

DATE OF THIS CONTRACT			
LAND		Block 6	Section 16
		Division/District Strathnairn	
OCCUPANCY		Vacant Possession	
CO-OWNERSHIP	Mark one <i>See clause 16</i>	☐ Tenants in common (Show shares)	☐ Joint Tenants
SELLER	Full name ACN/ABN Address	Suburban Land Agency 27 105 505 367 480 Northbourne Avenue, Dickson ACT 2602	
SELLER'S SOLICITOR	Firm	Clayton Utz	
	Ref	Alfonso del Rio / Megan Telford	
	Phone	(02) 6279 4049	
	Fax	(02) 6279 4099	
	Address	GPO Box 9806 Canberra ACT 2601	
	Email	conveyancing@claytonutz.com	
BUYER	Full Name ACN/ABN Address		
	Email		
BUYER'S SOLICITOR	Firm		
	Ref		
	Phone		
	Fax		
	DX/Address		
	Email		
RESIDENTIAL WITHHOLDING TAX		New residential premises? ☐ Yes ☒ No Subdivision of potential residential land? ☒ Yes ☐ No Buyer required to make a withholding payment? ☒ Yes ☐ No (insert details on p.2)	
FOREIGN RESIDENTIAL WITHHOLDING TAX		Price/value of Land over \$750,000 ☐ Yes ☐ No Clearance Certificate attached? ☒ Yes ☐ No	
PRICE	Price Less Deposit Balance	\$ (The Price is GST inclusive) \$ (5% of Price) \$	
COMPLIANCE BOND	<i>See clause 5</i>	\$30,000.00	
EARLIEST DATE OF EXPIRY OF DEPOSIT BOND OR BANK GUARANTEE	<i>See clause 3</i>	60 days after the Date for Completion	
DATE FOR COMPLETION	<i>See clause 4</i>	30 Working Days after the date of this Contract	
STANDARD ANNEXURES	Documents annexed to this Contract	Annexure A - Deposited Plan; Annexure B - Specimen Lease; Annexure C - Special Conditions, Annexure D- Housing Development Requirements, Annexure E- Director's Guarantee	
SPECIAL CONDITIONS	Indicate whether any special conditions apply	☒ Yes	☐ No
READ THIS BEFORE SIGNING			
Before signing this contract you should ensure that you understand your rights and obligations. You should get advice from your solicitor.			
Authorised Delegate of the Suburban Land Agency signature:		Buyer signature:	
Delegate name:		Buyer name:	
Witness signature:		Buyer signature:	
Witness name:		Buyer name:	
		Witness signature:	
		Witness name:	

RW Amount

(Residential Withholding Payment) — Further Details

The supplier will frequently be the Seller. However, sometimes further information will be required as to which entity is liable for GST (eg if the Buyer is part of a GST group, where the GST representative has the GST liability). If more than one supplier, provide details for each supplier.

Supplier	Name	Suburban Land Agency	
	ABN	27105505367	Phone (02) 6205 0600
	Business address	TransACT House, 470 Northbourne Avenue, Dickson ACT 2602	
	Email		
Residential Withholding Tax	Supplier's portion of the RW Amount:		100%
	RW Percentage:		7%
	RW Amount (ie the amount that the Buyer is required to pay to the ATO):		##
	Is any of the consideration not expressed as an amount in money?		☐ Yes ☒ No
	If 'Yes', the GST inclusive market value of the non-monetary consideration:		\$
	Other details (including those required by regulation or the ATO forms):		



Australian Government
Australian Taxation Office

SUBURBAN LAND AGENCY
C/o AKIYO FUJITA-PHILPOT
ACT GOVERNMENT SOLICITOR
LEVEL 6 12 MOORE STREET
CANBERRA CITY ACT 2601

Our reference: 2410205113219
Phone: 13 28 66

16 May 2019

Your foreign resident capital gains withholding clearance certificate

- › Purchasers are not required to withhold and pay an amount
- › Provide a copy to the purchaser and retain a copy for your records

Hello

We have decided that purchasers are not required to withhold and pay an amount. Your certificate is below.

Reference number	2410205113219
Vendor name	SUBURBAN LAND AGENCY
Vendor address	ACT GOVERNMENT SOLICITOR LEVEL 6 12 MOORE STREET CANBERRA CITY ACT 2601
Clearance certificate period	2 May 2019 to 5 May 2024

The Commissioner may withdraw this clearance certificate at any time if we obtain further information indicating you are a foreign resident.

Yours sincerely

Tim Dyce
Deputy Commissioner of Taxation

NEED HELP?

You can find out more about foreign resident capital gains withholding on our website at ato.gov.au/FRCGW

CONTACT US

If you have any questions, contact us between 8:00am and 5:00pm Australian Eastern Standard Time, Monday to Friday on:

- › 13 28 66 if located in Australia, or
- › +61 2 6216 1111 if located outside Australia and ask for 13 28 66.

1 GRANT OF THE LEASE

- 1.1 The Seller will procure the grant of the Lease to the Buyer on Completion.
- 1.2 The Lease will be granted substantially upon the terms and conditions of the Specimen Lease.

2 TERMS OF PAYMENT

- 2.1 On Completion the Buyer must pay to the Seller in Canberra the Balance of the Price by unendorsed bank cheque.
- 2.2 On the Date of this Contract, the Buyer must pay the Deposit to the Seller.
- 2.3 The Deposit is released to the Seller (when paid) and become the Seller's property absolutely (being part payment of the Price).
- 2.4 If the Deposit is:
 - (a) not paid on time and in accordance with clause 2.2; or
 - (b) paid by cheque and the cheque is not honoured on first presentation, the Buyer is in default and the Seller may terminate this Contract immediately by written notice to the Buyer (without the notice otherwise necessary under clause 25) and clause 26 applies.
- 2.5 If the Seller does not terminate this Contract in accordance with clause 2.4, then this Contract remains on foot, subject to this clause 2.5, until the Seller terminates the Contract pursuant to clause 2.4 or waives the benefit of clause 2.4 pursuant to clause 2.7.
- 2.6 This clause 2 is for the benefit of the Seller and the obligations imposed on the Buyer by this clause 2 are essential. The obligations imposed on the Buyer by this clause 2 bind the Buyer notwithstanding any indulgence, waiver or extension of time by the Seller to the Buyer.
- 2.7 The Seller may at any time before this Contract is terminated notify the Buyer in writing that the benefit of this clause 2 is waived.
- 2.8 If the Contract is:
 - (a) rescinded; or
 - (b) terminated due to the default of the Seller, and the Buyer is entitled to a refund of the Deposit,then the Seller will account to the Buyer for the Deposit paid.
- 2.9 The Seller is not liable to pay interest on any refunded Deposit provided that the Deposit is refunded to the Buyer within 15 Working Days of the date the Contract is terminated due to the Seller's default or rescinded.
- 2.10 The payment of the Deposit by the Buyer to the Seller does not create a charge over the Land to the value of the Deposit or any other amount.

3 DEPOSIT BOND AND BANK GUARANTEE

- 3.1 The Deposit to be paid pursuant to clause 2.2 may be accepted by way of a Deposit Bond or Bank Guarantee provided that at least 3 Working Days prior to the Date of this Contract the Buyer:

- (a) informs the Seller of their intention to provide a Deposit Bond or Bank Guarantee; and
 - (b) provides the Seller with a copy of the proposed Deposit Bond or Bank Guarantee for approval.
- 3.2 The expiry date for the Deposit Bond or Bank Guarantee must not be earlier than the Earliest Date of Expiry of Deposit Bond or Bank Guarantee specified in the Schedule.
- 3.3 The Deposit Bond or Bank Guarantee must:
 - (a) show the Seller as the beneficiary of the Deposit Bond or Bank Guarantee; and
 - (b) be for an amount that is not less than 10% of the Price.
- 3.4 The Buyer must pay the amount stipulated in the Deposit Bond or Bank Guarantee to the Seller by unendorsed bank cheque on Completion.
- 3.5 The Buyer is in default if:
 - (a) the Deposit Bond or Bank Guarantee has an expiry date prior to the Earliest Date of Expiry of Deposit Bond or Bank Guarantee and is not renewed to the satisfaction of the Seller at least 10 Working Days prior to the expiry of the Deposit Bond or Bank Guarantee; or
 - (b) the provider of the Deposit Bond or Bank Guarantee is placed under external administration of any nature before Completion and the Buyer has not provided a replacement Deposit Bond or Bank Guarantee to the same value and on the same terms and conditions from a solvent party within 5 Working Days of the provider being placed in such administration.
- 3.6 If the Buyer is in default under clause 3.5 it will be deemed to be a failure by the Buyer to pay the Deposit under clause 2 and immediately, and without the notice necessary under clause 25, clause 26 applies.

4 DATE FOR COMPLETION

- 4.1 Completion must take place in Canberra on the Date for Completion or as otherwise determined by the Contract and if not specified or determined, within a reasonable time.
- 4.2 The Seller will not be liable to the Buyer for any damage or loss caused to the Land after Completion, including building waste, except where caused by the negligent or deliberate action or omission of the Seller, its employees, agents or contractors.

