

FINANCIAL MANAGEMENT SYSTEMS REVIEW

APRIL 2016

Scope of Review

In accordance with Section 6.10 of the *Local Government Act 1995* and Section 5 of the *Local Government (Financial Management) Regulations 1996*, it is a requirement to undertake a review of the appropriateness and effectiveness of the financial management systems and procedures of the Shire of Nannup as listed below:-

Proper systems and procedures are to be established by the CEO of the Local Government:

- (a) For the proper collection of all money owing to the local government;
- (b) For the safe custody and security of all money collected or held by the local government;
- (c) For the proper maintenance and security of the financial records of the local government (whether maintained in written form or by electronic or other means and process;
- (d) To ensure proper accounting for municipal or trust;
 - (i) Revenue received or receivable
 - (ii) Expenses paid or payable
 - (iii) Assets and liabilities
- (e) To ensure proper authorisation for the incurring of liabilities and making of payments;
- (f) For the maintenance of payroll, stock control and costing records; and
- (g) To assist in the preparation of budgets, budget reviews, accounts and reports required by the *Act* or these *Regulations*.

The CEO has undertaken the Financial Management Systems Review in accordance with the Section 6 of the *Local Government (Financial Management) Regulations 1996* (see below extract) as the Manager Corporate Services is the officer delegated with the responsibility for the day to day accounting and financial management for the Shire of Nannup;

6. Audits and performance review of accounting staff etc., who may conduct

A local government is to ensure that an employee to whom is delegated responsibility for the day to day accounting or financial management operations of a local government is not also delegated the responsibility for —

- (a) conducting an internal audit; or
- (b) reviewing the discharge of duties by that employee,

or for managing, directing or supervising a person who carries out a function referred to in paragraph (a) or (b).

In respect to the last paragraph of the above Section, the Department of Local Government was contacted regarding the ability of the CEO to perform the Review and Departmental staff confirmed that this was acceptable.

SYSTEMS AND PROCEDURES REVIEW

1. For the proper collection of all money owing to the local government

Internal controls relating to the collection of all money falls under the following areas:-

- General Income
- Debtors
- Receipts
- Banking
- Bank Reconciliations
- Investment Reconciliations

General Collection of Monies

All monies collected over the counter are receipted immediately with receipts issued to customers to validate payment. Cheques received via mail are recorded and receipted on the day received. At day end, the Administration/Finance Officer and Trainee jointly balance the monies received and cash and cheques are then transferred to the safe for banking on the following day. If the daily takings are not balanced at end of day, which is a rare occurrence, this is reported to the Corporate Services Officer who assists the above officers in identifying errors/omissions to reach a conclusion and to rectify monies received.

Electronic Fund Transfers (EFT's) and Direct Debits

Electronic Fund Transfers are becoming a popular way for customers to pay accounts and these are monitored by Council's Corporate Services Officer through Council's internet banking service. "B Point" payments can also be made via Council's web page and the payments are noted through remittance advice and are uploaded to the person's assessment record weekly and balanced accordingly at end of month. The Shire has a special ongoing Direct Debit for payment of rates and this is organised through a special "Payment Agreement" which is collated/balanced at end of month by the Corporate Services Officer.

Bank and Investment Reconciliations

Monthly reconciliations for Investments are carried out on a monthly basis by the Corporate Services Officer and are authorised for accuracy and completeness by the Manager Corporate Services.

Conclusions/Findings

It is considered that a robust process/method for the collection and recording of all money owing to the Local Government is maintained and the cross checks that are in place ensures proper reporting is maintained.

2. For the safe custody and security of all money collected or held by the local government

As indicated in Point 1, at end of day receipting, monies received are balanced and locked in the safe and banked the following day. The only times that considerable cash is held on the premises is during high rate collection periods. The safe's combination is only kept by the three officers directly involved in the receipting process which ensures safe custody of the monies and other legal documents held in the safe.

Security measures are continually monitored by the Manager Corporate Services and when appropriate, changes are made to ensure that ongoing security is maintained. The Shire Office has an alarm system in place that is activated when the last person leaves the office at days end.

Conclusions/Findings

Appropriate procedures and processes are in place for the safe custody and security of all money collected or held by the Local Government. Ongoing monitoring and implementation of improvements where required maintains this level of custody.

3. For the proper maintenance and security of the financial records of the local government (whether maintained in written form or by electronic or other means and process)

Data file back-ups are undertaken on a daily basis and the tape is stored in the safe. On Friday afternoons the back-up tape is then transferred to the Shire Depot and held in the Archival Records Room for a period of 2 weeks. A second back-up tape is used the following week for the same procedure to ensure that there is not a significant lapse of time in the event fire, theft or other type of disaster.

In 2015 a review of Council's Record Keeping Plan was undertaken and a Disaster Recovery Plan was included which addresses the risk of significant delays and business interruption in the event of a disaster. The Disaster Recovery Plan was endorsed by the State Records Office as part of the Shire of Nannup's Record Keeping Plan.

Conclusions/Findings

The current process is acceptable however in the event of a major fire or theft, up to one week of work would be lost as documents that in the event of a fire back-up tapes in the safe would most likely not survive intense heat. The only way to minimise this loss would be for an officer to take the back-up tape home on a daily basis but this method also has its disadvantages because of the same issues in the home situation.

4. To ensure proper accounting for municipal or trust;

- Revenue received or receivable
- Expenses paid or payable
- Assets and liabilities

For the purchase of goods, Purchase Orders are made through Policy No. ADM 4 and this was reviewed at Council's Ordinary meeting in January 2016 to ensure that the Policy remained relevant to the *Local Government Act 1995* and *Local Government (Functions and General) Regulations 1996*.

Council's Administration/Finance Officer is charged with the creditor's functions and this overseen by the Manager Corporate Services. All payments are signed off by the appropriate purchasing officer and assigned cost allocations before being processed for payment. Once processed they are then handed to the Manager Corporate Services and CEO for separate authorisation via electronic payment through the Commonwealth Bank's internet banking, or cheques are signed by both Officers as a cross check for correct payment. Should one of the senior officers be on leave, two Councillors can be called upon to co-authorise payments.

As per the Tender Regulations, any project over \$150,000 must go through a formal Tender process. The Regulations deal with the process to be followed and a Tender Register is maintained by staff. Purchases/projects under the above value are governed by Council Policy ADM 4. Major assets purchased are recorded in Council's Asset Register in accordance with the Accounting Standards.

It should be noted that major purchases are not ad-hoc and are listed in annual Budgets.

Conclusions/Findings

The processes in place for accounting of Municipal and Trust is well managed and the control of expenses payable and accounting for assets and liabilities meets Accounting Standards and practices. Annual Audits in the past have not detected negative findings in the processes adopted by the Shire of Nannup.

5. To ensure proper authorisation for the incurring of liabilities and making of payments

See Point 4.

Conclusions/Findings

It is considered that this has been addressed in previous conclusions/findings.

6. For the maintenance of payroll, stock control and costing records

The Shire of Nannup's Payroll is managed by Council's Corporate Services Officer. Individual employee's payroll records are stored securely however, hard copy payroll reports from pay runs are stored in the unsecured File Room. Whilst not ideal, secured storage space is limited within the Shire Office and it is considered that the risk of unauthorised access and distribution of these records is limited.

Time Sheets for the outside employees are managed by the Works Supervisor and signed off by the Manager for Infrastructure and are delivered to the Payroll Officer with appropriate cost allocations for processing pay runs. Allocations for costing records are deemed to be appropriate via the above method.

Payroll records are transferred to the Archival File Room located at the Shire Depot periodically to make space for current records in the Office Filing Room. Council's Administration/Finance Officer maintains the Archival records in the accordance with State Records Office and the Shire of Nannup's Record Keeping Plan protocols

Annual Reviews for all staff have been undertaken in the first quarter of 2016 as per the requirements of Section 5.38 the *Local Government Act 1995*. Results of the Reviews have been provided in writing to the employees and copied placed on their respective employee files.

In relation to stock control, it is considered that the processes are suitable for the recording of stock and this has been evidenced by recent interim and annual audits undertaken by Council's appointed Auditors, AMD.

Conclusions/Findings

The Shire of Nannup's procedures for the maintenance of payroll, stock control and costing records are well managed and maintained and considered appropriate for the size and capabilities of the Office and its staffing levels. The regular transferral of records from the Office to the locked Depot Stand Alone Archival Room ensures that all records are not stored in the one location.

7. To assist in the preparation of budgets, budget reviews, accounts and reports required by the Act or these Regulations

Budget Preparation

The overall responsibility with Budget preparation is with the Manager Corporate Services with input from the Manager Infrastructure and CEO with regards to their respective areas. Budget preparation for the 2016/2017 financial year commenced in March 2016 and the first Budget Workshop with Councillors was held in early April 2016. A second Workshop was held in mid-April and a further two Workshops have been scheduled in May to consider rate in the \$ scenarios prior to presentation of the document to Council for adoption in June 2016.

This is considered to be an orderly process to ensure that Councillors are fully informed of the implications of the Budget and all costs incorporated into the document.

Budget Reviews

The Manager Corporate Services presented a Budget review for the 2015/2016 financial year to Council at its February 2016 Ordinary meeting in accordance with Section 33A of the *Local Government (Financial Management) Regulations 1996*. The Budget Review is managed by the Manager Corporate Services with input from the Manager for Infrastructure and the CEO.

Annual Reports

The Annual report was completed within the required timeframes. Due to the lateness of the Annual Audit it does mean that Council's Annual Meeting of Electors is being held in February, some 7 months after the completion of the relevant financial year, which is not ideal.

Conclusions/Findings

As per the requirements of the Local Government Act 1995, Annual Budgets, Budget Review and Annual Financial Statements and Reports are forwarded to the Department of Local Government and Communities. There have been no adverse reports from the Department concerning these documents so it is assumed that Council is meeting its obligations in respect to the reporting requirements.

Annual Audit Management Reports that are addressed to the CEO and Shire President, and which were addressed at a recent Audit Committee meeting, have highlighted areas for improvement in general accounting practices.

General Overview

During the conduct of this review it was found that the Shire of Nannup has sound systems and procedures for the effective financial management of its operations. It was acknowledged by staff that improvements can, and are being made, with recommendations from Council's Auditor's and through liaison with other local governments regarding their operations.

This Review is required to be conducted every 4 years with the next Review occurring prior to 30 June 2020.



Peter Clarke
CHIEF EXECUTIVE OFFICER

Dated.....14/4/2016.....



St Brigid's Parish

Steere Street
Bridgetown WA 6255

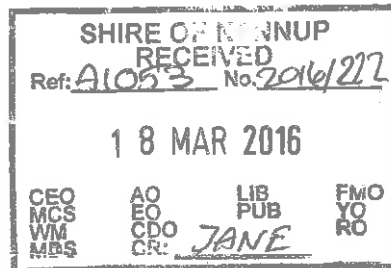
PO Box 131
Bridgetown WA 6255

Contact :- Office Phone/Fax – (08) 9761 2617
Facsimile – (08) 9761 2617
Presbytery – (08) 9761 1241
Email – stbrigidsbridgetown@bigpond.com



11 March 2016

Development Services Officer
Shire of Nannup
PO Box 11
Nannup WA 6275



Attention: Ms Jane Buckland

Dear Jane


Development Application – Lot 100 Warren Road, Nannup

Thank you for the opportunity to comment on the Development Application for Lot 100 Warren Road, Nannup.

We do not see any issues with the proposed application.

Could we please request, that due to the premises being so close to the boundary, that a fence be installed to delineate the new development from the Catholic Church.

Yours Faithfully


PATRICK SCALLAN
Chairman - Parish Finance Committee

11 March 2016
Date



Tel: (08) 9756 1177
Fax: (08) 9756 1141
admin@nannuprealestate.com.au
www.nannuprealestate.com.au

18 February 2016

Jane Buckland
Development Services Officer
Shire of Nannup
PO Box 11
NANNUP WA 6275

Dear Jane

**DEVELOPMENT APPLICATION – LOT 100 WARREN ROAD, NANNUP
RESIDENCE AND MEDICAL PRACTICE**

Thank you for your letter of 17 February 2016. We support Dr Kushdev Singh's application to develop and establish his residence and medical practice as described in the development application provided by you.

We believe Dr and Mrs Singh will be a welcome addition to our town and having a dedicated medical practice in Nannup will enhance and enrich the community overall.

Yours sincerely

Chris Roycroft
Principal/Licensee

Kim Roycroft
Licensed Real Estate and Business Agent



mainroads
WESTERN AUSTRALIA

Enquiries: Paul Davies
Our Ref: 14/857
Your Ref: A1746

SHIRE OF NANNUP			
RECEIVED			
Ref: <u>A1746</u>		No: <u>2016/158</u>	
29 FEB 2016			
CEO MCS WM MDS	AO EO CDO CR: <u>JANE</u>	LIB PUB	FMO YO RO

26 February 2016

Chief Executive Officer
Shire of Nannup
PO Box 11
NANNUP WA 6275

Attention: Jane Buckland

Dear Jane

PROPOSED RESIDENCE AND MEDICAL PRACTICE - LOT 100 WARREN ROAD NANNUP.

I refer to your correspondence of 17 February 2016 and advise that Main Roads has concerns in regard to the proposed access/crossovers to Warren Road for the proposed development.

The proposed development plan indicates a very wide crossover for the full width of the building frontage with disabled parking bays at the front of the proposed building. Also, a second driveway/crossover is proposed for access to car parking bays at the rear of the premises.

The proposed wide crossover and parking bays at the front of the premises is not considered appropriate and will increase the potential for vehicle conflicts at the access and along Warren Road. It is requested that the proposed wide crossover and car parking at the front of the building be deleted.

Suitable access could be obtained from the proposed driveway/crossover for access to the car parking area at the rear of the premises. The driveway/crossover for access to the rear of the premises will be required to be designed and constructed to the specification and satisfaction of Main Roads.

If you require any further information please phone 9724 5662.

Yours Sincerely

Paul Davies

ROAD CORRIDOR PLANNING MANAGER

Jane Buckland

From: kushdev singh
Sent: Friday, 12 February 2016 1:19 PM
To: Jane Buckland
Cc: Venezia Pretorius
Subject: Proposal for Residential/Medical practice permit.

Hi Jane ,

I would like to thank you for your helpful and professional advice.

As discussed , I intend to build a Medical Practice in Nannup and start providing General Practice services to shire residents.

As you are aware , I purchased the land on Warren road with intention of building on it and practicing from there.

I have been liaising with Plunket group to construct a building on part of the land and as per your guidance .

It has been designed in keeping with the ethos of Nannup heritage and to serve as a full fledged practice eventually.

I wish to proceed in a phased manner , Initially use it for residence and consultation.

I am currently living near Busselton, and hence I would like to use the proposed building for residential /practice to begin with.

If workload picks up, I am hoping to extend the use of that building to a full Medical practice and shift my residence to a different location.

I believe that it will be a welcome addition to landscape of Nannup and add to its appeal.

I am trying to do this at considerable personal expense and risk, hence I do appreciate Shire and all residents support for this.

Should Shire have any reservations , I am happy to discuss at any stage.

Regards

Dr Kushdev Singh

COLOUR SCHEDULE - FREEDOM SPECIFICATION
DATE: 01 December 2015 **OWNER/S:** KUSHDEV SINGH
JOB NO: 150017 **LOT:** 100 WARREN ROAD NANNUP WA

All paint products are to be chosen from the Solver brand except where noted
EXTERNAL COLOUR SCHEDULE

Gutter / Fascia :	Not Applicable - COLORBOND
Eaves / Verandah Ceilings:	Standard White
Timber Posts:	As Colorbond SURFMIST
Downpipes to Timber Posts:	As Colorbond SURFMIST
Cladding:	As Colorbond SHALE GREY
Downpipes to Cladding & Meter Box:	As Colorbond SHALE GREY
Front Doors and Frames:	TBA
Rear Passage Door and Frame:	Wattyl White
Managers Office Door & Frame:	TBA
Consult Room Door & Frame:	TBA

INTERNAL COLOUR SCHEDULE

Doors / Door Frames (Gloss)	Wattyl White
Ceilings & Cornices:	Two coats White as standard
Shelves :	Wattyl White
Internal Walls:	N/A

Special Notes:

- * Any selection of a colour requiring a specific undercoat for maximum opacity shall incur an additional cost
- * Colours indicated as having limited exterior colour fastness can not be selected for external areas
- * Any selection of a colour indicated as possibly requiring more than two coats for adequate coverage shall incur an additional cost
- * No Paint allowed to fencing and gates * External doors painted with dark colours exposed to direct sunlight will warp. Should the Owner select dark paint colours for external doors, the Builder and the Manufacturer will void any warranty.
- * External doors with clear finish or stain & varnish should be refinished every 12 months by the owner.

Signed: _____

Signed: _____

Date: _____

Ph: _____

PAINT SPECIFICATION (Where included on the Colour Schedule)**DATE:** 01 December 2015 **OWNER/S:** KUSHDEV SINGH**JOB NO:** 150017 **LOT:** 100 WARREN ROAD NANNUP WA*All paint products are to be chosen from Solver Brand except where noted.***EXTERNAL**

Gutters/fascia/downpipes		1 coat primer/1 coat gloss enamel
Roof plumbing/valley irons/flashings		1 coat primer/1 coat gloss enamel
Lintels/posts/struts/beams		1 coat primer/1 coat gloss enamel
Eaves		2 coats PVA
Gable Infills/hardiplank*/Spandrels		2 coats exterior grade acrylic
Hardiprime rough cut		Cedar Stain
Architectural mouldings		1 coat sealer/1 coat acrylic sand finish texture
FRC columns		1 coat sealer/1 coat exterior grade acrylic
Timber barges/scribes/finials/gable battens		2 coats exterior grade acrylic
Timber doors/frames	Painted	1 coat primer/1 coat undercoat/1 coat gloss enamel
	Clear	1 coat stain/2 coats clear varnish
Flush panel Duracoat doors		1 coat undercoat/1 coat gloss enamel
Sand render walls		1 coat acrylic primer/1 coat roll-on texture (Granosite acrylic coating - roll-on finish)

INTERNAL

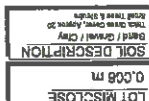
Ceilings/cornice (gyprock)		2 coats PVA
Plasterglass cornice/ceilings		1 coat plasterglass sealer/2 coats PVA
Metal door jambs		1 coat undercoat/1 coat gloss enamel
Flush panel Redicote doors		1 coat undercoat/1 coat gloss enamel
Timber doors/frames	Painted	1 coat primer/1 coat undercoat/1 coat gloss enamel
	Clear	2 coats clear varnish
FRC Columns		1 coat sealer/1 coat interior grade acrylic
Jarraah or Tasmanian Oak nosings/cappings/skirtings/architraves etc.	Painted	1 coat undercoat/2 coats gloss enamel
	Clear	2 coats clear varnish
MDF preprimed nosings/cappings		1 coat undercoat/1 coat gloss enamel
Shelf rails		1 coat primer/1 coat undercoat/1 coat gloss enamel
Shelf battens		1 coat primer/1 coat undercoat colour white ready to receive owners wall paint
Stairs/balustrade/stringer	Painted	2 coats undercoat/1 coat gloss enamel
	Clear	2 coats clear varnish
Walls		1 coat oil based sealer/2 coats Low Sheen (washable) Shelf battens to also be painted in wall colour

Signed: _____

Signed: _____

Date: _____

Ph: _____



NOTE: 1. STORMWATER DISPOSAL TO BE BY SHEDDER.
2. SHALL NOT BE SHEDDER.
3. LOCATION OF DOWNPIPS IS INDICATIVE
ONLY. IT MAY BE CHANGED AT SHEDDER'S
DISCRETION.
4. DO NOT SCALE FROM CRUMBLED.
5. PLAYS TO BE READ IN CONJUNCTION WITH
ADDENDUM AND WORK ORDER. NOTIFY
BUILDER OF ANY DISCREPANCIES PRIOR
TO COMMENCEMENT OF WORK.

4058;
M1 - PORN GROUND BATTERY ON
RESIDENCE

[illegible][illegible]

MODEL N°

Plunkett Homes

Unit 18, Block B, Homemaker Centre,
12 Strickland Street, Bunbury, W.A. 6230,
PO Box 6060, South Bunbury, W.A. 6231.
Ph 08 9780 9300,
Fx 08 9780 9398,
www.plunkettthames.com.au

REV	VO #	DRN	DATE	CHK
01	FFLAMEND	MM	2/10/15	MM
02	SITE AMEND	MM	2/01/15	MM
03	376077 (PS)	MM	2/11/15	RE
04	377070	MM	1/05/15	MM
		MM	11/02/16	MM

Sub-contractors to verify all dimensions on site.

THIS IS ONE OF THE DRAWINGS
REFERRED TO IN THE CONTRACT.

DATED:.....

OWNER **WITNESS**

OWNER **WITNESS**

WITNESS

CLIENT: KUSHDEV

ADDRESS:

LOT 100 (#54)
WARREN RD
NANNUP

SHEET N° 3 OF 8

150017

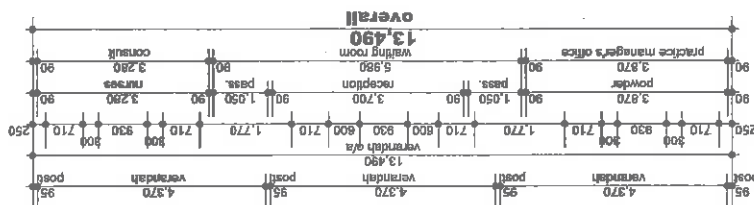
REVISION	DATE
04	11/02/16



Floor	Location	Area	Perimeter
Floor Areas - All Stories			
Ground Floor			
	HOUSE	195.47	55.960
	VERANDAH	21.58	30.180
Roof Area Calculation - Ground Floor			
Floor	Pitch	Area (sqm)	Area (pitches)
	24° 43' 12"	258.33	252.44
		258.23 sq'	258.41 sq'

CONSTRUCTION NOTE:

- 90mm TIMBER STUD FRAMED CONSTRUCTION TO A.51684. REFER TO EN'S DETAILS FOR DOUBLE STUDS AND BRACING.
- TIMBER ROOF FRAME TO A.S.1684.



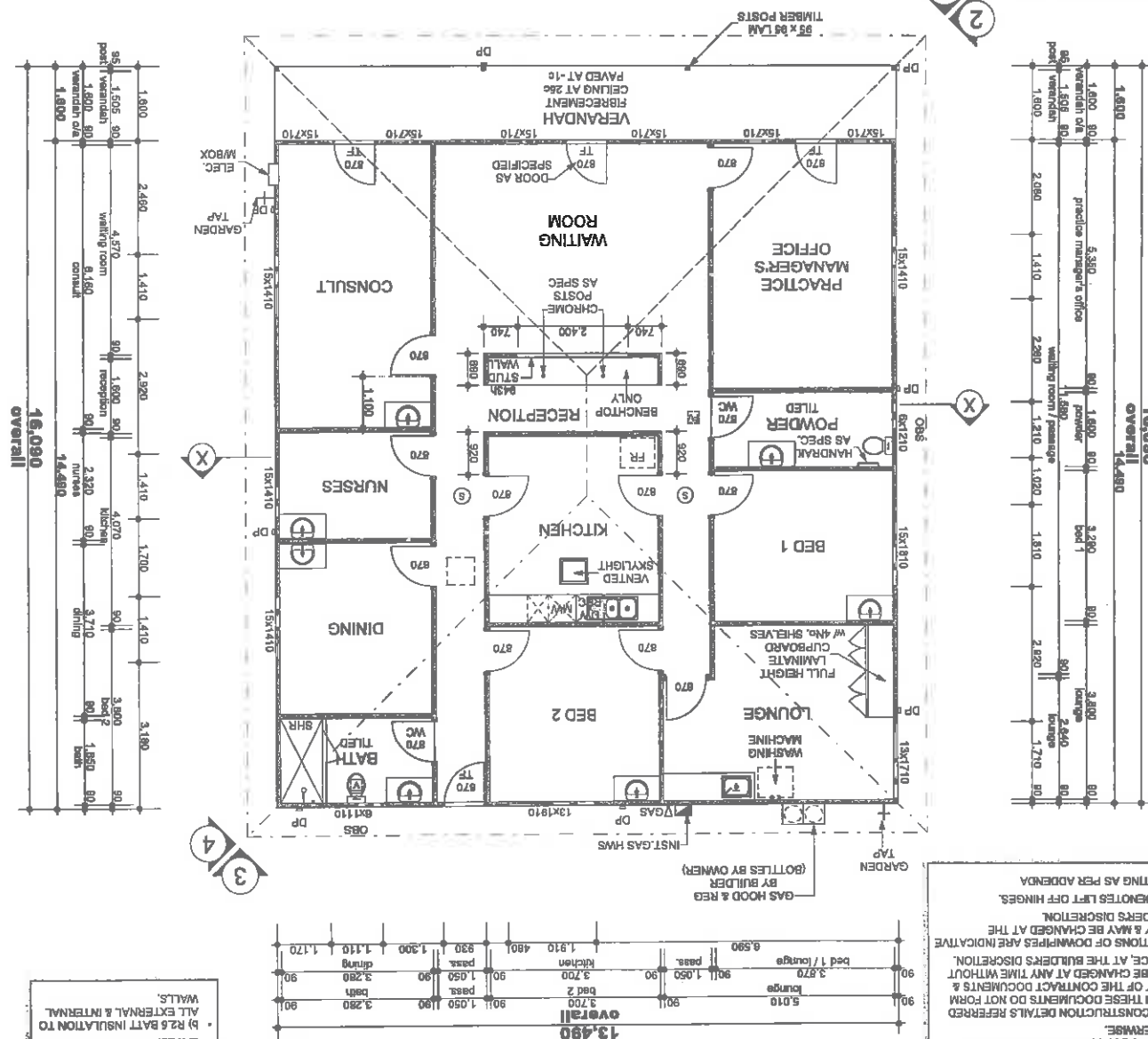
PLAN LEGEND

- | PLAN LEGEND | |
|-------------|-------------------------------------------------------------------------------|
| (S) | INTERCONNECTED DIRECT WARED
SMOKE DETECTOR TO A.S. 3786 &
NCC 3.7.2 |
| (V) | CEILING VENT - FLUMED |
| (E) | CEILING VENT - UNFLUMED |
| (F) | EXHAUST FAN - CEILING MOUNTED
WITH DRAFT STOPPER |
| (G) | EXHAUST FAN - CEILING MOUNTED
(FLUMED TO EXTERNAL AIR) |
| (H) | EXHAUST FAN - CEILING MOUNTED
WITH DRAFT STOPPER
(VENTED TO ROOF SPACE) |

WIND CLASSIFICATION AS PER A.S.
4055:
N1 - FOR GROUND STOREY OF
RESIDENCE

001:1

FLOOR PLAN



DO NOT SCALE FROM DRAWINGS.
VERTICAL BRICK-CORNER HEIGHTS ARE
RELATED TO STD RIBBON SIZES.
ALL INTERNAL DIMENSIONS ARE TO STD
SIZES, NOT FINISHED SIZES.
CEILING LEVEL AT 2400 UNLESS NOTED
OTHERWISE.
THE CONSTRUCTION DETAILS REFERRED
TO IN THESE DOCUMENTS DO NOT FORM
PART OF THE CONTRACT. CONTRACTORS
MAY BE CHARGED AT ANY TIME WITHOUT
NOTICE, AT THE BUILDER'S DISCRETION.
POSITIONS OF POINTEERS ARE INDICATIVE
BUILDER'S DISCRETION.
WC DEMONSTRATE LEFT OFF HINGES.
SINKING AS PER APPENDIX A

PER ADDENDA & ENERGY EFFICIENCY REPORT.
 (a) R4.0 BATT INSULATION EXCLUDING ALFRESCO & EAVES.
 (b) R2.6 BATT INSULATION TO ALL EXTERNAL & INTERNAL WALLS.

