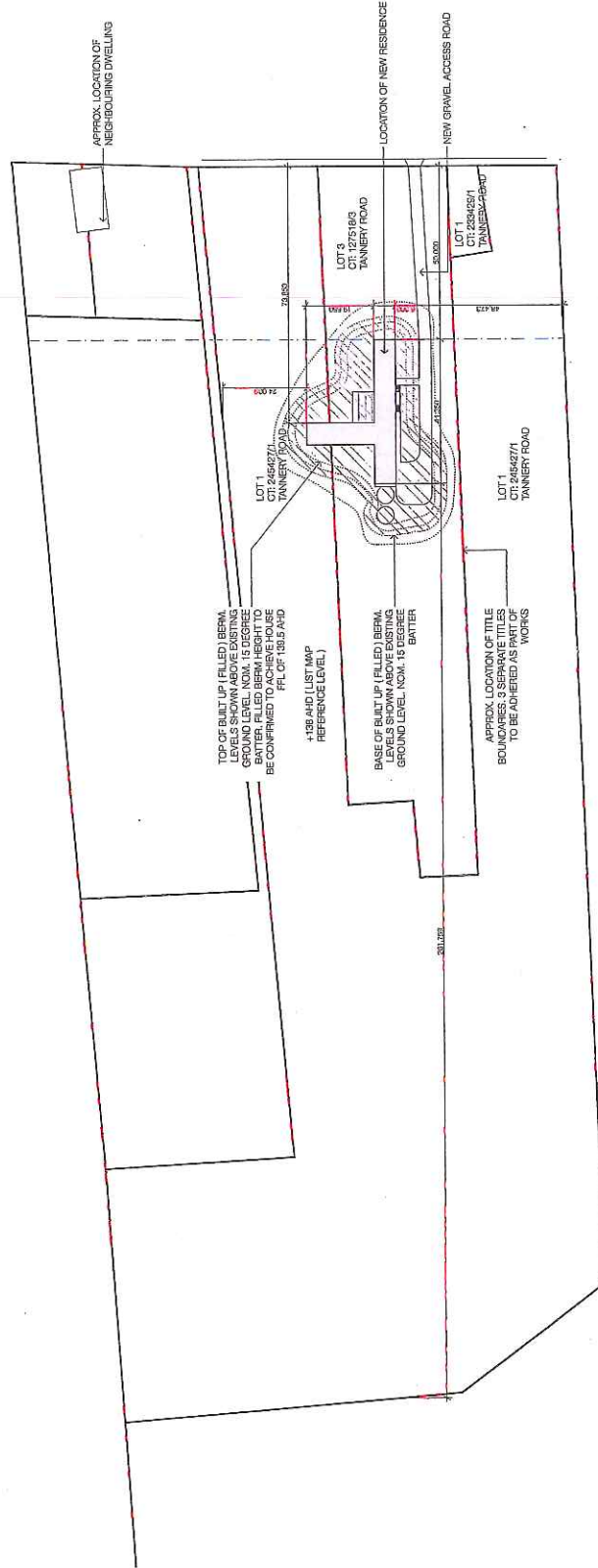
26/11/19

DRAWING NO.

D01_01

REVISION

B



1 BLOCK PLAN
H1020

EXHIBITED

Amended
27.02.20

1-243

REV	REVISION DETAILS	DATE
1	ISSUED FOR PLANNING PERMIT	28/11/19
2	ISSUED FOR PLANNING PERMIT	28/11/19
3	ISSUED FOR PLANNING PERMIT	28/11/19

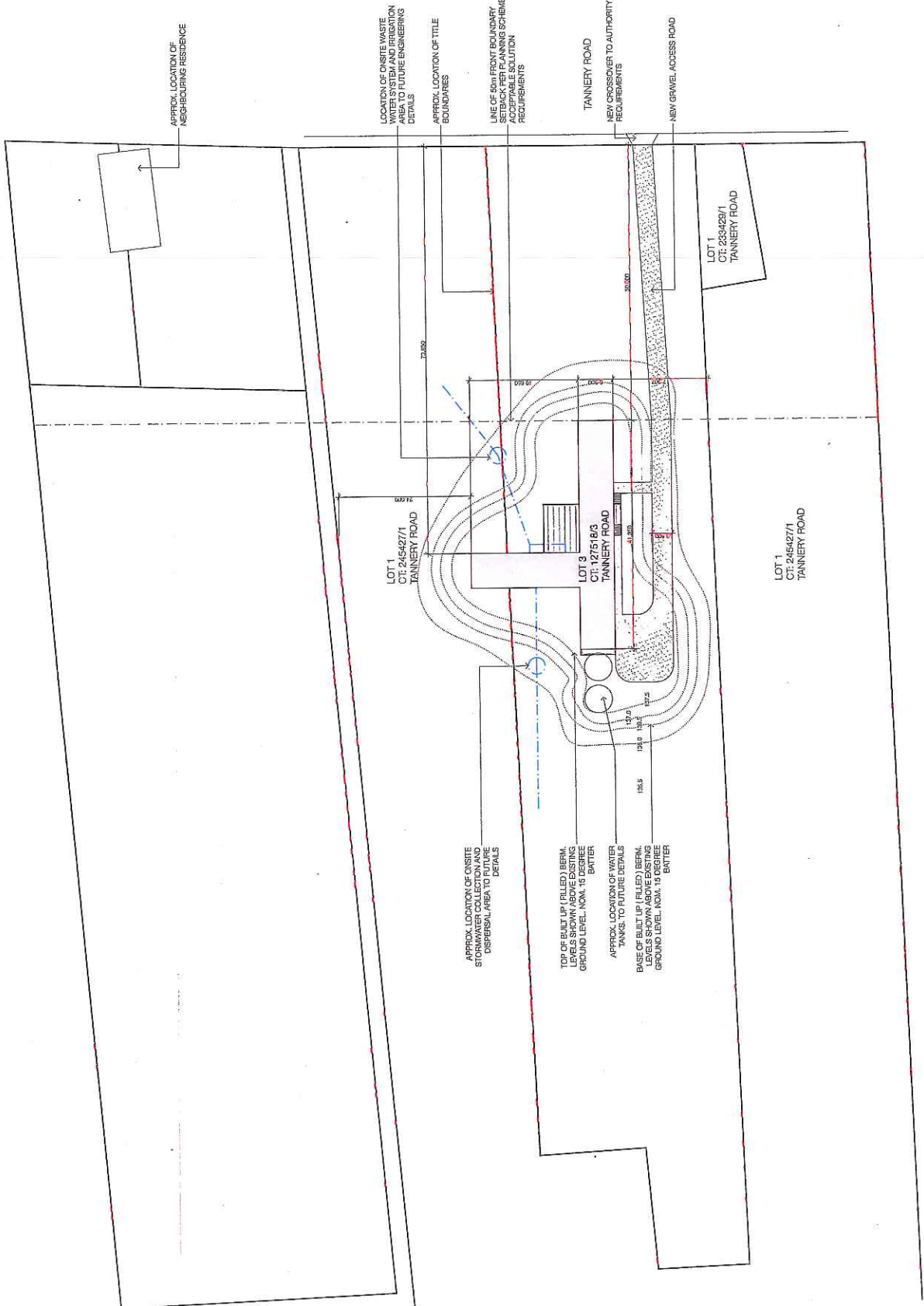
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PROJECT	NEW RESIDENCE TANNERY ROAD, LONGFORD
CLIENT	ROBERT DUFF-SILSBY
DRAWING	SITE PLAN
PROJECT No.	1811
DATE	28/11/19
DRAWING No.	D01_02
REVISION	8



1 SITE PLAN
1:500

EXHIBITED

Amended
27.02.20

1-245

REV	REVISION DETAILS	DATE
A	ISSUED FOR PLANNING PERMIT	25/07/19
B	ISSUED FOR PLANNING PERMIT	25/07/19

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PROJECT

NEW RESIDENCE
TANNERY ROAD, LONGFORD

CLIENT

ROBERT DUFF-SILSBY

DRAWING

ELEVATIONS

PROJECT No.

1611

DATE

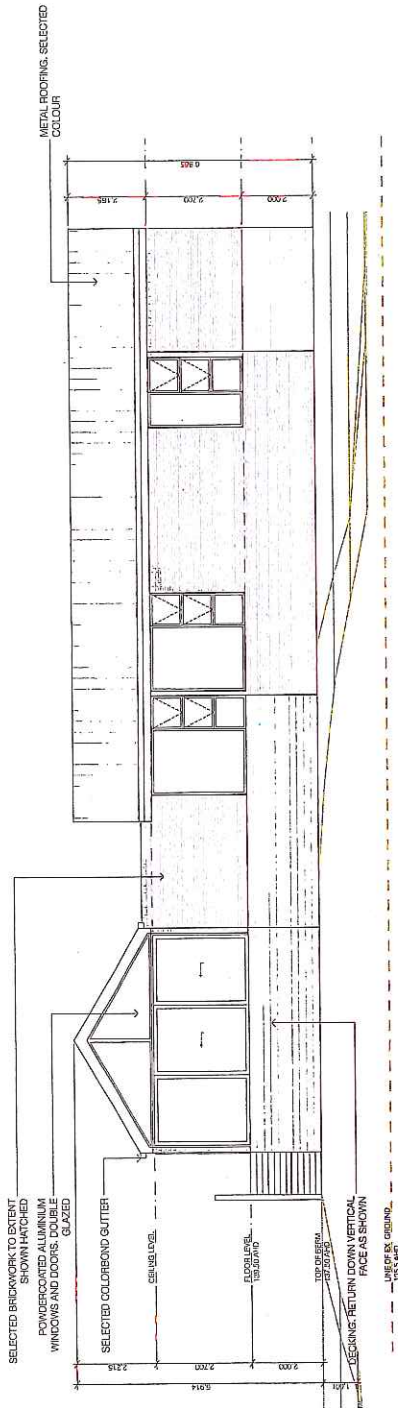
26/11/19

DRAWING No.

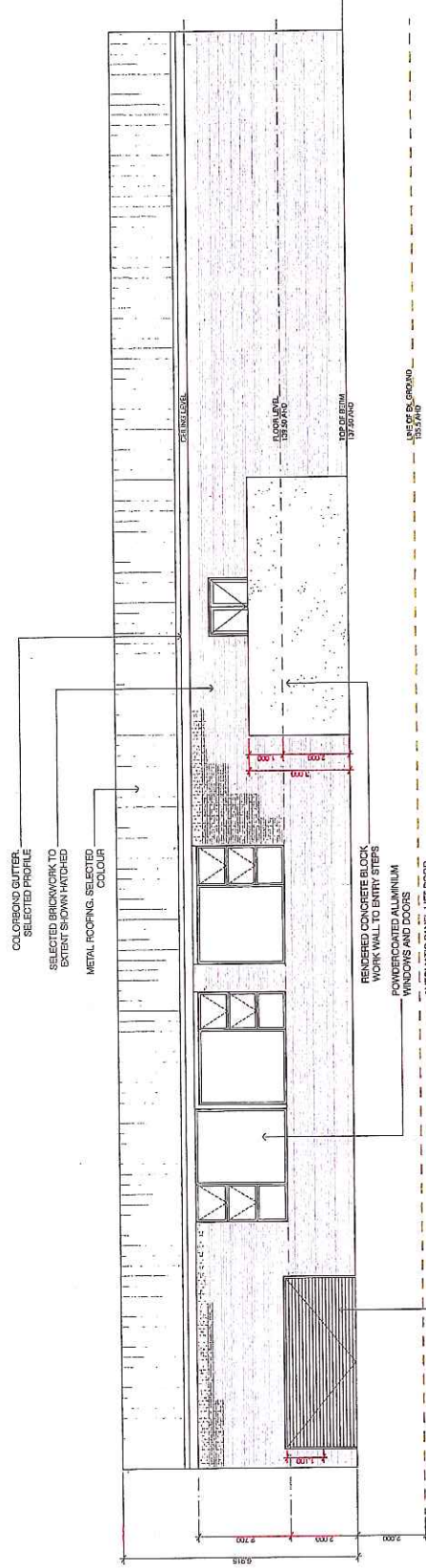
002.01

REVISION

B



1 NORTH ELEVATION
1/11/20



2 EAST ELEVATION
1/11/20

EXHIBITED

Amended
27.02.20

1-246

REV.	REVISION DETAILS	DATE
1	ISSUED FOR PLANNING PERMIT	28/07/19
2	ISSUED FOR PLANNING PERMIT	28/07/19
3	ISSUED FOR PLANNING PERMIT	28/07/19

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NOT FOR CONSTRUCTION



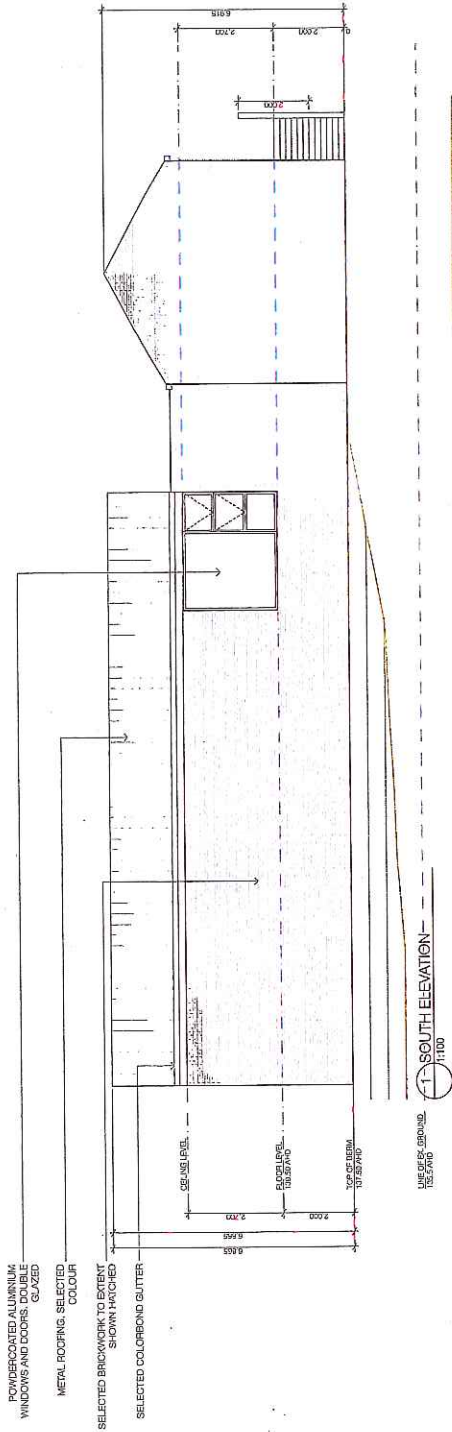
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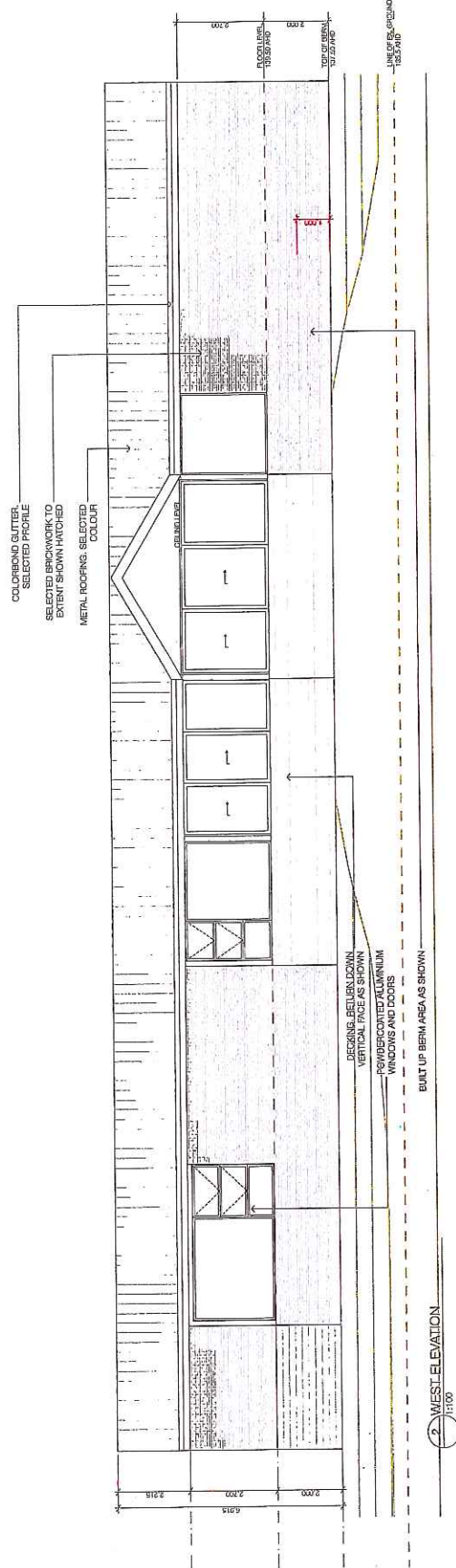
PROJECT
NEW RESIDENCE
TANNERY ROAD, LONGFORD
CLIENT
ROBERT DUFF-SILSBY