5 COMPLIANCE BOND

- 5.1 The Buyer must provide to the Development Manager at Completion the Compliance Bond as security for the performance of the Buyer's obligations in respect of clauses 7, 10 and 40 of this Contract following Completion.
- 5.2 The Development Manager will not be required to hold the Compliance Bond in a trust account or act as a fiduciary in relation to the Compliance Bond.
- 5.3 The Buyer must notify the Development Manager when it considers it has reached Dwelling Completion and the Development Manager must inspect the Land within 10 Working Days of such notice.

- 5.4 If the Development Manager does not believe that Dwelling Completion has been achieved, it must notify the Buyer in writing of this identifying its reasons. The Development Manager will be entitled to charge an additional inspection fee of \$550 (GST inclusive) for each time that the Development Manager, following notification by the Buyer under clause 5.3, notifies the Buyer that Dwelling Completion has not been achieved.
- 5.5 If the Development Manager believes Dwelling Completion has been achieved within 2 years of Completion then it must notify the Buyer within 2 Working Days of its inspection and must pay to the Buyer, or if agreed to by the Development Manager a person nominated by the Buyer, the Compliance Bond (less any amounts deducted in accordance with this Contract) within 20 Working Days of that inspection.

6 SIGNING OF LEASE

- 6.1 The Buyer must, no later than 20 Working Days from the date the Seller serves the Lease on the Buyer:
- (a) sign each copy of the Lease; and;
 - (b) return to the Seller's Solicitor each copy of the signed Lease.
- 6.2 The Buyer undertakes to register the Lease following Completion.

7 HOUSING DEVELOPMENT REQUIREMENTS AND SELLER APPROVAL

- 7.1 The Buyer must comply with the Housing Development Requirements in respect of any dwelling to be constructed on the Land.
- 7.2 If there is any variation to the Housing Development Requirements prior to Completion, the Seller may notify the Buyer and provide:
- (a) a copy of, or website link to, the final form of the amended document; or
 - (b) the variations,
- to the Buyer prior to Completion.
- 7.3 In the event that a change is made to the Housing Development Requirements which causes the Buyer a verifiable loss in excess of 5% of the Price, the Buyer may within 10 Working Days of being notified of the amended Housing Development Requirements rescind this Contract and clause 28 will apply.
- 7.4 No building or improvements are to be erected or altered on the Land without the written endorsement of the Development Manager. This obligation ceases to apply to the Land on Dwelling Completion.
- 7.5 The Development Manager must not unreasonably withhold its endorsement to the erection or alteration of any building or improvements where they are in accordance with the Housing Development Requirements and the approval and consent of all relevant authorities.
- 7.6 The Buyer must obtain from the relevant authorities all approvals necessary to erect any buildings or improvements on the Land and in accordance with the Housing Development Requirements.
- 7.7 The Buyer acknowledges that the Land is ready and available for inspection.

- 7.8 The Buyer enters into this Contract in reliance upon the Deposited Plan annexed to this Contract and on the Buyer's own enquiries.
- 7.9 If there is an inconsistency between the Housing Development Guide and the Deposited Plan, the Deposited Plan prevails.
- 7.10 The Buyer cannot make a claim or objection or rescind or terminate or make a claim for compensation under clause 24 of this Contract in respect of any matter set out in the Housing Development Guide.

8 VARIATION TO LAND AND HOUSING DEVELOPMENT REQUIREMENTS

- 8.1 The Buyer acknowledges that the Specimen Lease, the Housing Development Requirements, the Plans and any other documentation made available in relation to the Land may be affected by:
- (a) the requirements of legislation;
 - (b) variations to the Territory Plan;
 - (c) the requirements of government authorities; and/or
 - (d) physical conditions affecting the Works
- and may result in one or more of the following:
- (e) minor redefinition of the boundaries of the Land;
 - (f) minor road re-alignment or dedication; and
 - (g) minor variations of the easements relating to the provision of Utility Services.
- 8.2 Any redefinition, road realignment or dedication or variation of easements will be deemed to be minor if it does not materially and detrimentally affect the use of the Land.
- 8.3 The area of the Land specified in the Block Details Plan is subject to final survey and in the event of inconsistency with the area in the Deposited Plan, the Deposited Plan prevails.
- 8.4 The Buyer cannot make a claim or objection or rescind or terminate or make a claim for compensation under clause 24 of this Contract in respect of any matter set out in clause 8.1 or clause 8.3.

9 PLANNING CONDITIONS

- 9.1 The Buyer acknowledges that the Planning and Land Authority is responsible for all statutory development consents and approvals sought by or on behalf of the Buyer in relation to the Land and the Buyer therefore releases the Seller and Development Manager from any liability, cause of action or any other claim in relation to disturbance, loss or detriment caused by the Planning and Land Authority granting, with or without conditions, or denying any consent or approval in relation to the Land.
- 9.2 The Buyer acknowledges the obligation to make the Buyer's own enquiries and to satisfy itself as to the currency and accuracy of information contained in the Territory Plan.
- 9.3 The Buyer acknowledges that the Planning and Land Authority is responsible for the Territory Plan and the Buyer will make no claim against the Seller whatsoever in this regard.
- 9.4 The Buyer acknowledges that nothing in this Contract (including the Housing Design Requirements) or the fact of Completion implies or means that any required approvals, consents or licences regarding planning, design, siting and any other matters relating to the

Buyer's development of the Land will be granted by the regulatory authorities or other agencies of the Australian Capital Territory with or without conditions.

10 DRIVEWAY CROSSOVERS AND VERGES

- 10.1 The Buyer will be responsible for the construction of the driveway crossover:
- (a) if there is no footpath on the Land, from the kerb to the property boundary; and
 - (b) if there is a footpath on the Land, from the kerb to the property boundary but excluding the footpath which must not be altered in any way.
- 10.2 The Buyer must pay regard to and not damage or affect any footpath located on the Land.
- 10.3 All driveway crossovers are to be approved by the relevant authority.
- 10.4 The Buyer must not cause or allow any damage or destruction to the public domain adjoining the land, being all verges, landscaping (including street trees), gutters, kerbs, footpaths and driveway crossovers.
- 10.5 The buyer must lay turf, complying with the Housing Development Requirements, in the verge areas between the front boundary of the Land and the kerb. Other forms of soft landscaping treatments to the verge areas may only be used with the prior written consent (which may be given in its absolute discretion) of the Seller.

11 FRONT LANDSCAPING

- 11.1 Subject to the Buyer complying with this Contract and achieving Dwelling Completion within 2 years of Completion, the Seller will provide the Front Landscaping to the Land.
- 11.2 On or before Dwelling Completion, the Buyer must select a Front Landscaping garden design in accordance with the Housing Development Requirements and complete, sign and provide to the Seller the Front Landscaping Application Form.
- 11.3 Within approximately 3 months of Dwelling Completion, having regard to the Front Landscaping garden design selected and weather conditions, the Seller will commence the Front Landscaping.
- 11.4 The Buyer agrees to provide, or to procure its successor to provide, the Seller or the Development Manager or their nominated contractor with access to the Land at all times reasonably required by the Seller or the Development Manager or their nominated contractor for the sole purpose of providing the Front Landscaping.
- 11.5 The Buyer releases the Seller and the Development Manager from any liability, cause of action or any other claim in relation to the Front Landscaping except to the extent caused by the negligent or deliberate action or omission of the Seller or the Development Manager or their agents. For clarity, this release does not extend to the Seller's nominated contractor.

12 PROPERTY ACT

- 12.1 The Property Act does not apply to this Contract as this Contract is not a sale of residential property and the grant of the Lease will be the first grant of a crown lease over the Land.

13 NON COMPLYING TRANSFERS NOT TO BE USED

- 13.1 The Buyer acknowledges that it will not be able to use the non complying transfer provisions of section 17 of the *Duties Act 1999* (ACT) in relation to this Contract as this Contract will be the first grant of the Lease.

14 ENTIRE AGREEMENT

- 14.1 The Buyer agrees that this Contract sets out the entire agreement of the parties on the subject matter of this Contract and supersedes any prior agreement, advice, material supplied to the Buyer or understanding on anything connected with the subject matter of this Contract.

15 NO RELIANCE

- 15.1 Each party has entered into this Contract without reliance upon any representation, statement or warranty (including sales and marketing material and preliminary artwork) except as set out in this Contract.

- 15.2 The Buyer:

- (a) relies on its own enquiries in relation to the Land; and
- (b) warrants that in entering into this Contract the Buyer:
 - (i) has not relied on any express or implied statement, warranty or representation whether oral, written or otherwise made by or on behalf of the Seller to the Buyer in connection with the Land;
 - (ii) has not relied on any documentation made available by or on behalf of the Seller to the Buyer in relation to the Land other than documentation forming part of this Contract; and
 - (iii) is satisfied as to the nature, quality and condition of the Land and the purposes for which the Land may be used.

- 15.3 The Seller makes no warranty as to the accuracy or completeness of any document made available by or on behalf of the Seller to the Buyer in connection with the Land other than documentation forming part of this Contract.

16 CO OWNERSHIP

- 16.1 Where the Buyer consists of more than one person, as between themselves, they agree to buy the Land in the specified manner of Co-ownership or if one alternative is not marked, as joint tenants.

17 NON MERGER

- 17.1 If any term of this Contract may be given effect to after Completion that term will not merge but will continue in force for as long as necessary to give effect to it.