SPECIAL

© COPYRIGHT

MODEL N°



Unit 18, Block 8, Homemaker Centre,
42 Strickland Street, Bunbury, W.A. 6230.
PO Box 6080, South Bunbury, W.A. 6231.
Ph 08 9780 9300.
Fx 08 9780 9399.
www.plunketthomes.com.au

REV	VO #	DRN	DATE	CHK
01	FFL AMEND	MM	21/10/15	MM
02	SITE AMEND	RE	27/11/15	RE
03	376077 (PS)	MM	19/01/16	MM
04	377070	MM	11/02/16	MM

Rev. 04/01/17 1766 ALN 38 233 2373

Sub-contractors to verify all dimensions on site.

THIS IS ONE OF THE DRAWINGS
REFERRED TO IN THE CONTRACT.

DATED: 11/02/16

OWNER
WITNESS
OWNER
WITNESS
BUILDER
WITNESS

CLIENT:
KUSHDEV

ADDRESS:
LOT 100 (#54)
WARREN RD
NANNUP

SHEET N°	4 OF 8
JOB N°	150017
REVISION DATE	04 11/02/16

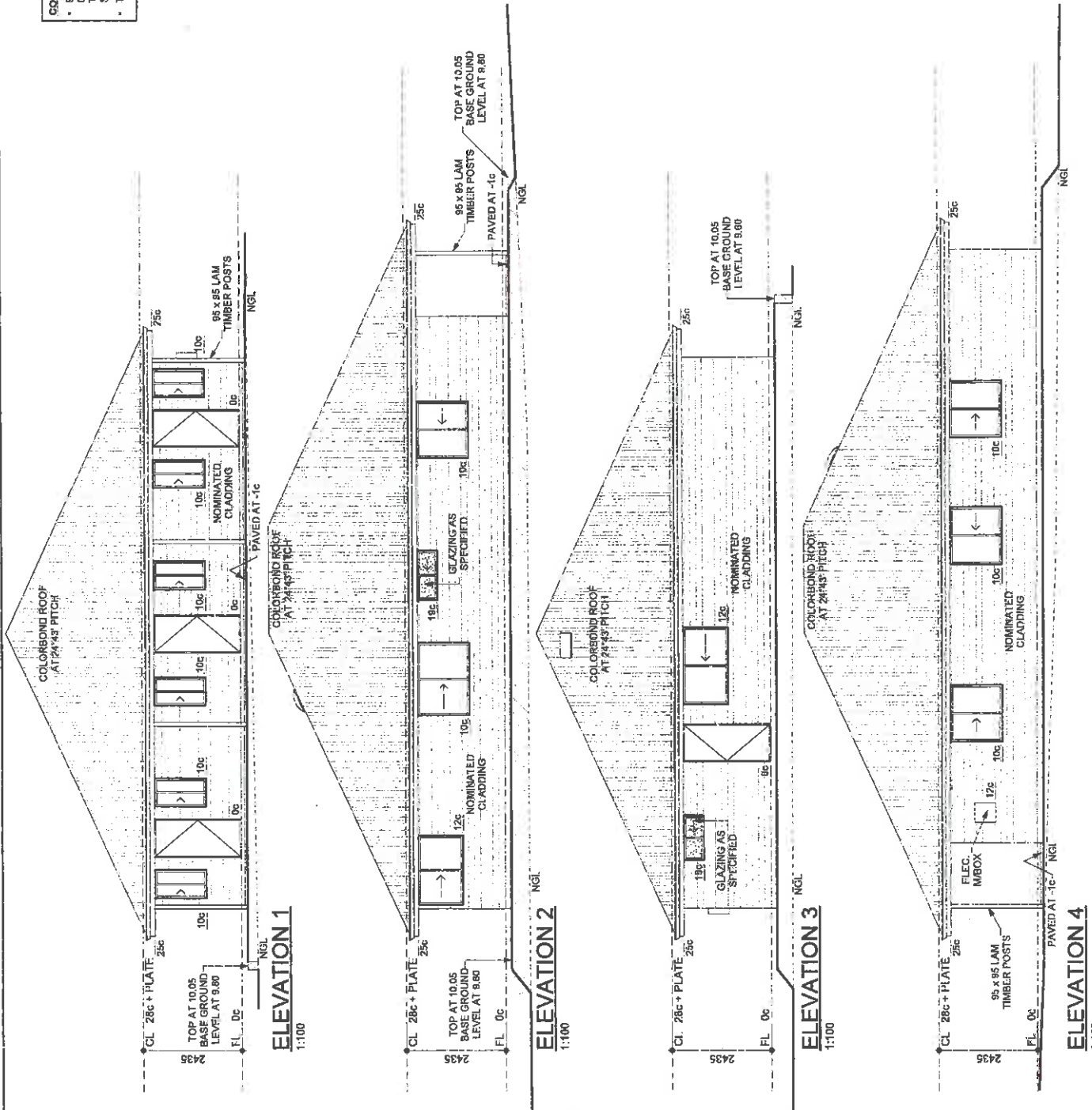


CONSTRUCTION NOTE:

- 90mm TIMBER STUD FRAMED CONSTRUCTION TO A.S.1884. REFER TO ENG'S DETAILS FOR DOUBLE STUDS AND BRACING.
- TIMBER ROOF FRAME TO A.S.1884.

INSULATION NOTE:

- PROVIDE INSULATION AS PER ADDENDA & ENERGY EFFICIENCY REPORT.
- R4.0 BATT INSULATION EXCLUDING AT FRESCO & BAYES.
- R1.2.5 BATT INSULATION TO ALL EXTERNAL & INTERNAL WALLS.



COTTAGE & ENGINEERING SURVEYS

Licensed Surveyors

57-58 Guthrie Street, Osborne Park, Western Australia
 Telephone: (08) 9446 7361 Facsimile: (08) 9445 2596
 Email: per@cotage.com.au Website: www.cotage.com.au
 JUN: 376070 DATE: 17 Jul 15 SCALE: 1:200 DRAWN: B. Saliba

Builder: Plunkett Homes South West
 CLIENT: Kushdev 150017
 LOT 100 #54 Warren Road, Nannup
 2462.19m²
 Latitude: 33°58'48"S Longitude 115°45'54"E

OLD AREA
 D. Plan 36369
 SEC Dome
 Paving Pole
 Phone
 Conc. Path
 Conc. Slab



DISCLAIMER:
 Let it be understood that this survey is based on the best available information and is not intended to be a final or definitive statement of fact. It is the responsibility of the client to ensure that the information provided is accurate and complete. The surveyor is not responsible for any errors or omissions in the survey or for any consequences arising therefrom.

NOTE: EARTHWORKS / SET-OUT DIMENSIONS MAY VARY ON SITE AT THE DISCRETION OF THE BUILDER. DIMENSIONS MAY VARY FROM ACQUISITION / CHECK MINIMUM CLEARANCES, RETAINING NOT INCLUDED IN CONTRACT - REMAINS OWNERS RESPONSIBILITY. THIS SURVEY DOES NOT GUARANTEE THE LOCATION OF BOUNDARY PEGS OR MARKS. CHECK TITLE FOR EASEMENTS / COVENANTS ETC.

ADDITIONAL:
 Survey does not include verification of cadastral boundaries. All features and levels shown are based on information to existing pegs and fences only which may not be on correct cadastral alignment. Any design based or dependent on the location of existing features should have those features' location verified in relation to the true boundary.

ADDITIONAL:
 Survey shows utility features only and will not show locations of underground pipes or conduits for internal or external services. Verification of the location of all internal and external services should be confirmed prior to construction of any design work.

ADDITIONAL:
 Cottage & Engineering surveys except as responsibility for any physical on site changes to the parcel or portion of the parcel of land shown on this survey including any adjoining boundaries, levels and features that have occurred after the date on this survey. All survey details plotted from information supplied by Water Corporation.

NOTE:
 STORMWATER DISPOSAL TO ROADWELLS, OVERFLOW TO SHED DRAIN VIA SPLIT PIT BY BUILDER.

LOCATION OF DOWNPIPS BY INDICATING ONLY & MAY BE CHANGED AT BUILDER'S DISCRETION.

DO NOT SCALE FROM DRAWINGS.

PLANS TO BE READ IN CONJUNCTION WITH ADDENDA AND WORK ORDER. NOTIFY BUILDER OF ANY DISCREPANCIES PRIOR TO COMMENCING WORK.

WIND CLASSIFICATION AS PER A.S. 4085:
 RY - FOR GROUND STOREY OF RESIDENCE

SITE PAVING AREAS	
LOCATION	AREA
VERANDAH	21.04
	21.04 m ²

NOTE:

ALL PAVING, DRIVEWAY AND PARKING BAYS BY OWNER TO COMPLY WITH AS 2890.1:2004.

ALL DISABLED ACCESS RAMPS, PAVING, PARKING & KERBS BY OWNER TO COMPLY WITH AS 2890.6:2009 & AS 1428.1

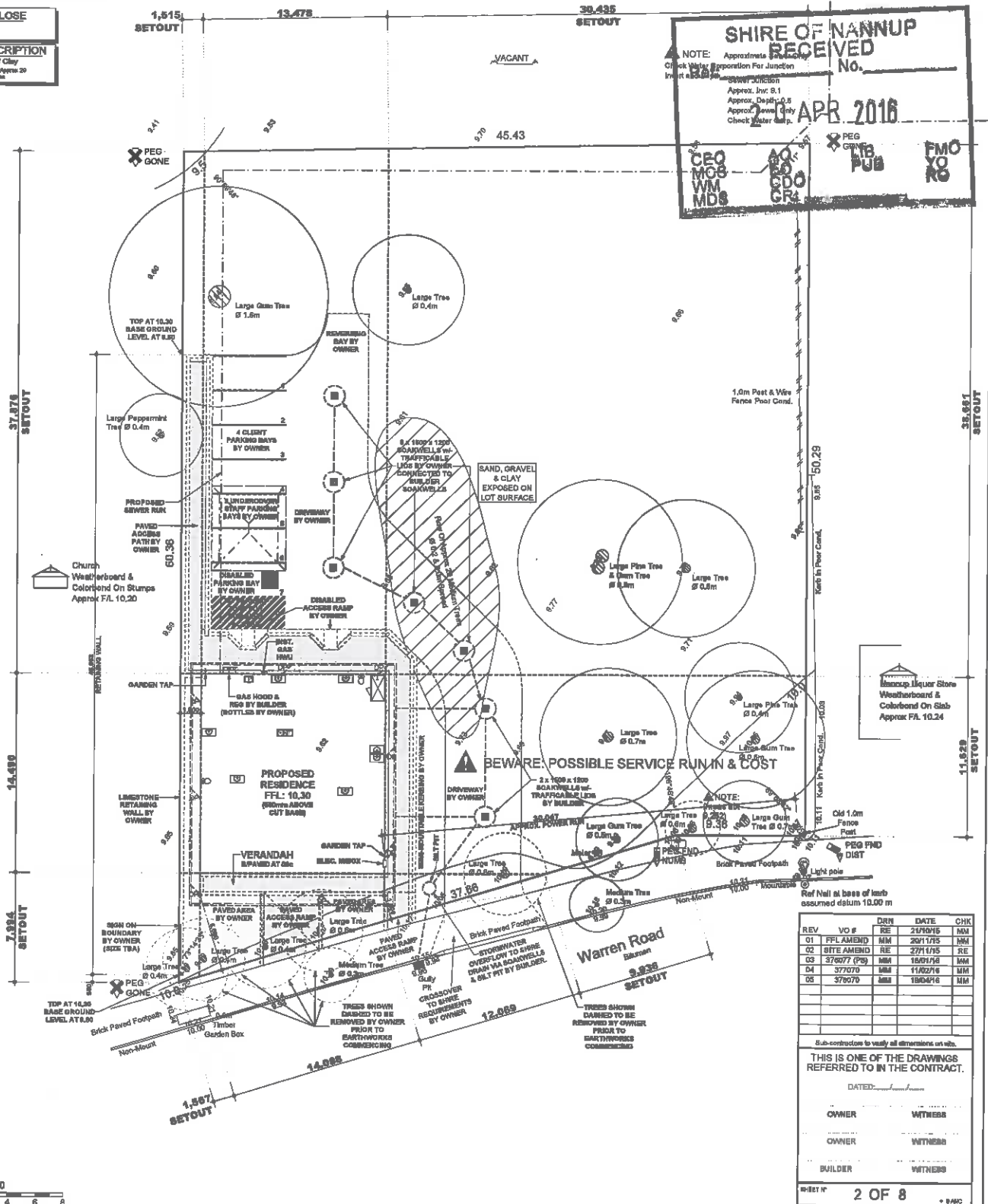
SITE CLEARING & EARTHWORKS BY OWNER

STORMWATER CALC'S BY BUILDER
 REQUIRED SOAKWELL CAPACITY:
 = 1m³ OF STORAGE PER 100m² OF ROOFPAVING AREA
 REQUIRED MINIMUM TOTAL CAPACITY
 = ROOFPAVING AREA OF (217.05m² / 100m²) x 1m³ = 2.17m³
 SELECTED SOAKWELLS
 2 x 15000 x 12000 (2.10m³) = 4.20m³
 TOTAL SOAKWELL CAPACITY = 4.20m³

STORMWATER CALC'S BY OWNER
 REQUIRED SOAKWELL CAPACITY:
 = 1m³ OF STORAGE PER 100m² OF PAVING AREA
 REQUIRED MINIMUM TOTAL CAPACITY
 = PAVING AREA OF (100.00m² / 100m²) x 1m³ = 0.93m³
 SELECTED SOAKWELLS
 8 x 15000 x 12000 (2.10m³) = 16.80m³
 TOTAL SOAKWELL CAPACITY = 16.80m³

LOT MISCLOSE
 0.006 m

SOIL DESCRIPTION
 Sand / Gravel / Clay
 That Goes Conc. Approx 20
 Root Trees & Shrubs



REV	VO #	DRN	DATE	CHK
01	PFLAMEND	MM	20/1/15	MM
02	SITE AMEND	RE	27/1/15	RE
03	376077 (P9)	MM	18/01/16	MM
04	376070	MM	11/02/16	MM
05	376070	MM	18/04/16	MM

Sub-contraction to verify all dimensions on site.
 THIS IS ONE OF THE DRAWINGS REFERRED TO IN THE CONTRACT.

DATED: _____
 OWNER: _____ WITNESS: _____
 OWNER: _____ WITNESS: _____
 BUILDER: _____ WITNESS: _____

SPECIAL

© COPYRIGHT

MODEL N°



Unit 18, Block B, Homemaker Centre,
42 Strickland Street, Bunbury, W.A. 6230,
PO Box 6060, South Bunbury, W.A. 6231,
Ph 08 9780 9300,
Fx 08 9780 9399,
www.plunketthomes.com.au

Rev. 04/01/15 1758-AS/NZS 4122:2012

REV	VO #	RE	DATE	CHK
01	FFL AMEND	MM	21/10/15	MM
02	SITE AMEND	RE	27/11/15	RE
03	376077 (PS)	MM	18/01/16	MM
04	377070	MM	17/02/16	MM
05	378070	MM	19/04/16	MM

Sub-contractors to verify all dimensions on site.

THIS IS ONE OF THE DRAWINGS
REFERRED TO IN THE CONTRACT.

DATED: / /

OWNER: KUSHDEV
WITNESS: KUSHDEV
OWNER: KUSHDEV
WITNESS: KUSHDEV
BUILDER: KUSHDEV
WITNESS: KUSHDEV

CLIENT: KUSHDEV

ADDRESS: LOT 100 (#54)
WARREN RD
NANNUP

SHEET N° 4 OF 8
JOB N° 150017
REVISION DATE 05 19/04/16



CONSTRUCTION NOTE:

- 80mm TIMBER STUD FRAMED CONSTRUCTION TO AS1684. REFER TO ENG'S DETAILS FOR DOUBLE STUDS AND BRACING.
- TIMBER ROOF FRAME TO A.S.1684.

INSULATION NOTE:

- PROVIDE INSULATION AS PER APPENDIX A & ENERGY EFFICIENCY REPORT.
- R4.0 BATT INSULATION EXCLUDING ALFRESKO & EAVES.
- R2.5 BATT INSULATION TO ALL EXTERNAL & INTERNAL WALLS.

SHIRE OF NANNUP
RECEIVED

Ref: No.

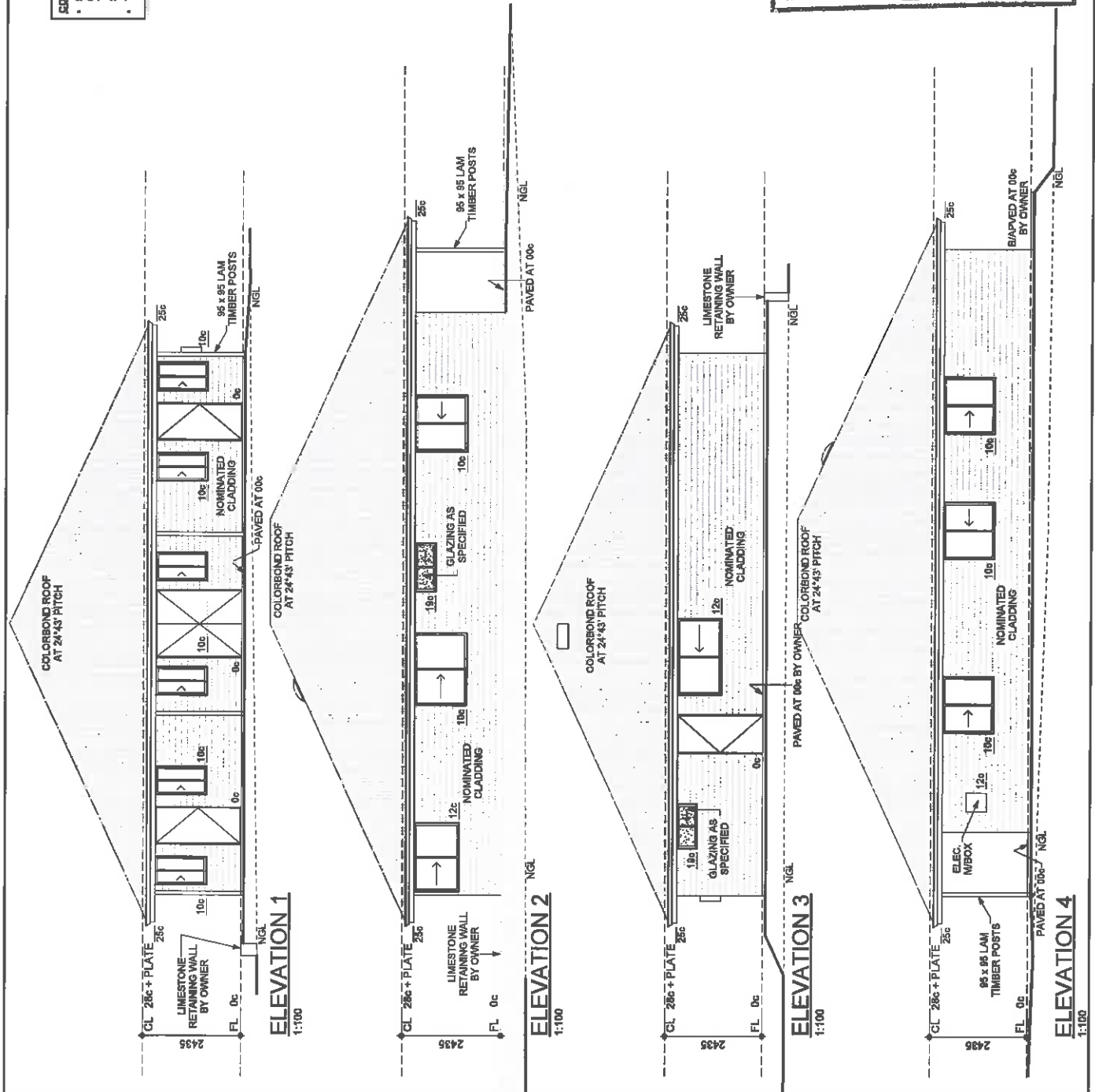
20 APR 2016

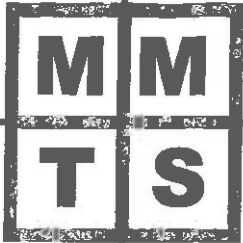
CEO
MCS
WM
MDS

AO
FO
CDO
CR:

LIB
PUB

FMO
YO
RO





**McMAHON
MINING
TITLE
SERVICES
PTY LTD**

Attachment 12.9.1

Ph: (08) 6467 7997

Fax: (08) 9272 6939

Email: mmts@mmts.net.au

Unit 28/168 Guildford Road

Maylands WA 6051

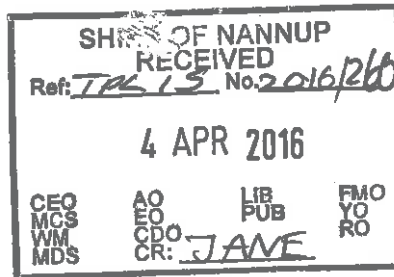
PO Box 592

Maylands WA 6931

ABN 70 104 341 817

30 March 2016

THE SHIRE CLERK
SHIRE OF NANNUP
PO BOX 11
NANNUP WA 6275



Attention: Chief Executive Officer

Registered Post: 942558845019

Dear Sir/Madam,

RE: APPLICATION FOR EXPLORATION LICENCES 70/4838, 70/4839 & 70/4840

On behalf of our client, Venture Lithium Pty Ltd, an application has been made for the above mentioned Exploration Licences 70/4838, 70/4839 & 70/4840.

In accordance to requirements set out in the West Australian Mining Act, notification must be forwarded to the appropriate local government authority affected by the application.

As the land affected lies within your shire, please find attached a copy of the application and a plan showing the area of the application.

Should you have any queries, please do not hesitate to contact our office.

Yours faithfully,

Celeste Patricio
McMahon Mining Titles

Form 21

WESTERN AUSTRALIA
Mining Act 1978
(Secs. 41, 58, 70C, 74, 86, 91, Reg. 64)

APPLICATION FOR MINING TENEMENT

(a) Type of tenement	(a) Exploration Licence		No. E 70/4838
(b) Time & Date marked out (where applicable)	(b) a.m./p.m. / /	(c) SOUTH WEST	
(c) Mineral Field			
For each applicant:	(d) and (e)		(f) Shares
(d) Full Name and ACN/ABN	VENTURE LITHIUM PTY LTD (ACN: 611 467 088)		100
(e) Address	C/- MCMAHON MINING TITLE SERVICES PTY LTD, PO BOX 592, MAYLANDS, WA, 6931		
(f) No. of shares			(g) Total 100
(g) Total No. of shares			
DESCRIPTION OF GROUND APPLIED FOR:	(h) NELSON		
(For Exploration Licences see Note 1. For other Licences see Note 2. For all Licences see Note 3.)	(i) This application affects Private Property. Details of Private Property Affected: "IN RESPECT TO PRIVATE LAND, THE TENEMENT APPLICANT IS SEEKING SUBSURFACE RIGHTS ONLY, THEREFORE SECTION 33(1a) OF THE MINING ACT 1978 APPLIES TO PRIVATE LAND NOTICES."		
(h) Locality			
(i) Datum Peg			
(j) Boundaries			
(k) Area (ha or km ²)	(k) 28 BL		
(l) Signature of applicant or agent (if agent state full name and address)	(l) Celeste Patricio UNIT 28/168 GUILDFORD ROAD, MAYLANDS, WA, 6051		Date: 22/03/2016

OFFICIAL USE

A NOTICE OF OBJECTION may be lodged at any mining registrar's office on or before the 26th day of April 2016 (See Note 4).

Where an objection to this application is lodged the hearing will take place on a date to be set.

Received at	16:26:06	on	22 March	2016	with fees of
Application	\$1,323.80				
Rent	\$3,507.00				
TOTAL	\$4,830.80				
Receipt No:	608219573491				

Mining Registrar**NOTES****Note 1: EXPLORATION LICENCE**

- (i) Attachments 1 and 2 form part of every application for an exploration licence and must be lodged with this form in lieu of (h), (i), (j) and (k) above.
- (ii) An application for an Exploration Licence shall be accompanied by a statement specifying method of exploration, details of the proposed work programme, estimated cost of exploration and technical and financial ability of the applicant(s).

Note 2: PROSPECTING/MISCELLANEOUS LICENCE AND MINING/GENERAL PURPOSE LEASE

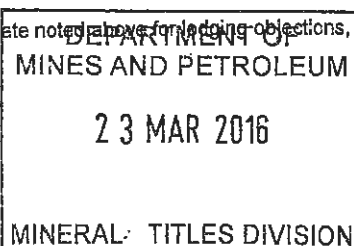
- (i) This application form shall be accompanied by a map on which are clearly delineated the boundaries of the area applied for.