DRAWING
ELEVATIONS

PROJECT No.	DATE	DRAWING No.
1811	26/11/19	002_02
		REVISION
		B



1 SOUTH ELEVATION
1:100



2 WEST ELEVATION
1:100

EXHIBITED

Amended
27.02.20

1 247

REV	REVISION DETAILS	DATE
1	ISSUED FOR PLANNING PERMIT	26/11/19
2	ISSUED FOR PLANNING PERMIT	26/11/19
3	ISSUED FOR PLANNING PERMIT	26/11/19
4	ISSUED FOR PLANNING PERMIT	26/11/19

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PROJECT

NEW RESIDENCE
TANNERY ROAD, LONGFORD

CLIENT

ROBERT DUFF-SILSBY

DRAWING

PERSPECTIVES

PROJECT No.

1811

DATE

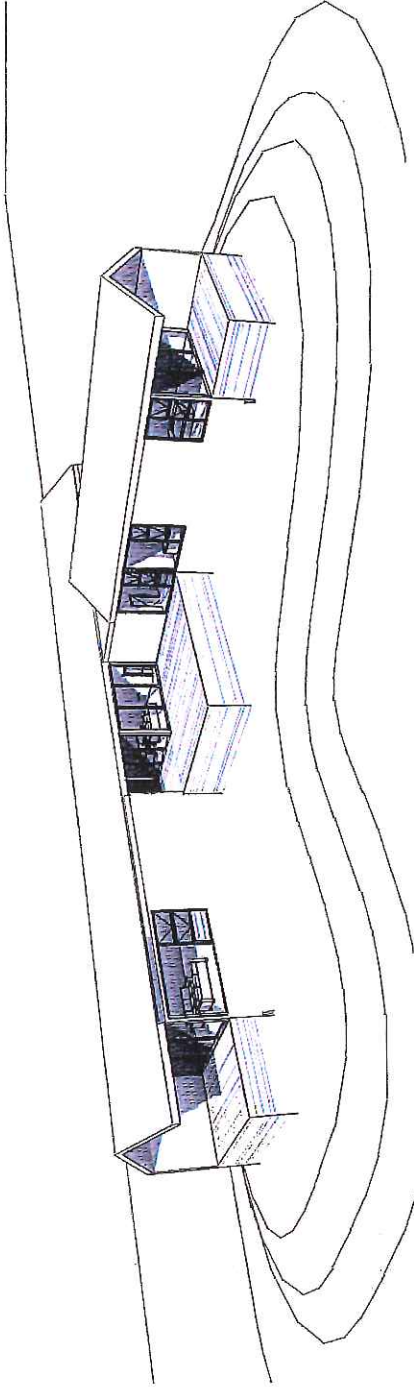
26/11/19

DRAWER No.

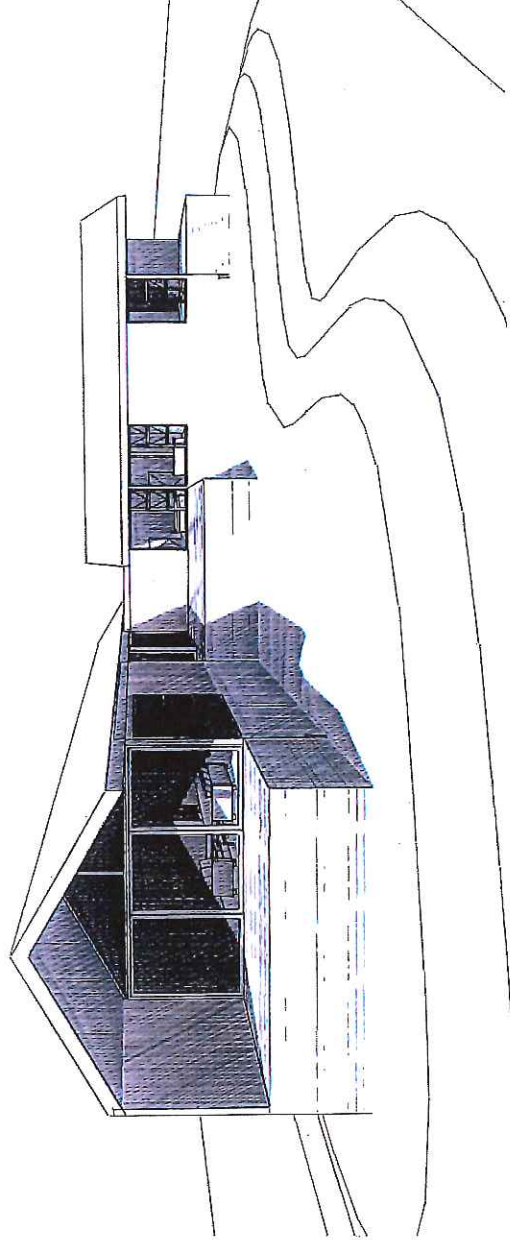
DD08.01

REVISION

B



1 NORTH AERIAL VIEW



2 EAST VIEW

EXHIBITED

Amended
27.02.20

1-248

REV	REVISION DETAILS	DATE
1	ISSUED FOR PLANNING PERMIT	24/01/19
2	ISSUED FOR PLANNING PERMIT	24/01/19
3	ISSUED FOR PLANNING PERMIT	26/02/20

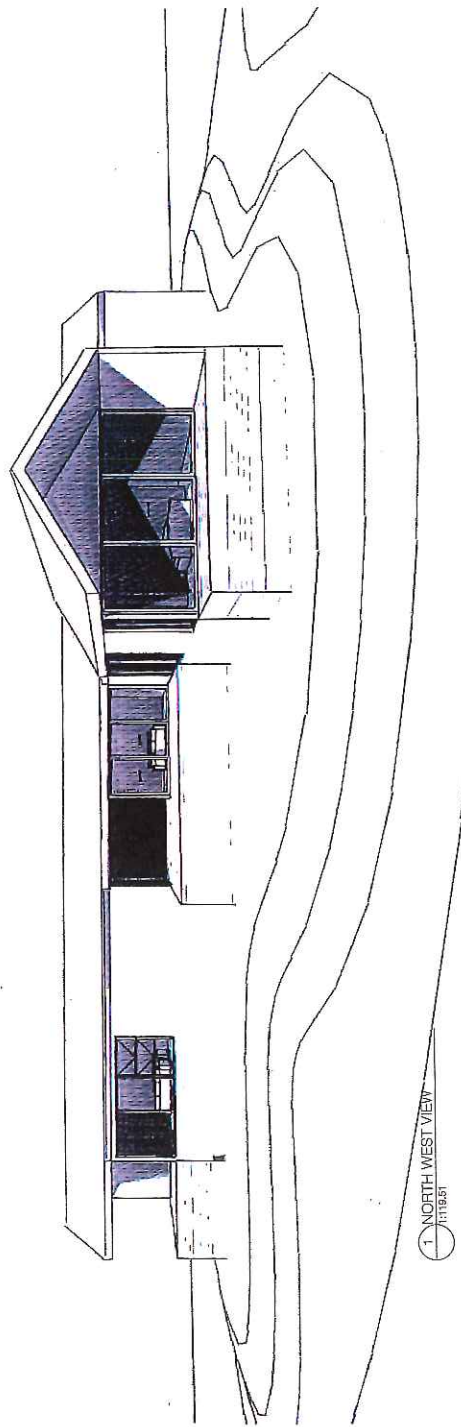
PRELIMINARY DRAWING
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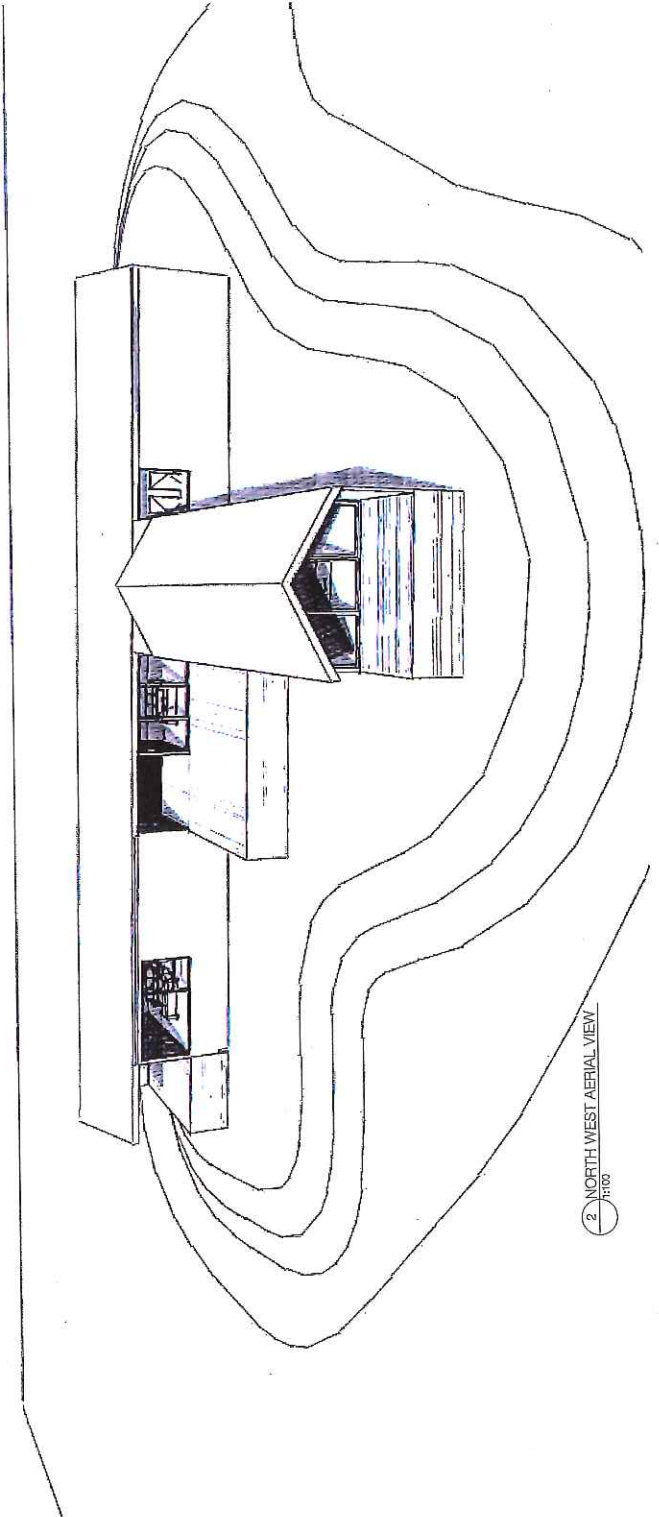
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PROJECT	NEW RESIDENCE TANNERY FORD, LONGFORD
CLIENT	ROBERT DUFF-SILSBY
DRAWING	PERSPECTIVES
PROJECT No.	1811
DATE	26/1/19
DRAWING No.	D09.02
PERSON	B



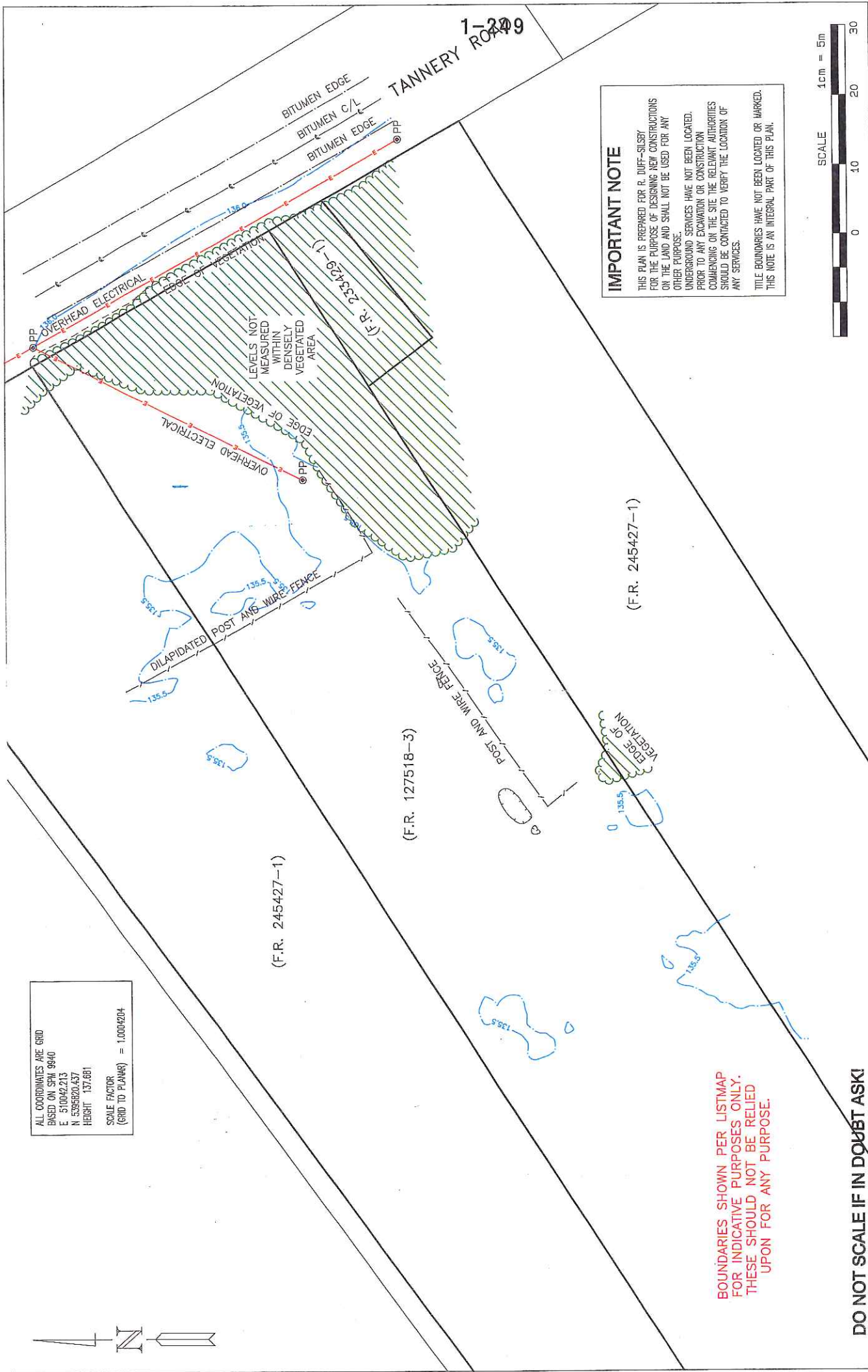
1 NORTH WEST VIEW
1:119.81



2 NORTH WEST AERIAL VIEW
1:100

EXHIBITED

ALL COORDINATES ARE GRID
 BASED ON SPM 9940
 E 510042.215
 N 5395920.457
 HEIGHT 137.681
 SCALE FACTOR
 (GRID TO PLANNER) = 1.0004204