18 BUYER RIGHTS AND LIMITATIONS

- 18.1 The Buyer is not entitled to make any requisitions on the title to the Land.
- 18.2 The Buyer cannot make a claim or objection or rescind or terminate or make a claim for compensation under clause 24 of this Contract in respect of:

- (a) Utility Services for the Land being a joint service or passing through another property, or any Utility Services for another property passing through the Land;
 - (b) a promise, representation or statement about this Contract, the Land or the Lease, not made in this Contract;
 - (c) the existence of regrading, fill or other disability of or upon the Land, whether caused by the Commonwealth of Australia, the Seller, previous occupants of the Land or otherwise; and
 - (d) anything disclosed in this Contract (except an Affecting Interest).
- 18.3 The Buyer acknowledges, understands and accepts that the existence of regrading, fill, contamination of any Substance or other disability of or upon the Land may result in work for the construction of any building on the land being more extensive and expensive than it may otherwise have been in the absence of such regrading, fill, contamination of any substance or other disability.
- 18.4 The Seller makes no warranty or representation as to the environmental condition or state of the soil, ground water, contamination or the existence or non-existence of any Substance on or affecting the Land.

19 SELLER WARRANTIES

- 19.1 The Seller warrants that at the Date of this Contract:
- (a) the Seller will be able to complete at Completion;
 - (b) the Seller has no knowledge of any unsatisfied judgment, order or writ affecting the Land;
 - (c) the Seller has no knowledge of any current or threatened claims, notices or proceedings that may lead to a judgment, order or writ affecting the Land; and
 - (d) the Seller is not aware of any material change in the matters disclosed in the Housing Development Requirements.
- 19.2 The Seller warrants that on Completion:
- (a) the Seller will have the capacity to complete;
 - (b) there will be no unsatisfied judgment, order or writ affecting the Land;
 - (c) the Seller has no knowledge of any current or threatened claims, notices or proceedings that may lead to a judgment order or writ affecting the Land; and
 - (d) the Seller is not aware of any encroachments by or upon the Land except as disclosed. This warranty does not extend to the location of any dividing fence.
- 19.3 The Seller gives no warranties as to the present state of repair of any of the Improvements or condition of the Land, except as required by law.

20 ADJUSTMENTS

- 20.1 The Lease will be granted on Completion. As a result, there will be no adjustments of Income or Land Charges.

21 TERMS OF POSSESSION

- 21.1 The Seller must give the Buyer vacant possession of the Land on Completion unless otherwise marked in the Schedule.

22 INSPECTION AND CONDITION OF LAND

- 22.1 The Buyer may on reasonable notice to the Seller inspect the Land but only during the period 10 Working Days prior to the Date for Completion.
- 22.2 Subject to clause 4.2, the Seller must leave the Land clean and tidy on Completion.

23 ERRORS AND MISDESCRIPTIONS

- 23.1 The Buyer will be entitled to compensation on Completion (and the Price will be reduced accordingly) in full and final settlement if the Buyer suffers a loss as a result of an error of any kind or misdescription if the Buyer makes a claim for compensation before Completion.
- 23.2 This clause 23 applies even if the Buyer did not take notice of or rely on anything in this Contract containing or giving rise to the error or misdescription.
- 23.3 The Buyer is not entitled to compensation to the extent the Buyer knew the true position before the Date of this Contract.

24 COMPENSATION CLAIMS BY BUYER

- 24.1 This clause 24 applies to claims for compensation arising out of this Contract made by the Buyer against the Seller including claims under clause 23.
- 24.2 To make a claim for compensation (including a claim under clause 23) the Buyer must give notice to the Seller before Completion specifying the amount claimed and:
- (a) the Seller can rescind if in the case of a claim that is not a claim for delay:
 - (i) the total amount claimed exceeds 5% of the Price;
 - (ii) the Seller gives notice to the Buyer of an intention to rescind; and
 - (iii) the Buyer does not give notice to the Seller waiving the claim within 10 Working Days after receiving the notice; and
 - (b) if the Seller does not rescind under clause 24.2(a), the parties must complete and:
 - (i) the claim must be finalised (subject to clause 24.2(b)(v)) either by agreement or, failing agreement, by an arbitrator appointed by the parties or, if an appointment is not made within 20 Working Days of Completion, by an arbitrator appointed by the President of the Law Society of the Australian Capital Territory at the request of a party;
 - (ii) the decision of the arbitrator is final and binding except for:
 - a. manifest error by the arbitrator obvious on its face in the determination by the arbitrator;
 - b. error in the application of law by the arbitrator in making his or her determination; or

- c. improper or unlawful conduct by the arbitrator or either Party that affected or might reasonably be thought to have affected the arbitrator's determination;
- (iii) the costs of the arbitration must be shared equally by the parties unless otherwise determined by the arbitrator;
- (iv) the Buyer is not entitled, in respect of the claim, to more than the total amount claimed and the costs of the Buyer; and
- (v) the claim lapses if the parties do not appoint an arbitrator and neither party asks the President of the Law Society of the Australian Capital Territory to appoint an arbitrator within 3 calendar months after Completion.

25 NOTICE TO COMPLETE AND DEFAULT NOTICE

- 25.1 If Completion does not take place by the Date for Completion, either party may, at any time after the Date for Completion, serve on the other party a Notice to Complete.
- 25.2 A Notice to Complete must appoint a time during business hours and a date being not less than 10 Working Days after service of the Notice to Complete (excluding the date of service) by which, and a place in Canberra at which, to complete this Contract.
- 25.3 At the time the Notice to Complete is served the party serving the Notice to Complete must:
- (a) not be in default; and
 - (b) be ready, willing and able to complete but for some default or omission of the other party.
- 25.4 Completion at the time, date and place specified in the Notice to Complete is an essential term.
- 25.5 Where one party is in default (other than failing to complete) the other party may at any time after the default serve the party in default a Default Notice.
- 25.6 A Default Notice must:
- (a) specify the default; and
 - (b) require the party served with the Default Notice to rectify the default within 5 Working Days after service of the Default Notice (excluding the date of service).
- 25.7 At the time the Default Notice is served, the party serving the Default Notice must not be in default.
- 25.8 The time specified in a Default Notice to rectify the specified default is an essential term.
- 25.9 Clauses 26 or 27 will apply as applicable where the party served does not comply with the Notice to Complete or the Default Notice which complies with this clause 25.
- 25.10 If the party serving a notice under this clause varies the time referred to in the notice at the request of the other party, the time agreed to in the variation remains an essential term. The consent to the variation must be in writing and be served on the other party.
- 25.11 The parties agree that the time referred to in clauses 25.2 and 25.6(b) is fair and reasonable.

26 TERMINATION – BUYER DEFAULT

- 26.1 If the Buyer does not comply with a Notice to Complete or a Default Notice or is otherwise in breach of an essential term then the Seller may by notice served on the Buyer terminate this Contract and may then keep, or recover and keep, the Deposit (except so much of it as exceeds 10% of the Price) and either:
- (a) sue the Buyer for breach; or
 - (b) resell the Land and any deficiency arising on the resale and all expenses of and incidental to the resale or attempted resale and the Buyer's default are recoverable by the Seller from the Buyer as liquidated damages provided the Seller has entered into a contract for the resale of the Land within 12 months of termination.
- 26.2 In addition to any money kept or recovered under clause 26.1, the Seller may retain on termination any other money paid by the Buyer as security for any damages awarded to the Seller arising from the Buyer's default provided that proceedings for the recovery of damages are commenced within 12 months of termination.
- 26.3 For the avoidance of doubt, if the Deposit is paid by Deposit Bond or Bank Guarantee in accordance with clause 3, and the Seller is entitled to terminate in accordance with clause 26.1, the Buyer acknowledges that the Seller is entitled to, and may, call upon the Deposit Bond or Bank Guarantee immediately after serving the termination notice.

27 TERMINATION – SELLER DEFAULT

- 27.1 If the Seller does not comply with a Notice to Complete or a Default Notice or is otherwise in breach of an essential term the Buyer may by notice served on the Seller either:
- (a) terminate and seek damages; or
 - (b) enforce without further notice any other rights and remedies available to the Buyer.

28 RESCISSION

- 28.1 If this Contract is rescinded, it is rescinded from the beginning, and unless the parties otherwise agree:
- (a) the Deposit and all other money paid by the Buyer must be refunded to the Buyer immediately without any further authority being necessary; and
 - (b) neither party is liable to pay the other any amount for damages, costs or expenses.

29 DAMAGES FOR DELAY IN COMPLETION

- 29.1 If Completion does not occur by the Date for Completion due to the default of either party, the party who is at fault must pay the other party as liquidated damages on Completion:
- (a) interest on the Price at the rate of 10% per annum calculated on a daily basis from the date 7 days after the Date for Completion to Completion;
- and
- (b) the amount of \$660 (including GST) to be applied towards any legal costs and disbursements incurred by the party not at default if Completion occurs later than 7 days after the Date for Completion.

- 29.2 The party at fault must pay the amount specified in clause 29.1 in addition to any other damages to which the party not at fault is entitled both at law and under this Contract.
- 29.3 The parties agree that:
- (a) the amount of any damages payable under clauses 29.1(a) to the party not in default is a genuine and honest pre-estimate of loss to that party for the delay in Completion, and
 - (b) the damages must be paid on Completion.

30 FOREIGN BUYER

- 30.1 The Buyer warrants the Commonwealth Treasurer cannot prohibit and has not prohibited the transfer of the Lease under the *Foreign Acquisitions and Takeovers Act 1975*.
- 30.2 This clause is an essential term.