Note 3: GROUND AVAILABILITY

- (i) The onus is on the applicant to ensure that ground is available to be marked out and/or applied for.
- (ii) The following action should be taken to ascertain ground availability:
(a) public plan search; (b) register search; (c) ground inspection.

Note 4: ALL APPLICATIONS OVER PRIVATE LAND

The period for lodgement of an objection is within 21 days of service of this notice, or the date noted above for lodging objections, whichever is the longer period.



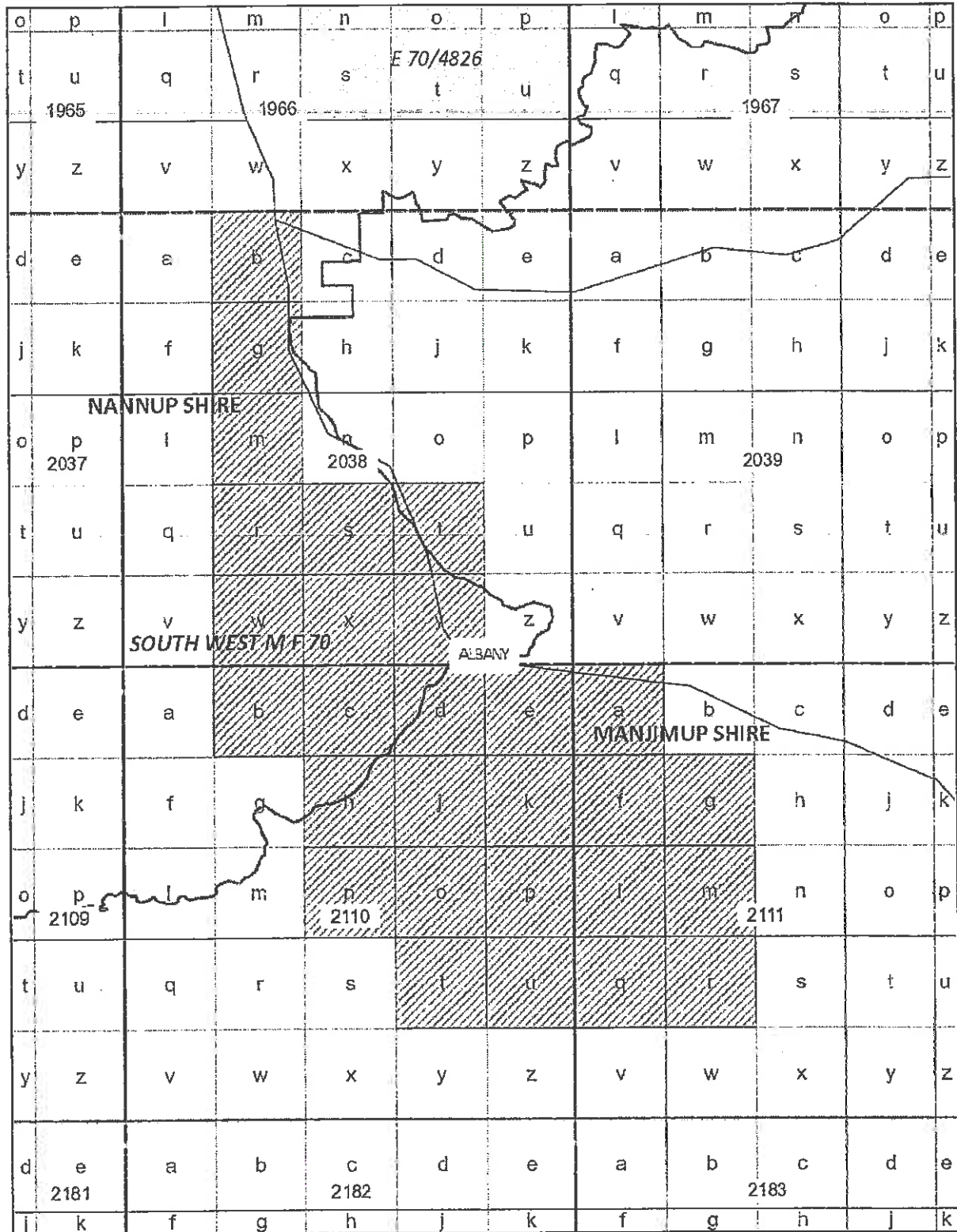
WESTERN AUSTRALIA Mining Act 1978 Sec. 58; Reg. 64			FORM 21 - ATTACHMENT 1		
EXPLORATION LICENCE NO. 70/4838					
THIS SECTION MUST BE COMPLETED IN FULL FOR ALL EXPLORATION LICENCE APPLICATIONS					
LOCALITY: NELSON					
BLOCK IDENTIFIER (All three sections must be completed)					
1:1,000,000 PLAN NAME		PRIMARY NUMBER	GRATICULAR SECTION		
ALBANY		2038	bgmrstwxxy		
ALBANY		2110	bcdehjknoptu		
ALBANY		2111	afgilmqr		
TOTAL BLOCKS:			28		

Mining Act 1978
Sec. 58; Reg. 64

FORM 21 - ATTACHMENT 2
Plan Name(s) - ALBANY

Time Officially Received : 22/03/2016 18:28:08

User Id : ex20593



MAP SHOWING BLOCKS APPLIED FOR IN
EXPLORATION LICENCE NO. 70/4838

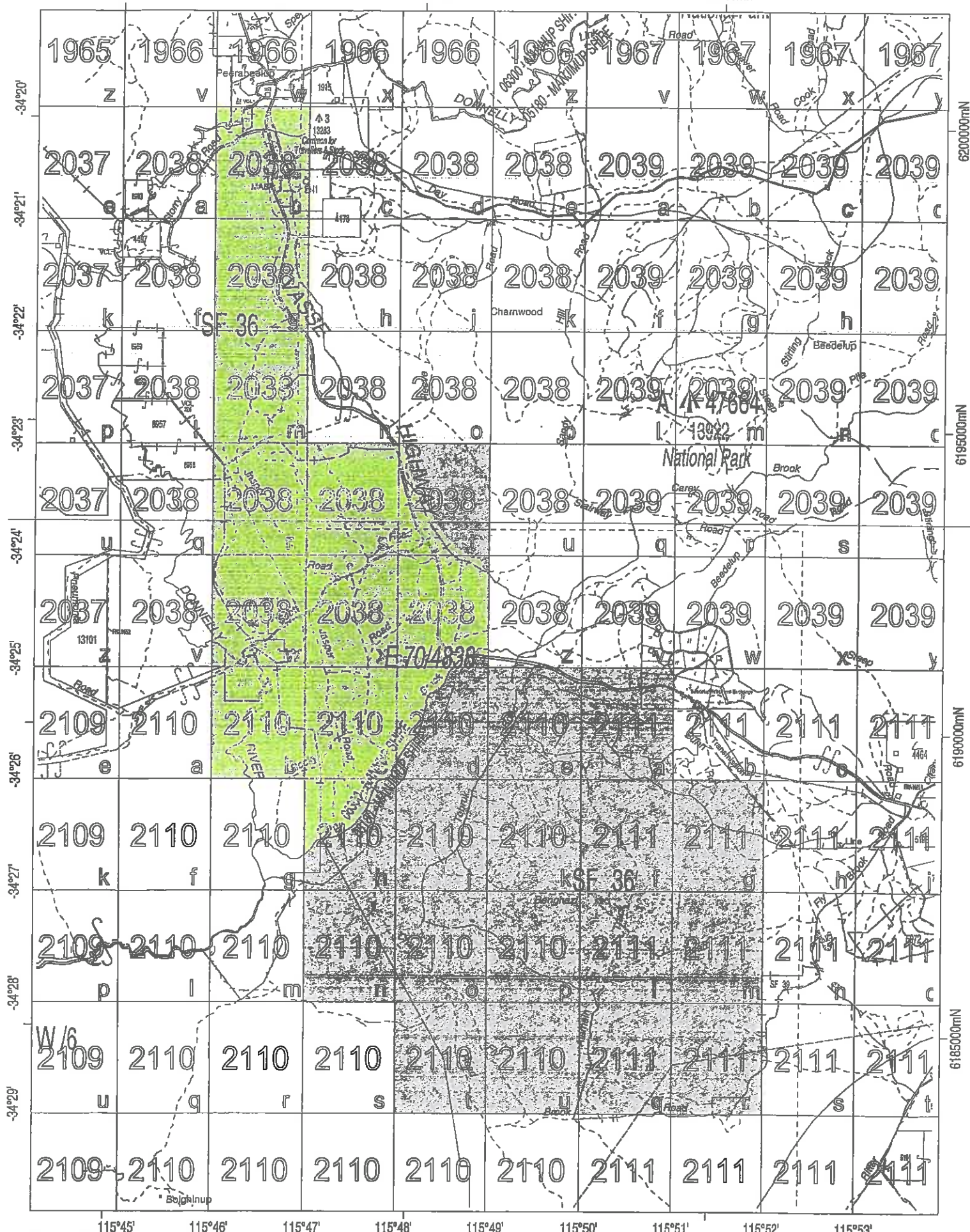
 Graticular Section Applied For



385000mE

390000mE

395000mE



This plan has been compiled from various data sources and is not a substitute for a cadastral map. It is intended for general reference only. The Department of Mines and Petroleum does not accept liability for any errors or omissions. The map is based on the Geopy System V7.055.2. The map is a reproduction of the original map and is not a substitute for the original map. The map is a reproduction of the original map and is not a substitute for the original map. The map is a reproduction of the original map and is not a substitute for the original map.

Scale: 1:80,000

0.0 0.8 1.6 2.4 3.2 4.0 4.8 5.6 6.4 7.2 8.0 km

Form 21

WESTERN AUSTRALIA

Mining Act 1978

(Secs. 41, 58, 70C, 74, 86, 91, Reg. 64)

APPLICATION FOR MINING TENEMENT

(a) Type of tenement	(a) Exploration Licence		No. E 70/4839
(b) Time & Date marked out (where applicable)	(b) a.m./p.m. / /	(c) SOUTH WEST	
(c) Mineral Field			
For each applicant:	(d) and (e)		(f) Shares
(d) Full Name and ACN/ABN	VENTURE LITHIUM PTY LTD (ACN: 611 467 068) C/- MCMAHON MINING TITLE SERVICES PTY LTD, PO BOX 592, MAYLANDS, WA, 6931		100
(e) Address			(g) Total 100
(f) No. of shares			
(g) Total No. of shares			
DESCRIPTION OF GROUND APPLIED FOR:	(h) NELSON		
(For Exploration Licences see Note 1. For other Licences see Note 2. For all Licences see Note 3.)	(i) This application affects Private Property. Details of Private Property Affected: "IN RESPECT TO PRIVATE LAND, THE TENEMENT APPLICANT IS SEEKING SUBSURFACE RIGHTS ONLY, THEREFORE SECTION 33(1a) OF THE MINING ACT 1978 APPLIES TO PRIVATE LAND NOTICES."		
(h) Locality			
(i) Datum Peg			
(j) Boundaries			
(k) Area (ha or km ²)	(k) 131 BL		
(l) Signature of applicant or agent (if agent state full name and address)	(l) Celeste Patricio UNIT 28/168 GUILDFORD ROAD, MAYLANDS, WA, 6051		Date: 22/03/2016

OFFICIAL USE

A NOTICE OF OBJECTION may be lodged at any mining registrar's office on or before the 26th day of April 2016 (See Note 4).

Where an objection to this application is lodged the hearing will take place on a date to be set.

Received at	16:26:06	on	22 March	2016	with fees of
Application	\$1,323.80				
Rent	\$16,407.75				
TOTAL	\$17,731.55				
Receipt No:	608219573491				

Mining Registrar**NOTES****Note 1: EXPLORATION LICENCE**

- (i) Attachments 1 and 2 form part of every application for an exploration licence and must be lodged with this form in lieu of (h), (i), (j) and (k) above.
- (ii) An application for an Exploration Licence shall be accompanied by a statement specifying method of exploration, details of the proposed work programme, estimated cost of exploration and technical and financial ability of the applicant(s).

Note 2: PROSPECTING/MISCELLANEOUS LICENCE AND MINING/GENERAL PURPOSE LEASE

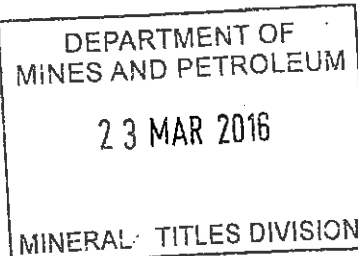
- (i) This application form shall be accompanied by a map on which are clearly delineated the boundaries of the area applied for.

Note 3: GROUND AVAILABILITY

- (i) The onus is on the applicant to ensure that ground is available to be marked out and/or applied for.
- (ii) The following action should be taken to ascertain ground availability:
(a) public plan search; (b) register search; (c) ground inspection.

Note 4: ALL APPLICATIONS OVER PRIVATE LAND

The period for lodgement of an objection is within 21 days of service of this notice, or the date noted above for lodging objections, whichever is the longer period.



WESTERN AUSTRALIA Mining Act 1978 Sec. 58; Reg. 64		FORM 21 - ATTACHMENT 1	
EXPLORATION LICENCE NO. 70/4839			
THIS SECTION MUST BE COMPLETED IN FULL FOR ALL EXPLORATION LICENCE APPLICATIONS			
LOCALITY: NELSON			
BLOCK IDENTIFIER (All three sections must be completed)			
1:1,000,000 PLAN NAME	PRIMARY NUMBER	GRATICULAR SECTION	
ALBANY	1607	nopstuwxy	
ALBANY	1608	lq	
ALBANY	1678	ejkoptuyz	
ALBANY	1679	abcdefghijklmnoqrstvwxy	
ALBANY	1750	dejkoptuvvwxyz	
ALBANY	1751	abcfghlqv	
ALBANY	1822	abcdefghijklmnoqrstvwxyz	
ALBANY	1823	aflqv	
ALBANY	1894	abcdefghijklmnoqrstvwxyz	
ALBANY	1895	aflqv	
ALBANY	1966	abcdefghj	
TOTAL BLOCKS:		131	

Mining Act 1978
Sec. 58; Reg. 64

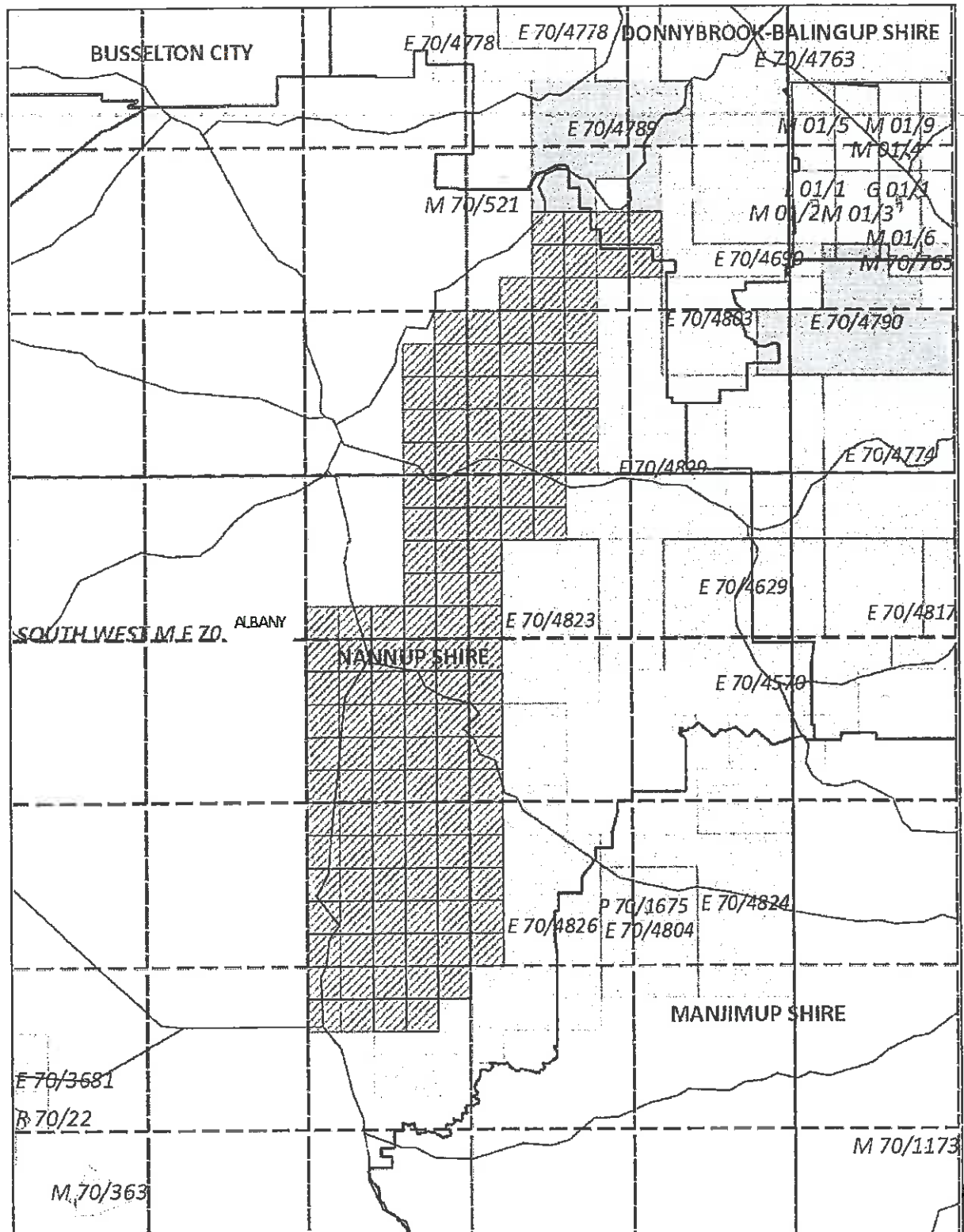
FORM 21 - ATTACHMENT 2

Plan Name(s) - ALBANY

MINERAL TITLES ONLINE

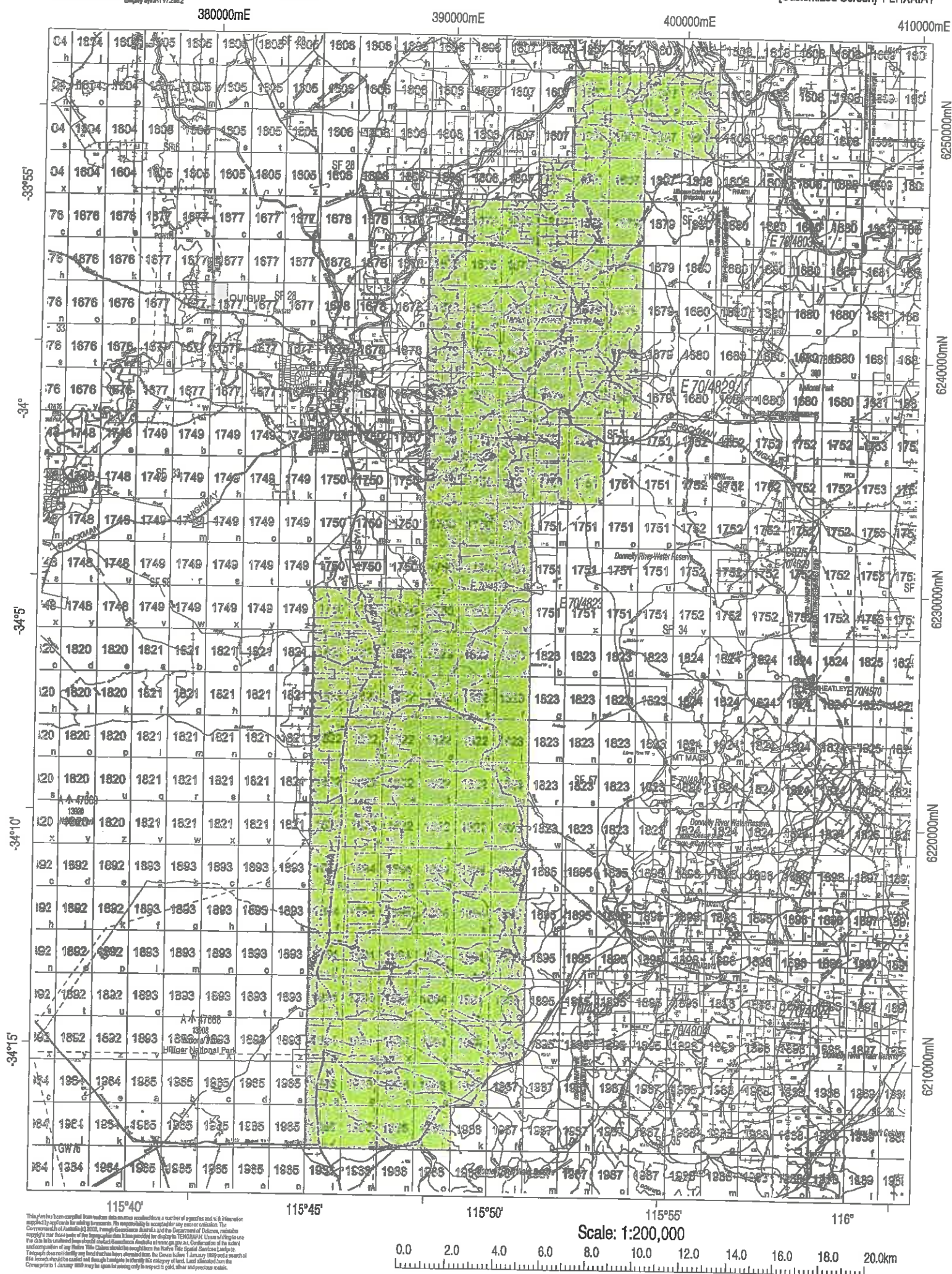
Time Officially Received : 22/03/2018 19:28:08

User Id : ex20563



MAP SHOWING BLOCKS APPLIED FOR IN
EXPLORATION LICENCE NO. 70/4839

 Graticular Section Applied For



Form 21

WESTERN AUSTRALIA

Mining Act 1978

(Secs. 41, 58, 70C, 74, 86, 91, Reg. 64)

APPLICATION FOR MINING TENEMENT

- (a) Type of tenement
(b) Time & Date marked out (where applicable)
(c) Mineral Field

(a) Exploration Licence

No. E 70/4840

(b) a.m./p.m. / /

(c) SOUTH WEST

For each applicant:

(d) Full Name and ACN/ABN

(e) Address

(f) No. of shares

(g) Total No. of shares

DESCRIPTION OF GROUND APPLIED FOR:

(For Exploration

Licences see Note 1. For

other Licences see Note

2. For all Licences see Note 3.)

(h) Locality

(i) Datum Peg

(j) Boundaries

(k) Area (ha or km²)

(d) and (e)

VENTURE LITHIUM PTY LTD (ACN: 611 467 068)

C/- MCMAHON MINING TITLE SERVICES PTY LTD, PO BOX 592, MAYLANDS, WA, 6931

(f) Shares

100

(g) Total 100

(h) NELSON

(i)

(j)

This application affects Private Property.

Details of Private Property Affected: "IN RESPECT TO PRIVATE LAND, THE TENEMENT APPLICANT IS SEEKING SUBSURFACE RIGHTS ONLY, THEREFORE SECTION 33(1a) OF THE MINING ACT 1978 APPLIES TO PRIVATE LAND NOTICES."

(k) 19 BL

- (l) Signature of applicant or agent (if agent state full name and address)

(l) Celeste Patricio

UNIT 28/168 GUILDFORD ROAD,
MAYLANDS, WA, 6051

Date: 22/03/2016

OFFICIAL USE

A NOTICE OF OBJECTION may be lodged at any mining registrar's office on or before the 26th day of April 2016 (See Note 4).

Where an objection to this application is lodged the hearing will take place on a date to be set.

Received at	16:26:06	on	22 March	2016	with fees of
Application	\$1,323.80				
Rent	\$2,379.75				
TOTAL	\$3,703.55				
Receipt No:	608219573491				

Mining Registrar**NOTES****Note 1: EXPLORATION LICENCE**

- (i) Attachments 1 and 2 form part of every application for an exploration licence and must be lodged with this form in lieu of (h), (i), (j) and (k) above.
- (ii) An application for an Exploration Licence shall be accompanied by a statement specifying method of exploration, details of the proposed work programme, estimated cost of exploration and technical and financial ability of the applicant(s).

Note 2: PROSPECTING/MISCELLANEOUS LICENCE AND MINING/GENERAL PURPOSE LEASE

- (i) This application form shall be accompanied by a map on which are clearly delineated the boundaries of the area applied for.

Note 3: GROUND AVAILABILITY

- (i) The onus is on the applicant to ensure that ground is available to be marked out and/or applied for.
- (ii) The following action should be taken to ascertain ground availability:
(a) public plan search; (b) register search; (c) ground inspection.

Note 4: ALL APPLICATIONS OVER PRIVATE LAND

The period for lodgement of an objection is within 21 days of service of this notice, or the date noted above for lodging objections, whichever is the longer period.