1-209

IMPORTANT NOTE
 THIS PLAN IS PREPARED FOR R. DUFF-SILSBY FOR THE PURPOSE OF DESIGNING NEW CONSTRUCTIONS ON THE LAND AND SHALL NOT BE USED FOR ANY OTHER PURPOSE.
 UNDERGROUND SERVICES HAVE NOT BEEN LOCATED. PRIOR TO ANY EXCAVATION OR CONSTRUCTION COMMENCING ON THE SITE THE RELEVANT AUTHORITIES SHOULD BE CONTACTED TO VERIFY THE LOCATION OF ANY SERVICES.
 TITLE BOUNDARIES HAVE NOT BEEN LOCATED OR MARKED. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN.



BOUNDARIES SHOWN PER LISTMAP FOR INDICATIVE PURPOSES ONLY. THESE SHOULD NOT BE RELIED UPON FOR ANY PURPOSE.

DO NOT SCALE IF IN DOUBT ASK!

WARNING
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COHEN & ASSOCIATES P/L
 LAND & AERIAL SURVEYORS
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 PO BOX 990 LAUNGESTON 7250 TAS
 TELEPHONE : 03 6331 4633
 www.surveysintas.com.au
 EMAIL : admin@surveysintas.com.au
 ABRN 70 666 298 635

SCALE 1 : 500@A3	JOB 7991	REF 37-56	GRID INTERVAL N/A
DATE 23 Jan 2020	PRO -	CAD -	CONTOUR INTERVAL 0.25m
DRAWN RMANNING	CHECKED	APPROVED	
HORIZ DATUM	AZIMUTH DATUM IS IUGA94	VERT DATUM	HEIGHT DATUM IS AHD93
	PER RTK GNS OBSERVATIONS		PER SPM 9940 (RL: 137.681)

CLIENT **R. DUFF-SILSBY** DETAIL SURVEY

TITLE **TANNERY ROAD, LONGFORD** SHEET: **1 OF 1**

EXHIBIT D

**Site Specific Study for PLN-19-0192
Dwelling, access & adhesion of 3 titles (Flood Prone Area, within Attenuation Distance to
Abattoir) at Tannery Road, Longford**

**Response to Planning Scheme provisions of Code E11-
Environmental Impacts and Attenuation Code, Clause E11.6.1 (P1):**

P1 Sensitive use or subdivision for sensitive use within an attenuation area to an existing activity listed in Tables E11.1 and E11.2 must demonstrate by means of a site specific study that there will not be an environmental nuisance or environmental harm, having regard to the:

a) degree of encroachment:

How close is the emitting operation?

Approximately800m. (exclusion zone = 1000m)

What is between the subject site and the emitting operation?

Pasture paddocks

Highway; Illawarra Road (B52)

b) nature of the emitting operation being protected by the attenuation area:

What emissions does the operation produce? (noise and odours etc).

Odours

.....

Are these emissions prevalent at this site?

Depending on wind direction

.....

If so, how do the emissions affect the subject site?

Odours, but of no consequence to land owner

.....

degree of hazard or pollution that may emanate from the emitting operation:

Are the emission produced having negative effects on the site?

No
.....
.....

Is the degree of impact at the site increased, lessened or the same as a result of the structure?

The same
.....
.....

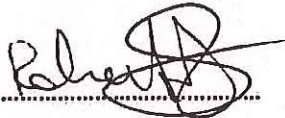
c) the measures within the proposal to mitigate impacts of the emitting activity to the sensitive use:

Are there any manmade or natural buffers offered on site, or in the surrounding area, that may reduce the impact of the emitting operation? (i.e. distance of residential development between the subject site and emitting operation)

Distance (800m)
.....

Landscape, hedges and vegetation
.....

Signed:


.....

Date:

18.11.2019
.....



NORTHERN MIDLANDS COUNCIL	
Location	
File No.	
Property	
Attachments	
REC'D	7 JAN 2000
GIM	IIA
P&DM	IMYE
CSM	CRS

Land Capability Report

Robert Duff-Silby

Tannery Road

Longford, Tasmania

Pertaining to titles; 245427 (lot 1), 233429 (lot 1), 127518 (lot 3)

Amended 20.11.2019

Michelle Hogarth *BAgrSci(HONS)*

Senior Agronomist

TP Jones & Co Agronomy Services

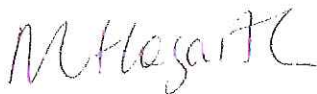
Mobile 0428 679 981

Email michelle.hogarth@tpjones.com.au

August 2019

This report has been prepared for Robert Duff-Silby of Rockingham, Western Australia.

While the information contained here-in has been provided in good faith, TP Jones & Co makes no representations or warranties of any kind, express or implied, about the completeness, accuracy, reliability or suitability with respect to this report.



Michelle Hogarth

EXHIBITED

Background

The property at Tannery Road, Longford is approx. 3.5 ha in total and currently exists under three small titles; as shown on the map attached (supplied by mjarchitecture) and supported by title documentation.

With no ready access to water, the block is limited in its agricultural production capacity, only suitable to support grazing or limited dry-land cropping.

As small blocks, useful agricultural pursuits are even harder to achieve.

The land is classified as Class 4 – land that is marginally suited for cropping and grazing, with moderate limitations (namely drainage); as per the land capability maps provided by the Department of Primary Industries (https://dpiwwe.tas.gov.au/Documents/Land_Cap_SEsk_Map.pdf).

The soil type is a duplex soil (sandy loam over clay), typical of the area, as depicted on soil maps provided by the Dept of Primary Industries (<https://dpiwwe.tas.gov.au/Documents/longsoil.pdf>).

These soil types can often be associated with soil health issues such as sodicity / salinity, especially where drainage issues are present, which can further limit agricultural practices.

As per *Northern Midlands Interim Planning Scheme 2013, clause 26.3.2 (b)*; the rural potential of these small blocks is limited in relation to their size, reduced access to water and risks posed by flooding and drainage (*clause 26.3.2 P1.1 (b)*).

Proposal

It is proposed that the three existing smaller titles be instated to a larger title for the purpose of the construction of a residential dwelling, see attached site plan (supplied by mjarchitecture, Launceston).

These individual titles are of little use as small blocks, especially taking into consideration exclusion zones and set back distances from boundaries; a necessary requirement in the construction of dwellings / structures. Amalgamating the smaller titles into one large title, will allow for a dwelling to be constructed with adequate set-backs from boundaries.

As per *Northern Midlands Interim Planning Scheme 2013, clause 26.3.2 (b)*; the construction of a dwelling will not constrain surrounding agricultural operations, as they are limited currently to intermittent grazing and other residences currently exist in the area; with the proposed site of the new dwelling being in close proximity to existing dwellings (as depicted on the site plan attached) and further explained below (*clause 26.3.2 P1.3*).

Building Location – set back distances and acceptable solutions

As per *Northern Midlands Interim Planning Scheme 2013, clause 26.4.1*

It is proposed that the dwelling be constructed 50m from the existing E boundary, as per the allowance for non-sensitive use areas; as Tannery Road and a river reserve are located to the E of the proposed house site (*clause 26.4.1 P2*).

EXHIBITED

Adjoining land (to the N and S of the proposed house site) is only used for intermittent grazing; set back distances from boundaries are 24m and 48m respectively.

Established hedges are present on the S boundary, these will greatly assist with achieving set back distances; specifically regarding noise reduction from the highway.

Existing dwellings are in a similar location to the N of the proposed house site, these dwellings support substantial landscaping of well established plants; a reduced set back of 24m could be supported by the effective use of screening plants and landscaping at the proposed house site in addition.

The W boundary is Illawarra Road (B52), which is 250m from the proposed dwelling location.

Additional Information

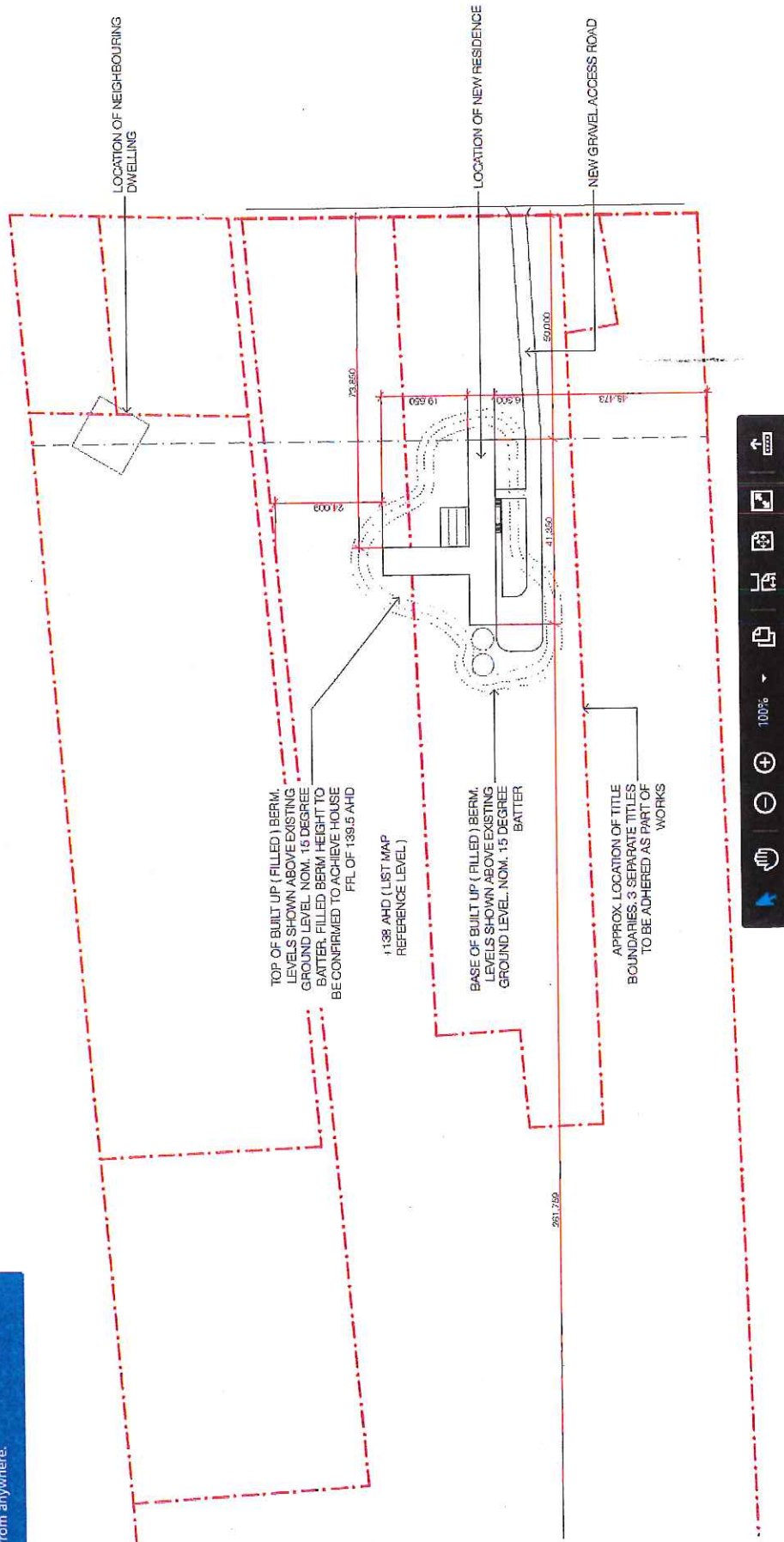
Additional information addressing Attenuation Distance from the Longford Abattoir is being supplied by the land holder.

Site location – Tannery Road, Longford (source: google maps)



EXHIBITED

Star Files
Star your important files for quick access from anywhere.



Navigation toolbar with icons for home, back, forward, search, and zoom controls. Zoom level is set to 100%.