31 GST

- 31.1 The Buyer and the Seller agree that the Margin Scheme applies to the Supply of the Land.
- 31.2 The Seller warrants that it can use the Margin Scheme and promises that it will.

32 INSOLVENCY

- 32.1 If the Buyer suffers an Insolvency Event, the Buyer must immediately notify the Seller in writing.
- 32.2 If the Seller receives notice that the Buyer has suffered an Insolvency Event (either pursuant to clause 32.1 or by some other means), the Seller may terminate this Contract and clause 26 applies.

33 POWER OF ATTORNEY

- 33.1 Any party who signs this Contract or any document in connection with it under a power of attorney must, on request and without cost, provide the other party with a true copy of the registered power of attorney.

34 NOTICES CLAIMS AND AUTHORITIES

- 34.1 Notices, claims and authorities required or authorised by this Contract must be in writing.
- 34.2 To serve a notice a party must:
- (a) leave it at; or
 - (b) send it by a method of post requiring acknowledgement of receipt by the addressee to,

the address of the person to be served as stated in the Schedule or as notified by that person to the other as that person's address for service under this Contract; or
 - (c) serve it on that party's solicitor in any of the above ways; or
 - (d) by delivering it to an appropriate place in the facilities of a document exchange system in which the recipient solicitor has receiving facilities (and in the latter case service is deemed effected on the Working Day following delivery); or

- (e) send it by facsimile to a party's solicitor, and unless it is not received a notice is taken to have been received at the time shown in the transmission report that the whole facsimile was sent; or
- (f) send it by email to an email address of the party's solicitor (whether to the solicitor's firm generally or specifically to the practitioner specified on the Schedule) as notified from time to time and, unless the receiving party indicates by immediate automatic response that the email address is unattended, the notice is taken to have been received at the time it was sent and if not sent before 5:00pm on a Working Day, on the next Working Day.

34.3 A party's solicitor may give a notice, claim or authority on behalf of that party.

34.4 If a notice is served in accordance with clause 34.2(a), the notice is taken to have been received on the day that it is delivered or, if not delivered before 5:00pm on a Working Day, on the next Working Day.

34.5 If a notice is served in accordance with clause 34.2(b), the notice is taken to have been received on the day 2 Working Days after it was posted.

35 BUSHFIRE PROTECTION

35.1 The Buyer acknowledges that the Land may be affected by legislation and regulations in connection with bushfire protection and that those requirements are subject to change.

36 CAT CONTAINMENT

36.1 The Land is part of an area which is declared to be a cat curfew area under the *Domestic Animals Act 2000* (ACT) and cats located within areas declared to be cat curfew areas must be confined to their keeper's or carer's premises at all times.

37 GEOTECHNICAL INFORMATION

37.1 The Seller discloses the existence of the Site Classification Certificate which the Buyer acknowledges is available for its examination.

37.2 The Buyer cannot make a claim or objection or rescind or terminate or make a claim for compensation under clause 24 of this Contract in respect of any matter set out in the Site Classification Certificate.

38 RIVER CORRIDOR CONSERVATION MANAGEMENT TRUST

38.1 The appropriate conservation management of the heritage and ecological value of the Murrumbidgee river corridor is of critical importance to its long term health and sustainability.

38.2 The Seller and/or Development Manager may establish a body (**River Corridor Conservation Management Trust**) to undertake that management, subject to receipt of funds under clause 38.3.

38.3 The Buyer acknowledges that the ACT Government may, as a means of ensuring ongoing funding of the River Corridor Conservation Management Trust, impose a levy (or similar charge) on the Land.

39 PRIVACY

39.1 The Buyer consents to the collection, use and disclosure of the Personal Information of the Buyer by the Seller and Development Manager:

- (a) for entering into, administering and completing this Contract;

- (b) for planning and product development by the Seller and Development Manager;
- (c) to comply with the Seller's obligations or to enforce its rights under this Contract;
- (d) to owners of adjoining land to enable them to deal with the Buyer concerning any development of other work which they wish to undertake on their land (including disclosure of Personal Information to contractors to assist adjoining land owners to comply with their obligations and to enforce their rights in relation to fencing);
- (e) to surveyors, engineers and other parties who are engaged by the Seller or the Development Manager to carry out works which may affect the Land;
- (f) to service providers engaged by the Seller or Development Manager, such as legal advisors, financial advisors, environmental consultants, providers of the Household Energy Package, market research organisations, mail houses and delivery companies;
- (g) to any third party who has a right or entitlement to share in the monies paid or payable to the Seller under this Contract; and
- (h) in other circumstances where the Seller or Development Manager is legally entitled, obliged or required to do so, including any disclosure which is permitted or authorised under the Privacy Act.

39.2 The Buyer acknowledges that they have received, read, and understood the Land Privacy Policy and Land Collection Notice, and accepts that any information collected by the Seller pursuant to this Contract, or previously in relation to this Contract, is held and used in accordance with the Land Privacy Policy and Land Collection Notice.

39.3 The Buyer consents to the Seller's use of any personal information provided by the Buyer to reasonably fulfil the purpose of this Contract and any of its functions, including disclosure of personal information to the ACT Revenue Office and other ACT and Commonwealth government agencies.

40 MANDATORY SUSTAINABILITY REQUIREMENTS

40.1 The Buyer agrees, in compliance with the Housing Development Requirements, to comply with the Sustainability Requirements.

40.2 The Buyer acknowledges that the Housing Development Requirements contemplate the Seller nominating one or more suppliers which the Buyer can select for the supply and installation of a Household Energy Package to assist the Buyer in achieving compliance with the Sustainability Requirements.

40.3 The Buyer acknowledges that the Seller is not responsible for the acts or performance of any supplier identified in the Sustainability Requirements.

41 LAND DESCRIPTION

41.1 The Seller advises and the Buyer acknowledges that the description of the Land in the Housing Development Requirements and associated documents may be by way of alphabetical block and section references.

41.2 Numerical block and section references in the Schedule have issued for the Land and the Land reference includes the former alphabetical block and section references for the Land.

42 SERVICE PROVIDERS

- 42.1 The Seller is not a Utility Service provider and any works undertaken on the Land by the Seller do not include actual connections to services, substations, transformers or any other thing that may be required for such connections.
- 42.2 The Buyer will be responsible for contacting all relevant service providers for Utility Services as soon as practicable to arrange servicing of the Land by those service providers to avoid delays to their Development caused as a consequence of being unable to access a Utility Service.

43 DIRECTOR'S GUARANTEE

- 43.1 Where the Buyer is a corporation, all directors of that corporation must guarantee that corporation's performance of its obligations under this Contract.
- 43.2 The guarantee is to be in the form attached as Annexure C.

44 FOREIGN RESIDENT WITHHOLDING TAX

- 44.1 In this clause 44, the following definitions apply:

ATO means the Australian Taxation Office and includes the Commissioner for Taxation;

CGT Asset has the meaning in the *Income Tax Assessment Act 1997 (Cth)*;

Clearance Certificate means a certificate issued under section 14-220 of the Withholding Law that covers the date of Completion;

Relevant Percentage means the percentage amount stated in section 14-200(3)(a) and 14-205(4)(a) of the Withholding Law;

Relevant Price means the higher of:

- (a) the Price (including GST); and
- (b) the market value of the CGT Assets sold under this Contract;

as at the Date of this Contract;

Variation Certificate means a certificate issued under section 14-235 of the Withholding Law that covers the date of Completion;

Withholding Amount means subject to clauses 44.6 and 44.7 the Relevant Percentage of the first element of the CGT Asset's cost base (for all CGT Assets sold under this Contract) as at the Date of this Contract; and

Withholding Law means Subdivision 14-D of Schedule 1 of the *Taxation Administration Act 1953 (Cth)* and associated provisions.

- 44.2 If the Relevant Price is less than the dollar amount stated in section 14-215(1)(a) of the Withholding Law as at the Date of this Contract, the parties acknowledge that there are no obligations under the Withholding Law.

- 44.3 If Clearance Certificates for all the Sellers are provided to the Buyer prior to Completion, the parties acknowledge that there are no obligations under the Withholding Law.
- 44.4 If neither clause 44.2 or 44.3 apply, then:
- (a) the Seller must provide to the Buyer any information required to enable the Buyer to comply with clause 44.4(b)(i), within 5 days of written request from the Buyer;
 - (b) the Buyer must:
 - (i) lodge a purchaser payment notification form with the ATO; and
 - (ii) give evidence of compliance with clause 44.4(b)(i) to the Seller;
 no later than 5 days before the Date for Completion;
 - (c) the Seller irrevocably instructs the Buyer to draw as part of the Price, and the Buyer must draw and retain on Completion, an unendorsed bank cheque payable to the ATO for the Withholding Amount; and
 - (d) the parties must both, on the date of Completion, attend the offices of an authorised collection agent of the ATO to deposit the bank cheque referred to in clause 44.4(c) in payment of the Withholding Amount following Completion.
- 44.5 If clause 44.4 applies and the parties do not comply with clause 43.4(d):
- (e) the Buyer indemnifies the Seller for any loss or damage resulting from the Buyer's delay in remitting and/or failure to remit the Withholding Amount to the ATO; and
 - (f) the Buyer charges the Land (for the benefit of the Seller) with the Buyer's obligations under this clause 44.5.
- 44.6 Where the Seller gives the Buyer a Variation Certificate prior to Completion, the Withholding Amount is the amount stated in the Variation Certificate.
- 44.7 Where Clearance Certificates for some but not all of the Sellers are provided to the Buyer prior to Completion, then the Withholding Amount is reduced by the same percentage as the percentage ownership of the Land of the Sellers that are subject to a Clearance Certificate.
- 44.8 Where a Clearance Certificate is provided by a Seller to the Buyer, the Seller warrants to the Buyer that the Seller is the entity referred to in the Clearance Certificate and is the relevant taxpayer for capital gains tax payable on the sale of the CGT Assets sold under this Contract.