DEPARTMENT OF
MINES AND PETROLEUM

23 MAR 2016

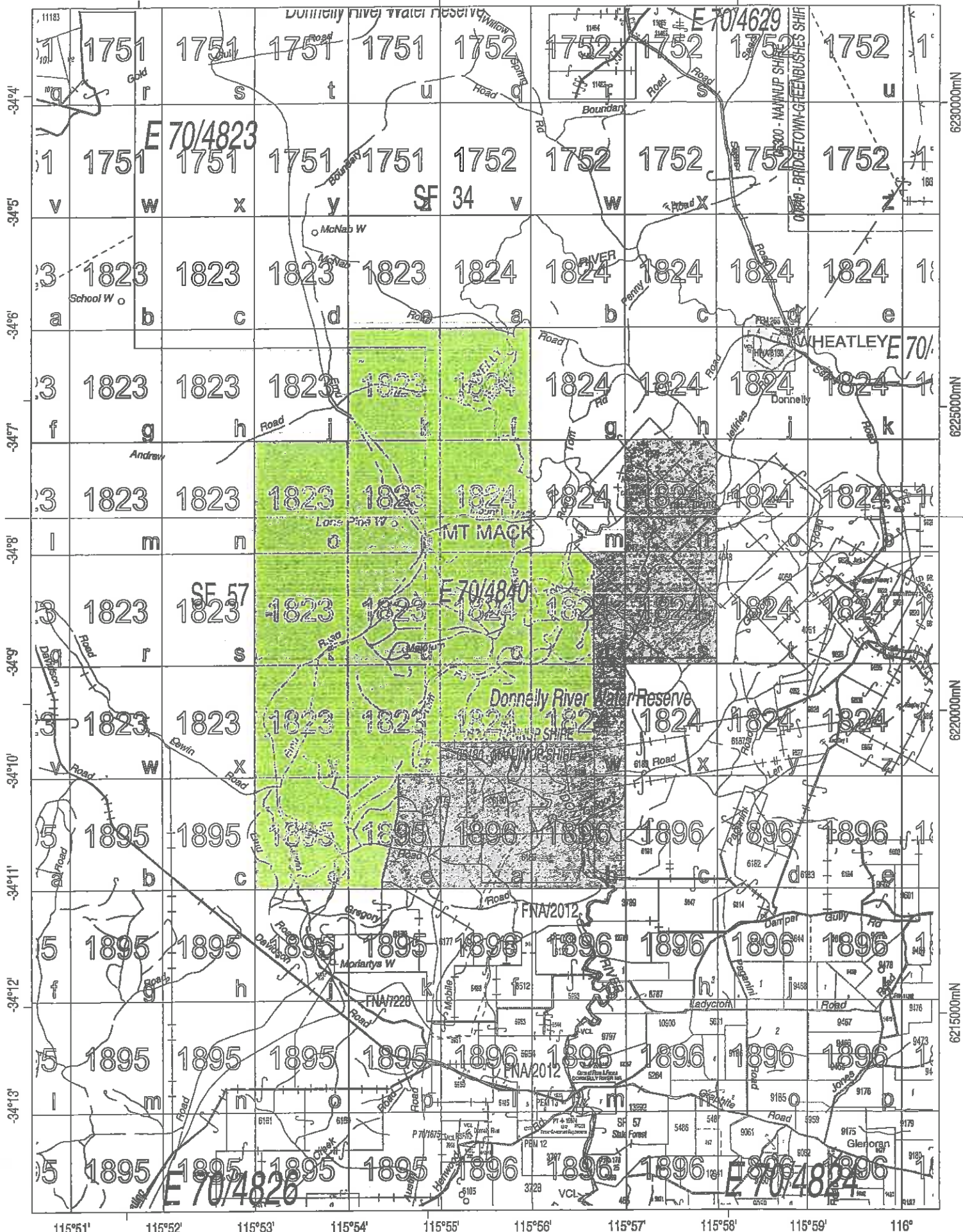
MINERAL TITLES DIVISION



Enquiry System V7.285.2
395000mE

400000mE

405000mE



This plan has been compiled from various data sources including aerial photography and other information supplied by applicants for mining tenements. The responsibility is accepted for any error or omission. The Crown ownership of land in Western Australia is vested in the Governor in Council. The Department of Mines and Petroleum is not responsible for any error or omission in this plan. The Department of Mines and Petroleum is not responsible for any error or omission in this plan. The Department of Mines and Petroleum is not responsible for any error or omission in this plan.

Scale: 1:80,000

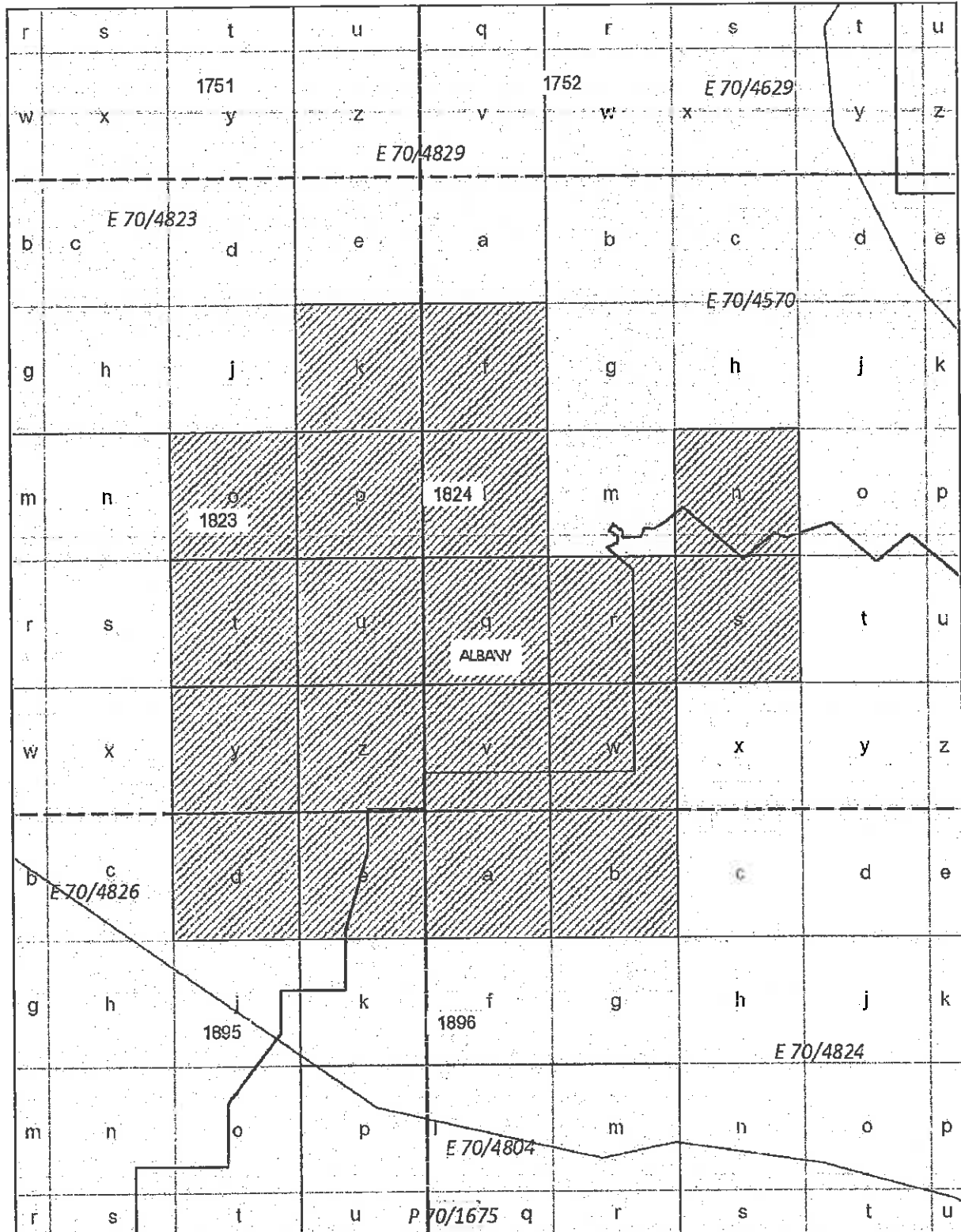
0.0 0.8 1.6 2.4 3.2 4.0 4.8 5.6 6.4 7.2 8.0 km

Mining Act 1978
Sec. 58: Reg. 64

FORM 21 - ATTACHMENT 2
Plan Name(s) - ALBANY

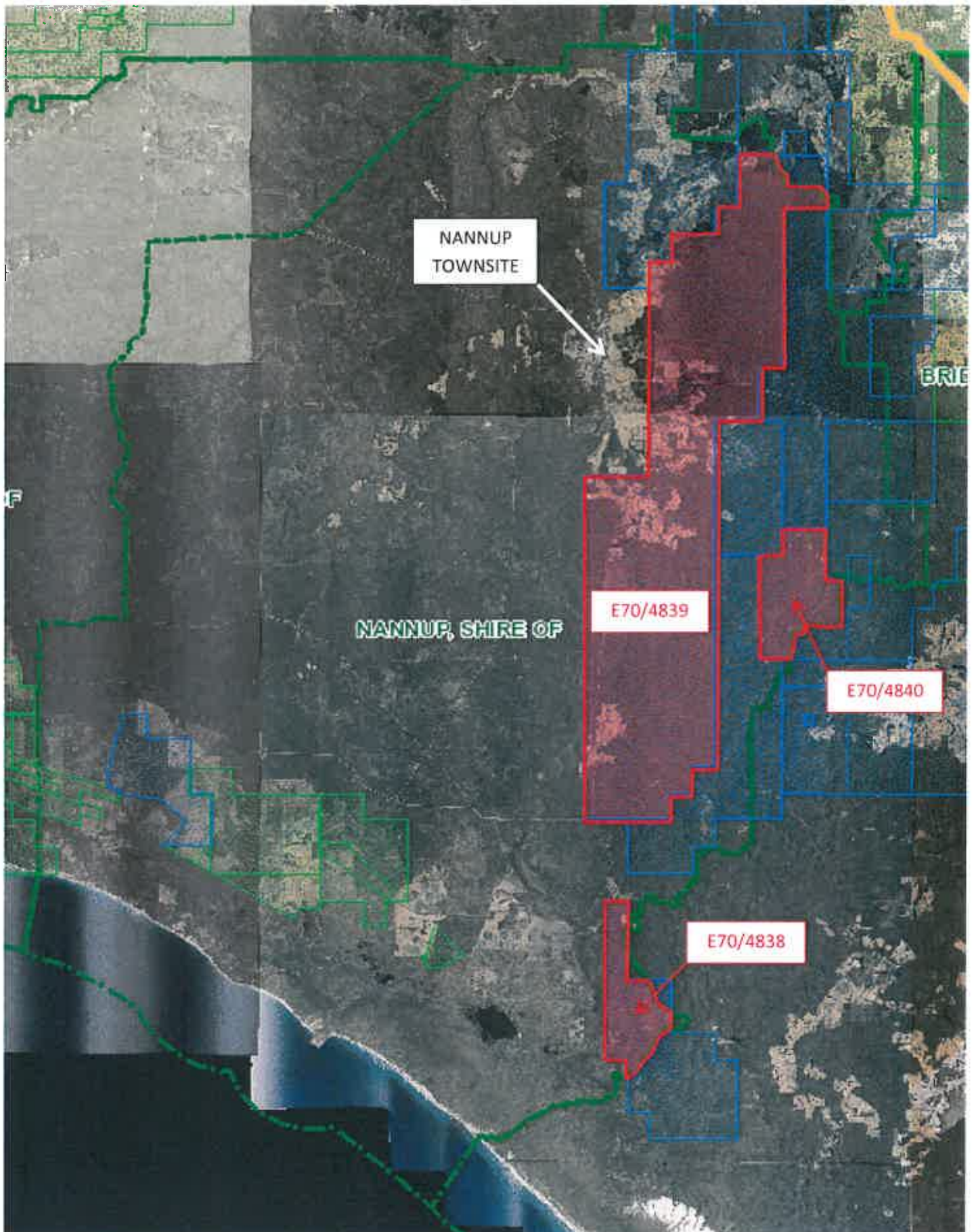
Time Officially Received : 22/03/2018 16:28:08

User Id : ex20883



MAP SHOWING BLOCKS APPLIED FOR IN
EXPLORATION LICENCE NO. 70/4840

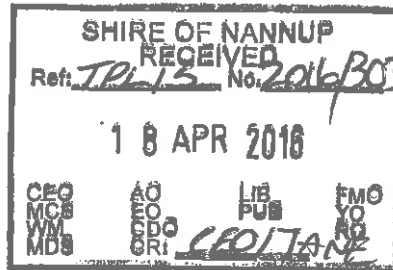
 Graticular Section Applied For





PO Box 2162
Warwick WA 6024
Ph 08 9448 5241
Fax 08 9448 5242
Mob 0403 755 167
bretta@atmwa.net.au
ABN 32 368 166 763

12 April 2016



The Chief Executive Officer
Shire of Nannup
PO Box 11
NANNUP WA 6275

By Registered Post: 941521745011

Dear Sir/Madam,

**NOTIFICATION OF APPLICATION FOR EXPLORATION LICENCE 70/4843
BY OLAF FREDERICKSON, BENISON HOLDINGS PTY LTD & BULL EQUITIES
PTY LTD**

Anderson's Tenement Management, on behalf of Olaf Frederickson, Benison Holdings Pty Ltd and Bull Equities Pty Ltd, advise you that the above application was lodged with the Department of Mines and Petroleum on 29 March 2016.

As such, and in accordance with the *Mining Act*, please find enclosed a copy of the above application and a plan showing the area applied for.

Please do not hesitate to contact me should you have any queries concerning the application or require any further information.

Yours faithfully
Anderson's Tenement Management

A handwritten signature in black ink, appearing to read 'N. A. Mas'.

Nina Mas
Tenement Consultant
Ph: 0438 925 699

Encl.

Form 21

WESTERN AUSTRALIA

Mining Act 1978

(Secs. 41, 58, 70C, 74, 86, 91, Reg. 64)

APPLICATION FOR MINING TENEMENT

(a) Type of tenement	(a) Exploration Licence	No. E 70/4843
(b) Time & Date marked out (where applicable)	(b) a.m./p.m. / /	(c) SOUTH WEST
(c) Mineral Field		
For each applicant:	(d) and (e)	(f) Shares
(d) Full Name and ACN/ABN	FREDERICKSON, Olaf C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024	12500
(e) Address	BENISON HOLDINGS PTY LTD (ACN: 125 218 199) C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024	58330
(f) No. of shares	BULL EQUITIES PTY LTD (ACN: 169 140 596) C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024	29170
(g) Total No. of shares	(g) Total 100000	
DESCRIPTION OF GROUND APPLIED FOR: (For Exploration Licences see Note 1. For other Licences see Note 2. For all Licences see Note 3.)	(h) Nannup (i) (j)	
(h) Locality		
(i) Datum Peg		
(j) Boundaries		
(k) Area (ha or km ²)	(k) 41 BL	
(l) Signature of applicant or agent (if agent state full name and address)	(l) Nina MAS C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024	
	Date: 25/03/2016	

OFFICIAL USE

A NOTICE OF OBJECTION may be lodged at any mining registrar's office on or before the 3rd day of May 2016 (See Note 4).

Where an objection to this application is lodged the hearing will take place on a date to be set.

Received at	08:30:00	on	29 March	2016	with fees of
Application	\$1,323.80				
Rent	\$5,135.25				
TOTAL	\$6,459.05				
Receipt No:	608516646184				

Mining Registrar

WESTERN AUSTRALIA Mining Act 1978 Sec. 58; Reg. 64			FORM 21 - ATTACHMENT 1		
EXPLORATION LICENCE NO. 70/4843					
THIS SECTION MUST BE COMPLETED IN FULL FOR ALL EXPLORATION LICENCE APPLICATIONS					
LOCALITY: Nannup					
BLOCK IDENTIFIER (All three sections must be completed)					
1:1,000,000 PLAN NAME		PRIMARY NUMBER	GRATICULAR SECTION		
ALBANY		1534	stuxyz		
ALBANY		1535	qrww		
ALBANY		1606	cdehjknoqrstuvwxyz		
ALBANY		1607	abfglmqrv		
ALBANY		1678	bcdgh		
TOTAL BLOCKS:		41			

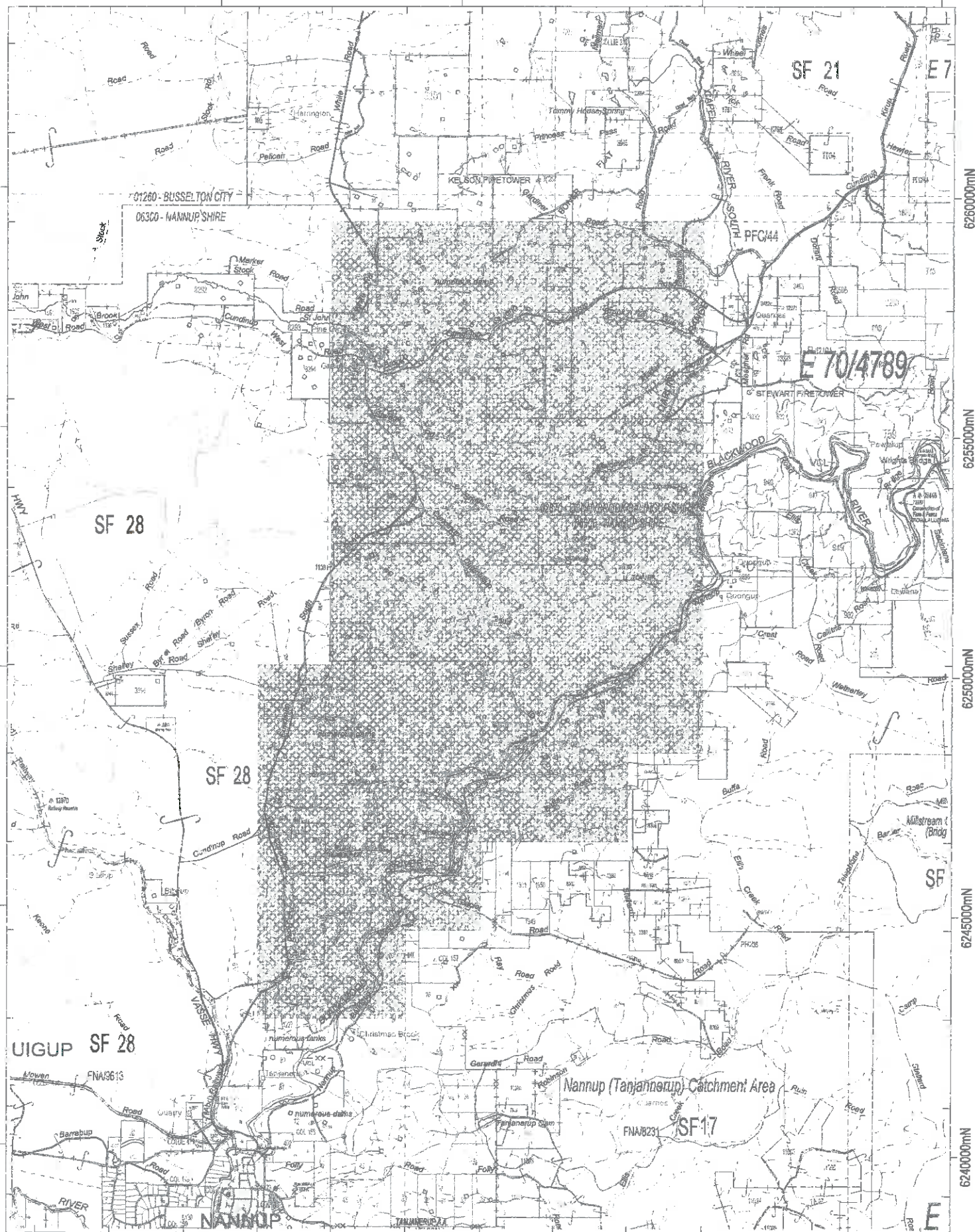


385000mE

390000mE

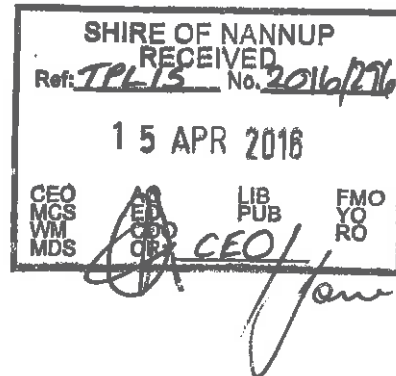
395000mE

400000mE



12 April 2016

The Chief Executive Officer
Shire of Nannup
PO Box 11
NANNUP WA 6275



By Registered Post: 941521744014

Dear Sir/Madam,

**NOTIFICATION OF APPLICATION FOR EXPLORATION LICENCE 70/4844
BY OLAF FREDERICKSON, BENISON HOLDINGS PTY LTD & BULL EQUITIES
PTY LTD**

Anderson's Tenement Management, on behalf of Olaf Frederickson, Benison Holdings Pty Ltd and Bull Equities Pty Ltd, advise you that the above application was lodged with the Department of Mines and Petroleum on 29 March 2016.

As such, and in accordance with the *Mining Act*, please find enclosed a copy of the above application and a plan showing the area applied for.

Please do not hesitate to contact me should you have any queries concerning the application or require any further information.

Yours faithfully
Anderson's Tenement Management

A handwritten signature in dark ink, appearing to read 'N. A. Mas'.

Nina Mas
Tenement Consultant
Ph: 0438 925 699

Encl.

Form 21

WESTERN AUSTRALIA

Mining Act 1978

(Secs. 41, 58, 70C, 74, 86, 91, Reg. 64)

APPLICATION FOR MINING TENEMENT

- (a) Type of tenement
 (b) Time & Date marked out (where applicable)
 (c) Mineral Field

(a) Exploration Licence

No. E 70/4844

(b) a.m./p.m. / /

(c) SOUTH WEST

For each applicant:

- (d) Full Name and ACN/ABN
 (e) Address
 (f) No. of shares
 (g) Total No. of shares

(d) and (e)

FREDERICKSON, Olaf

C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024

(f) Shares

12500

BENISON HOLDINGS PTY LTD (ACN: 125 218 199)

C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024

58330

BULL EQUITIES PTY LTD (ACN: 169 140 596)

C/- ANDERSON'S TENEMENT MANAGEMENT, PO BOX 2162, WARWICK, WA, 6024

29170

(g) Total 100000

DESCRIPTION OF
GROUND APPLIED
FOR:
(For Exploration
Licences see Note 1. For
other Licences see Note
2. For all Licences see
Note 3.)

(h) Greenbushes

(i)

(j)

- (h) Locality
 (i) Datum Peg
 (j) Boundaries
 (k) Area (ha or km²)

(k) 7 BL

- (l) Signature of
applicant or
agent (if agent
state full name
and address)

(l) Nina MAS

C/- ANDERSON'S TENEMENT
MANAGEMENT, PO BOX 2162, WARWICK,
WA, 6024

Date: 25/03/2016

OFFICIAL USE

A NOTICE OF OBJECTION may be lodged at any mining registrar's office on or before the 3rd day of May 2016
(See Note 4).

Where an objection to this application is lodged the hearing will take place on a date to be set.

Received at	08:30:00	on	29 March	2016	with fees of
Application	\$1,323.80				
Rent	\$876.75				
TOTAL	\$2,200.55				
Receipt No:	608516646184				

Mining Registrar

WESTERN AUSTRALIA Mining Act 1978 Sec. 58; Reg. 64		FORM 21 - ATTACHMENT 1	
EXPLORATION LICENCE NO. 70/4844			
THIS SECTION MUST BE COMPLETED IN FULL FOR ALL EXPLORATION LICENCE APPLICATIONS			
LOCALITY: Greenbushes			
BLOCK IDENTIFIER (All three sections must be completed)			
1:1,000,000 PLAN NAME	PRIMARY NUMBER	GRATICULAR SECTION	
ALBANY	1680	tuyz	
ALBANY	1681	q	
ALBANY	1752	de	
TOTAL BLOCKS:		7	