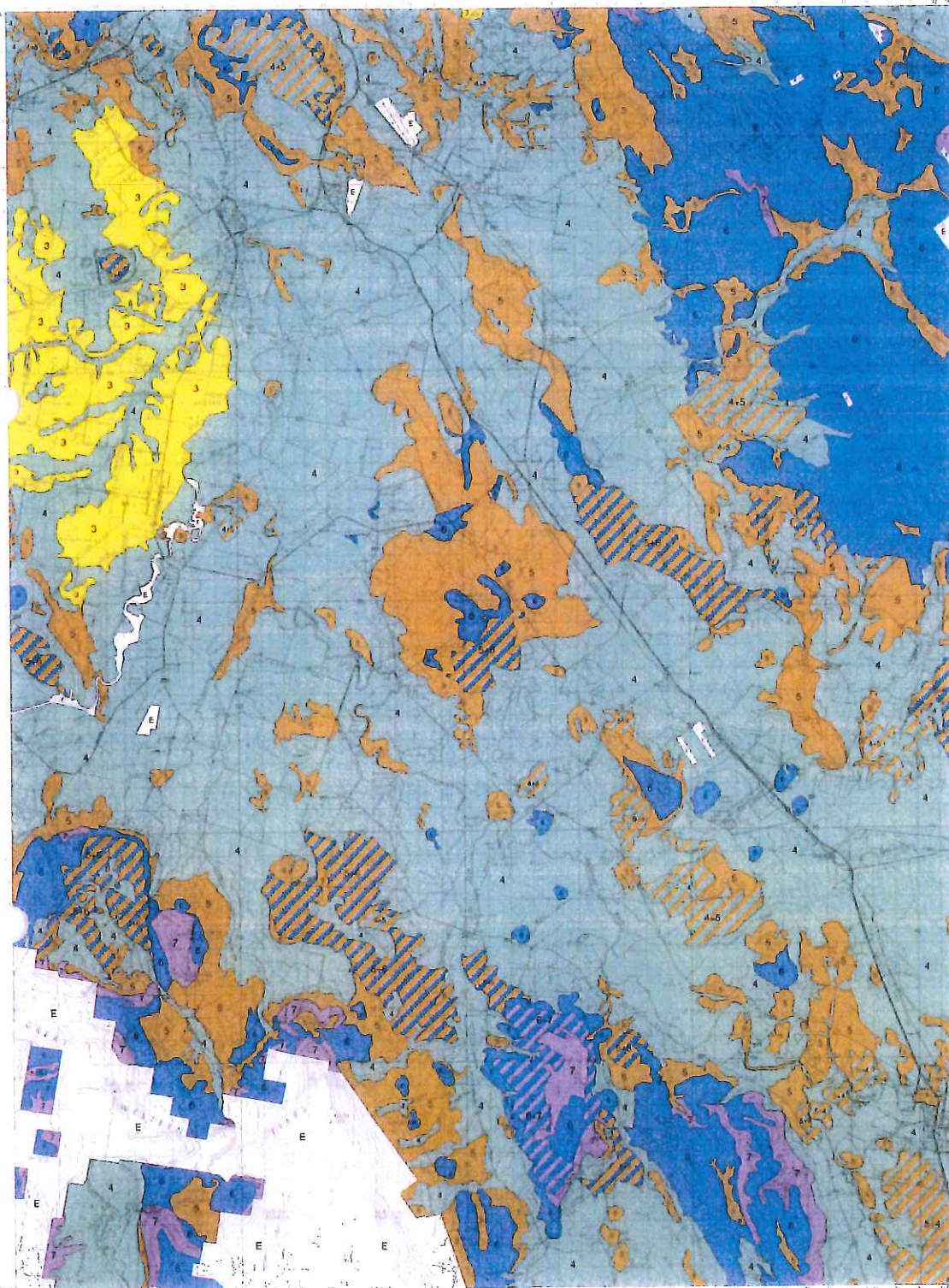
EXHIBITED

LAND CAPABILITY SURVEY
TASMANIA
LAND CAPABILITY CLASSES

(based on the capacity of land for long-term sustainable agricultural production)

SOUTH ESK

TASMANIA 1:1 000 000 TOPOGRAPHIC BASE
EDITION 4 1992



- CLASS 1**
Multiple use land with only minor limitations* to intensive cropping and grazing. It occurs on flat land with deep, well drained soils in a climate that favours a wide variety of crops, is capable of being cropped eight to nine years out of ten in rotation with pasture or equivalent.
- CLASS 2**
Land suitable for intensive cropping and grazing. Limitations* are slight and these are readily overcome by management at minor conservation practices. Limitations reduce the cropping phase to five to eight years out of ten in a rotation with pasture or equivalent and/or restrict the variety of crops that can be grown.
- CLASS 3**
Land suitable for cropping and intensive grazing. Cropping phase is normally limited to two to five years out of ten in rotation with pasture or equivalent, and/or the variety of crops that can be grown is significantly more restricted than on Class 1 and 2 land. Soil conservation practices and sound management are required to overcome the moderate limitations to cropping use.
- CLASS 4**
Land marginally suitable for cropping because of severe limitations which restrict the range of crops that can be grown and/or require major conservation treatment and careful management necessary. Cropping rotations should normally be restricted to one to two years out of ten in a rotation with pasture or equivalent. This land is well suited to intensive grazing.
- CLASS 5**
Land with slight to moderate limitations to pastoral use. This land is unsuitable for cropping, although some areas on less severe slopes may be cultivated for pasture establishment or recovery. The effects of limitations on the grazing potential may be reduced by applying appropriate soil conservation measures and land management practices.
- CLASS 6**
Land marginally suitable for grazing because of severe limitations. This land has low levels of production, high risk of erosion, low fertility or other limitations that severely restrict agricultural use.
- CLASS 7**
Land with very severe to extreme limitations which make unsuitable for agricultural use.
- COMPLEXES**
For example, Classes 4+5, where Class 4 land is more dominant than Class 5 land. Due to the complexity at this scale of mapping the two classes have not been separately mapped.
- EXCLUSION AREAS**
Land other than Private Freehold and Lateral Crown Land, e State Forests, State Reserves and Conservation Areas.

*** LIMITATIONS**
In the above descriptions, limitations refer to physical factors, constraints which affect the versatility of the land and determine its capability for long-term sustainable agricultural production. Different kinds of limitations are erosion hazard, slope, climate fluctuations, poor drainage, salinity, and poor soil structure. Information on subclass boundaries is available from the DPE's Resource Assessment Branch, Prospect Office.

SCALE 1:100 000
Gross Horizontal Distance
Gross Vertical Distance

MAP USERS NOTE:
This map provides an appraisal of land capability based on topography, soils, climate and agricultural factors. The land capability class boundaries have been delineated by field work and aerial photo-interpretation. This map is reliable only at the published scale and should not be enlarged. It should be used in conjunction with the accompanying land capability report, which gives further details on the interpretation and use of this map. Only Private Freehold and Lateral Crown Land has been mapped.

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Fieldwork by C. Giese and R. Moxton, 1995
Compiled by C. Giese and R. Moxton 1995/96
GIS and drafting work by M. Brown, M. Giese and P. Foblin 1995/96
Printed by Printing Authority of Tasmania, Hobart, 1996

Refer to this map as:
Giese C. J. and Moxton R. M. (1996) Land Capability Survey of Tasmania, South Esk. 1:100 000 map.
Department of Primary Industry and Fisheries, Tasmania.
Accompanying report titled
"Land Capability Survey of Tasmania, South Esk Report"
by C. J. Giese and R. M. Moxton, Department of Primary Industry and Fisheries, Tasmania 1996.

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Base map supplied by Land Information Bureau, Department of Environment and Land Management, Hobart Tasmania.

LAND CAPABILITY SURVEY

TASMANIA

SOUTH ESK

1:100 000

LAND CAPABILITY SURVEY
of TASMANIA

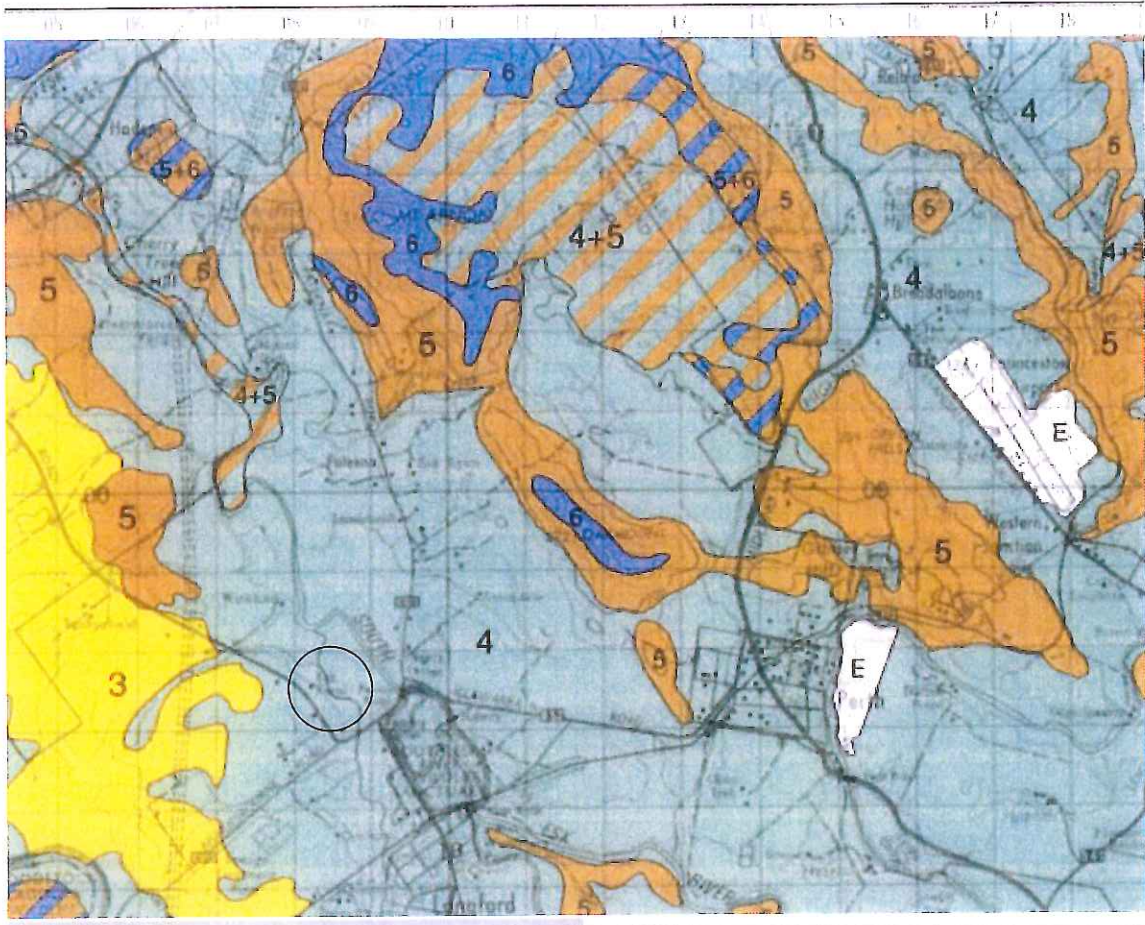
ABOUT THIS MAP
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Prepared by
C. Giese and R. Moxton
1995/96

EXHIBITED

Close up of Tannery Road location on Land Capability Map – South Esk

Please refer to website should closer detail of site be required



Soil Map – Longford Region (source: Department of Primary Industries TAS)

Please refer to website should closer detail of site be required

MAP USERS NOTE

The information on this map is based on the original field work of K.D. Nicolls, CSIRO Division of Soils, Adelaide. The map has been updated and reprinted by the Tasmanian Department of Primary Industries, Water and Environment. Some soil boundaries or map unit codes may differ from the original map. No attempt has been made to determine the reliability or accuracy of this map. The Crown, in the right of the State of Tasmania, does not accept any responsibility for any loss or damage which may be incurred by persons using the map, or for any part of this information which may be false or misleading, or which may be used for any purpose other than that for which it was prepared.

The map provides an appraisal of the soil distribution based on landforms, climate, and geology. The soil boundaries have been delineated through aerial photo-interpretation and limited field work. Although the original map was surveyed at a scale of 1:63,360 (1:100,000), it has been reproduced at a scale of 1:100,000. This map should not be used for detailed land use planning or other purposes without the accompanying soil report which gives additional information for the soil map units described below.

Original work by K.D. Nicolls.
Updated by S. Spenswick & P. Zand

Refer to the map and the accompanying report for details of the soil map units. The map is based on the work of K.D. Nicolls, CSIRO Division of Soils, Adelaide. The map was prepared by S. Spenswick & P. Zand (1999) Department of Primary Industries Water & Environment.

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Acknowledgments

Soils surveyed by K. D. Nicolls, 1958. This map is based on the soil survey data from surveys by G. D. Hobbie (1944 & 1957), G.D. Hobbie & K. D. Nicolls (1957), J. Loveday (1952) and Stephens *et al* (1942).

Soil data collected by S. Spenswick and P. Zand (1998/1999).

Soil map digitised by J. Farrell (1993/1994).

GIS by A. Lange and T. Davidson (1998/1999).

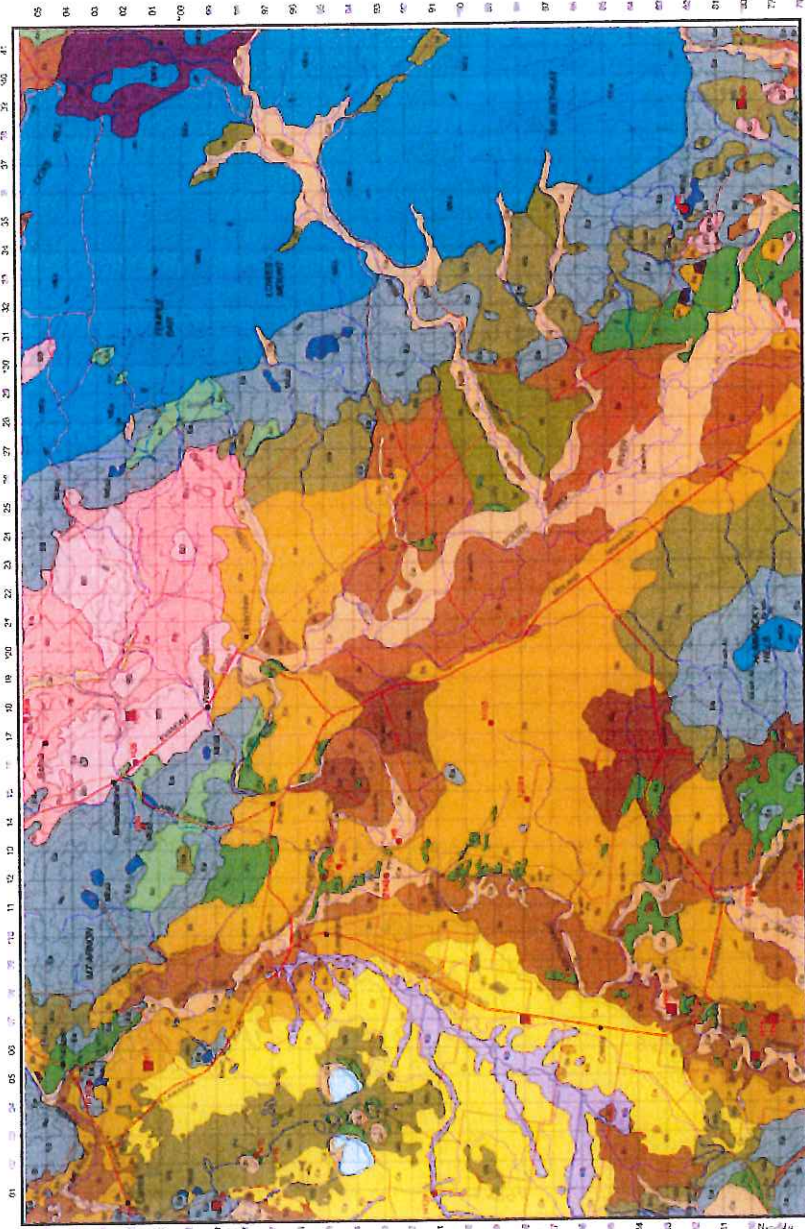
Map design and layout by T. Davidson (1999).

Base map data supplied by Land Information Services, Department of Primary Industries, Water and Environment, Tasmania

Contour interval: 50 metres.

Universal Transverse Mercator Projection.

LONGFORD



Legend:
● Locality reference seen from field observation
■ Type profiles for associated soil units



SCALE 1:100000
2 0 2 4 6 Km

The original map was prepared from aerial photographs taken in 1958. The map is based on the work of K.D. Nicolls, CSIRO Division of Soils, Adelaide. The map was prepared by S. Spenswick & P. Zand (1999) Department of Primary Industries Water & Environment.