Warning: The following clauses 45.1 to 45.14 are subject to the Withholding Law, and do not encompass all obligations under the Withholding Law.

45 RESIDENTIAL WITHHOLDING TAX

45.1 In this clause 45 the following words have the following meanings:

ATO means the Australian Taxation Office, and includes the Commissioner for Taxation;

RW Amount means the amount which must be paid under section 14-250 of the Withholding Law;

RW Amount Information means the information set out in the table entitled "RW Amount (Residential Withholding Payment) — Further Details" set out in this Contract; and as provided or updated under this Contract.

RW Percentage means the percentage amount stated in section 14-250(6), (8) and (9) of the Withholding Law, as applicable to the supply of the Land from the Seller to the Buyer; and

Withholding Law means Subdivision 14 of Schedule 1 of the *Taxation Administration Act 1953* (Cth) and associated provisions.

- 45.2 The Seller must provide the Buyer with the RW Amount Information no later than 28 days prior to the Date for Completion.
- 45.3 If the 'Buyer required to make a withholding payment?' option on the Schedule is selected 'no' or if no selection is made, the Seller warrants to the Buyer that the Buyer is not required to make a payment under section 14-250 in relation to the supply of the Land from the Seller to the Buyer.
- 45.4 The following clauses 45.5 to 45.14 inclusive only apply if the 'Buyer required to make a withholding payment?' option on the Schedule is selected 'yes'.
- 45.5 Subject to any adjustments to the Price or non-monetary consideration that may arise after the date that the RW Amount Information is provided in accordance with clause 45.2 and which affect the RW Amount, the Seller warrants to the Buyer on the date that the RW Amount Information is provided to the Buyer that the Seller has provided the Buyer with the information required under section 14-255 of the Withholding Law in relation to the supply of the Land from the Seller to the Buyer, and that this information is true and correct to the Seller's knowledge.
- 45.6 The Buyer must provide the Seller with a copy of the 'GST property settlement withholding notification online form' confirmation email (or emails, if applicable) issued to the Buyer by the ATO at least 10 Working Days prior to the Date for Completion.
- 45.7 The Buyer must provide the Seller with evidence of submission by the Buyer to the ATO of the 'GST property settlement date confirmation online form', with such evidence to be provided prior to or on Completion.
- 45.8 The Seller irrevocably instructs the Buyer to draw as part of the Price, and the Buyer must draw and give to the Seller on Completion, an unendorsed bank cheque payable to the ATO for the RW Amount.
- 45.9 The Seller must forward the unendorsed bank cheque provided under clause 45.8 to the ATO within 5 Working Days following Completion and provide the Buyer with evidence of payment of the RW Amount to the ATO.
- 45.10 The Buyer and Seller must comply with all ATO requirements in relation to the Withholding Law and must also assist and co-operate with each other in order to ensure that those requirements are met. If necessary to give effect to this clause, the Buyer appoints the Seller as its agent of the purpose of completing any notification required to be given by the Buyer to the ATO.
- 45.11 The Seller may provide the Buyer with updated RW Amount Information at any time, and (if necessary) on more than one occasion, prior to Completion. If the Seller provides the Buyer with updated RW Amount Information in accordance with this clause, the Buyer must, within 3 Working Days of receipt of the RW Amount Information, provide the Seller with a copy of the

'GST property settlement withholding notification online form' confirmation email (or emails, if applicable) issued to the Buyer by the ATO including the updated RW Amount Information.

- 45.12 The Seller indemnifies the Buyer against the amount of any penalties or interest charges imposed by the ATO on the Buyer (or the relevant recipient of the supply) arising from any failure by the Seller to forward the unendorsed bank cheque required by clause 45.8 to the ATO.

Potential Residential Land

- 45.13 If the 'Subdivision of potential residential land?' option on the Schedule is selected 'yes' and the Buyer (or the relevant recipient for GST purposes) is:

- (a) registered for GST purposes; and
- (b) acquiring the Land for a creditable purpose;

the Buyer must provide the Seller with a statement to that effect on the earlier of:

- (c) 10 Working Days before the Date for Completion; or
- (d) 20 Working Days after the Date of this Contract.

- 45.14 Where the Buyer has provided the statement referred to in clause 45.13 the Buyer indemnifies the Seller against the amount of any penalties or interest charges imposed by the ATO on the Seller (or the relevant entity making the supply of the Land).

46 DEFINITIONS

- 46.1 Definitions appear in the Schedule and as follows:

ACT Revenue Office means the ACT Revenue Office of the Chief Minister, Treasury and Economic Development Directorate;

Affecting Interest means any mortgage, Encumbrance, lease, lien, charge, notice, order, caveat, writ or other interest;

Application to Register a Crown Lease means the prescribed form approved under the *Land Titles Act 1925* (ACT) - Form 31 – ACL - Application to register crown lease, or any form that replaces it;

Balance of the Price means the Price less the Deposit;

Bank Guarantee means a bank guarantee issued by a bank operating in Australia in a form satisfactory to the Seller;

Completion means the time at which this Contract is completed;

Compliance Bond means the amount set out in the Schedule;

Contract means the Schedule, terms and conditions and any annexure, additional clauses and attachments forming part of this Contract;

Covenant includes restrictive covenant;

Default Notice means a notice in accordance with clauses 25.5 and 25.6;

Deposit means the deposit forming part of the Price specified in the Schedule;

Deposit Bond means a deposit insurance bond issued to the Seller at the request of the Buyer in a form satisfactory to the Seller;

Development has the meaning in the Planning Act;

Development Manager means Riverview Projects (ACT) Pty Ltd ACN 165 870 539, ABN 30 165 870 539;

Dwelling Completion means the point at which all of the following have been satisfied in relation to the Land:

- (a) a certificate of fitness for occupancy or use has issued;
- (b) a certificate of compliance has issued;
- (c) the dwelling erected on the Land corresponds with the one for which endorsement was given by the Development Manager under clause 7.4;
- (d) clause 10 has been complied with and there is no damage to any public domain (as identified in clause 10.4);
- (e) clause 40 has been complied with; and
- (f) the Buyer has otherwise complied with the requirements of this Contract;

Encumbrance includes an unregistered or statutory encumbrance, but does not include an encumbrance that is to be released or discharged on or before Completion;

Front Landscaping means the Seller providing landscaping to the front of the dwelling constructed on the Land selected, with such landscaping to be in compliance with the Housing Development Requirements;

Front Landscaping Application Form means a form described as such and made available to the Buyer prior to Dwelling Completion;

GST has the meaning ascribed to it under the GST Law and, where appropriate, includes voluntary and Notional GST. Expressions used in this Contract of Sale which are defined in the GST Law have the same meaning as given to them in the GST Law;

GST Law means the *A New Tax System (Goods and Services Tax) Act 1999* (Cth);

Household Energy Package includes the mandatory items of photo voltaic arrays, inverter and demand management system and such other items as identified in the Housing Development Requirements;

Housing Development Requirements means the Housing Development Requirements in relation to Neighbourhood 1 available at www.Ginninderry.com as amended from time to time;

Improvements means the buildings, structures and fixtures erected on and forming part of the Land;

Income means the rents and profits derived from the Land;

Insolvency Event means the following:

- (a) where the Buyer is a natural person and:
 - (i) the Buyer authorises a registered trustee or solicitor to call a meeting of his or her creditors and enters into a deed of assignment or deed of arrangement or a composition with any of his or her creditors;
 - (ii) a third party who holds a security interest in the assets of the Buyer enters into possession, or takes control of those assets, or attempts by any means to do the same; or

- (iii) the Buyer commits an act of bankruptcy; or
- (b) where the Buyer is a body corporate and:
 - (i) the Buyer becomes, or attempts are made for the Buyer to become an externally administered body corporate in accordance with the *Corporations Act 2001* (Cth); or
 - (ii) a controller (as defined by the *Corporations Act 2001* (Cth)) is appointed, or attempts are made to have a controller appointed for any of the Buyer's assets;

Land means the land described in the Schedule and to be the subject of the Lease;

Land Charges means rates, land rent, land tax and other taxes and outgoings of a periodic nature in respect of the Land;

Land Collection Notice means the collection notice provided by the Suburban Land Agency Buyer in accordance with the Information Privacy Act 2014 (ACT) and which can be found at www.suburbanland.act.gov.au;

Land Privacy Policy means the privacy policy provided by the Suburban Land Agency to the Applicant in accordance with the Information Privacy Act 2014 (ACT) and which can be found at www.suburbanland.act.gov.au;

Lease means a Crown lease that is not subject to the provisions of the *Land Rent Act 2008* (ACT) that will be granted in accordance with the Planning Act in a form similar to the Specimen Lease and which may, where the Land is affected by an easement identified in the Housing Development Requirements, include an annexure or additional provisions detailing the terms of the easement;

Margin Scheme has the meaning given to that term in the GST Law;

Notice to Complete means a notice in accordance with clauses 25.1 and 25.2 requiring a party to complete;

Notional GST means, where the supplier is the Commonwealth and an obligation exists to make voluntary or notional GST payments under section 177-1 of the GST Law, those voluntary or notional payments are made by or on behalf of the Commonwealth. For the avoidance of doubt Notional GST amounts will be calculated as if the GST Law applies to the relevant supplies;

Personal Information has the meaning given to it in the Privacy Act;

Planning Act means the *Planning and Development Act 2007* (ACT);

Planning and Land Authority means the body corporate established in accordance with the Planning Act;

Privacy Act means the *Privacy Act 1988* (Cth) and any ancillary rules, regulations, guidelines, orders, directives, codes of conduct or practice or other instrument made or issued thereunder, including:

- (a) any consolidation, amendment re-enactment or replacement of any of them or the Privacy Act, and
- (b) the National Privacy Principles under the Privacy Act;

Property Act means the *Civil Law (Sale of Residential Property) Act 2003* (ACT);

Site Classification Certificate means the site classification certificate with respect to the Land available at www.Ginninderry.com or as otherwise advised by the Seller from time to time.