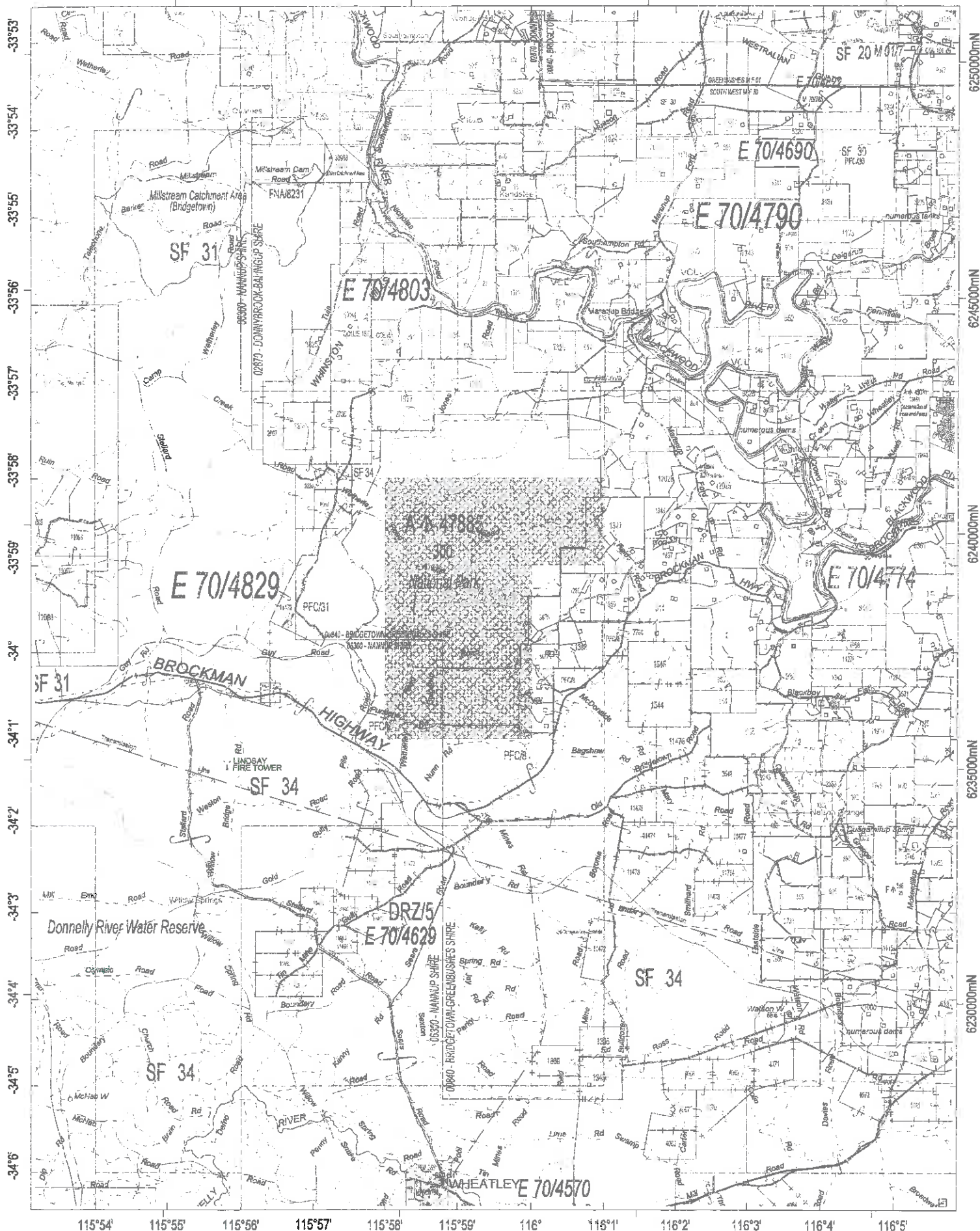


400000mE

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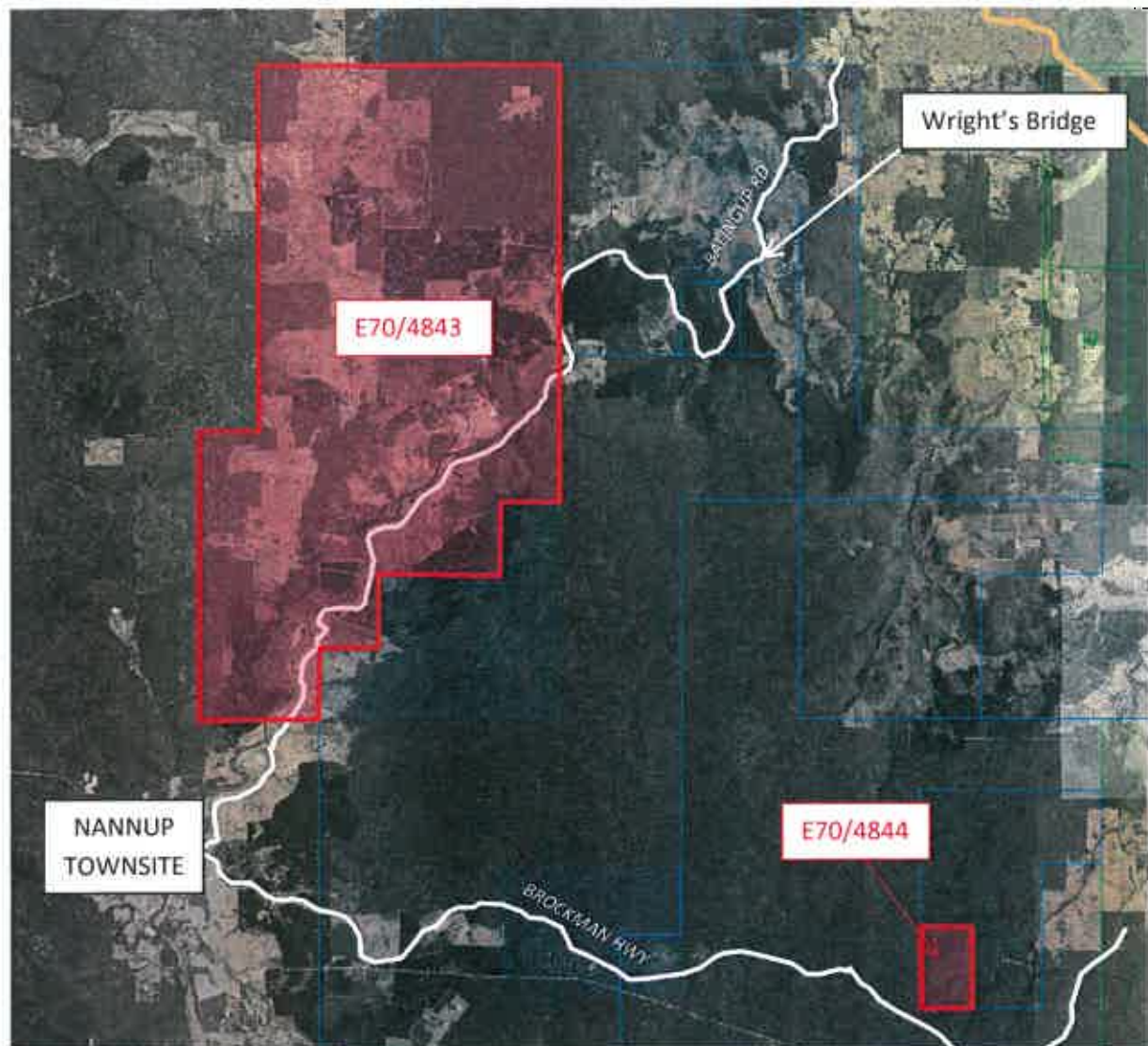
415000mE



This plan has been compiled from various data sources, including aerial photography, and is subject to change without notice. The Department of Mines and Petroleum is not responsible for any errors or omissions. The map is for information only and should not be used for legal purposes. The map is not a guarantee of any particular result. The map is not a guarantee of any particular result. The map is not a guarantee of any particular result.

Scale: 1:100,000

0.0 1.0 2.0 3.0 4.0 5.0 6.0 7.0 8.0 9.0 10.0km







Harley Dykstra

PLANNING & SURVEY SOLUTIONS

Proposed Scheme Amendment

Lot 8280 Dean Road, Nannup

Shire of Nannup Local Planning Scheme No. 3

Prepared by Harley Dykstra Pty Ltd for S Barker

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FS 536019

PLANNING AND DEVELOPMENT ACT 2005
RESOLUTION DECIDING TO AMEND A LOCAL PLANNING SCHEME
SHIRE OF NANNUP

LOCAL PLANNING SCHEME NO.3

AMENDMENT NO.

RESOLVED that the Council, in pursuance of Section 75 of the Planning and Development Act 2005, amend the above local planning scheme by:

- 1. Rezoning Lot 8280 Dean Road, Nannup from 'Agriculture' to 'Special Rural';**
- 2. Amending Schedule 12 of the Scheme accordingly;**
Schedule 12- Special Rural Zones

NO.	DESCRIPTION OF LAND	CONDITIONS
SR16	Lot 8280 Dean Road, Nannup	<ol style="list-style-type: none">1. Subdivision and development of the site shall be generally in accordance with the Structure Plan, adopted by the Local Government and endorsed by the WAPC, and the Fire Management Plan adopted by the Local Government.2. Subdivision and development may be considered by the Shire as a variation from the Structure Plan provided that, in the opinion of the Shire, such development would not compromise the intent of the Structure Plan.3. Any variation to the endorsed Structure Plan not within the general intent of the Structure Plan will require consideration and endorsement of a new Structure Plan in accordance with Schedule 14.

- 3. Amending the Scheme Maps accordingly.**

Dated this _____ day of _____ 20____.

CHIEF EXECUTIVE OFFICER

DOCUMENT CONTROL

Control Version	Date	Status	Distribution	Comment
A	25.02.16	Draft	Client	Draft for Comment and Approval
B	08.03.16	Final	Local Government	Final report for lodgement with Shire of Nannup

Prepared for: Sharon Barker
Prepared by: MS
Reviewed by: LB
Date: 08.03.16
Job No & Name: 20543 Sharon Barker
Version: B

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This document has been exclusively drafted. No express or implied warranties are made by the Consultant regarding the research findings and data contained in this report. All of the information details included in this report are based upon the existent land area conditions and research provided and obtained at the time the Consultant conducted its analysis.

Please note that the information in this report may not be directly applicable towards another client. The Consultant warns against adapting this report's strategies/contents to another land area which has not been researched and analysed by the Consultant. Otherwise, the Consultant accepts no liability whatsoever for a third party's use of, or reliance upon, this specific document.

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MINISTER FOR PLANNING

PROPOSAL TO AMEND A LOCAL PLANNING SCHEME

LOCAL AUTHORITY:	SHIRE OF NANNUP
DESCRIPTION OF TOWN	
PLANNING SCHEME:	LOCAL PLANNING SCHEME NO. 3
TYPE OF SCHEME:	LOCAL PLANNING SCHEME
NO. OF AMENDMENT:	AMENDMENT NO.
REZONING LOT 8280 DEAN ROAD, NANNUP TO 'SPECIAL RURAL' AND AMENDING SCHEDULE 12 OF THE SCHEME TEXT ACCORDINGLY.	

1 INTRODUCTION & PROPOSAL

Harley Dykstra has been engaged to prepare a Scheme Amendment for Lot 8280 Dean Road, Nannup (referred to within as the 'subject land'). This report establishes the strategic suitability of rezoning the subject land and discusses the issues that need to be addressed to allow for future subdivision and development. It should be noted that a Structure Plan has been prepared for the subject land as part of this proposal and is outlined in more detail later in this report.

The proposal is to rezone the subject land from 'Agriculture' to 'Special Rural' in the Shire of Nannup Local Planning Scheme No. 3 (LPS 3) and allow for the subject land to be developed in accordance with the strategic direction of the Shire of Nannup Local Planning Scheme No.3, Shire of Nannup Local Planning Strategy and Shire of Nannup Townsite Strategy.

1.1 Objectives of Amendment

The following key objectives are applicable to the Amendment:

- Providing well located special rural lots with easy access to the Nannup town centre;
- Allowing for appropriate development in accordance with the Shire of Nannup Local Planning Strategy and Townsite Strategy; and
- Respecting the landform and providing future subdivision and development opportunities that consider the site's opportunities and constraints.

2 CONTEXT ANALYSIS

2.1 Site Description

2.1.1 Location and Description

The subject land, being Lot 8280 on Deposited Plan 201619, is comprised of two portions separated by Dean Road and has a total combined area of approximately 8.6 hectares (ha). The larger portion located on the western side of Dean Road backs onto the Blackwood River and is approximately 7.8ha in area. The smaller portion is located on the eastern side of Dean Road and is approximately 7619m² in area.

The subject land is located approximately 2.3km south west of the Nannup town centre (refer to Figure 1- Location Plan below).



Figure 1: Location Plan

[Source: Google Earth]

2.1.2 Land Ownership

The subject land is contained on Certificate of Title Volume 1013 Folio 163 and the registered proprietor is currently Sharon Donelle Bastiaansen-Barker. Refer to **Appendix A** of this report for a copy of the Certificate of Title.

2.2 Land Use

2.2.1 Existing Land Use

The subject land is currently used for rural residential uses with limited small scale rural pursuits. The majority of the subject land has been cleared to allow for this use.

2.2.2 Surrounding Land Use and Zonings

The surrounding lots to the north and east are zoned 'Special Rural' (SR7 and SR14). The lot sizes in this area generally range from 2ha to 8ha in area and have predominantly rural residential uses with some small scale rural pursuits. This proposal seeks a similar outcome to the adjoining special rural land.

Lots to the south and west of the subject land are zoned 'Agriculture'. These lots are generally above 8ha in area. Activities on these lots range from rural residential uses to more intensive agriculture. Running through the surrounding 'Agriculture' zoned lots to the south and west is Crown land, being the Blackwood River.

The subject land as well as the lots to the south and west, which are zoned 'Agriculture', are also identified as being in a 'Special Rural policy area' in the Shire of Nannup Local Planning Scheme No. 3 (LPS 3). Therefore this application is in accordance with the intent of LPS 3.

Figure 2 below shows the existing zonings in the locality.

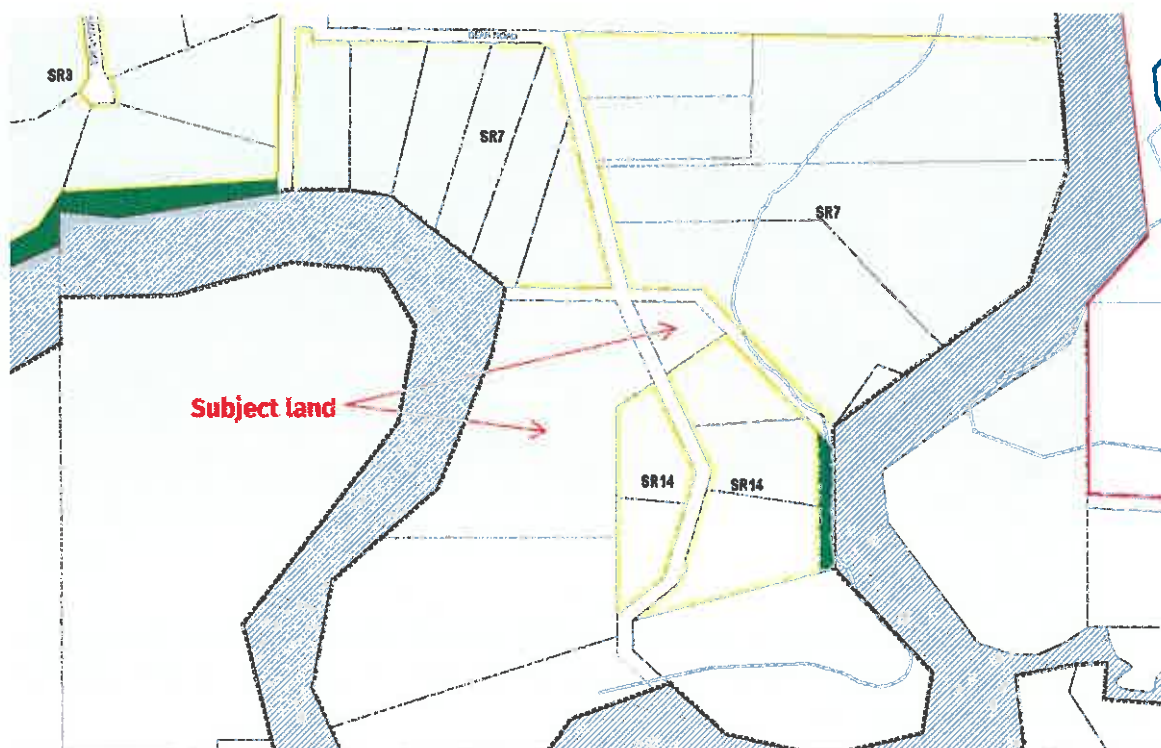


Figure 2: Current Zoning

[Source: WAPC]

2.3 Environmental

2.3.1 Topography

The subject land has a high point of approximately 90m AHD along Dean Road. From the road the land slopes down to the west towards Blackwood River (to a height of approximately 55m AHD) and down to the east (to a height of approximately 70m AHD).

2.3.2 Land Capability

In discussions with the Shire of Nannup and the Department of Planning regarding the proposed Amendment, it was noted that a Geotechnical Investigation should be undertaken for the subject land to demonstrate the appropriateness of future development. A Geotechnical Investigation has been undertaken for the subject land and is attached at **Appendix B**. The report has been considered and incorporated within the Scheme Amendment/ Structure Plan and a summary of the report is outlined below.

The Geotechnical Investigation was undertaken by WML Consultants. The Geotechnical Investigation included excavating six (6) test pits across the subject land. The following general soil profile was established:

- Moist, dark brown, fine to medium grained, silty sand (topsoil);
- Moist, brown, medium dense, fine to coarse, silty gravel with a trace of clay;
- Moist, orange, firm, clay;
- Dry, orange to white mottled red, very stiff, sandy clay to clay.

Groundwater was not encountered in any of the test pits.

The Geotechnical Investigation confirmed that the subject land is considered suitable for development. This includes effluent disposal capability, since tests conducted showed that the soil has a very good ability to strip nutrients from the wastewater.

2.3.3 Aboriginal Heritage

A search of the Department of Aboriginal Affairs (DAA) Heritage Sites was conducted in February 2016.

This search identified that the Blackwood River has been registered as a heritage site with mythological significance (Site 20434). This registration is similar to that given to all named waterways within the South West Land Division and does not place a burden on the development of the subject site, especially since no future development is to occur close to this heritage site (as detailed further in the Structure Plan section below).

Any future development on the property will be subject to the *Aboriginal Heritage Act* and its obligations relating to the recording and protection of any heritage finds that may be uncovered during development. This is the same obligation that exists for all development in areas where there was pre-European settlement.

2.4 Bush Fire Management

A Bushfire Management Plan (BMP) has been prepared by FirePlan WA as part of the Amendment documentation. A copy of the BMP is attached at **Appendix C**.

In summary the BMP has concluded the following:

- Only part of the subject property (western portion) is included with a 'Bushfire Prone Area' as indicated on the relevant State Government legislation;
- The predominant bushfire hazard level rating of the subject land has been identified as low;
- With implementation of the BMP, the bushfire threat to persons and property within the proposed development is reduced;
- Future development on the subject land will require owners/occupiers of the proposed lots to be responsible for undertaking, complying and implementing the measures outlined in the BMP to maintain the reduced level of risk and threat of fire. These include:
 - Dwelling construction in accordance with AS 3959;
 - Asset Protection Zones (APZ) and Hazard Separation Zones (HSZ) to be implemented around dwellings;
 - Maintenance of all property fencing, gates and firebreaks;
 - Installation of water connections for fire appliances; and
 - Maintenance of the battle axe leg to required standards.

The BMP has been considered and incorporated within the Amendment. In particular, the outcomes of the BMP have been included on the proposed Structure Plan that forms part of this Amendment (outlined in more detail in section 4 of this report).

2.5 Services

The subject land is currently serviced by all available standard utilities. The individual services are outlined in more detail below.

2.5.1 Water

The locality is not serviced by reticulated water and as such water for domestic purposes for the existing dwelling is currently supplied from rain water tanks. The new lots within the proposed development will require their own domestic supplies in accordance with existing Scheme requirements (clause 5.8.3 of LPS 3).

2.5.2 Power

Aerial power lines are present in the Dean Road road reserve. The existing dwelling is connected to this service and future development can also be easily connected in accordance with Western Power requirements.

2.5.3 On-site Effluent Disposal

The locality is not serviced by reticulated sewer. Existing houses in the locality are serviced by onsite effluent disposal systems.

Future development will also require connection to suitable onsite effluent disposal systems, in accordance with the requirements of the Shire of Nannup and the Health Department of Western Australia. As outlined earlier in this report, it is noted that the Geotechnical Investigation confirmed that the subject land is considered capable to accommodate future development including on-site effluent disposal.

2.5.4 Telecommunications

Telecommunication infrastructure is present in the Dean Road road reserve. The existing dwelling is connected to this service and future development can also be easily connected.

3 PLANNING CONTEXT

3.1 State and Regional Planning

3.1.1 State Planning Policy No.1 – State Planning Framework Policy

The purpose of SPP1 is to bring together the State and regional policies that apply to land use and development in Western Australia and to establish the general principles for land use planning and development in WA. SPP1 states “*the primary aim of planning is to provide for the sustainable use and development of land*”. It goes on to quantify this through identifying and expanding upon the five key principles that further define this statement, environment, community, economy, infrastructure and regional development.

The proposal meets SPP1 as it will provide for an extension of the existing adjoining ‘Special Rural’ zoned lots to the north and east in accordance with the strategic direction of the Shire of Nannup. The proposal takes into consideration the nature of the subject properties as well as the surrounding area and provides a logical progression in relation to providing for the sustainable use and development of the subject land.

The Amendment meets the objectives of SPP1, as also evidenced by the following:

- The Amendment seeks to implement the strategic direction of the Shire of Nannup Local Planning Strategy and Townsite Strategy (as detailed further below);
- It will provide an alternative source of land for settlement in close vicinity to Nannup townsite and remove pressure to expand into new areas for this type of development;
- It will support the local economy by allowing the growth of Nannup and providing additional housing/lifestyle choice;
- The proposal will have minimal ability to generate land use conflicts, given the majority of adjoining land uses are rural residential in nature; and
- It will utilise existing infrastructure for servicing including existing constructed roads.

The proposed Scheme Amendment is consistent with the objectives of SPP1.

3.1.2 State Planning Policy No.2.5 – Land Use Planning in Rural Areas

SPP 2.5 provides the overarching objectives and policy statements for land use planning for rural and rural settlement development. SPP 2.5 lists a number of policy measures that relate to rural living proposals and the proposal complies with these measures as demonstrated by the following:

- The Amendment seeks to implement the strategic direction of the Shire of Nannup Local Planning Strategy and Townsite Strategy which shows the subject land to have potential as a rural living precinct;
- The subject land is in close vicinity to existing urban areas and has access to services and facilities;
- The proposed rural residential use will not conflict with any rural land use activity;

- The proposal will not compromise environmental values of the subject land;
- The subject land is capable of supporting development of future dwellings as demonstrated by the Geotechnical Investigation;
- Future additional lots can be serviced by existing constructed roads capable of providing access during all weather conditions; and
- It has been demonstrated that the subject land is not in an extreme bushfire risk area and any lesser bushfire risk can be minimised and managed without adversely affecting the natural environment.

3.1.3 Draft Country Sewerage Policy

The Department of Health released a draft policy for wastewater treatment and dispersal in 2003. The draft Country Sewerage Policy sets minimum requirements for on-site wastewater disposal. This includes:

- A minimum lot size of 2000m² shall be established in areas proposed to utilise on-site effluent disposal techniques;
- The use of Aerobic Treatment Units (ATU's) where a clearance of 500mm from surface to groundwater can be achieved;
- The use of septic systems where a clearance of 2000mm from surface to groundwater can be achieved and suitable soil types are found; and
- A 30 metre setback to a dam, stream or private water supply.

As is outlined in the Geotechnical Investigation, the soil of the subject land has been assessed as having a very good ability to strip nutrients from the wastewater. Due to the suitable soils of the subject land and suitable separation to the water table, future development can allow for conventional effluent disposal systems. Future rural residential development can therefore meet the requirements of the Country Sewerage Policy.

3.2 Local Planning

3.2.1 Shire of Nannup Local Planning Scheme No.3

The subject land is currently zoned 'Agriculture' by the Shire of Nannup Local Planning Scheme No. 3 (LPS 3). The Scheme outlines specific lot sizes for various rural uses:

- *"Where land is to be used for grazing, cropping and other general agricultural practices, subdivision should be based on a minimum lot size of 80 hectares.*
- *Where the land is to be used for annual or perennial horticulture production, subdivision should be based on a minimum lot size of 40 hectares..."*

The subject land of this proposal has a total area of approximately 8.6ha, which is much smaller in area than those prescribed by the Scheme for the various rural uses. It is argued that the subject land is not suitable to be included in the 'Agriculture' zone as is currently the case, but a 'Special Rural' zoning for the lot would be more appropriate.

It is proposed to rezone the land to 'Special Rural', which provides for residential use in a rural environment. The objectives of this zone as stated in LPS 3 are:

- a) *"To select land within the Scheme Area wherein closer subdivision may be permitted to provide for rural-residential retreats and hobby farms on land which is suitable for such purpose and does not result in the removal of prime agricultural land or impact upon the continuation of established or potential agricultural use";*
- b) *"To provide for a range of land uses compatible with the residential occupation of the land while providing for agricultural production on smaller lots where such production does not interfere with the amenity or rural residential character of the area";*
- c) *"To provide for a range of housing choice and hence, lifestyle opportunities, within relatively close proximity to the town centre or main transport connections to the town centre";*
- d) *"To encourage alternative rural-residential settlement patterns, including cluster subdivision patterns that provide opportunities for agricultural production, landscape protection and conservation"; and*
- e) *"To establish minimum development standards to ensure development is consistent with, and does not detract from, the rural character or landscape qualities".*

The subject land is already rural residential in nature and therefore, as also indicated by the Shire of Nannup Local Planning Strategy and Townsite Strategy, the land warrants inclusion in the Special Rural zone.

The subject land has also been designated as a 'Special Rural Policy Area' under the Special Control Areas of LPS 3. This control area relates to areas considered suitable for further investigation for rural residential development. The purpose of identifying land as being within the 'Special Rural Policy Area' is to enable the planned and progressive development of land for rural residential purposes. Rezoning the subject land to Special Rural therefore forms a logical progression in development given that the surrounding lots to the north and east of the subject land have already been zoned Special Rural.

The Scheme objectives above and requirements for the Special Rural zone will be able to be met for the subject land and this is detailed further through a Structure Plan which has been prepared for the subject land (refer to section 4 of this report).

3.2.2 Shire of Nannup Local Planning Strategy

The Shire of Nannup Local Planning Strategy (LPS) sets out the local government's broad vision for the municipality and the longer term directions for land use and development and has regard to all State and regional planning policies.

The subject land, identified by the LPS as 'Rural', is also within a 'Rural Planning Precinct' (NR5). In relation to Rural Planning Precinct NR5, the LPS states:

- An objective of this precinct is to *“allow for rural-residential subdivision in areas close to town where permitted under the Townsite Strategy.”*
- A development guideline in relation to settlement is to *“support investigations of precincts identified in the Townsite Strategy as being provisionally suitable for various forms of rural settlement.”*

As the subject land has been identified in the Shire of Nannup Townsite Strategy as having potential for rural residential development (detailed in the following section of this report), the proposed Amendment aims to implement the strategic direction of the LPS in relation to Rural Planning Precinct NR5.

3.2.3 Shire of Nannup Townsite Strategy

The Nannup Townsite Strategy was adopted as policy by the Shire in June 1999. The purpose of the Townsite Strategy was to identify land suitable for urban and rural residential expansion of the townsite.

The subject land was identified as being part of ‘Policy Area 4 – Nannup West’, which has already accommodated a significant amount of rural residential development. The Strategy identifies this area as having few limitations with respect to rural residential development. One of the specific aims of the Townsite Strategy is to provide for a range of lots within close proximity to the Nannup townsite, which this Amendment achieves.

It is noted that the Shire, in considering rural residential development in ‘Policy Area 4’, requires the preparation of a Subdivision Guide Plan (or Structure Plan) and rezoning documentation, which has been provided through this Scheme Amendment report and Structure Plan. It is also noted that future subdivision in the policy area is guided by the following general Nannup Townsite Strategy requirements:

- Minimum lot size of 1ha where a reticulated water supply is available;
- Otherwise, a minimum lot size of 2ha.

4 STRUCTURE PLAN

4.1 Introduction

In accordance with the requirements of the Shire of Nannup LPS 3 and Townsite Strategy, a Structure Plan has been prepared for the subject land.

The Structure Plan is outlined in the following sections and a copy of the Structure Plan is attached at **Appendix D**.

4.2 Design Philosophy

To create rural residential living that is responsive to the landform and constraints of the subject land.

4.3 Lot Density and Mix

The Structure Plan proposes the creation of three (3) lots with areas of 7619m², 3.0ha and 4.8ha.

The proposed lot sizes have been shaped by environmental factors such as building exclusion areas for fire and floodplain purposes. Lots that are impacted by these environmental factors have been made larger to ensure that each proposed lot has suitable area for rural residential development.

It is noted that although a general minimum lot size of 2ha shall apply to the Structure Plan area, proposed Lot C shown on the Structure Plan is below this general requirement. However a new lot in this location is logical and is justified as follows:

- Proposed Lot C forms an entirely separate portion to parent Lot 8280 on the east side of Dean Road and cannot be appropriately used in conjunction with the existing larger portion (or proposed Lot B);
- The vast majority of the land is clear of vegetation providing for sufficient area for rural residential development;
- The new lot has direct frontage to Dean Road and makes efficient use of the existing services in this location; and
- While the proposed lot is smaller than the general minimum lot size requirement, the other proposed lots shown on the Structure Plan are much larger than the 2ha minimum and therefore an overall average lot size well in excess of 2ha will be achieved.