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FLOOD RISK REPORT

Northern Midlands Council

PROPOSED DWELLING

Property ID 3276264

Tannery Road, Longford

For Robert Duff-Silsby

August 2019



Engineers & Planners
Your Vision is Our Mission

EXHIBITED



Engineers & Planners
Your Vision is Our Mission

Johnstone McGee and Gandy Pty Ltd

incorporating Dale P Luck & Associates
(trading as JMG Engineers and Planners)
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- Estimates are not based on measured quantities or a defined scope of works.
- Estimates are exclusive of GST, engineering fees, market escalation, associated builder's works, builder's margins, design contingency, project contingency.
- As project scope becomes better defined it is strongly recommended that estimates are updated.

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1. INTRODUCTION

JMG Engineers and Planners have been engaged to prepare a flood risk report for a proposed residence at Tannery Road Longford. The report will need to respond to the requirements listed in the Northern Midlands Planning Scheme "Code E5 - Flood Prone Land."

The site is situated some 600 metres North West of the Longford-Illawarra Road roundabout, is 1.8 km downstream (by river reach measurement) of the Illawarra road bridge over the South Esk River and is laterally 140 metres west of the South Esk main channel.



Figure 1 Locality and site plan

2. THE PROPOSAL

The proposal consists of a new residence currently under architectural design. It is to be located within the circle identified in Figure 1.

The design is at a concept development stage and further design will be informed by this report.



Figure 2 proposed residence footprint

3. FLOOD STUDIES & RESULTS

Northern Midlands Council has undertaken a number of flood studies for Longford in order to understand the level of flooding and the local flood risk.

JMG and Hydrodynamica produced a hydraulic flood mapping report for the Northern Midlands and the Meander Valley Councils, in May 2016, titled "2D Flood Plain Mapping Stage 1." The report mapped a number of flood profiles along the South Esk River from Hadspen to Longford. The hydrology input used to perform the modelling was obtained from ENTURA (HYDO TASMANIA).

The maps contained the following statement

Flood Discharge Values

The following table contains the flood discharge flow values in m³/sec, derived for Longford-Hadspen in April 2015. The values printed in bold red were used as inputs in the hydrodynamic model to generate a flood surface for this map.

It should be noted that the AEP or ARI associated with a particular discharge will change with time due to new data altering the flood frequency estimate or through climate change. However the flood level associated with a particular discharge and depicted on the map will only change if flood plain conditions change as a result of flood plain filling or vegetation increase or decrease or further calibration data becoming available. Further calibration data for higher flood levels than those currently available could produce different modelled levels for higher discharges.

AEP	ARI in years	Location and Peak inflow in m ³ /sec					
		Back Creek	Cressy Pumps	Liffey near Carrick	Perth Gauging Station	Trevallyn Inflow	Westwood Bridge
5%	20	104	584	162	1229	1765	542
2%	50	136	855	208	1680	2347	694
1%	100	165	1129	251	2096	2889	838
1%	100 Climate Change	201	1490	306	2644	3558	1019

Flood Surface

Flood surface levels can be determined from direct measurement by surveying in the levels in the aftermath of a flood and then assigning an AEP to the flood surface or by hydraulic modelling with mathematical models. Both approaches require flood frequency analysis or hydrological modelling to determine the flood's AEP.

Council will continue to refine the map as more information becomes available, but for now it is the best estimate available for the 1:20 AEP flood surface.

The map is based on the following reports:

1. Longford and Hadspen Flood Hydrology Final Report, Entura – 95886 24th April 2015.
2. Longford and Hadspen 2D Flood Plain Mapping For Northern Midlands Council & Meander Valley Council by S. Ratcliffe, JMG & Hydrodynamica May 2016.

The ENTURA hydrology study was undertaken in 2015 and determined that a 1% Annual Exceedance Probability (AEP), or 100-year Average Recurrence Interval (ARI) flood flow at the Trevallyn Dam spillway was some 2,900 m³/s (See Figure 7). Following the capture of additional data in 2016 the City of Launceston commissioned an updated report on the South Esk River flood risk in 2018. This report by BMT titled "*The North and South Esk Rivers Flood Modelling and Mapping update*" revised the estimate of the 1% AEP flood upwards to 3,902 m³/s. The discrepancy is due to a different treatment of the accuracy of flood levels for a number of historical floods recorded in the mid 1800's.

This difference in the treatment of historical floods cannot be resolved for the purpose of this report and the current 2D Longford flood plain mapping data sets remain the only available mapping resource. It is understood that the Northern Midlands Council continues to rely on this data set.

Within the 2D flood plain report the 20-year Average Recurrence Interval (ARI), 50-year ARI, 100 Year Ari and 100 Year ARI + Climate Change events were mapped. The climate change assessment was based on predicted climate impacts on rainfall expected to occur in the years 2070 to 2099.

3.1 FLOOD LEVELS

The 100-year ARI flood level can be interpreted in Figure 3 as slightly higher than RL 139.200 AHD

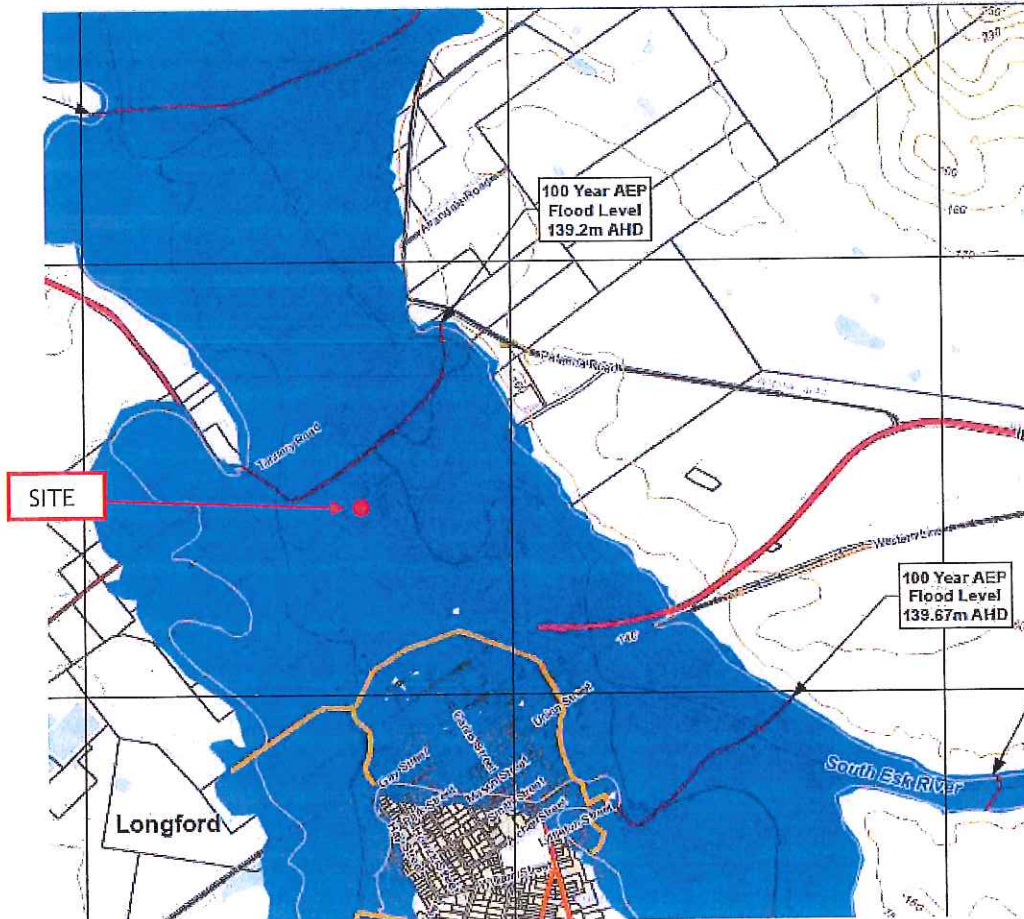


Figure 3 - 100 Year ARI Flood profile

Not shown but available in other similar maps are the following results:

20-year ARI	(5% AEP)	136.70	see Figure 9
50-year ARI	(2% AEP)	138.00	
100-year ARI	(1% AEP)	139.20	
100-year ARI	(1% AEP) + Climate change	140.55	2070 to 2099

3.2 DEPTH OF FLOW

JMG do not have access to an accurate survey of the site and ground levels can only be interpreted from holistic data sets.

Such data sets yield a section through Tannery Road as shown in Figure 4 below which indicates an approximate ground level of RL 135 to RL 136. These figures are rounded to the nearest metre and are not accurate. Tree cover also distorts the data set through the river edges.

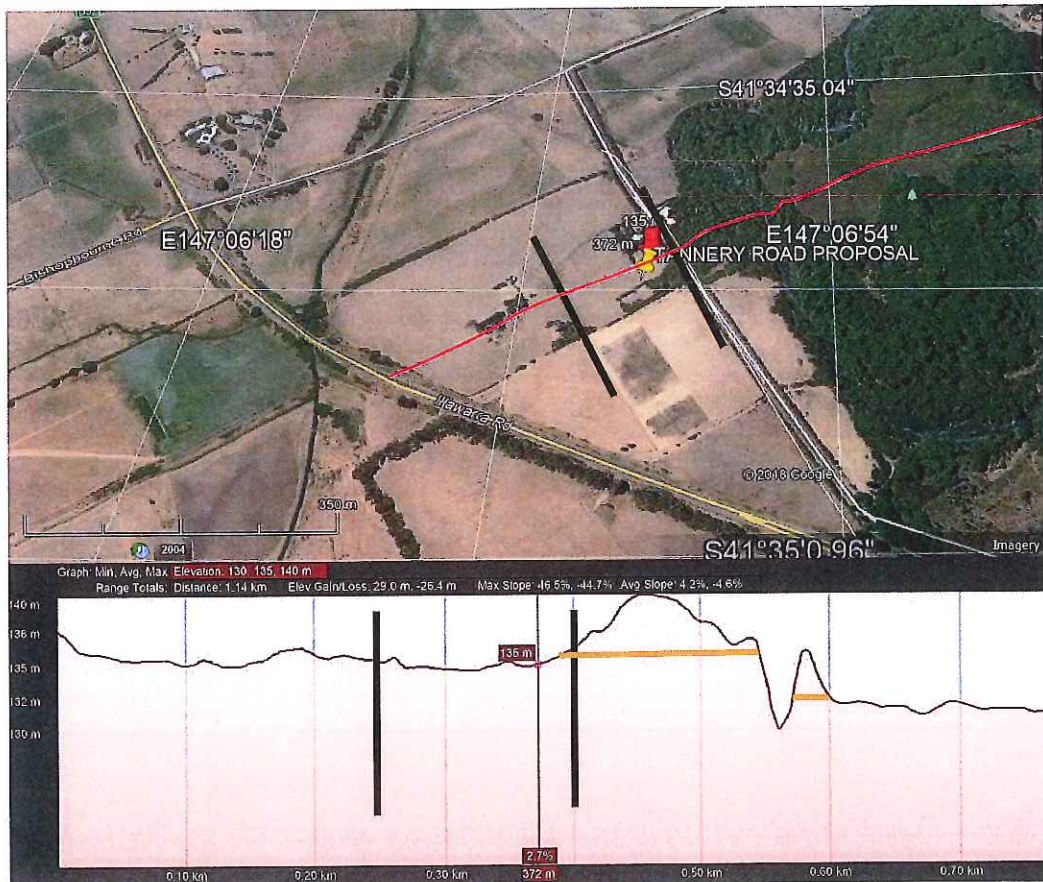


Figure 4 - Ground levels and river section from Google Earth

This report does not need to determine a more accurate value at this stage. With the available data sets it can be assumed that the depth of flooding, adopting a relative ground RL of 135 to RL 136 could be:

20-year ARI	0.70 to 1.70
50-year ARI	2.00 to 3.00
100-year ARI	3.20 to 4.20
100-year ARI + Climate change	4.55 to 5.55

Final design will better inform this assessment, but depths of flow will be significant.

3.3 FLOOD LEVELS

Flow velocities are not available within the original 2D flood mapping reports. Given the high depths of flow - velocities could have a significant factor in understanding the flood forces and relative risk. Additional model runs were therefore arranged to extract the flow velocities in the vicinity of the proposed building. These are average velocities over the flow depth. The velocities ranged from 0.30m/s to 0.40 m/s - (refer Fig 5)

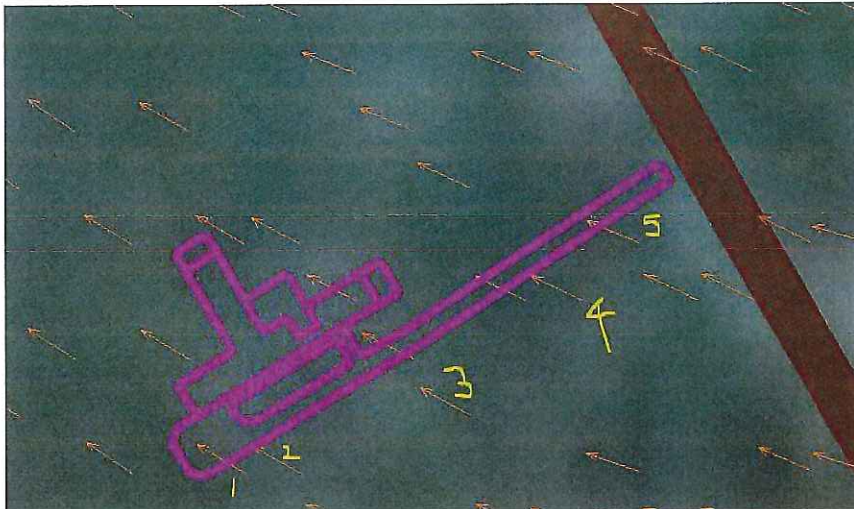


Figure 5 - 100 Year ARI flow velocities - Brown arrows

Location	1	2	3	4	5
V m/s	0.40	0.38	0.39	0.31	0.32

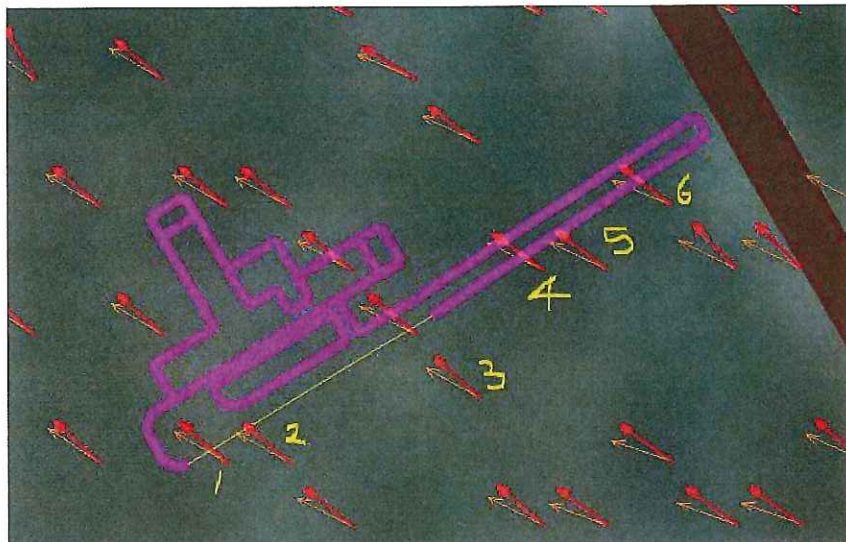


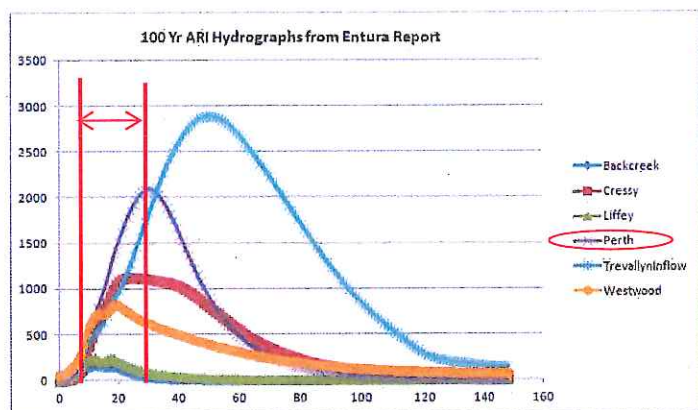
Figure 6 - 100 Year ARI + Climate Change flow velocities Red arrows

Location	1	2	3	4	5	6
V m/s	0.740	0.74	0.75	0.49	0.50	0.47

The models were not set up to make any allowance for flow change due to the presence of the building. Were velocities found to be high this might have been an issue with the results, but velocities here are very low and any velocity head ($V^2/2g$) during the 100 year event would be less than 0.010 m. Given this low figure and given the wide flood plain shown in figure 3 there will be ample opportunity for the flow to pass around the building without severe depth of flow or velocity increases. Freeboard allowances can account for any local change in flow depth due to the presence of the building.