Specimen Lease means the specimen Crown lease annexed to this Contract at Annexure B;

Substance means any substance or thing which is or may be an emission to the environment or harmful to the environment or the health or safety of any person or may cause damage to property and includes:

- (a) asbestos;
- (b) polychlorinated biphenyls;
- (c) heavy metals;
- (d) chemicals;
- (e) contaminants; and
- (f) any other matter whether solid, liquid or gaseous form, or whether naturally occurring or man-made;

Sustainability Requirements means the minimum sustainability requirements in relation to the dwelling to be constructed on the Land as set out in the sustainability requirements part of the Housing Development Requirements and includes the Household Energy Package;

Territory Plan means the *Territory Plan 2008* (ACT) as amended and varied from time to time;

Utility Services includes drainage, electricity, garbage collection, gas, sewerage, telecommunications (including NBN) or water; and

Working Days has the meaning given to it by the *Legislation Act 2001* (ACT).

47 INTERPRETATION

47.1 In this Contract:

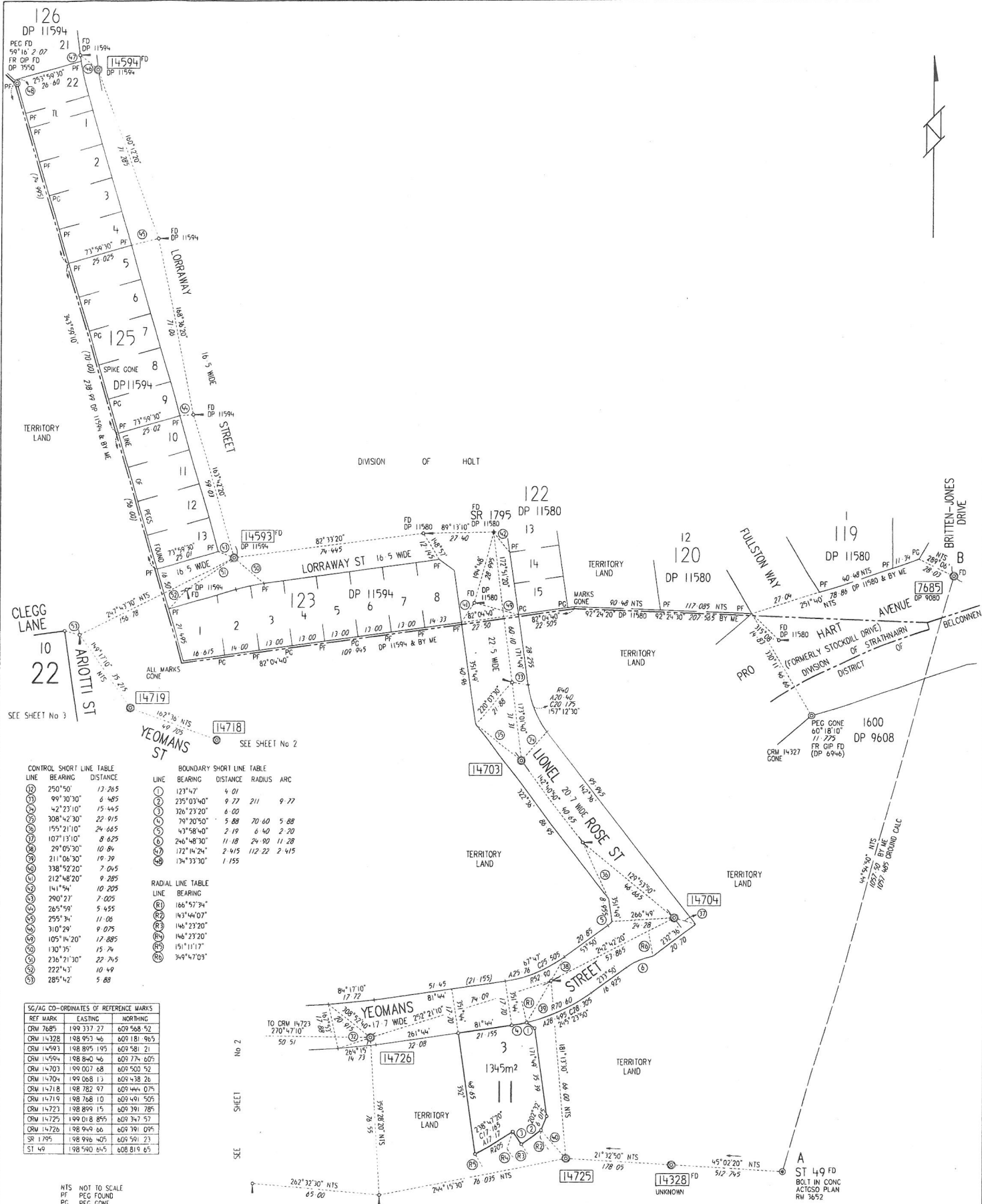
- (a) a reference to the Seller or to the Buyer includes the executors, administrators and permitted assigns of any of them, if an individual, and the successors or permitted assigns of any of them, if a corporation;
- (b) the singular includes the plural, and the plural includes the singular;
- (c) a reference to a person includes a body corporate;
- (d) a term not otherwise defined has the meaning in the *Legislation Act 2001* (ACT); and
- (e) a reference to an Act includes a reference to any subordinate legislation made under it or any Act which replaces it.

47.2 Headings are inserted for convenience only and are not part of this Contract.

47.3 If the time for something to be done or to happen is not a Working Day, the time is extended to the next Working Day, except in the case of clause 2.1.

47.4 If there is more than one buyer or more than one seller the obligations which they undertake bind them jointly and individually.

ANNEXURE A – DEPOSITED PLAN



CONTROL SHORT LINE TABLE

LINE	BEARING	DISTANCE
1	250°50'	13.265
2	99°30'30"	6.485
3	42°23'10"	15.445
4	308°42'30"	22.915
5	155°21'10"	24.665
6	107°13'10"	8.625
7	29°05'30"	10.86
8	211°06'30"	19.39
9	338°52'20"	7.045
10	212°48'20"	9.285
11	141°54'	10.205
12	290°27'	7.025
13	265°59'	5.455
14	255°34'	11.06
15	310°24'	9.075
16	105°14'20"	12.885
17	130°35'	15.74
18	236°12'30"	22.765
19	222°43'	10.49
20	285°42'	5.88

BOUNDARY SHORT LINE TABLE

LINE	BEARING	DISTANCE	RADIUS	ARC
1	123°47'	4.01		
2	235°03'40"	9.77	211	9.77
3	326°23'20"	6.00		
4	79°20'50"	5.88	70.60	5.88
5	43°58'40"	2.19	6.40	2.20
6	246°48'30"	11.18	24.90	11.28
7	172°14'24"	2.415	112.22	2.415
8	134°33'30"	1.155		

RADIAL LINE TABLE

LINE	BEARING
R1	166°57'34"
R2	143°44'07"
R3	146°23'20"
R4	146°23'20"
R5	151°11'17"
R6	349°47'05"

SC/AG CO-ORDINATES OF REFERENCE MARKS

REF MARK	EASTING	NORTHING
CRW 7685	199 337.27	609 568.52
CRW 14328	198 951.46	609 181.965
CRW 14593	198 895.195	609 581.21
CRW 14594	198 840.46	609 774.605
CRW 14703	199 007.08	609 500.52
CRW 14704	199 068.13	609 438.26
CRW 14718	198 782.97	609 444.075
CRW 14719	198 768.10	609 491.505
CRW 14723	198 899.15	609 391.785
CRW 14725	199 018.855	609 347.57
CRW 14726	198 944.66	609 391.095
SR 1795	198 946.405	609 501.23
ST 49	198 540.645	608 819.65

NTS NOT TO SCALE
 PF PEG FOUND
 PC PEG CONE
 TL TERRITORY LAND

REFERENCE MARKS
 Denotes GIP $\frac{1}{1000000}$ radially from T-P
 PLACQUE IN KERB
 DEEP DRIVEN ROD
 DRIVE IN KERB
 (Except as otherwise shown)

NOTE: Azimuth: A-B (Strom)
 All easements are 2.5 metres wide
 (Except as otherwise shown)
 Field Books:

MAIL McDONALD BARNESLEY Pty Ltd
 L. PETER WILLIAM MAYBERRY of PO BOX 54 JAMISON ACT 2614
 a surveyor registered under the Surveyors Act 2007 hereby certify that the
 survey represented on this plan is accurate and has been made in
 accordance with the Surveyors Practice Directions and was completed
 on 21 MARCH 2019
 (Signature) *Peter William Mayberry*
 Surveyor, Registered under the Surveyors Act 2007 18 JUNE 2019
 I certify that this plan is the plan prepared in accordance with
 the Districts Act 2002
 19 June 2019
 Surveyor-General of the ACT

PLAN OF
 BLOCK 3 SECTION 11, BLKS 1, 8 SEC 12,
 BLKS 1-5 & 8-9 SEC 13, BLKS 1-4 & 6-7 SEC 14,
 BLKS 1-3 SEC 15, BLKS 6-10 SEC 16, BLKS 1-4 SEC 18,
 BLKS 1-3 SEC 19 & BLKS 1-12 SEC 22
 DIVISION: STRATHNAIRN
 DISTRICT: BELCONNEN
 AUSTRALIAN CAPITAL TERRITORY
 SCALE 1:800
 0 10 20 40 60 METRES

THIS IS SHEET 1 OF MY PLAN IN 3 SHEETS
 Deposited in the office of the Registrar of Titles at Canberra
 in the Australian Capital Territory at
 12 08 pm 20/06/2019
 Approved *David Snowden*
 Registrar-General
 DEPOSITED PLAN
 11669/1
 X21608

BOUNDARY SHORT LINE TABLE				
LINE	BEARING	DISTANCE	RADIUS	ARC
7	223°32'	7.705		
8	338°22'	4.16		
9	118°44'20"	7.245	258.60	7.245
10	121°09'50"	6.145	48.60	6.145
11	306°00'30"	2.64	46	2.64
12	3°40'	2.395		
13	40°45'	2.495		
14	310°45'	1.20		
15	284°40'	4.23		
16	151°59'50"	6.925	48.60	6.93
17	220°45'	0.665	NTS	
18	(91°48'30")	10.875	258.60	10.875
19	(291°42')	1.54	240.90	1.54
20	(40°45')	0.965		

CONTROL SHORT LINE TABLE	
LINE	DISTANCE
20	185°08'20" 12.635
21	210°43' 17.295
22	65°06'40" 10.28
23	301°09'40" 17.015
24	338°25'20" 14.165
25	236°40'50" 8.115
26	25°47'40" 13.67
27	108°56'50" 17.62
28	31°10'10" 12.87
29	165°08'40" 6.235
30	356°54" 2.20
31	59°05'30" 7.14
32	250°50" 12.265

SG/AC CO-ORDINATES OF REFERENCE MARKS		
REF MARK	EASTING	NORTHING
CRM 14716	198 779.485	609 377.295
CRM 14717	198 704.05	609 413.82
CRM 14718	198 782.97	609 444.075
CRM 14719	198 768.10	609 481.505
CRM 14721	198 821.69	609 410.085
CRM 14722	198 899.77	609 455.30
CRM 14723	198 899.15	609 391.785
CRM 14724	198 876.02	609 366.75
CRM 14726	198 949.66	609 391.095
CRM 14727	198 801.985	609 344.42

DISTURBED & UNUSABLE

— RW STONE RETAINING WALL 0.3 WIDE
 OFFSETS TO BOUNDARIES WERE
 TAKEN FROM THE TOP OF RW
 NM CORNER NOT MARKED
 NTS NOT TO SCALE

TERRITORY
 LAND

TERRITORY
 LAND

TERRITORY
 LAND

TERRITORY
 LAND

TERRITORY
 LAND

TERRITORY
 LAND

THIS IS SHEET 2 OF MY PLAN OF 3 SHEETS
 DATED 21 MARCH 2019

(Signature) *Peter William Mayberry*
 18 JUNE 2019
 Surveyor, Registered under the Surveyors Act 2007

DEPOSITED PLAN

11669/2

SURVEYOR'S REFERENCE: 15100-04

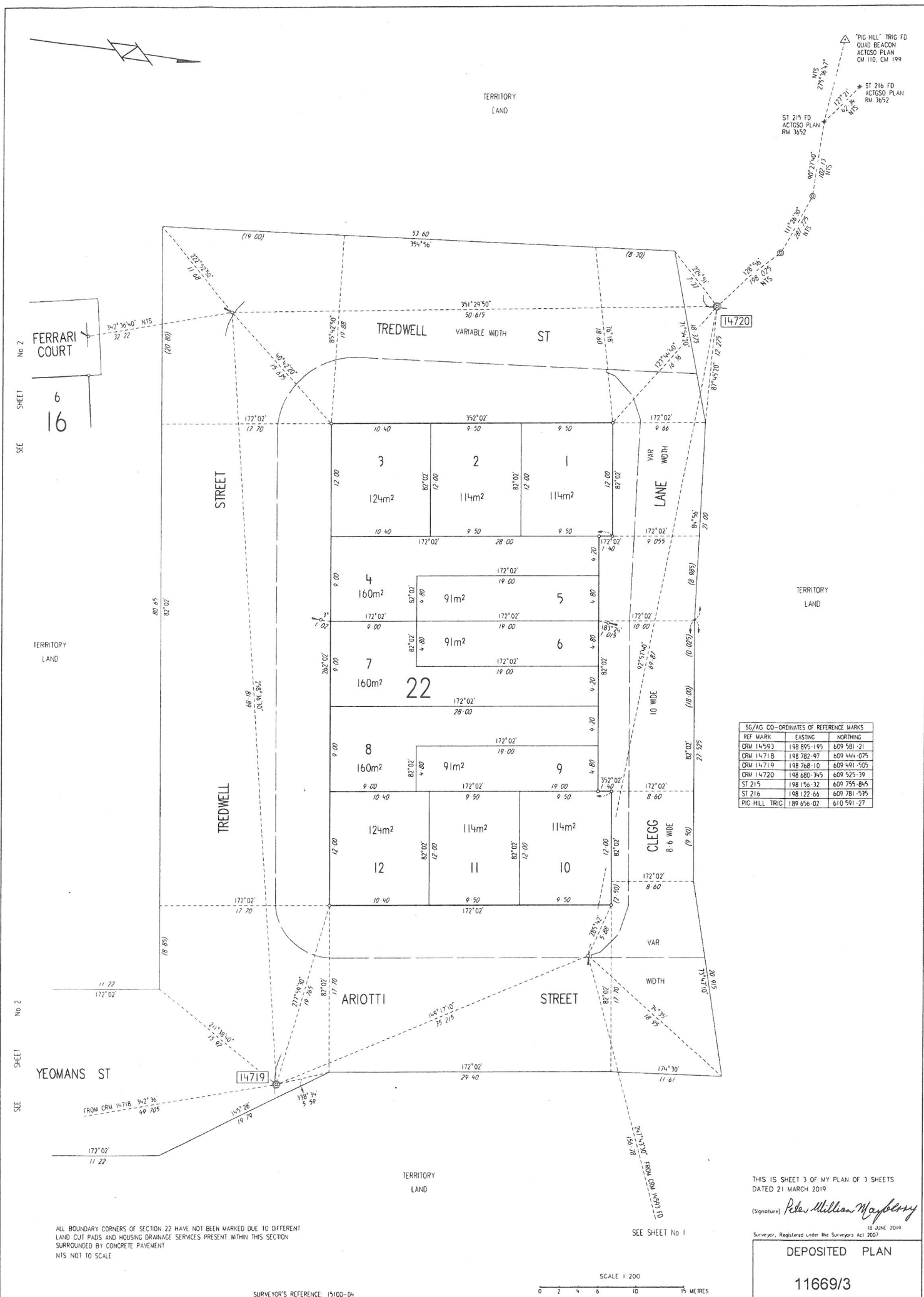
SEE

SHEET

No 1

SCALE 1:400
 0 5 10 20 30 METRES

SEE SHEET No 3



ANNEXURE B - SPECIMEN LEASE

This is a market value lease -
 s238(2) (a) (ii) Planning
 and Development Act 2007

AUSTRALIAN CAPITAL TERRITORY

PLANNING AND DEVELOPMENT ACT 2007

Australian Capital Territory (Planning and Land
 Management) Act 1988 (C'th) ss 29, 30 & 31

LEASE GRANTED pursuant to the Planning and Development Act 2007 and the
 Regulations made under that Act on the day of Two
 thousand and seventeen WHEREBY THE PLANNING AND LAND
 AUTHORITY ("the Authority") ON BEHALF OF THE COMMONWEALTH OF
 AUSTRALIA ("the Commonwealth") in exercising its functions grants to
LESSEE «Lessee» having its registered office at «Address» in the Australian Capital
 Territory ("the Lessee") ALL THAT piece or parcel of land situate in the
 Australian Capital Territory containing an area of «BlockArea» square metres
LAND or thereabouts and being Block «block» Section «section» Division of
 «division» as delineated on Deposited Plan Number in the Registrar-
 General's Office at Canberra in the said Territory ("the land") RESERVING unto
 the Territory all minerals and the right to the use, flow and control of ground water
TERM under the surface of the land TO HOLD unto the Lessee for the term of ninety nine
 years commencing on the day of Two thousand and
 seventeen ("the date of the commencement of the lease") to be used by the
 Lessee for the purpose set out in Clause 3(b) of this lease only YIELDING AND
 PAYING THEREFOR rent in the amount and in the manner and at the times
 provided for in this lease and UPON AND SUBJECT TO the covenants conditions
 and agreements contained in this lease.