4.4 Road/ Battle Axe Network

The Structure Plan demonstrates that there is no requirement for any new roads. The proposed lots can access directly onto Dean Road.

A battle axe leg has been proposed for Lot A to allow access from Dean Road. It should be noted that the battle axe leg has been designed with extra width and frontage to Dean Road in order to

minimise clearing of vegetation in construction of a new driveway and to maximise visibility in entering Dean Road from the lot.

4.5 Environmental Considerations

A number of environmental considerations have been incorporated into the Structure Plan design.

Firstly, as outlined earlier, a Bushfire Management Plan (BMP) has been prepared for the subject land. The outcomes of the BMP have been used to establish a building exclusion area adjacent to the existing vegetation along the Blackwood River. The building exclusion area (area with a rating above BAL 29) has been illustrated on the Structure Plan and it is noted that future development on the proposed lots can respect the identified building exclusion area.

The established one in 100 year floodplain associated with the Blackwood River has also been illustrated on the Structure Plan. The Structure Plan design has respected the Blackwood River floodplain and the Structure Plan requirements restrict development in this area.

4.6 Structure Plan Provisions

To ensure the consistent implementation of the Structure Plan the following provisions are recommended (as also detailed on the Structure Plan map):

- Subdivision and development of the lots shall generally be in accordance with the Structure Plan adopted by Council and endorsed by the Western Australian Planning Commission;
- A minimum lot size of 2.0ha shall apply (with the exception of the smaller lot shown on the Structure Plan);
- The Structure Plan is subject to a Bushfire Management Plan and all future subdivision and development shall be in accordance with a Bushfire Management Plan to the satisfaction of the Department of Fire and Emergency Services and the Local Government; and
- No development shall occur within the 'Building Exclusion Areas'.

4.7 Implementation

The Structure Plan has been designed to allow the land owner to subdivide in one stage at the earliest possible time.

5 CONCLUSION

The proposal is to rezone Lot 8280 Dean Road, Nannup from 'Agriculture' to 'Special Rural'.

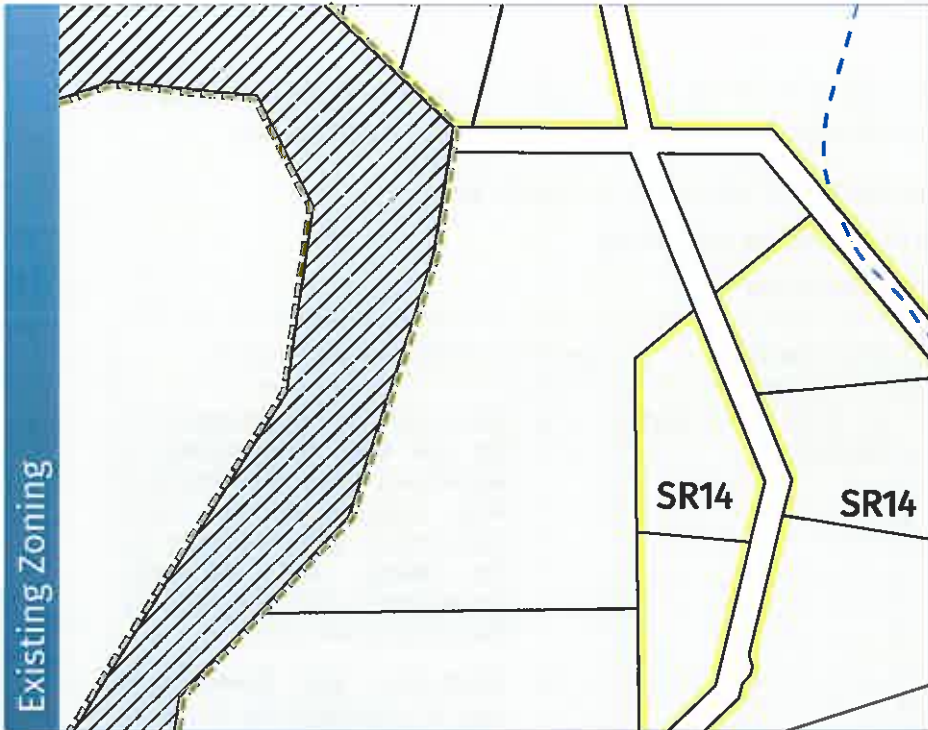
The above report provides a description of the subject land and provides justification for the proposal. In summary, the proposed Amendment is suitable for the subject land as evidenced by the following:

- The subject land is not suited to the current 'Agriculture' zoning since the existing lot is unable to be viably utilised for 'Rural' land uses, especially given the size constraints;
- The properties are fundamentally rural residential in nature and warrant inclusion in the 'Special Rural' zone;
- The Shire of Nannup Local Planning Scheme No. 3, Local Planning Strategy and Townsite Strategy provide strategic direction and have identified that the property should be included in the 'Special Rural' zone; and
- The proposed rezoning will allow for a logical progression towards the planned and orderly subdivision and development of 'Special Rural' land uses for the subject land as shown by the associated Structure Plan.

Endorsement of the Scheme Amendment is therefore respectfully requested.

SHIRE OF NANNUP

Proposed Scheme Amendment



LOCAL SCHEME RESERVES

-  Local Roads
-  Water course

LOCAL SCHEME ZONES

-  Agriculture
-  Special rural

OTHER CATEGORIES

-  Special rural policy area
-  Flood risk land - SCA
-  SR1 Special rural area



PLANNING AND DEVELOPMENT ACT 2005

SHIRE OF NANNUP

LOCAL PLANNING SCHEME NO.3

AMENDMENT No.

The Shire of Nannup under and by virtue of the powers conferred upon it in that behalf by the Planning and Development Act 2005 hereby amends the above local planning scheme by:

1. Rezoning Lot 8280 Dean Road from 'Agriculture' to 'Special Rural';
2. Amending Schedule 12 of the Scheme accordingly;

Schedule 12- Rural Residential Zones

Scheme Map ref No.	Area Description	Special Conditions and Provisions
SR16	Lot 8280 Dean Road, Nannup	<ol style="list-style-type: none">1. Subdivision and development of the site shall be generally in accordance with the Structure Plan, adopted by the Local Government and endorsed by the WAPC, and the Fire Management Plan adopted by the Local Government.2. Subdivision and development may be considered by the Shire as a variation from the Structure Plan provided that, in the opinion of the Shire, such development would not compromise the intent of the Structure Plan.3. Any variation to the endorsed Structure Plan not within the general intent of the Structure Plan will require consideration and endorsement of a new Structure Plan in accordance with Schedule 14.

3. Amending the Scheme Maps accordingly.

PLANNING AND DEVELOPMENT ACT 2005

SHIRE OF NANNUP

LOCAL PLANNING SCHEME NO.3

AMENDMENT No.

ADOPTION:

Adopted by resolution of the Council of the Shire of Nannup at the meeting of the Council held on the _____ day of _____ 201__:

Shire President

Chief Executive Officer

FINAL APPROVAL:

Adopted for final approval by resolution of the Shire of Nannup at the meeting of the Council held on the _____ day of _____ 201__ and the Common Seal of the municipality was pursuant to that resolution hereunto affixed in the presence of:

Shire President

Chief Executive Officer

RECOMMENDED / SUBMITTED FOR FINAL APPROVAL:

Delegated under s.16 of the PD Act 2005

Date

FINAL APPROVAL GRANTED:

Minister for Planning

Date

APPENDIX A – CERTIFICATE OF TITLE

WESTERN



AUSTRALIA

REGISTER NUMBER

8280/DP201619

DUPLICATE
EDITION

1

DATE DUPLICATE ISSUED

8/7/2010

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

VOLUME
1013FOLIO
163

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

REGISTRAR OF TITLES



LAND DESCRIPTION:

LOT 8280 ON DEPOSITED PLAN 201619

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

SHARON DONELLE BASTIAANSEN-BARKER OF LOT 8280 DEAN ROAD, NANNUP
(T D201688) REGISTERED 19 FEBRUARY 1986

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

1. TITLE EXCLUDES THE LAND SHOWN ON S.O. DIAGRAM 44448.

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

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

STATEMENTS:

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

SKETCH OF LAND: 1013-163 (8280/DP201619).
PREVIOUS TITLE: This Title.
PROPERTY STREET ADDRESS: LOT 8280 DEAN RD, NANNUP.
LOCAL GOVERNMENT AREA: SHIRE OF NANNUP.

NOTE 1: A000001A LAND PARCEL IDENTIFIER OF NELSON LOCATION 8280 (OR THE PART THEREOF)
ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 8280 ON
DEPOSITED PLAN 201619 ON 24-JUN-02 TO ENABLE ISSUE OF A DIGITAL
CERTIFICATE OF TITLE.

NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE
OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.

APPENDIX B – GEOTECHNICAL INVESTIGATION

Our Ref: 6812-G-L-001-B

15 February 2016

Sharon Barker
c/- Harley Dykstra
PO Box 778
BUNBURY WA 6231

Attention: Sharon Barker

LOT 8280 DEAN ROAD, NANNUP
GEOTECHNICAL INVESTIGATION

1 INTRODUCTION

WML Consultants (WML) was engaged by Harley Dykstra on behalf of their client to carry out a geotechnical investigation at the above property. WML understands it is proposed re-zone the current lot to 'Special Rural' with the intention of subdividing the lot into an additional 2 lots. A Geotechnical Investigation is required to ensure the land is physically capable of development. This letter summarises our findings of the investigation together with recommendations for design and construction.

2 SITE SETTING

The site is located on Dean Road, Nannup, Western Australia. Based on the concept drawing by Harley Dykstra 20543-01A, the original lot is 8.5ha and irregular in shape. Lot B has an existing residence and does not form part of the geotechnical investigation. The western edge of the site falls moderately toward the Blackwood River and its associated flood plain. Building envelopes for the proposed subdivided residences will be confined to an area above the flood plain. Lot C is on the eastern side of Dean Road and also falls moderately to sharply toward another flood plain.

The 1:250,000 scale Geological Map 'Collie' sites the area upon 'Broad tracts of sandy alluvium often traversed by dunes, variously reworked by present drainage'. An approximate position of the Darling Fault Line is positioned just east of the site, running in a north-south direction.



3 FIELDWORK

3.1 Fieldwork

On 21 January 2016, an engineer from WML undertook an investigation of the site comprising six machine-excavated test pits (TP) to between 1.50 – 2.00m depth across the site. Each TP was logged, photographed and subsequently backfilled. Three Perth Sand Penetrometers (PSP) tests and a number of in-situ shear vane tests (SV) were also undertaken across the site. The TP locations are approximated on a site map attached to this letter. PSP7 was undertaken between TP3 and TP4.

3.2 Sub-surface Profile

The sub-surface profile within Lot C generally comprised:

1. Moist, dark brown, fine to medium grained, **silty SAND (TOPSOIL)**,
2. Moist, brown, medium dense, fine to coarse, **silty GRAVEL** with a trace of clay
3. Moist, orange, firm, **CLAY**
4. Dry, orange to white mottled red, very stiff, **sandy CLAY to CLAY**

Lot A was more variable given the area was larger, but generally had a similar profile to above. Test pits at lower elevation (ie toward the flood plain of the Blackwood River) tended to a more granular, sandy material. TP4 was almost entirely a fine to medium grained, SAND with a trace of silt tending clay. At 2.0m there was also a coarse sized smooth 'river pebble' excavated. TP2 and TP3 had almost 1m of gravels and large ironstone boulders, this may cause hard digging conditions for builders and contractors who need to dig trenches.

PSP testing was generally not applicable in the gravel or clayey material, however in TP4, PSP results indicate the sand material is of a loose consistency. An additional PSP was undertaken further away from the flood plain in an attempt to identify the boundary of loose sands. This test recorded satisfactory blow counts of a medium dense sand.

Groundwater was not encountered in any of the test pits, however in TP5 and TP6, the upper layer of clay had elevated moisture levels and resulted in a low undrained shear strength of firm consistency (50kPa). This appeared to be a perched moisture as the underlying material was dry and very stiff (>130kPa). The results are shown in the soil logs attached.

3.3 Laboratory Testing

Samples of representative clay material were submitted to Civitest Australia, a NATA accredited laboratory for an Atterberg Limits test. The test results are summarised below with the certificates attached at the end of this report:

**Table 1: Laboratory Testing Summary – Plasticity Index**

Location	Depth (m)	Test	PSD			Atterberg Limits	
			Fines (%)	Sand (%)	Gravel (%)	PI (%)	LS (%)
TP1	0.7	PI/LS	-	-	-	18	6.0
TP2	1.5	PI/LS	-	-	-	NP	1.0
TP5	0.6	PI/LS	-	-	-	15	7

Note: PSD – Particle Size Distribution; PI – Plasticity Index; LS – Linear Shrinkage; EC – Emmerson Class; PRI – Phosphorus Retention Index; NO – Not Obtainable; NP – Non-Plastic

Based on the test results, the clay material found in TP1 and TP5 is considered medium plastic, TP2 contained a non-plastic material. The laboratory certificates are attached.

3.4 Phosphorus Retention Index

The Phosphorous Retention Index (PRI) is a measure of how well a soil can retain phosphorous, which is an essential ability for the process of effluent disposal from on-site sewage systems. For sandy soils the PRI is usually less than 5 while strongly absorbing soils are lateritic loams, iron rich peats, Karri loams with PRI greater than 70. Ideally the PRI should be greater than 20.

Selected soil samples collected during the investigation were sent to South West Chemical Services for testing of Phosphorous Retention Index. The test results are summarised below with the certificates attached:

Table 2: Laboratory Testing Summary - PRI

Location	Depth (m)	Test	PRI
TP1	1.8	PRI	860
TP2	1.5	PRI	918
TP5	0.6	PRI	473
TP5	1.8	PRI	229

Note: PRI – Phosphorus Retention Index

Based on the results, the phosphorus retention ability of the samples tested is considered very high. The high results from TP2 were unexpected given that the material was a SAND, however as the sand was weakly cemented, higher levels of iron may have been present.

4 FINDINGS & RECOMMENDATIONS

4.1 General

Based on the findings from the individual test locations, the site is considered suitable for development. Site preparation and conditions detailed below should be considered and undertaken.

4.2 Site Classification

Based upon the investigations results, the site may be classified in accordance with AS 2870:2011 - "Residential Slabs and Footings" which requires an estimation of the expected surface movement due to the wetting and drying of a foundation.

CLASSIFICATION BY CHARACTERISTIC SURFACE MOVEMENT (y_s)	
Characteristic surface movement (y_s) mm	Site classification in accordance with Table 2.1
$0 < y_s \leq 20$	S
$20 < y_s \leq 40$	M
$40 < y_s \leq 60$	H1
$60 < y_s \leq 75$	H2
$y_s > 75$	E

Figure 1: Extract from AS2870:2011 (Table 2.3)

For both proposed lots A and C, a site classification "S" is considered appropriate.

4.3 Site Preparation

Areas to consider that will influence the development are as follows:

- TP4 near the flood plain has loose sands which would require deep compaction to improve bearing capacity, it is recommended to avoid placing a building envelope in this vicinity.
- TP5 and TP6 contain firm clays near the surface which may also influence bearing capacity, this should be considered during foundation design.
- TP2 and TP3 contain up to 1m of gravels and ironstone boulders, this may cause hard digging conditions if trenches need to be excavated.
- Both lots have high gradient slopes, in particular Lot C. This should be considered for selecting an on-site effluent system, as well as foundation design for any future structures.
- An area just north of TP1 contained ironstone boulders on the surface.

The following site preparation recommendations shall include, but not limited to, the following actions:

- Stripping of topsoil, organics and any other deleterious material. Topsoil can occur up to depths of 200mm.
- Proof-compaction of the exposed subgrade should occur with a vibratory roller.
- Any imported fill material used should be free draining sand or granular material with a fines (<75 micron) and organic content no greater than 5% and 2%, respectively.
- Any fill material placed, should be compacted in lifts no greater than 300 mm.



- Compaction compliance (imported sand only) can be measured with a Perth Sand Penetrometer (PSP) and should achieve a blow count of 8 per 300mm increment, increasing with depth.

4.4 Effluent Disposal Capability

AS/NZS 1547:2012 requires the determination of soil categories from which effluent infiltration capacities can be determined. The factors that affect a soil category are:

- Soil texture and structure
- Dispersion
- Shrink/swelling of soils
- Depth of groundwater
- Presence of hard or impermeable layers
- Soil permeability
- Topography

The different materials of the site may be categorized in accordance with Table 5.1 of the standard. The site showed a variable sub-surface profile however the PRI tests showed the soil has a very good ability to strip nutrients from the wastewater. No in-situ testing for permeability was undertaken however each soil type may be estimated from literature. The sub-surface profile for the site can be categorised as shown in the following table:

Table 3: Soil Categorisation

Soil Type	Permeability		Soil Category
	m/s	m/day	
Sandy GRAVEL	1×10^{-3}	80	1
SAND	1×10^{-4}	9	2
CLAY	1×10^{-7}	0.01	6

4.5 Safety in Design

This project has design elements, however these elements are considered rudimentary with the associated risks and hazards being widely known and understood. Any competent person carrying out this type of work should be aware of these hazards and apply standard industry practices to mitigate the risks.



Yours faithfully,

Alex Pope
Graduate Engineer
For and on behalf of WML Consultants Pty Ltd

Reviewed by:

Paul Foley
Group Manager Geotechnical & Pavements
For and on behalf of WML Consultants Pty Ltd

Attached

- Site Photographs
- Site Investigation Plan Drawing
- Test pit logs
- Laboratory Test Results

References

- 1:250,000 Geological Map 'Collie'
- AS 2870:2011 – Residential Slabs & Footings
- AS 1726:1993 – Geotechnical Site Investigations
- AS/NZS 1547: 2012 – On-site Domestic Wastewater Management



Figure 2: Facing north-east from TP4



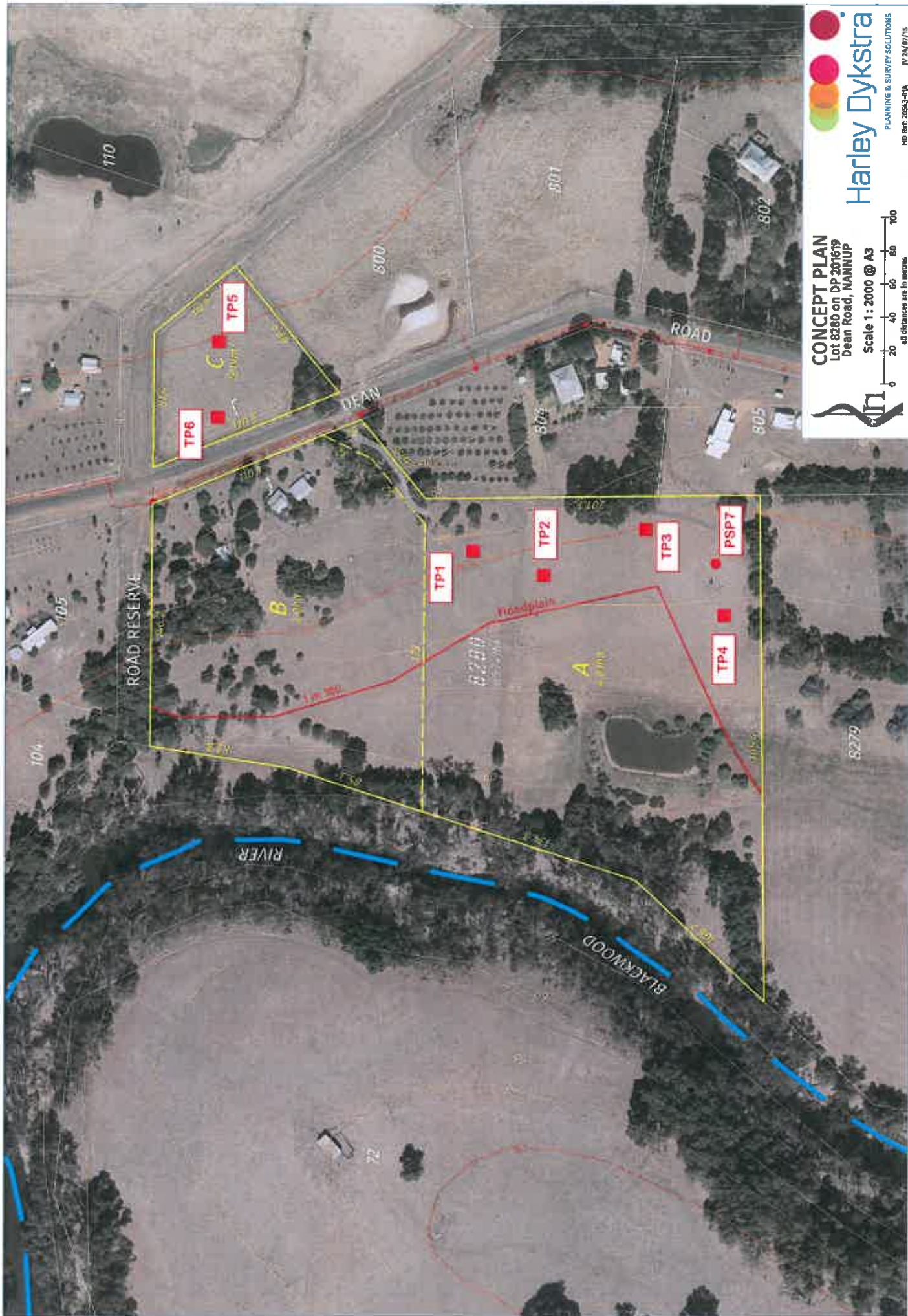
Figure 3: TP3 showing layer of near-surface gravel. Note, right of test pit refused on laterite caprock and had to be pushed further to left to continue excavation.



Figure 4: Facing south-east from TP6



Figure 5: TP6, note darker area near surface represents softer, saturated clay



CONCEPT PLAN
Lot 8280 on DP 201619
Dean Road, NANNUP

Scale 1: 2000 @ A3

all distances are in metres



Harley Dykstra

PLANNING & SURVEY SOLUTIONS
HD Ref: 20543-01A IV 24/07/15

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: Excavator

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup




CO-ORD SYSTEM: MGA94 Zone 50

SURFACE RL:

JOB NO.: 6812

POSITION: 384518.0 m E 6237693.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
				SM	Moist, dark brown, loose, fine to medium grained, silty SAND, with a trace of fine roots
				GW	Moist, brown, medium dense, fine to coarse, silty GRAVEL, with a trace of clay
	0.5			CH	Moist, orange mottled yellow, stiff, CLAY, with a trace of fine to medium grained sand
	1.0	0.90m In-situ VS P=80kPa		CH	
	1.5			CH	As above, dry
	2.0				
	2.5				Hole Terminated at 2.20 m Target depth

Not Encountered

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: Excavator

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup

CO-ORD SYSTEM: MGA94 Zone 50

SURFACE RL:

JOB NO.: 6812

POSITION: 384509.0 m E 6237644.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered				SM	Moist, dark brown, loose, fine to medium grained, silty SAND, with a trace of fine roots
		<u>Perth Sand Penetrometer</u> Depth (m) Blows 0.20 - 0.50 15 0.50 - 0.80 13		GW	Moist, brown, medium dense, fine to coarse, sandy GRAVEL, with a trace of clay
	0.5				
	1.0			SP	Dry, orange mottled red, dense, fine to medium grained, SAND, with a trace of clay and a trace of fine to medium gravel, Weakly cemented sand
	1.5				
	2.0				
	2.5				Hole Terminated at 2.20 m Target depth

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: Excavator

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup




CO-ORD SYSTEM: MGA94 Zone 50

SURFACE RL:

JOB NO.: 6812

POSITION: 384534.0 m E 6237584.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered				SM	Moist, dark brown, loose, fine to medium grained, silty SAND , with a trace of fine roots
	0.5			GW	Moist, brown, medium dense, fine to coarse, sandy GRAVEL , with a trace of clay, <i>With some ironstone boulders</i>
	1.0			CH	Moist, orange mottled yellow, very stiff, CLAY , with some fine to medium grained sand
	1.5				
	2.0				Hole Terminated at 1.90 m Target depth
	2.5				

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: Excavator

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup

CO-ORD SYSTEM: MGA84 Zone 50

SURFACE RL:






JOB NO.: 6812

POSITION: 384477.0 m E 6237540.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered				SM	Moist, dark brown, loose, fine to medium grained, silty SAND, with a trace of fine roots
					Moist, orange, loose, fine to medium grained, SAND, with a trace of silt
		<u>Perth Sand Penetrometer</u> Depth (m) Blows 0.20 - 0.60 5 0.60 - 0.80 3 0.80 - 1.10 3			
	0.5			SP	
	1.0				
	1.5			SP	As above, with a trace of clay
	2.0				
				SP	Moist, orange mottled red, medium dense, fine to medium grained, SAND, with a trace of clay and a trace of fine to coarse gravel
	2.5				Hole Terminated at 2.50 m Target depth

CLIENT: Sharon Barker	CONTRACTOR: WML Consultants	LOGGED: AP
PROJECT: Geotechnical Investigation	MACHINE: Excavator	LOGGED DATE: 21/01/2016
LOCATION: Lot 8280 Dean Rd, Nannup	CO-ORD SYSTEM: MGA94 Zone 50	SURFACE RL:
JOB NO.: 6812	POSITION: 384640.0 m E 6237842.0 m N	CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered				SM	Moist, dark brown, loose, fine to medium grained, silty SAND, with a trace of fine roots
				GW	Moist, brown, medium dense, fine to coarse, silty GRAVEL, with a trace of clay
	0.5			CH	Moist, orange, firm, CLAY
	1.0	0.80m In-situ VS P=50kPa 1.10m In-situ VS P>130kPa		CL	Dry, white mottled red, very stiff, CLAY, with some fine to coarse grained sand
	1.5			SW	Dry, white mottled red, dense, fine to coarse grained, clayey SAND
	2.0				
	2.5				Hole Terminated at 2.30 m Target depth

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: Excavator

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup






CO-ORD SYSTEM: MGA94 Zone 50

SURFACE RL:

JOB NO.: 6812

POSITION: 384595.0 m E 6237841.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered	0.5			SM	Moist, dark brown, loose, fine to medium grained, silty SAND, with a trace of fine roots
				GW	Moist, brown, medium dense, fine to coarse, silty GRAVEL, with a trace of clay, <i>With large decayed root @ 0.2m</i>
				CH	Moist, orange, firm, CLAY
				SW	Dry, orange, dense, fine to medium grained, clayey SAND, with some fine to coarse gravel, <i>Moderately cemented with quartz and laterite gravel</i>
				CH	Dry, orange, very stiff, CLAY, with some fine to medium grained sand
	1.5				Hole Terminated at 1.50 m Hard Digging
	2.0				
	2.5				

CLIENT: Sharon Barker

CONTRACTOR: WML Consultants

LOGGED: AP

PROJECT: Geotechnical Investigation

MACHINE: PSP

LOGGED DATE: 21/01/2016

LOCATION: Lot 8280 Dean Rd, Nannup

CO-ORD SYSTEM: MGA94 Zone 50

SURFACE RL:

JOB NO.: 6812

POSITION: 384504.0 m E 6237540.0 m N

CHAINAGE:

WATER	DEPTH (m)	SAMPLES OR FIELD TEST	GRAPHIC LOG	CLASSIFICATION SYMBOL	SOIL/ROCK MATERIAL DESCRIPTION
Not Encountered	0.5	<u>Perth Sand Penetrometer</u> Depth (m) Blows 0.20 - 0.50 8 0.50 - 0.80 24			
	1.0				
	1.5				
	2.0				
	2.5				

COPY OF WML LIB 1361313 Log WML SOIL 8812 LOGS.GPJ <scratching> 22/07/2016 12:36 8.30.004 Developed by Leagis

TEST REPORT

Sheet No. 1 of 1

CLIENT: W.M.L Consultants
PROJECT: Dean Road Nannup
LOCATION: TP 1

SAMPLE NO: CT 55489

JOB NO: 24-1-406

FIELD DESCRIPTION: Clay

DATE TESTED: 02-Feb-16

DEPTH: 0.7m

PROPOSED USE: -
CLIENT REF: TP 1

LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX & LINEAR SHRINKAGE

AS 1289.3.1.2, 3.2.1, 3.3.1, 3.4.1

Liquid Limit AS 1289.3.1.2	%	42
Plastic Limit AS 1289.3.2.1	%	24
Plasticity Index AS 1289.3.3.1	%	18
Linear Shrinkage AS 1289.3.4.1	%	6.0
Length of Mould	mm	250
Sample history		Oven Dried
Sample Preparation Method		Dry Sieved
Nature of Shrink		Cracking

Notes:

Sample site selected by Client
Sampled by Client

Approved Signatory: M.Jewell

Date: 05-Feb-16

Report Number: CT 55489

M. Jewell
/ 1



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with ISO/IEC 17025
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reproduced,
except in full

TEST REPORT

Sheet No. 1 of 1

CLIENT: W.M.L Consultants
PROJECT: Dean Road Nannup
LOCATION: TP 2

PROPOSED USE: ☐
CLIENT REF: TP 2

SAMPLE NO: CT 55488
JOB NO: 24-1-406
FIELD DESCRIPTION: Clayey Sand
DATE TESTED: 02-Feb-16
DEPTH: 1.5m

LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX & LINEAR SHRINKAGE

AS 1289.3.1.2, 3.2.1, 3.3.1, 3.4.1

Liquid Limit AS 1289.3.1.2	%	Not Obtainable
Plastic Limit AS 1289.3.2.1	%	Not Obtainable
Plasticity Index AS 1289.3.3.1	%	Non Plastic
Linear Shrinkage AS 1289.3.4.1	%	1.0
Length of Mould	mm	250
Sample history		Oven Dried
Sample Preparation Method		Dry Sieved
Nature of Shrink		Cracking

Notes:

Sample site selected by Client
Sampled by Client

Approved Signatory: M.Jewell
Date: 05-Feb-16
Report Number: CT 55488

M. Jewell
/ 1



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TEST REPORT

Sheet No. 1 of 1

CLIENT: W.M.L Consultants
PROJECT: Dean Road Nannup
LOCATION: TP 5

SAMPLE NO: CT 55490

JOB NO: 24-1-406

FIELD DESCRIPTION: Clay

DATE TESTED: 02-Feb-16

DEPTH: 0.6m

PROPOSED USE: -

CLIENT REF: TP 5

LIQUID LIMIT, PLASTIC LIMIT, PLASTICITY INDEX & LINEAR SHRINKAGE

AS 1289.3.1.2, 3.2.1, 3.3.1, 3.4.1

Liquid Limit % 36
AS 1289.3.1.2

Plastic Limit % 21
AS 1289.3.2.1

Plasticity Index % 15
AS 1289.3.3.1

Linear Shrinkage % 7.0
AS 1289.3.4.1

Length of Mould mm 250

Sample history Oven Dried

Sample Preparation Method Dry Sieved

Nature of Shrink Cracking

Notes:

Sample site selected by Client
Sampled by Client

Approved Signatory: M.Jewell

Date: 05-Feb-16

Report Number: CT 55490

M. Jewell
/ 1



NATA Accredited Laboratory
No. 14165
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with ISO/IEC 17025
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except in full

Certificate of Analysis

Client Name:	WML Consultants	Attn: Alex Pope
Address:	PO Box 2023, Bunbury, WA, 6231	
Phone No:	9722 3544	Email: apope@wml.com.au
Lab No:	8641	Order No: 6812
Date samples received:	29/01/16	Report date: 3/02/16

Sample details: 4 soil sample for Phosphorus Retention Index taken by client ex Dean Rd, Nannup, WA labelled TP1 1.8m, TP2 1.5m, TP5 0.6m, TP5 1.8m

Test Methods: Samples are tested on an as received basis and results are expressed on a dry weight basis

Test Results:

Sample Identification	Phosphorus Retention Index
TP1 1.8m	860
TP2 1.5m,	918
TP5 0.6 m	473
TP5 1.8m	229

Comments:

In sandy soils the Phosphorus Retention Index is usually less than 5
Very strongly adsorbing soils are lateritic loams, iron rich peats, Karri loams with PRI >70

Phosphorus Retention Index (PRI) – The PRI is defined as the ratio of amount of P adsorbed to 5 gram soil, expressed as mg P/kg of soil, and concentration in solution (mgP/L) after addition of 100 mL of a 10 mg/L P solution in 0.02 M KCl and equilibration for 18h. The practical scale of PRI is from 0 to about 1000 (above which results become meaningless). A PRI of 20 indicates that 5 mg P/L remains in solution after the initial addition of 10 mg P/L in 100 mL to 5 g of soil.

If you have any further questions relating to this report, please telephone South West Chemical Services on 08 9721 7170



David Dodds
Dip.App.Chem. A.G.Inst.Tech.

APPENDIX C – BUSHFIRE MANAGEMENT PLAN

2016

Bushfire Management Plan

Lot 8280

Dean Road

Shire of Nannup

FirePlan WA
January 2016

Bushfire Management Plan.

Prepared for

The Account of Sharron Barker

Lindsay Bergsma

Bunbury

21 Spencer Street Bunbury WA

PO Box 778 Bunbury WA 6231

Prepared By

FirePlan WA

10 Bracken Road

Thornlie WA 6108

T: 0468344488 E: tonymoran@linet.net.au**Document Status**

Version	Comment	Reviewer	Review Date
Version 1.			

Disclaimer: The measures contained in this fire management plan are considered to be minimum standards and they do not guarantee that a building will not be damaged in a bush fire. All surveys, forecasts, projections and recommendations made in this report associated with the project are made in good faith on the basis of information available to FirePlan WA at the time; and achievement of the level of implementation of fire precautions will depend among other things on the actions of the landowners or occupiers over which FirePlan WA has no control. Notwithstanding anything contained therein, FirePlan WA will not, except as the law may require, be liable for any loss or other consequences (whether or not due to the negligence of the consultants, their servants or agents) arising out of the services rendered by the consultants.

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1.0 INTRODUCTION

The purpose of this Bush Fire Management Plan (BMP) is to detail the bushfire mitigation methods and requirements that will be implemented for the property. Harley Dykstra are currently formulating a Scheme Amendment/Structure Plan in relation to the above property. The property is currently zoned 'Agriculture' and is proposed to be rezoned to 'Special Rural' in accordance with the Shire of Nannup Local Planning Strategy and Local Planning Scheme No. 3. The associated structure plan will show potential future subdivision of the property.

The BMP will comply with the Guidelines for Planning in Bushfire Prone Areas December 2015 (PBFPA) and complies with State Planning Policy 3.7.7 Planning in Bushfire Prone Areas.

This Bushfire Management Plan complies with the acceptable solutions detailed in the Appendices of Guidelines for Planning in Bushfire Prone Areas and as summarized in 'Compliance Checklist for Performance Criteria and Acceptable Solutions' at the end of this Bushfire Management Plan (Section 7).

This Bushfire Management Plan will likewise outline the responsibility and timing for implementing and maintaining the fire protection measures and strategies contained within, allocating these responsibilities between individual land owners the developers and the Shire Nannup, as fire management strategies may require altering to meet changing weather, environment and land use needs, it must be advised that the provisions of the *Bush Fires Act 1954* may still be enforced, in addition to this Bushfire Management Plan.

Bushfire Management Plans do not expire and should be seen as a 'living document'. They may require updating in certain circumstances, including (but not limited to) if site conditions change, if further details are required at subsequent stages of the planning process or to reflect new technologies or methodologies in best practice bushfire risk management. Any review of this plan will be in accordance with 4.6.5 of the PBFPA.

The Shire of Nannup will be responsible for initiating a review of this Bushfire Management Plan as it may deem necessary to do so in accordance with section 4.6.5 of Guidelines for Planning in Bushfire Prone Areas. These reviews would be at the land owners cost.

In the event of large bushfires it is essential that landowners understand that fire appliances may not be available to protect each dwelling/building.

This Plan has been prepared by Anthony Moran Fire Plan WA who was the DFES Land Use Planning Office 2008-2011 and is a bushfire mitigation consultant with Fireplan 2011 until the present.

2.0 OBJECTIVE OF THE PLAN

The Objectives of this plan are:

1. Evaluate the bush fire fuels and slope in accordance with (PBFPA)
2. Prescribe and map a Bushfire Attack Level Contour Map and Hazard Level Assessment Map
3. Prescribe acceptable solutions as required to ensure compliance with SPP 3.7.7.
4. Allocate responsibility for each of the required mitigation measures.

The BMP will recognise and comply with the objectives and policy measures of SPP3.7 and PBFPA guideline and the Shire of Nannup Fire Break Notice.

Within section 4 of this plan the vegetation and slope will be reviewed to assess and mapped the potential bushfire threat currently existing at the site.

Section 5 will document the mitigation measures to be enacted within the site during development, construction and ongoing mitigation works to be carried out annually to ensure future inhabitants of the area are living in a bushfire environment that complies with the requirements of AS3959.

Section 6 will document the responsibilities for the implementation, maintenance and review of the requirements of this plan

3.0 DESCRIPTION OF SUBJECT AREA

3.1 General

The Site is located 6.4 kilometres west of Nannup town site by road on Dean Road and 1.4 kilometres directly west of the Nannup Town site in the Shire of Nannup immediately adjacent to the Blackwood River (Figure 1).

There are stands of River Gums woodland along the banks together mixed other species that provide the only significant vegetation other than managed grassland and some isolated fruit trees on the property. Part of the site is within the area classified as bushfire prone under state legislation, a section of that map is shown at figure 3 page 10.

There is power supplies available for the new development however there is no reticulated water available. Road access for the proposed lots is sealed and complies with A3.1

The location of the development is shown below. **Figure 1 Site Location**



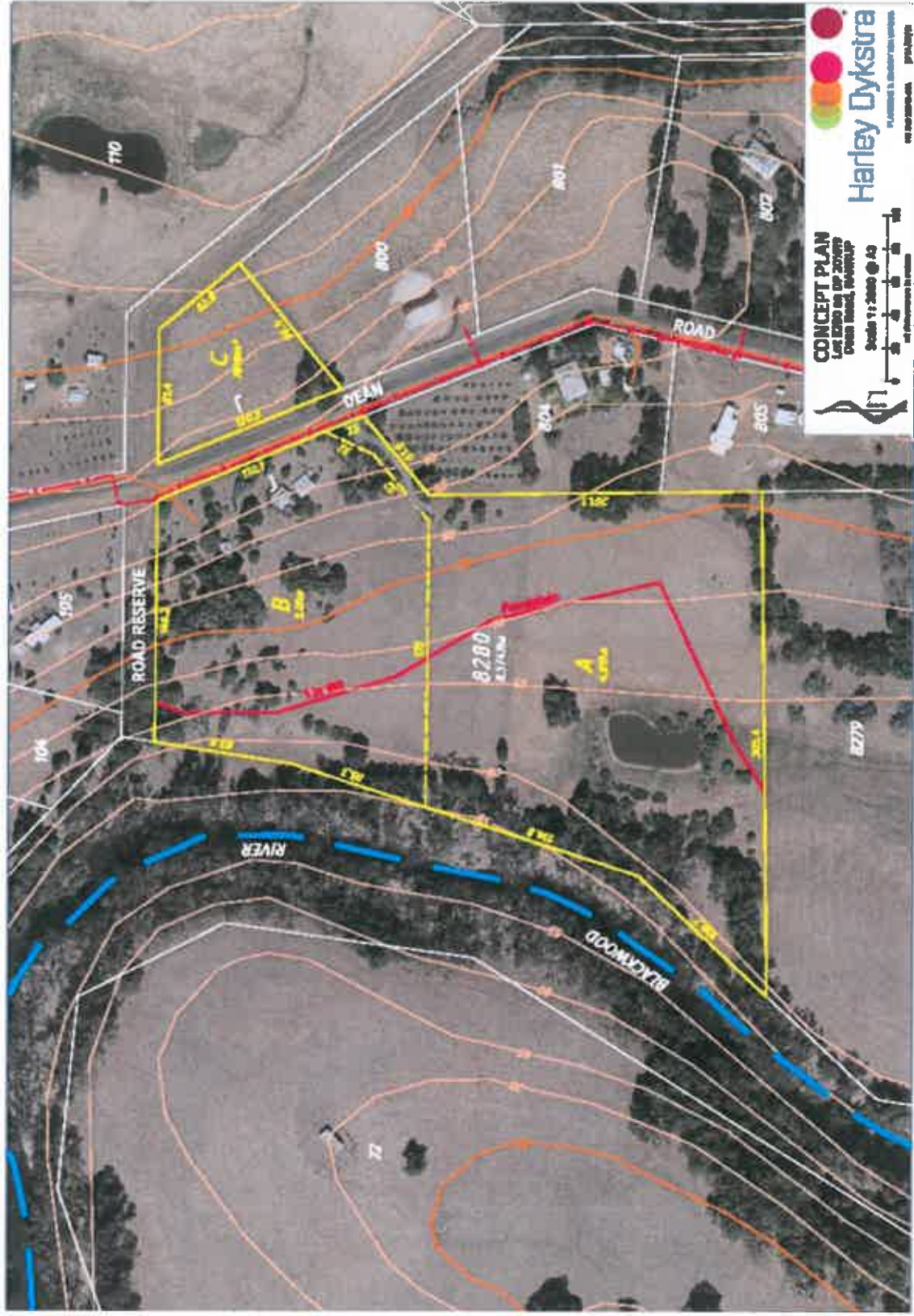


Figure 3 Bushfire Prone Area Map



3.2 Topography

The land raises from the Blackwood River with the slope being in the range of 5° to 10° and 10° to 15° depending on the location within the development.

3.3 Bushfire Fuels

The vegetation on the site and within 100 meters is Woodland type 2.2-05 as determined by the requirements of AS3959 Buildings in Bushfire Prone Areas

3.4 Land use

By way of background information, Harley Dykstra are currently formulating a Scheme Amendment/Structure Plan in relation to the above property. The property is currently zoned 'Agriculture' and is proposed to be rezoned to 'Special Rural' in accordance with the Shire of Nannup Local Planning Strategy and Local Planning Scheme No. 3. The associated Structure Plan will show potential future subdivision of the property.

3.5 Assets

Lot 8280 currently have two cottages with associated outbuildings, these are to be retained on new individual lots within the proposed development.

3.6 Access

Access will be as currently existing, with each of the proposed lots having direct frontage to Dean Road.

3.7 Water Supply

Current water for domestic purposes are from tank supplies, all new lots will be required to have their own domestic supplies.

4.0 BUSH FIRE HAZARD ASSESSMENT

Bush Fire Hazard Assessment is determined by rating the vegetation type in accordance with Bushfire Attack Level (BAL) as set out in the Australian Standard 3959 Construction of Buildings in Bushfire-Prone Areas (AS 3959),

It is also based on the underlying assumption that land in Western Australia is predominantly undulating with relatively short, steep inclines. In PBFPA 2015 the bush fire hazard assessment methodology identifies 3 three levels low, moderate and extreme.

The Bush Fire Hazard Assessment for the proposed development area is rated "Moderate for those area of Woodland shown on the map on page 11" (Woodland 2.2.05) .

The site is in the range 8° to 13° slope depending on the location within the site, this will affect the size of the APZ / HSZ when the site for dwellings is defined.

The slope map Figure 6 on page 14 is to be used in conjunction with the BAL Contour Map to define the size of the APZ/HSZ when the Construction level and location of proposed building have been selected.

The bush fire hazard assessment is based on the vegetation types and class (e.g. "Moderate" Woodland B type 2.2.05 and Low G Grassland 2.2.26) as described in Australian Standard 3959 Construction in Bushfire Prone Areas. This bush fire assessment does not relate directly to the fuel loading within that vegetation. Fuel loading is described as grass, leaf litter and live vegetation.

The Mediterranean climate experienced by this area is such that the majority of rain falls in late autumn through to early spring. This rainfall supports substantial vegetation growth which dries off in Summer/Autumn.

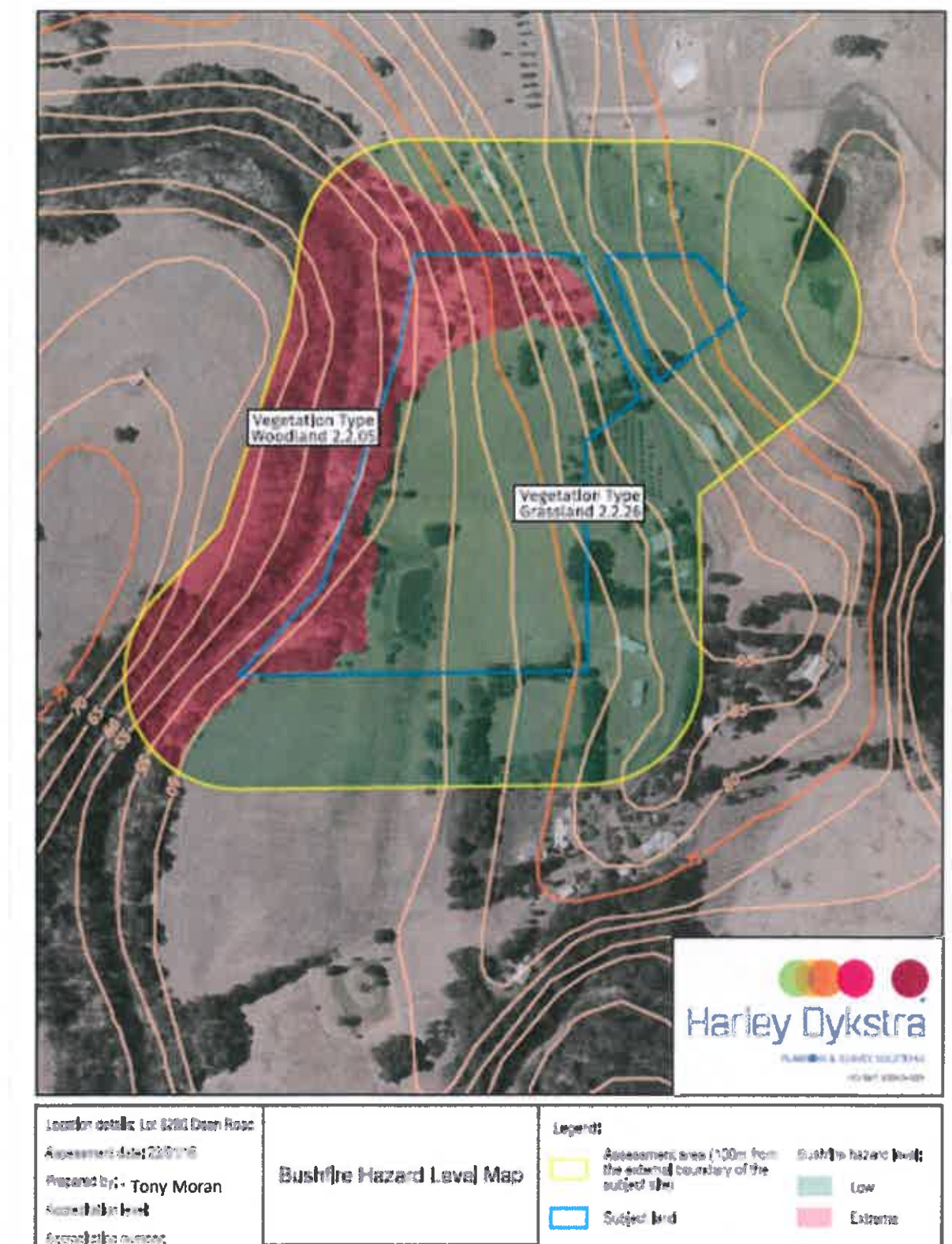
Figure 4 Hazard Map

Figure 5 Slope Map





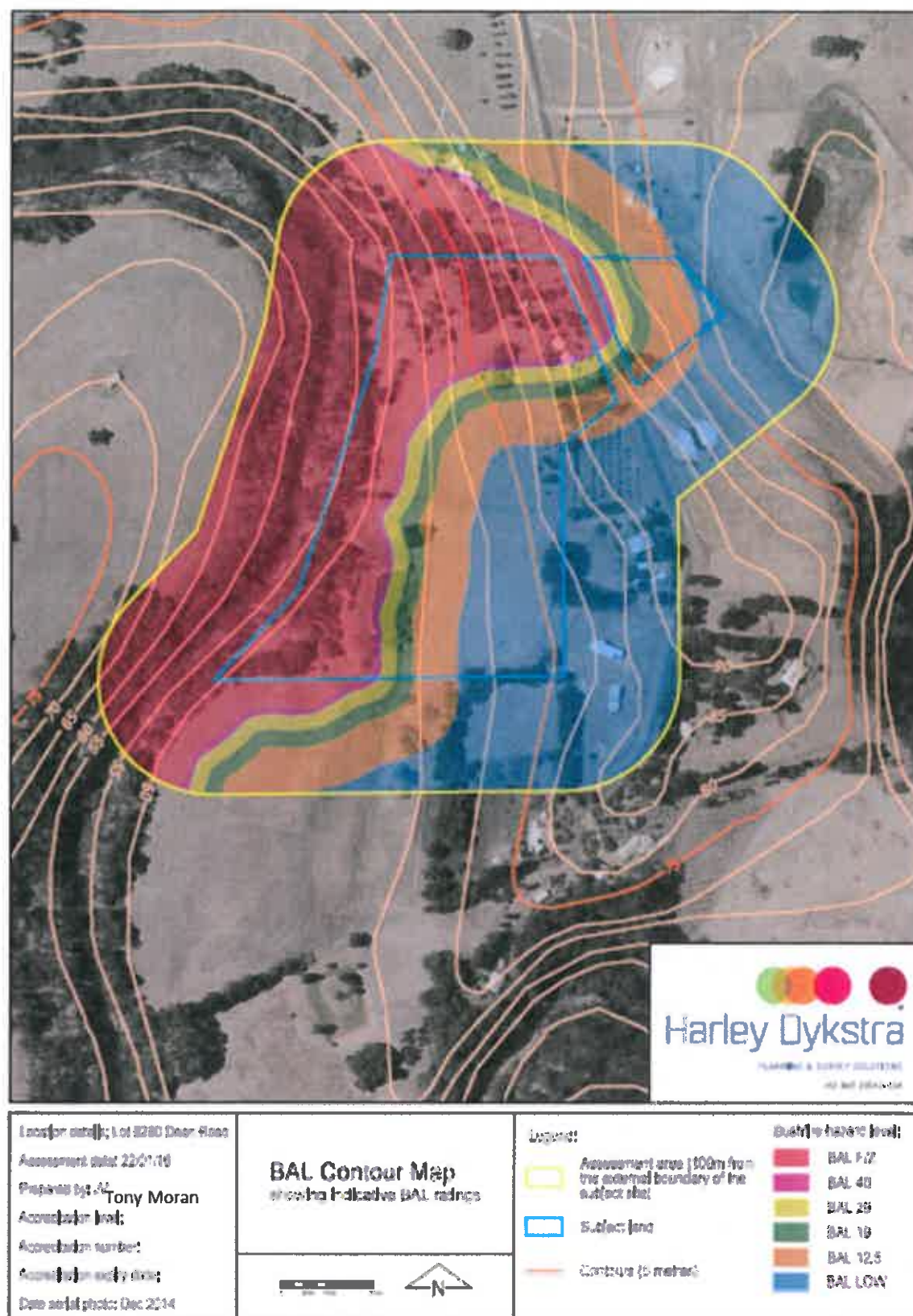
<p>Location details: Lot 8280 Dean Road</p> <p>Assessment date: 22/01/18</p> <p>Prepared by: Tony Moran</p> <p>Accreditation level:</p> <p>Accreditation number:</p> <p>Accreditation expiry date:</p> <p>Date of publication: Dec 2014</p>	<p>Slope Analysis Plan</p>  	<p>Legend:</p> <p> Subject line</p> <p> Contours (5 metres)</p>
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Figure 6 BAL Contour map

5.0 BUSH FIRE MITIGATION

In this Section of the Fire Management Plan when complying with the Acceptable Solutions detailed in Guidelines for Planning in Bushfire Prone Areas December 2015 it will be shown as (A2.1) meaning Acceptable Solution 2.1 of the guidelines.