3.4 WARNING TIMES & EVACUATION

The South Esk River is the primary source of the flood flow for this location, and the South Esk at Perth is the closest calibration point for the South Esk River. Warning times can be gleaned from two hydrographs - the 100-year ARI hydrograph established by the ENTURA study, and the 1969 flood hydrograph used to calibrate the models. These are shown in figures 7 and 8.

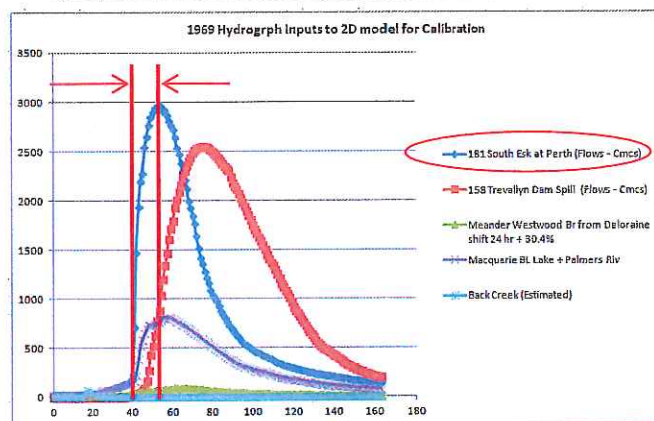


Trevallyn outflow from 2D Hydrodynamic Model = 2985 m³/sec

Back Creek	Cressy	Liffey	Perth	Trevallyn Inflow	Westwood
165	1129	251	2096	2889	838

Figure 7 - 100 year ARI - Hydrology results

Hydrographs used in Calibration of 2D hydrodynamic model for 1969 Flood



181 South Esk at Perth (m ³ /sec)	158 Trevallyn Dam Spill (m ³ /sec)	Meander Westwood Br from Deloraine shift 24 hr + 30.4% (m ³ /sec)	Macquarie BL Lake + Palmers Riv (m ³ /sec)	Back Creek (Estimated) (m ³ /sec)
2965	2552	93	813	66

Figure 8 - 1969 Observed Flood hydrograph

Time zero is the start of the modelling and/or recording period and is not necessarily the start of the rainfall. For warning purposes, it is reasonable to assume that actual flow warnings could issue once the flow has been record as being greater than 10% of the predicted flow- roughly shown by the two vertical red lines and arrows on Figures 7 and 8.

This is best estimated on Figure 7 from the flow modelling as some 20 hours after the hydrograph starts to rise. The 1969 result for Perth (Figure 8) has a short and rapid rise, implying only a 10-hour warning period. This rapid rise can be contrasted with the much more gradual rise in the Trevallyn Spill hydrograph of Figure 8. The rapid rise and the fact that the peak at Perth in 1969 is shown as higher than the Trevallyn Inflow lead us to conclude that the Perth results may not be wholly representative of the likely response. A 20+ hour warning time for a 100-year flood of Figure 7 is considered more reasonable.

Council’s “Longford Protection Flood Action Plan”, version 3 in 2014, also carried the following statement in Appendix B.

“As notice of a major flood may be as little as 2 – 3 days for the South Esk/Macquarie Rivers and 12 hours for Back Creek, it is vital that at all times the system must be ready for activation.”

Two to three days is a long estimate, but two days warning is considered reasonable and likely for a warning between known rainfall in the upper catchment and predictions to be made by the Bureaus of Meteorology for Longford.

1 day is considered a reasonable warning between observed higher than normal flows at Longford/Perth and the peak flow arriving.

Section 4.2(d) of the Action Plan provided certain triggers, based on the South Esk Gauge station at Longford (at Union Street). These triggers are expanded with additional detail and commentary.

Gauge Level	Status	AHD at Union St	Comments
3.5	Minor	135.1	Begin flood awareness response (check penetrations)
4.0		135.6	Levee and gate resources placed on standby
5.0	Moderate	136.6	Begin closing TFP at Union Street Monitor Back Creek flood gate
6.0		137.7	20-year ARI (137.5 at Union St) Lyttleton Street TFP installed to full height
7.0	Major	138.6	50-year ARI (138.6 at Union St)
8.1		139.7	100-year ARI (139.7 at Union St)

TFP = Temporary Flood Protection facilities

The flood preparation for the Longford community therefore begins when the floods are approaching RL 135.1 at Union Street, even though awareness following observed rainfall in the upper catchments will likely have been activated on the previous day.

RL 135 may equate to the beginnings of flows covering the ground level at Tannery Road (subject to survey verification), but it could be higher at RL 136.

An evacuation plan at the site will need to be ready to be implemented by this stage after which water will start to cover the Tannery Road access route.

Flood waters at RL 136.7 (20-year ARI at the site shown in Figure 9) will have already covered much of the surrounding land, including the likely escape route. The appropriate evacuation route is either to Longford or to the north west along Illawarra road.

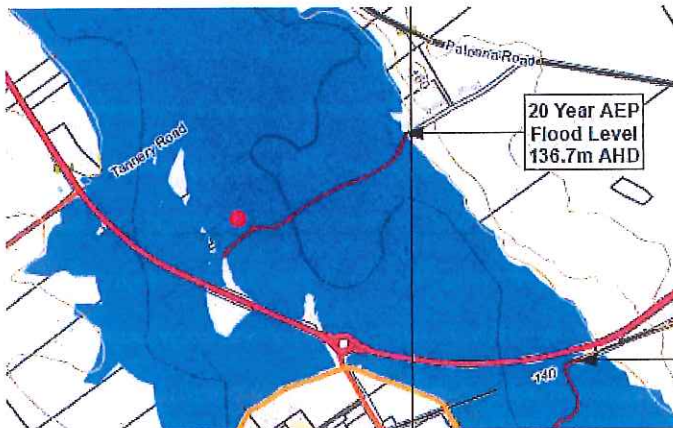


Figure 9 20 year ARI Flood Map

Whilst we do not have modelling results for lesser events it is reasonable to expect that access to the property will not be available a number of times within an average twenty-year period.

Elevated floor levels will be required to protect against property damage. An evacuation plan will also be necessary to trigger an evacuation early in any forecast flood event. Fortunately flow velocities, even during deep flow regimes, are relatively small and extraction of people stranded within an elevated floor level would be possible, though not wholly desirable.

4. ASSESMENT AGAINST THE PLANNING SCHEME

The proposal must be assessed in accordance with planning scheme requirements, and in particular Code E5 - Flood Prone Areas.

The purpose of the code is to ensure that *“use or development subject to risk of flooding is appropriately located and that adequate measures are taken to protect human life and property and to prevent adverse effects on the environment.”*

The code requires a risk assessment under Clause 5.7 and using the risk consequence and likelihood matrix.

Table E5.1 AS/NZS 4360:2004 Risk Consequence and Likelihood Matrix Table

Likelihood	Consequences				
	Catastrophic	Major	Moderate	Minor	Insignificant
Moderate	High	High	High	Medium	Low
Unlikely	High	Medium	Medium	Low	Low
Rare	High	Medium	Medium	Low	Low

c) Likelihood – Annual Exceedance Probability

- 1:25 (4%) Moderate
- 1:50 (2%) Unlikely
- 1:100 (1%) Rare

b) Consequences Criteria

- Catastrophic** Loss of life, loss of significant environmental values due to a pollution event where there is not likely to be recovery in the foreseeable future.
- Major** Extensive injuries, complete structural failure of development, destruction of significant property and infrastructure, significant environmental damage requiring remediation with a long-term recovery time
- Moderate** Treatment required, significant building or infrastructure damage i.e. loss of minor outbuildings such as car ports, public park shelters and the like. Replacement of significant property components such as cladding, flooring, linings, hard paved surfaces. Moderate environmental damage with a short-term natural or remedial recovery time.
- Minor** Medium loss – seepage, replacement of floor/window coverings, some furniture, repair of building components of outbuildings and repair and minor replacement of building components of buildings where direct access to the water is required. Minor environmental damage easily remediated.
- Insignificant** No injury, low loss – cleaning but no replacement of habitable building components, some repair of garden beds, gravel driveways etc. Environment can naturally withstand and recover without remediation.

Inundation of the site, but ground based access is still readily available and habitable buildings are not inundated, including incorporated garages.

The consequences are to be assessed under a 1% AEP, which is nominated in the Building Code of Australia (BCA) as the minimum flood event above which habitable floors must be placed.

The current design concept shows the residential building at a single level with a number of outside decks and one set of internal stairs down to an adjoining lower level garage.

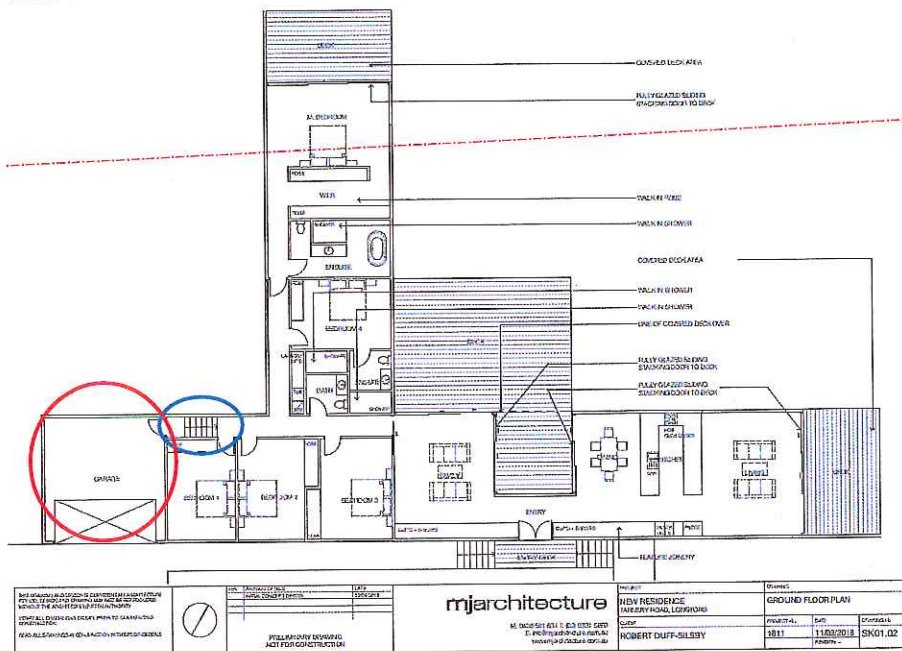


Figure 10 - Current Floor Plan

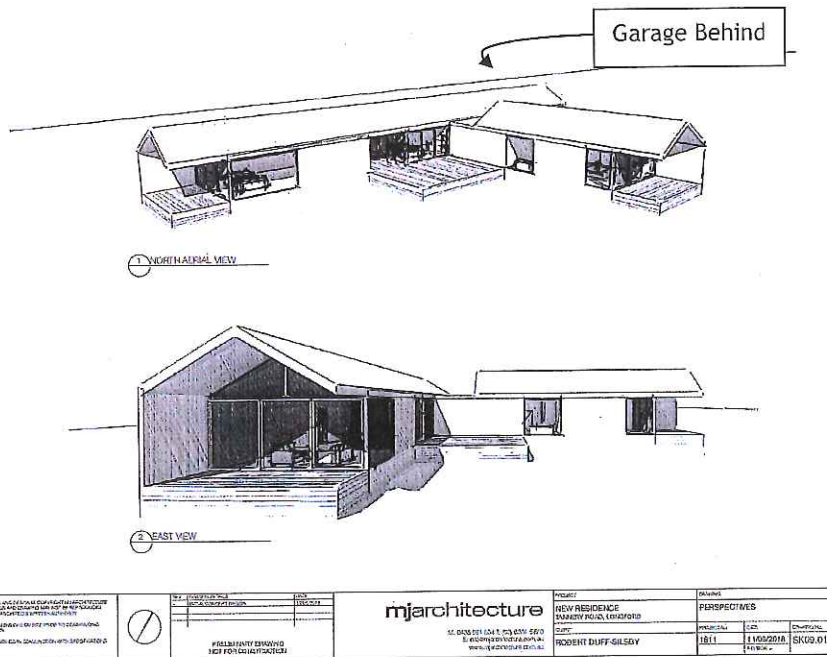


Figure 11 Elevations

It is assumed that the habitable floor levels will be located at least 0.300 m (freeboard) above the 1% AEP event flood level. It is not yet been determined whether this will be on an elevated earth platform or a building on stilts. This decision will be made after being informed by this report.

The required lift above the surrounding ground may be considerable. The 1% AEP flood level is RL 139.2 requiring a minimum habitable floor level of 139.5 AHD. With the ground level expected to be RL 135 to 136 (subject to survey clarification), this will require a floor lift of some 3.5 to 4.5 metres, enough to have comfortably place the garage below the habitable floors.

If this is the case, then the steps to the garage may need to be more than 6 as shown. In any case it is recommended that the steps be made external to the residential component of the building, rather than within it. If left as proposed water would pond up the stairs and contribute to a wet environment within the residential floor levels.

On this basis the consequences during a 1% AEP flood event are considered to be:

Likely Damage	Pre-requisites to assessment of damage.	Consequence classification
Structural Damage to habitable floors not likely	If sub structure is designed for appropriate flood loading. Velocities are low and design reasonably achievable. Low velocities also mean scour erosion is a low risk.	Insignificant
Contents damage if stored on habitable floors not likely	If moisture is kept clear of the internal floor levels and building has good ventilation.	Insignificant
Structural damage to out-buildings (garage) at ground level not likely, but some impact may occur	If structure is designed for appropriate flood loadings, including inundation above floor levels. Buildings must be permeable and able to be inundated to prevent buoyancy and high lateral forces at up to 4.0 m depth.	Minor cleanup and possible replacement of minor components.
Some content damage to out-buildings	If contents are unable to be relocated prior to inundation. Relocation is unlikely to be possible within the landholdings during any flood greater than 10% AEP (10-year ARI), unless to a constructed habitable floor.	Minor even if all contents lost this is considered a medium loss with minor to no environmental damage. Judicious location of contents in out-buildings will further limit any loss.
No risk to loss of life	If evacuation warnings are followed early there should be no loss of life. Warning likely to be 2 days from rainfall commencing and 1 day to peak level once Longford begins flood preparations.	Insignificant If an evacuation plan is prepared, maintained and implemented

	Even if people become isolated on higher habitable floors the low velocities will enable safe extraction without risk to rescuers or stranded parties, provided extraction resources are available	
--	--	--

On this analysis the consequence, subject to a number of prerequisites, is considered to be **minor to insignificant**, and the associated risk for a rare 1% AEP event, in accordance with Table E5.1, is estimated to be **LOW**.

The following is an assessment against the use and development tables in CODE E5.

E5.5 Use Standards	Performance Criteria	Comment
P1	Requires that habitable rooms subject to flooding must demonstrate that the risk to life and property is mitigated to a low risk level in accordance with the risk assessment in E5.7.	Low risk recorded in Risk assessment. Criteria met
P2	Use must demonstrate that the risk to life, property and the environment will be mitigated to a low risk level in accordance with the risk assessment in E5.7	Low risk recorded in Risk assessment. Criteria met

E5.6 Development Standards	Performance Criteria	Comment
P1.1	It must be demonstrated that development: a) where direct access to the water is not necessary to the function of the use, is located where it is subject to a low risk, in accordance with the risk assessment in E5.7 a); or b) where direct access to the water is necessary to the function of the use, that the risk to life, property and the environment is mitigated to a medium risk level in accordance with the risk assessment in E5.7.	Low Risk Criteria met NA
P1.2	Development subject to medium risk in accordance with the risk assessment in E5.7 must demonstrate that the risk to life, property and the environment is mitigated through structural methods or site works to a low risk level in accordance with the risk assessment in E5	Low Risk can be demonstrated if building is designed to withstand known flood loads.

<p>P1.3</p>	<p>Where mitigation of flood impacts is proposed or required, the application must demonstrate that:</p> <p>a) the works will not unduly interfere with natural coastal or water course processes through restriction or changes to flow; and</p> <p>b) the works will not result in an increase in the extent of flooding on other land or increase the risk to other structures;</p> <p>c) inundation will not result in pollution of the watercourse or coast through appropriate location of effluent disposal or the storage of materials; and</p> <p>d) where mitigation works are proposed to be carried outside the boundaries of the site, such works are part of an approved hazard reduction plan covering the area in which the works are proposed</p>	<p>Only mitigation steps are the design of the building to prevent buoyancy and collapse.</p> <p>NA - Low velocities indicate building is not on main channel</p> <p>NA especially if house on stilts which is more likely. Limited impact if on earth platform</p> <p>Minor if out-building (garage) storage is limited to domestic goods. Septic Tank may be at ground level, but this is still considered minor.</p> <p>NA</p>
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5. CONCLUSION

The proposed building is located in an area of potential flooding to depths of up to 4 metres. An accurate ground survey should be obtained to be more accurate with this estimate.

Longford flood mapping provided by the Northern Midlands Council has been used to assess flood levels. Launceston City Council, an adjoining municipality, commissioned a revision of hydrology for the South Esk River in 2018, and the 1% AEP discharge was considered to have increased from 3,000 m³/s (by ENTURA) to 4,000 m³/s (BMT). The difference related to the accuracy of flood levels occurring in the mid-1800's. This discrepancy cannot be resolved in this report and the existing mapping system has been used.

There is a substantial vintage building located 90 metres to the north on Tannery Road. The lower floor is at ground level, but there are multiple floors. This is not a justification for creating additional risk, but it does mean that there are already instance of the need to be flood aware in the vicinity. The proposal will need to have a similar high degree of flood awareness.

Warning times of a potential flood arrival may be up to 2 days from high rainfall in the upper catchment, and a warning of a need to commence evacuation may be up to 1 day prior to the peak arriving. If evacuation were left too late occupants could be stranded

within the building. This may not be a risk to life for events less than the design flood event (1% AEP) if the building is appropriately designed as described.

Velocities are considered low, notwithstanding the high depth of flow at the peak of the flood. This will make design simpler but will also mean that rescue is not necessarily perilous for any trapped or rescuing parties, if such resources are available.

It is possible to design a habitable dwelling that can be elevated above a 1% AEP flood and to withstand the likely flood forces. This is most likely to be provided by an elevated building on stilts.

Steps leading up to the habitable floor level should be provided externally to the building, rather than in the building unless potential moisture and damp transference can be well managed.

Out buildings including any car garage at ground level may be at risk of being inundated at frequencies of up to a number of times every twenty years (a >5% AEP flood). Contents of the outbuildings may be lost during such events unless warnings allow relocation to an alternative higher level. There is not likely to be any higher ground within the property.

A risk assessment conducted in accordance with Code E5.7 of the Northern Midlands Planning Scheme has revealed that the risk is low, providing a number of precautions are followed. These precautions are not particularly onerous, but they are real, and occupants of the premises would need to maintain a level of robust vigilance and preparedness against the flood risk. This is unable to be mandated or regulated but would not be uncommon in the Longford area. When the Longford community begins implementing its flood defenses the occupants would need to consider implementing their own evacuation plan.

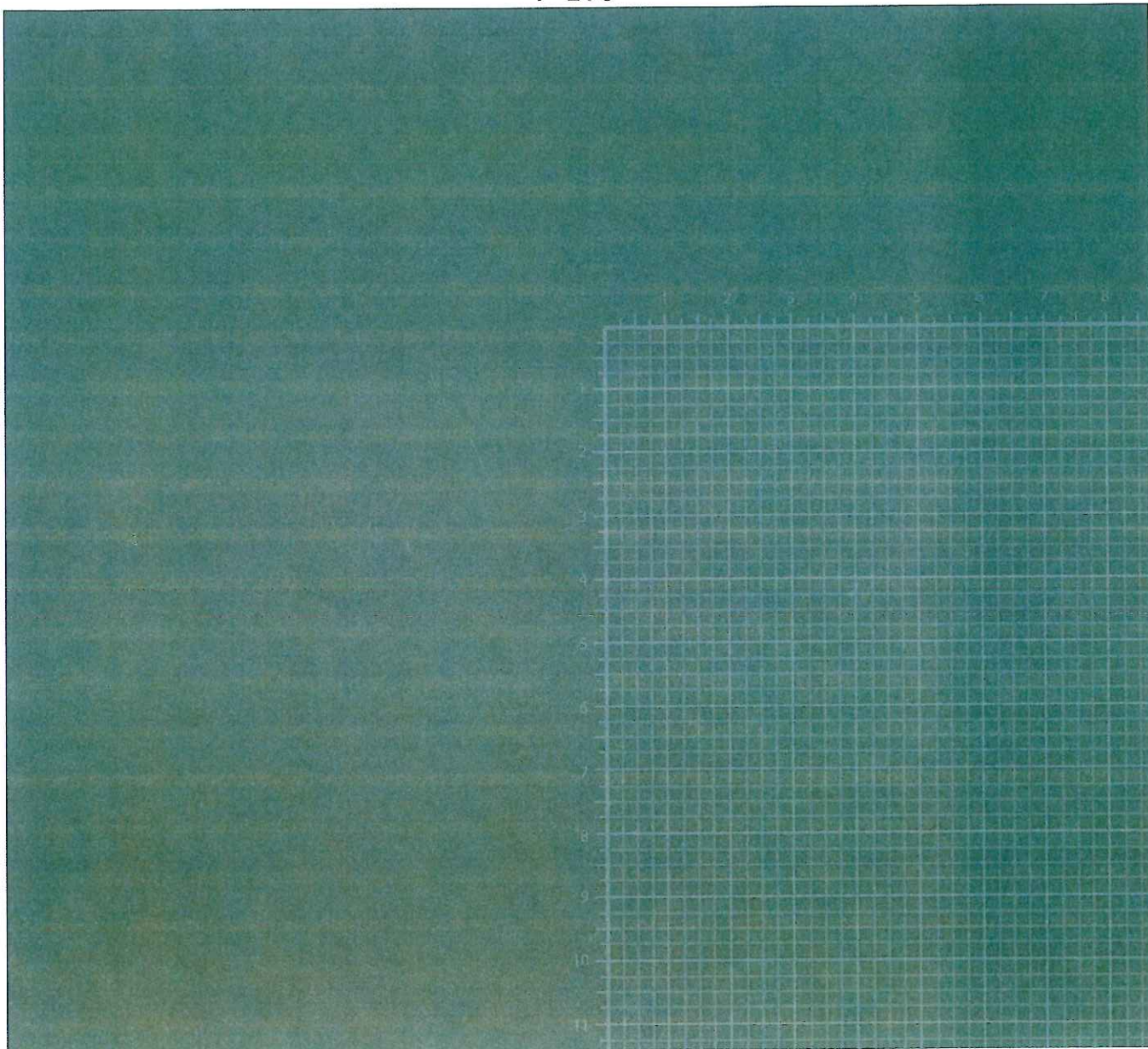
A suitably considered application, taking into account the prerequisites listed in this report, is capable of satisfying the planning scheme performance criteria Code E5 - Flood Prone Areas Code

Signed

JOHNSTONE-McGEE & GANDY

Geoff BRAYFORD
SENIOR CIVIL ENGINEER

Dip. Tech (Civil Eng), BE (hons), LGE (NSW), MBA,



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Engineers & Planners
Your Vision is Our Mission

EXHIBITED

JMG Ref: J192271
 Client Ref:

8th November 2019
 The Planner
 Northern Midlands Council
 Longford

FLOOD RISK REPORT
 PID 3276264 Tannery Road Longford FOR Robert Duff-Silsby
 11300.05; PLN 19-0192

Dear Sir/Madam

JMG prepared a flood risk report for the above property in August 2019.

The Northern Midlands Council has since sent a request for additional information to the applicant dated 24th October 2019. JMG has received an extract of that request (7/1/2019) stating the following:

"Flood Prone Area Code

The site is mapped as a flood prone land and is therefore is subject to the Flood Prone Area Code. An 'insignificant' consequence criteria requires that "ground based access is still available". If, in a moderate flood event, ground based access is not available, the consequences criteria would be 'minor', resulting in a medium risk level. Please demonstrate how the relevant performance criteria will be met in this regard."

My first observation is that the risk assignment guideline matrices Council refers to does not categorise the consequences into 5 discrete descriptions. Instead 5 descriptions encompass a spectrum of possible outcomes. It would be incorrect to suggest that because an event does not fit neatly into a single description that it could not still be classified as such. If that were to be true then any event that did not fit neatly into any one category would be unclassifiable and the whole assessment would fail.

It is certainly also not the case that one must adopt the highest consequence criteria that is above the prevailing conditions. Instead the task is to find the classification that best fits the event under consideration.

The user must therefore often make an informed decision as to which description best matches the circumstance. In some cases it may be useful to use two alternative classifications and consider a "bridged" response in the guideline matrix - such as minor/insignificant and perhaps a result of low/medium risk.

In the case at hand we are not of the view that the consequence fits the minor description category as suggested. Instead we are firmly of the opinion that Insignificant remains the best category to aptly describe the instance.

The alternate consequence categories are:

Minor

Medium loss - seepage, replacement of floor/window coverings, some furniture, repair of building components of outbuildings and repair and minor replacement of building components of buildings where direct

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 as trustee for Johnstone
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EXHIBITED

access to the water is required. Minor environmental damage easily remediated.

Insignificant

No injury, low loss - cleaning but no replacement of habitable building components, some repair of garden beds, gravel driveways etc. Environment can naturally withstand and recover without remediation.

Inundation of the site, but ground based access is still readily available and habitable buildings are not inundated, including incorporated garages.

Our assessment indicates that habitable buildings need not be at risk of inundation. They can be elevated above the flood levels and designed to withstand the relevant velocities.

In a RARE event considered (1% AEP) there would be

no injury, low loss - cleaning but no replacement of habitable building components, some repair of garden beds, gravel driveways etc. and the environment can naturally withstand and recover without remediation.

This clearly matches the first paragraph description of "Insignificant".

The second paragraph of the insignificant description appears to be the one of concern to council. Any interpretation is going to be vague due to the structure of the clause. The consequence description includes an expectation of inundation of the site, not just a part of the site, but reasonably the whole site. What proper meaning can be ascribed to "but ground based access is still readily available" whilst a property is inundated is most unclear.

If it is meant to mean that an escape path to higher ground exists and is not impeded as water slowly rises up the contour then this can be met at this site.

The site has a boundary with Illawarra Road which is in fact elevated at this location and can form a reasonable escape path that will then lead to higher ground. This is ground based access and is presumably what is meant.

The remainder of the second paragraph includes :

- that habitable buildings are not inundated.....
This has been met
- including incorporated garages.
This has been discussed in our report and we made recommendations that the garage may not be able to be incorporated as originally proposed, and with internal steps leading directly into the house. We suggested that the garage may need to be placed under the building with external access, or even separated from the building. We are of the view that this would not then be an incorporated garage but at best car parking space under an elevated building.

We submit therefore that the insignificant description accurately describes the circumstances at hand.

The 'minor' description predominantly requires medium loss and replacement of floor & window coverings furniture and replacement of building components. None of this is likely in any flood event.

The 'insignificant' description accurately describes the situation, and even if it did not it is the better categorisation of the alternatives. If the garage was in fact 'incorporated' we would still favour the 'insignificant' description as more appropriate.

Accordingly, we would not change our risk consequence rating from insignificant. This would mean that for all likelihood events of moderate, unlikely and rare the risk score would remain low, and our report does not change.

This site is at risk of flooding and to reasonably deep depths. We could not support any recommendation for wide scale development at this location. We have however assessed a single application against the provisions of the planning scheme and found that the risk can be considered low.

We reiterate, from our original report, that it will be important however that the building design is undertaken to withstand the known forces from flood waters that might affect its sustainability, and that it should be elevated above the known flood levels we indicated.

The occupants, from time to time, will also have to remain informed about the Northern Midlands Flood warning procedures, and be able to evacuate themselves as required, and in accordance with their own natural hazard plan. Should evacuation be delayed too long then the building, if designed appropriately, would protect people until flood waters dissipated or rescue and extraction was able to be organised. Estimated water velocities are not extreme and would be unlikely to prevent extraction if this became necessary.

Please contact me for any further discussion.