The subdivision has been designed so as to take into account the following fire mitigation measures:-

- Element 1 Location of Development
- Element 2 Siting of Development

BAL Contour Map Asset Protection Zones, Hazard Separation Zones, Hazard Reduction & Dwelling Construction Standards

- Element 3 Access
- Element 4 Water Supplies

5.1 ELEMENT 1 LOCATION OF DEVELOPMENT

The Bush Fire Hazard Assessment has identified the subject land and adjoining land as having Moderate bush fire hazard levels. The subdivision, development is located in an area where the bushfire hazard assessment classification is or will be moderate, and the risk can be managed with the implementation of the bushfire mitigation measures set out in this BMP.

5.2 ELEMENT 2 SITING OF DEVELOPMENT

Parts of proposed site contain vegetation that has a bush fire hazard of "Extreme and Low". With the installation of Asset Protection Zones and Hazard Separation Zones and an increase in building construction in new buildings in accordance with AS 3959-2009 this complies with the acceptable solution detailed in A2.1 and A2.2.

The minimum distance of 100 meters from vegetation (rated 'Moderate' or 'Extreme') to proposed dwellings may be reduced in compliance with AS 3959. Under AS 3959 as the distance from the vegetation is reduced, the construction standard must be increased. Table 2.4.3 AS 3959 sets out this relationship and Section 2 of AS 3959 details the methodology of determining the Bushfire Attack Level (BAL).

The existing dwellings do not require modification as a result of this BMP however must comply with the annual Firebreak Notice.

5.2.1 Asset Protection Zone (APZ)

The aim of the APZ 20 meters wide in each direction from the dwelling wall, is to reduce the amount of accumulated bush fire fuel and to lower the intensity of the impact of a bush fire by flame contact or radiated heat. The APZ is to be installed by the landowner prior to the commencement of new dwelling construction and maintained by the landowner.

Non-flammable features such as driveways, paths, vegetable patches, reticulated lawn, or landscaped gardens should form part of APZ. Isolated trees and shrubs may be retained within APZ. An APZ metres is to be constructed within the lot around all new buildings. Refer to specifications in Appendix C. APZ are to be installed and maintained in perpetuity by the landowner. Complies with (A4.3).

5.2.2 Hazard Separation Zone (HSZ)

To provide additional fire protection there must be a physical separation between the buildings and the surrounding vegetation to reduce the impact of bush fires upon the structures within the APZ including ember attack. As the occurrence of bush fires in this district may occur and will burn in accordance with the prevailing weather and fuel conditions at the time, it is essential that property owners maintain HSZ on their land to have any degree of safety.

A HSZ outside the APZ is required See Appendix D. The size of the HSZ will be in accordance with the AS3959. The size of the HSZ is set out in section 5.2.5

Removal of bush fire fuels may be carried out by burning or mechanical means preference is for mechanical removal of selected trees and understorey. If burning is used it must be carried out in accordance with the provisions of the Bush Fires Act 1954 and the Shire of Nannup Annual Firebreak Notice.

5.2.3 Hazard Reduction Annual Work Program within the Site

Hazard reduction within the APZ and HSZ can be achieved by slashing or planned prescribed burning. Property owners have a responsibility to reduce bush fire hazards and maintaining properties annually in preparation for the summer season.

The Shire of Nannup can provide advice on appropriate techniques to achieve bush fire hazard reduction for individual properties.

As a guide, property owners should carry-out the following Fire Prevention activities:

Timing	Activity
Autumn to winter (May - August)	<p>Tree Pruning - remove lower branches; check that power lines are clear.</p> <p>Reduce fuel levels around the house - clear long grass, leaves, twigs & flammable shrubs.</p> <p>Ensure petrol and other flammables are safely stored away from the main dwelling.</p> <p>Make sure your firefighting equipment is in good working order and serviced where required.</p> <p>Make sure all residents are aware of your emergency plan including evacuation routes.</p> <p>Chemical spraying of firebreaks and low fuel zones – first and second applications.</p>
Spring (September - November)	<p>Move woodpiles and stacked timber away from the main dwelling.</p> <p>Keep grass short</p>

	<p>Clean gutters and roof debris.</p> <p>Install firebreaks in accordance with this plan and the Firebreak Notice (November 30 to 31 May each and every year).</p> <p>Chemical spraying of firebreaks and low fuel zones – final applications and maintenance.</p>
Summer (November - May)	<p>Water lawns, trees & shrubs near the buildings to keep them green.</p> <p>Re-check firefighting equipment, screens, water supplies and that gutters remain clear.</p> <p>Maintain firebreaks in accordance with this plan and the firebreak notice by mechanical means or by use of chemical spraying.</p>
Long term precautions	<p>Ensure firebreaks are prepared in accordance with this Fire Management Plan, the latest Firebreak Notice and any Variation to Fire Order issued by council.</p> <p>Ensure that any planting of wind breaks or trees is in accordance with this Fire Management Plan and will not be detrimental to fire suppression requirements in years to come.</p> <p>Make sure that the buildings are safe - fit wire fly screens and shutters, fill gaps into roof/wall spaces, fit fire screens to evaporative air conditioners and have them operable to provide a water only supply.</p> <p>Give consideration to installing external building sprinkler systems and backup power for emergencies.</p> <p>Ensure the access to emergency water supply has the correct fittings, is unobstructed and the route trafficable.</p> <p>Get basic training in firefighting from your local Bush Fire Brigade or even join your local Brigade.</p>

5.2.4 Planting of Trees and Vegetation

Planting of new trees and shrubs are not permitted within 6 meters of the center of any firebreak. Trees planted within the APZ and HSZ must comply with the standard outlined in Section 5.2.1 and 5.2.2 respectively.

5.2.5 Dwelling Standards

Individual new dwellings on all lots shall be designed and built to conform with:

- The Building Code of Australia; and
- *AS 3959 Construction of Buildings in a Bushfire Prone Area;*

The minimum distance of 100 meters (from vegetation rated 'Low' or 'Extreme') may be reduced in compliance with AS 3959. Under AS 3959 as the distance from the vegetation is reduced, the construction standard must be increased. Table 2.4.3 AS 3959 sets out this relationship and Section 2 of AS 3959 details the methodology of determining the Bushfire Attack Level (BAL).

BAL (Bushfire Attack Level) Determination Using Methodology from Section 2.2.1 of current adopted AS 3959- 2009 and Table 2.4.3 applies to all lots.

APPLICATION OF BAL CALCULATIONS:

The APZ / HSZ size are the outcome of the slope and BAL contour map inputted with the location chosen for the building and the chosen construction standard.

The slope has significant effect on the size of APZ/HSZ which must be within the lot boundaries

Should a future owner wish to review the construction standard they must seek the approval of the Shire of Nannup.

The construction standard selected must be approved by the Shire of Nannup as part of the building license application process.

Individual lots will have APZ/HSZ relevant to the slope calculation of the individual lots.

5.3.1 Road Access

Road access to the three proposed 3 lots will be from direct access of Dean Road, proposed lot A will have a Battle Axe connection to the standard set out in appendix B.

While the access cannot comply with the requirements of element 3 of the PBFPA due to the engineering practicality of the site, the access road is sealed and constructed to the state standards and traverse through Low hazard level terrain until it joins Barrabup Rd which provides to two direction access

Due to the location of the developments proximity to the Blackwood River a second southern access is not practical, this proposal is not a precedent as there are many location across the state where an immediate second access is not available ,location such as Yallingup and Cowarramup in this region have similar issues.

DFES has accepted this proposal subject to the Local Governments approval.

5.3.2 Firebreaks

The developer/owner/occupier of the land will, at all times, comply with the requirements of the Shire of Nannup Firebreak Notice as published annually, in addition to this fire management plan.

ELEMENT 4 WATER SUPPLIES

5.4.1 Water Supplies for Bushfire Fighting

Each of the lots created will have a dedicated static water supply on the lot that has the effective capacity of 10,000 litres.

Each tank will be fitted with a minimum 50mm Gate Valve and a 50 mm male camlock fitting with a blanking cap. This coupling and valve shall be installed and maintained in a correct operating condition at all times at the property owner's expense and the tank is to be maintained full at all times. See Diagram Below

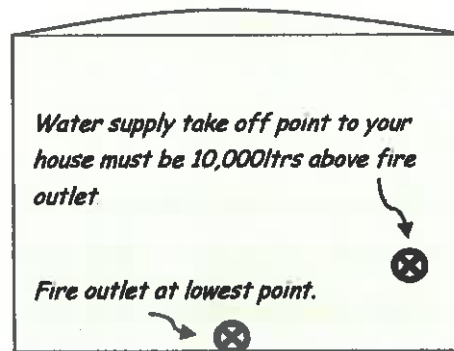


Figure 3 tank fitting.

The domestic vessel shall be located in an area that will enable fire appliances to backup onto hardstand area to within 3 meters from the tank. Access is to the hardstand is to be suitable for a large 15 ton fire appliance.

6.0 SUMMARY

6.1 OVERALL FIRE THREAT

The design of this proposed development and the facilities constructed at the time of development will comply with the relevant Australian Standard, with implementation of this Bushfire Management Plan, fire threat to persons and property within the subdivision is reduced.

6.2 PROPERTY OWNER'S RESPONSIBILITIES

To maintain the reduced level of risk and threat of fire, the owners/occupiers of lot the created by this proposal will be responsible for undertaking, complying and implementing measures protecting their own assets from the threat and risk of bush fire.

The property owner/occupiers in this instance will be the occupiers of the building as authorised by the Shire of Nannup.

- Construct all buildings in accordance with the requirements of this plan as set out in section 5.2.5.
- Maintain in good order and condition all property fencing and gates ensuring that vegetation does not encroach over the firebreak.
- Install tanks for fire appliances in accordance with section 5.4.1
- Maintain the Battle Axe legs to the standard set out in appendix B at all times.
- Install and maintain the APZ/HSZ on individual lots to the standards set out in this plan section 5 and Appendix C & D.

6.3 DEVELOPER'S RESPONSIBILITIES

To facilitate the creation of the proposed lots, the developer/landowner shall be required to carry out the following works as described below.

- Construct the Battle Axe in accordance with section 5.3.1
- Lodge a Section 70A notification on the title advising of the BMP and provide owners with a copy of the BMP.

6.4 LOCAL GOVERNMENT RESPONSIBILITIES

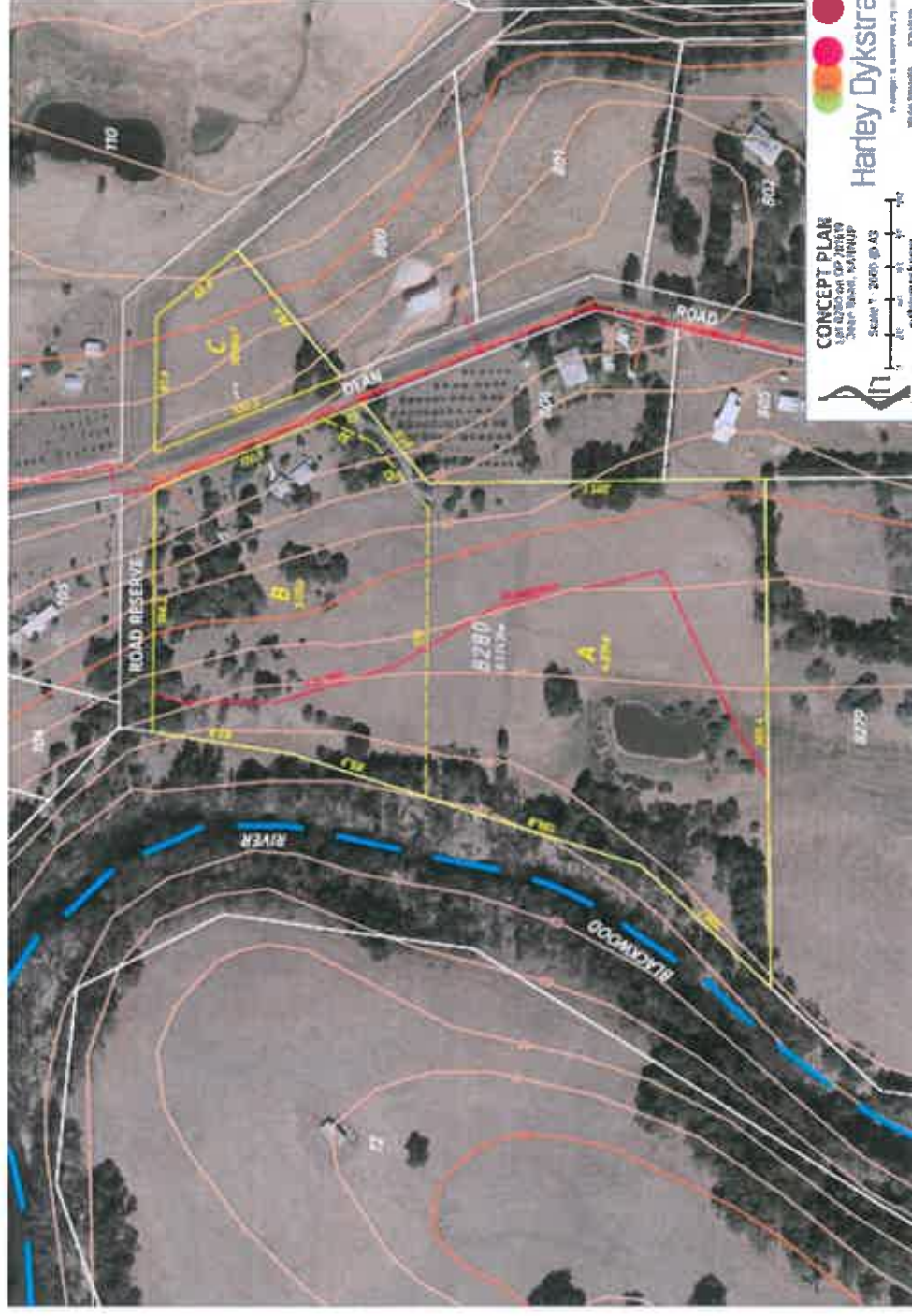
The responsibility for compliance with the law rests with individual property owners and occupiers and the following conditions are not intended to unnecessarily transfer some of the responsibilities to the Shire of Nannup

The Shire of Nannup shall be responsible for:

- Providing advice on appropriate techniques to achieve bush fire hazard reduction for individual properties;

- Maintaining in good order the condition of the district water tanks and the apparatus for firefighting purposes;
- Ensure that dwellings are designed and constructed to the appropriate AS 3959 BAL rating at the Building License Application stage.

Appendix A Development Layout



Appendix B Access Standards**Appendix B****Access Standards Performance Principle P3**

The internal layout, design and construction of public and private vehicular access in the subdivision/development allows emergency and other vehicles to move through it easily and safely at all times.

A3.1 Two access routes

Two different vehicular access routes are provided, both of which connect to the public road network, provide access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.

A3.2 Public roads

Public roads are to meet the requirements in Table 1, Column 1.

A3.3 Cul-de-sac

Should not be used in bushfire –prone areas. Where no alternative exists, the following requirements are to be achieved

- Requirements of Table 1 Column 2
- Maximum length:200 meters (if public emergency access is provided between cul-de-sac heads maximum length can be increased to600 meters provided no more than 8 lots are serviced and the emergency access way is no more than 600 meters)and turn around area requirements, including 21 meter head.

A3.4 Battle axes

Battle axe access legs should be avoided in bushfire-prone areas. Where no alternative exists, the following requirements are to be achieved:

- requirements in Table 1, Column 3;
- maximum length: 600 metres; and
- minimum width: 6 metres.

A3.5 Private Driveways

Constructed private driveways are to meet the following requirements:

- requirements in Table 1, Column 4;
- required where a house site is more than 50 metres from a public road;
- passing bays: every 200 metres with a minimum length of 20 metres and a minimum width of 2 metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum 6 metres); and
- turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres and within 50 metres of a house.

A3.6 Emergency access ways

Where access ways do not provide through access to a public road, emergency access ways are to be provided for alternative links to public roads during emergencies. They are to meet the following requirements:

- requirements in Table 1, Column 5;
- no further than one kilometre from a public road;
- provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency; and
- must be signposted.

A3.7 Fire service access routes

Fire service access routes are to be established to provide access within and around the edge of the subdivision and related development and to provide links between public road networks for firefighting purposes.

Fire service access routes meet the following requirements:

- requirements in Table 1, Column 6;
- provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency;

- surface: all-weather;
- dead ends are not permitted;
- turn-around areas designed to accommodate 3.4 appliances and to enable them to turn around safely every 500 metres;
- erosion control measures and long term maintenance arrangements in place;
- no further than one kilometre from a public road; and
- allow for two-way traffic.

A3.8 Gates

All gates used to restrict traffic on emergency access ways and fire service access routes meet the following requirements:

- minimum width 3.6 metres;
- design and construction: to be approved by relevant local government;
- emergency access way gates must not be locked;
- fire service access route gates may be locked but only with a common key that is available to local fire service personnel; and
- signposted.

A3.9 Signs

Signs are to be erected where emergency access ways and fire services access routes adjoin public roads, including driveways that are used as fire service access routes. Signs are to meet the following requirements:

- minimum height above ground: 0.9 metres;
- lettering height: 100 millimetres;
to display the following words (as appropriate): 'Fire Service Access – No Public Access' or 'Emergency Access Only'; and
- Design and construction to be approved by the relevant local government.

Table 1 Vehicular access technical requirements

TECHNICAL REQUIREMENTS	1 Public roads	2 Cul-de- sac	3 Battle axes	4 Private driveways	5 Emergency access ways	6 Fire service access routes
Minimum trafficable surface (m)	6*	6	4	4	6*	6*
Horizontal clearance (m)	6	6	6	6	6	6
Vertical clearance (m)	4	N/A	4	4	4	4
Maximum grades	1 in 8	1 in 8	1 in 8	1 in 8	1 in 8	1 in 7
Maximum grade over <50 metres	1 in 5	1 in 5	1 in 5	1 in 5	1 in 5	1 in 4
Maximum average grade	1 in 7	1 in 7	1 in 7	1 in 7	1 in 7	1 in 5
Minimum weight capacity (t)	15	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves Minimum inner radius (m)	12	12	12	12	12	12
*Refer to E3.2 Public roads: Trafficable surface						

Asset Protection Zone standards are:-

Bush Fire fuels to be maintained at or below 2 tonnes per hectare and dry

grass must be maintained below a height of 50mm;

- The first 5m around all building is to be cleared of all flammable material.

Reticulated gardens may be located in this zone;

- The spacing of trees should be 15-20 metres apart to provide for a separation of 10 metres between crowns;
- Trees are to be under/low pruned, to a height of 2 metres;
- No tall shrub or tree is to be planted within 2 metres of a building including windows;
- There are no tree crowns over hanging the building;
- Shrubs within the Asset Protection Zone have no dead material within the plant;
- Trees in the Asset Protection Zone have no dead material within the plant's crown or on the bole (tree trunk).
- Sheds within the Asset Protection Zone are to be constructed using non-combustible materials (e.g. colour bond iron, brick, limestone);
- Branches, must be removed at least 2 metres back from the eaves of all buildings;
- All leaves, twigs, logs, branches must be periodically removed from within the building protection zone. Annual falls of leaf litter must be raked up and removed or burnt.

Appendix D Hazard Separation Zone

Hazard Separation Zone Standards are:-

- Bush fire fuel loadings must be maintained within the Hazard Separation Zone to a maximum of 4-6 tons/ha.

- Dry grass is to be slashed to 50 mm in height

- All accumulated litter, twigs, bark of trees, fallen tree branches and logs should be removed from the area on a regular basis prior to and during the Bush Fire Season.

The owner is to modify fuel loadings on all Lots at the time of subdivision and/or development so as to achieve the requirements of the Asset Protection Zone and Hazard Separation Zone prior to the sale of Lots. Landowners are also required to maintain building protection zones and hazard separation zones in perpetuity (i.e. from date of purchase irrespective of whether a dwelling is to be constructed or not) in accordance with this fire management plan.

Removal of bush fire fuels may be carried out by burning or mechanical means preference is for mechanical removal of selected trees and understorey. If burning is used it must be carried out in accordance with the provisions of the Bush Fires Act 1954 and the Shire of Nannup

BUSHFIRE MANAGEMENT PLAN**Compliance checklist for performance criteria and acceptable solutions**

PROPERTY DETAILS: Lot 8280 Dean Road

LOCAL GOVERNMENT: **SHIRE OF Nannup**

ELEMENT 1 Location	YES
The subdivision, development or land is based in an area that is not subject to either an extreme bush fire hazard level classification A1.1	
Element 2 Siting and Design	
Hazard separation A2.1	YES
Asset Protection Zone A2.2	YES
Hazard Zone A2.3	YES

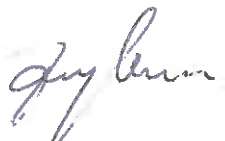
Element 3 Vehicular Access	
Two access routes A3.1	YES
Public roads A3.2	YES
Culs-de-sac A3.3	N/A
Battle axes A3.4	YES
Private driveways A3.5	YES
Emergency access ways A3.6	N/A
Fire service access routes A3.7	N/A
Gates A3.8	N/A
Signs A3.9	N/A

ELEMENT 4 WATER		
Reticulated area hydrants	A4.1	N/A
Non reticulated areas	A4.2	YES

1. Background information Bushfire Management Plans should include details of the suitably qualified person/s who prepared the document.	YES Section 1
2. Spatial consideration of bushfire threat Maps should be provided showing the location of low fuel areas, fuel ages,	YES SECTION 4
3. Proposal compliance and justification Does the proposal meet the objectives of SPP 3.7 <i>State Planning Policy 3.7: Planning in Bushfire Prone Areas</i> <i>Guidelines for Planning in Bushfire Prone Areas</i>	YES SECTION 1

Name of Person Preparing the Fire Management Plan:

Full Name: AC Moran for FirePlan WA



Date: 04/02/2016

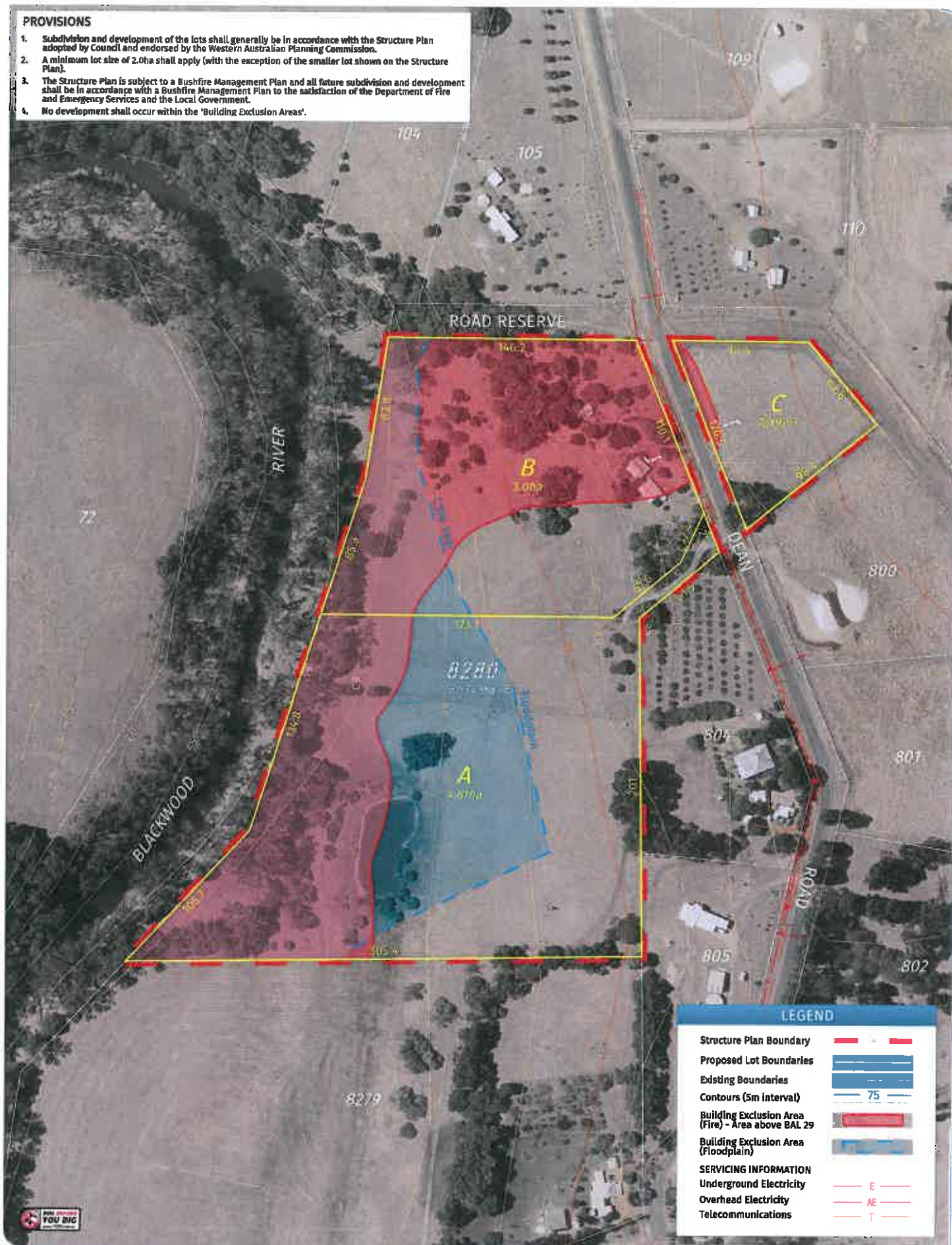
Developer:

Full Name:

Signature: _____

APPENDIX D – STRUCTURE PLAN

1. Subdivision and development of the lots shall generally be in accordance with the Structure Plan adopted by Council and endorsed by the Western Australian Planning Commission.
2. A minimum lot size of 2.0ha shall apply (with the exception of the smaller lot shown on the Structure Plan).
3. The Structure Plan is subject to a Bushfire Management Plan and all future subdivision and development shall be in accordance with a Bushfire Management Plan to the satisfaction of the Department of Fire and Emergency Services and the Local Government.
4. No development shall occur within the 'Building Exclusion Areas'.



Lot 8280 on DP 201619
Dean Road, NANNUP

Plan No.	2016-016
Date	2016/11/16
Drawn	10
Checked	18
Approved	16

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Age Group	Percentage
18-24	15%
25-34	25%
35-44	20%
45-54	15%
55-64	10%
65-74	5%
75-84	5%
85+	5%



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