JOHNSTONE MCGEE & GANDY PTY LTD



Geoff BRAYFORD
SENIOR CIVIL ENGINEER

Our ref: 113000.05; PLN-19-0192
Enquiries: Erin Boer



**NORTHERN
MIDLANDS
COUNCIL**

24/10/2019

Michael Jirku
P.O. Box 5285
LAUNCESTON 7250
via email: info@mjarchitecture.com.au

Dear Mr Jirku

Additional Information Required for Planning Application PLN-19-0192- Dwelling, access & adhesion of 3 titles (Flood Prone Area, vary setbacks, within Attenuation Distance to Abattoir) at Tannery Road, Longford

I refer to the abovementioned application, which has been further reviewed by Council's Planners. The following information is required to allow consideration of your application under the *Northern Midlands Interim Planning Scheme 2013*:

- **Flood Prone Areas Code**
The site is mapped as a Flood Prone Area, and is therefore is subject to the Flood Prone Areas Code. An 'insignificant' consequence criteria requires that "*ground-based access is still readily available*". If, in a 'moderate' flood event, ground based access is not available, the consequence criteria would be 'minor', resulting in a 'medium' risk level. Please demonstrate how the relevant performance criteria will be met in this regard.
- **Address Performance Criteria of the Rural Resource Zone & Revised Land Capability Report**
The images contained in the Land Capability Report are of poor resolution and are unable to be deciphered. The report also does not provide any comment on the proposals compliance with the performance criteria of clause 26.3.2. As a variation to the 200m setback requirements for a sensitive use is also sought, compliance with clause 26.4.1 P2 must also be demonstrated. Please provided a revised report with higher resolution images and address the relevant performance criteria.
- **Revised site Plan**
Please provide a revised site plan that correctly depicts the location of the neighbouring buildings.

- **Site Specific Study**

As the subject site is in the Attenuation Distance of the Longford Abattoirs, and a dwelling is a sensitive use, a site-specific study is required as per E11.0 (Environmental Impacts and Attenuation Code). The Northern Midlands Interim Planning Scheme 2013 is on our website under Publications > Interim Planning Scheme. The link is: http://www.northernmidlands.tas.gov.au/Page/Page.aspx?Page_Id=121

The study must show that there will not be environmental harm, having regard to the:

- a) degree of encroachment; and
- b) nature of the emitting operation being protected by the attenuation area; and
- c) degree of hazard or pollution that may emanate from the emitting operation; and
- d) the measures within the proposal to mitigate impacts of the emitting activity to the sensitive use.

A *pro forma* for a site-specific study is attached.

Therefore, in accordance with Section 54 of the *Land Use Planning and Approvals Act 1993*, the statutory period for processing the application will not recommence until the requested information has been supplied to the satisfaction of the Planning Authority. It is a requirement of the Planning Authority that all correspondence, if emailed, is sent to planning@nmc.tas.gov.au and referenced with the planning application number **PLN-19-0192**. If you have any queries, please contact Council's Planning Section on 6397 7301, or e-mail planning@nmc.tas.gov.au

Yours sincerely



Erin Boer
URBAN AND REGIONAL PLANNER

Our ref: 113000.05; PLN-19-0192
Enquiries: Erin Boer



**NORTHERN
MIDLANDS
COUNCIL**

11/12/2019

Michael Jirku
P.O. Box 5285
LAUNCESTON TAS 7250
via email: info@mjarchitecture.com.au

Dear Mr Jirku

Additional Information Required for Planning Application PLN-19-0192- Dwelling, access & adhesion of 3 titles (Flood Prone Area, vary setbacks, within Attenuation Distance to Abattoir) at Tannery Road, Longford

I refer to the abovementioned application, and additional information supplied in relation to my previous further information request dated 24.10.2019, which has been further reviewed by Council's Planners.

The following information is required to allow consideration of your application under the *Northern Midlands Interim Planning Scheme 2013*:

- Updated elevations to show ground levels to match site survey or flood report levels. I note that ground elevations at the site are likely to be between 135-136 AHD based on Government Data (see below). This is required to accurately show the height of the floor level, relative to natural ground level.



- Corrected pictures in Ag report as previously requested – please note that I have also contacted the author of this report directly with regard to this request.

Therefore, in accordance with Section 54 of the *Land Use Planning and Approvals Act 1993*, the statutory period for processing the application will not recommence until the requested information has been supplied to the satisfaction of the Planning Authority. It is a requirement of the Planning Authority that all correspondence, if emailed, is sent to planning@nmc.tas.gov.au and referenced with the planning application number **PLN-19-0192**. If you have any queries, please contact Council's Planning Section on 6397 7301, or e-mail planning@nmc.tas.gov.au

Yours sincerely



Erin Boer

URBAN AND REGIONAL PLANNER

REFERRAL OF DEVELOPMENT APPLICATION PLN-19-0192 TO WORKS & INFRASTRUCTURE DEPARTMENT

Property/Subdivision No: 113000.05

Date: 17 March 2020

Applicant: MJ Architecture

Proposal: Dwelling, access & adhesion of 3 titles (Flood Prone Area, vary setbacks, within Attenuation Distance to Abattoir)

Location: Tannery Road, Longford

W&I referral PLN-19-0192, Tannery Road, Longford

Planning admin: W&I fees paid.

STANDARD CONDITIONS FOR DWELLINGS

W.2 Access

- a) Access works must not commence until an application for vehicular crossing has been approved by Council.
- b) A hotmix driveway crossover shall be constructed and all works must be done in accordance with Council Standard Drawing TSD-R09 and to the satisfaction of the Works Manager.

I note that this is in the flood area. This is a concern for Works and Infrastructure and our preference would be to recommend refusal if the planning scheme allows.

Jonathan Galbraith (Engineering Officer)

Date: 18/3/20

Mark and Sue Jackson

1022 / 38 Tannery Road Longford TAS 7301 AUSTRALIA

Our Reference: 200320-L-GEN

20 March 2020

The General Manager

Northern Midlands Council

13 Smith Street, Longford, TAS 7301

PO Box 156, Longford, TAS 7301

To whom it may concern

Subject: Representation to Application for Permit (Reference No: PLN-19-0192)

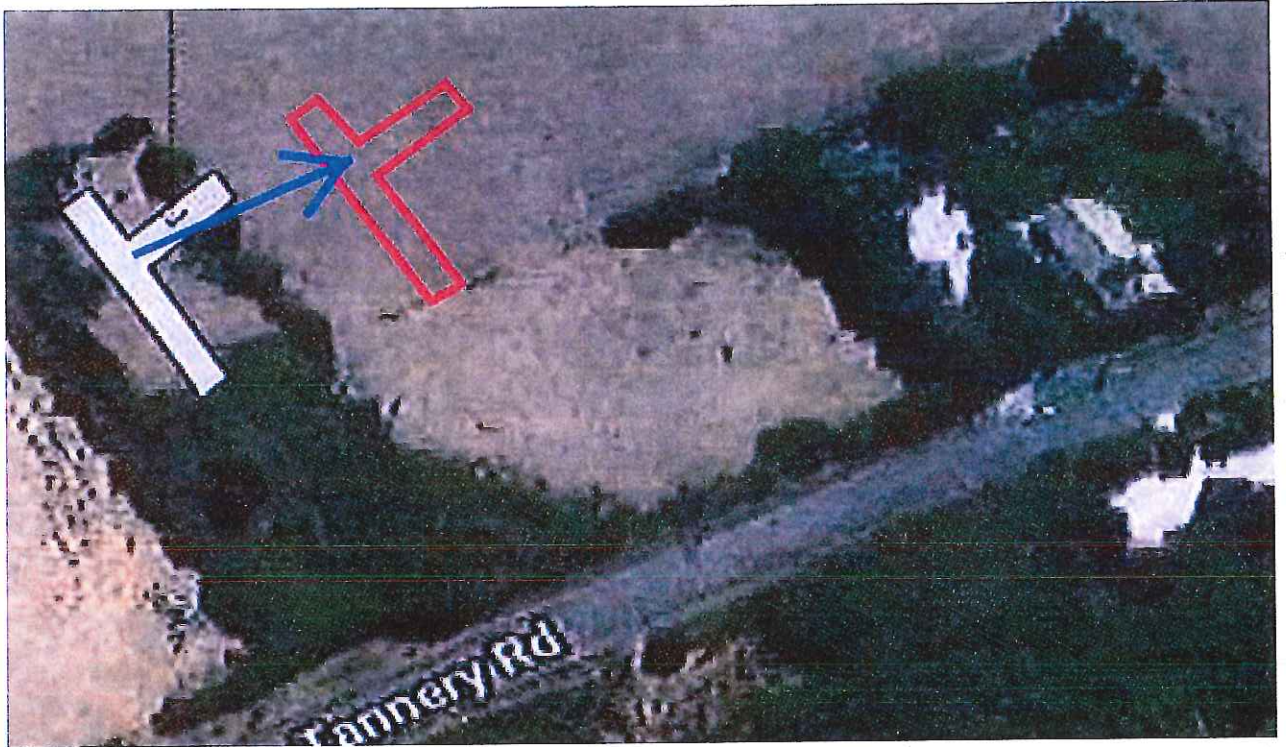
This letter is written in response to the Notice of Application for Permit (Reference No: PLN-19-0192) erected along Tannery Road, Longford, on or around the 18/03/2020.

The application documentation has been reviewed on the Northern Midlands Council (NMC) website, and as the owner of the occupied property to the immediate North-North-East of the proposed works (at 38 Tannery Road) we wish to raise a general concern about the development. The basis for that concern stems primarily from a belief that this proposal will fundamentally change the overall outlook of the area, which is currently very much rooted in a historical sense around the heritage listed 'Old Brick Tannery' that is our residence, along with the original hedgerows and agrarian utilisation. We believe that the modern design of the proposed development is not be in sympathy with its surrounds and could impact our current semi-isolated lifestyle and the potential value of our property to people of a similar bent as ourselves in the future.

With specific reference to the application documentation itself, the following issues are raised for consideration by the NMC in granting the requested permit.

1. A small item, but one worth noting from an accuracy and completeness perspective, is that from a review of drawing D00.00 (Cover Sheet) it is believed that the location shown for the new residence is incorrect, and should in fact be shown more to the right (north) of that location, in the open paddock area as opposed to

the old back yard space of the house block within Lot# 245427. Please refer to the following extract from the referenced drawing with the correction shown.



2. Within the application, and specifically the MJ Architecture drawing package, there are various indications that a raised berm of approximately 1.5m in height (estimated from contours on drawing D01.02) is to be developed to mitigate the potential impacts from flooding, for which the following points are raised (generally as a result of my experience in the industrial and energy construction industries):
 - a. At the outset, the need to construct a berm at all is questioned, particularly as the location chose for it appears to be some of the lowest lying land within the footprint of the three specific lots (245427/1, 127518/3 and 233429/1) associated with this application. Within these lots there is higher ground running NW-SE through the middle section of the subject land, the majority of which would achieve the desired 1.5m rise being sought without the need for a berm. Further, the proponent is also the owner of neighbouring lots (127518/5, 127518/4 and 22090/1) through which this higher ground continues to extend to the NW. This would place the development closer to Illawarra Road (B52) but would reduce the amount of civil works required, as well as mitigate some of the other issues detailed below.
 - b. The construction of this berm has a strong likelihood of creating excessive dust which will then impact on our property, located 20-30 meters away. This occurrence would be unacceptable. If the works are approved, it is expected that a condition will be applied for the proponent to ensure that

active dust suppression measures are put in place to limit or remove the risk of dust impacting our block during all stages of the construction of the berm, including the laying, compacting and settling of the material.

- c. The construction of the berm will result in a marked increase to the ambient noise profile for this location, particularly as a result of material delivery and mechanical compacting. This occurrence would also be unacceptable. It is expected that if approved then such conditions be applied to the proponent to limit this increase in noise both from an absolute perspective as well as through mandating appropriate time limits on when these activities can be undertaken.
 - d. To construct the berm there will be a requirement for the delivery to site of a significant amount of material of varying sizes, requiring a marked increase in the volume of heavy vehicle traffic along Tannery Road. This will have an amenity impact on our usage of the road, an associated increase in noise and other pollution from these vehicles and the likely degradation of the road itself. It should also be noted that Tannery Road experiences a large amount of "hoon" traffic at various times of the year which includes speeding and the conduct of "circle work" at various points along its length. If approved, It is expected that such conditions be applied to require the proponent to:
 - i. limit the passage of heavy vehicles in general;
 - ii. limit that passage to appropriate days/times to minimise their impact us (and other users of Tannery Road);
 - iii. mitigate/rectify any degradation of the condition of Tannery Road as it occurs, and not wait until the completion of the works; and
 - iv. implement appropriate traffic control measures, especially to mitigate the risks posed by the presence of 'hoon' traffic.
3. From the documentation and drawings, particularly the latter, it appears that in addition to the creation of the ~1.5m berm to mitigate the effects of flooding, the building itself will be raised on top of the berm. According to drawing D02.01 it appears that the building's floor level will be 2m above the tallest point of the berm. This places the floor level at 3.5m above the existing ground level, and the roof line at nearly 7m (also D02.01). It is suggested that this building, even with the setbacks proposed will provide an unacceptable impact to our visual amenity, affecting the privacy of both residences without the addition of shielding in excess of the trees that are already in place. No recommendations to mitigate this are provided at this

time, but it is expected that this issue be considered by the council in their determinations.

4. Once constructed, the berm and building are likely to impact the way in which water will flow in event of flood, notably that it will divert a higher volume and velocity of the flow towards our property that will impact the integrity of our buildings which is unacceptable. It is noted that JMG have undertaken a flood risk assessment for the proponent (evidenced by their August 2019 report (the *Report*) and subsequent clarifying letter of November 2019 (the *Letter*)). It is also noted that the *Report* does not appear to have considered the impacts of altering the flow around the development once constructed. Prior to approval, it is expected that the proponent (or more specifically their consultants) will be directed to undertake and report on these impacts, and to identify such additional mitigations that will be implemented to ensure no detriment to our property is caused.
5. With continuing reference to the JMG documents, while this work did consider possible flood levels, depth and velocity of flow, it is noted, however, that more current data from the 2016 flooding event has not been sourced for this analysis, particularly for assessing impacts of 100-year levels (which 2016 met). Further, the specifics of the 2016 flooding should also be focussed, in that it resulted from major flooding events of not just the South Esk, but the majority of its feeding rivers (Macquarie, Nile etc), which, while not impacting the flood peak height, likely will have resulted in an increased water 'pressure' in terms velocity etc. Finally, while the assessment is, by necessity, a theoretical undertaking using available historic data and the experience of those involved, from a lived experience perspective of the 2016 floods it is suggested that a more conservative approach to the assessment of flood risk should be considered as even the proposed ~3.5m height of the floor above the current levels could be an issue.
6. With final reference to the JMG report, when discussing Warning Times (section 3.4) the reasons are not clear as to why they have dismissed the Perth 10-hour warning finding in favour of the 20-hour Trevallyn warning. It is suggested that the Perth data, which is based on a river system similar to that experienced at Longford, would be more appropriate than that measured/estimated for a large catchment and dammed area like Trevallyn. Further to this, any available data from the 2016 events would be better suited to make an assessment, as from an anecdotal perspective of the 2016 floods, the Perth timings would be closer for the proposed site, if not a slight amendment to 15 hours.

7. In drawing D01.02 it is noted that an onsite wastewater system and irrigation area are proposed in the areas closest to our property which is unacceptable. It is expected that the proponent reconsider this or, if approved, be directed to implement such measures that minimise the potential for runoff into our property as a part of normal operation, as well as situations where the water table rises as part of non-flooding and flooding events.

We thank you for the opportunity to raise these concerns for inclusion in your assessment of the subject permit application, and we are available to discuss any of these (and other items as required or are necessary) at your convenience.

Yours Sincerely,



for
Mark and Sue Jackson