INTERPRETATION 1. IN THIS LEASE unless the contrary intention appears:

- (a) "Authority" means the Planning and Land Authority established by section 10 of the Planning and Development Act 2007;
- (b) "building" means any building or structure constructed or partially constructed or to be constructed, as the context permits or requires, on or under the land;
- (c) "class" for a building or structure, means the class of building or structure under the building code as defined in the Building Act 2004;
- (d) "dual occupancy housing" means the use of land that was originally used or leased for the purposes of single dwelling housing for two dwellings;
- (e) "dwelling":
 - (i) means a class 1 building, or a self-contained part of a class 2 building, that:
 - (A) includes the following that are accessible from within the building, or the self-contained part of the building:
 - (1) not more than 2 kitchens;
 - (2) at least 1 bath or shower;
 - (3) at least 1 toilet pan; and
 - (B) does not have access from another building that is either a class 1 building or the self-contained part of a class 2 building; and
 - (ii) includes any ancillary parts of the building and any class 10a buildings associated with the building;
- (f) "Lessee" shall:
 - (i) where the Lessee consists of one person be deemed to include the Lessee and the executors administrators and assigns of the Lessee;

- (ii) where the Lessee consists of two or more persons be deemed to include in the case of a tenancy in common the said persons and each of them and their and each of their executors administrators and assigns and in the case of a joint tenancy be deemed to include the said persons and each of them and their and each of their assigns and the executors administrators and assigns of the survivor of them; and
- (iii) where the Lessee is a corporation be deemed to include such corporation its successors and assigns;
- (g) "multi-unit housing" means the use of land for more than one dwelling and includes but is not limited to dual occupancy housing;
- (h) "premises" means the land and any building or other improvements on the land;
- (i) "Territory" means:
 - (i) when used in a geographical sense the Australian Capital Territory; and
 - (ii) when used in any other sense the body politic established by section 7 of the Australian Capital Territory (Self-Government) Act 1988 (C'th);
- (j) words in the singular include the plural and vice versa;
- (k) words importing one gender include the other genders;
- (l) a reference in this lease to any statute or statutory provision shall include a reference to any statute or statutory provision that amends, extends, consolidates or replaces the statute or statutory provision and to any other regulation, instrument or other subordinate legislation made under the statute.

2. THE LESSEE COVENANTS WITH THE COMMONWEALTH as follows:

RENT

- (a) That the Lessee shall pay to the Authority rent at the rate of five cents per annum if and when demanded payable within one month of the date of any demand made by the Authority relating thereto and served on the Lessee;

MANNER OF
PAYMENT OF
RENT

- (b) That any rent or other moneys payable by the Lessee to the Authority under this lease shall be paid to such person as may be authorised by the Authority for that purpose at Canberra in the said Territory without any deduction whatsoever.

3. THE LESSEE FURTHER COVENANTS WITH THE
COMMONWEALTH as follows:

COMPLETION
OF DEVELOPMENT

- (a) That the Lessee shall within forty eight (48) months from the date of the commencement of the lease or within such further time as may be approved in writing by the Authority complete the erection of an approved development on the land in accordance with plans and specifications prepared by the Lessee and previously submitted to and approved in writing by the Authority and in accordance with every Statute Ordinance or Regulation applicable to such development;

PURPOSE

- (b) To use the land for the purpose of multi-unit housing for «Dwelling Limits» dwellings;

EASEMENTS

- (c) That:
 - (i) the Authority, on behalf of the Commonwealth, grants over that part of the land ("Land") identified as an easement for services on the Deposited Plan an easement ("Easement") in favour of the relevant provider (referred to as the "service provider");
 - (ii) the service provider may:
 - (A) provide, maintain and replace services supplied by that service provider through the Land within the site of the Easement; and
 - (B) do anything reasonably necessary for that purpose, including without limitation:
 - (1) entering or passing through the Land;
 - (2) taking anything on to the Land; and
 - (3) carrying out work, including without limitation, constructing, placing, repairing or maintaining pipes, poles, wires, cables, conduits, structures and equipment;

(iii) in exercising the powers in Clause 3(c)(ii), the service provider must take all reasonable steps to:

(A) ensure that the work carried out on the Land causes as little disruption, inconvenience and damage as is practicable; and

(B) ensure that the Land is restored as soon as practicable to a condition that is similar to its condition before the work was carried out;

(iv) Clause 3(c)(iii)(B), does not require the service provider to restore:

(A) the Land to a condition that would result in:

(1) an interference with:

(i) any service on or through the Land; or

(ii) access to any service on or through the Land; or

(2) a contravention of a law of the Territory; or

(B) any building or structure placed or constructed on any part of the Land comprising the Easement;

(v) the Lessee must not place or construct, nor permit to be placed or constructed, a building or structure or any part of a building or structure on any part of the Land comprising the Easement UNLESS written advice from the service provider is obtained;

(vi) for the purposes of the Easement, "services", includes, without limitation, the supply of water, gas, electricity and discharge or drainage of water, stormwater and sewage; and

(vii) nothing in this clause diminishes or affects any rights or powers of a service provider conferred under any statute, regulation or law;

PROVISION OF
HYDRAULIC MAINS
STORMWATER
DRAINS AND

(d) That the Lessee shall provide and thereafter maintain hydraulic mains stormwater drains sewer lines hydraulic fire mains and hydrants on the land in accordance with plans and specifications prepared by the Lessee and previously submitted to

SEWER LINES	and approved in writing by the Authority;
PROVISION OF STORAGE AREAS CARPARKING AND ILLUMINATION	(e) That the Lessee shall provide and thereafter maintain storage areas covered carparking hardstanding carparking adequately illuminated vehicle access roads pedestrian pathways and vehicle access drives on the land to a standard acceptable to the Authority in accordance with plans and specifications prepared by the Lessee and previously submitted to and approved in writing by the Authority;
PROVISION OF FACILITIES FOR ELECTRICAL AND TELEPHONE CABLES	(f) That the Lessee shall provide facilities on the land to a standard acceptable to the Authority to enable electrical and telephone cables and wires to be installed underground;
LANDSCAPING	(g) That the Lessee shall provide and thereafter maintain landscaping on the land to a standard acceptable to the Authority in accordance with plans and specifications prepared by the Lessee and previously submitted to and approved in writing by the Authority;
PRESERVATION OF TREES	(h) That the Lessee shall not, without the previous consent in writing of the Territory, remove any tree: (i) that has been identified in a development approval for retention during the period allowed for construction of the building; or (ii) to which the <u>Tree Protection Act 2005</u>, applies;
SERVICE AREAS	(i) That the Lessee shall screen and keep screened all service areas to the satisfaction of the Authority and shall ensure that all plant and machinery contained within the premises is suitably screened from public view;
BUILDING SUBJECT TO APPROVAL	(j) That the Lessee shall not without the previous approval in writing of the Authority, except where exempt by law, erect any building, or make any structural alterations to any building, on the land;
REPAIR	(k) That the Lessee shall at all times during the said term maintain repair and keep in repair the premises to the satisfaction of the Authority;

FAILURE TO
REPAIR

- (l) If and whenever the Lessee is in breach of the Lessee's obligations to maintain repair and keep in repair the premises the Authority may by notice in writing to the Lessee specifying the repairs and maintenance needed require the Lessee to effect the necessary work in accordance with the notice. If the Authority is of the opinion that a building or some other improvement on the land is beyond reasonable repair the Authority may by notice in writing to the Lessee require the Lessee to remove the building or improvement and may require the Lessee to construct a new building or improvement in place of that removed within the time specified in the notice. If the Lessee does not carry out the required work within the time specified by the Authority any person or persons duly authorised by the Authority with such equipment as is necessary may enter the premises and carry out the necessary work and all costs and expenses incurred by the Authority in carrying out the work shall be paid by the Lessee to the Authority on demand and from the date of such demand until paid shall for all purposes of this lease be a debt due and payable to the Authority by the Lessee;

RIGHT OF
INSPECTION

- (m) Subject to the provisions of the Planning and Development Act 2007 to permit any person or persons authorised by the Authority to enter and inspect the premises at all reasonable times and in any reasonable manner;

RATES AND
CHARGES

- (n) To pay all rates charges and other statutory outgoings assessed levied or payable in respect of the premises as and when they are due for payment.

4. THE COMMONWEALTH COVENANTS WITH THE LESSEE as follows:

QUIET
ENJOYMENT

That the Lessee paying the rent and all other money due and observing and performing the covenants and stipulations on the part of the Lessee to be observed and performed shall quietly enjoy the premises without interruption by the Authority or any person lawfully claiming from or under or in trust for the Authority.

5. IT IS MUTUALLY COVENANTED AND AGREED as follows:

TERMINATION

- (a) That if:
- (i) any rent or other moneys payable under this lease shall remain unpaid for three months next after the date

appointed for payment thereof (whether such rent shall have been formally demanded or not); or

- (ii) an approved development in accordance with Clause 3(a) of this lease is not completed within the period specified in the said Clause; or
- (iii) after completion of an approved development as aforesaid the said land is at any time not used for a period of one year for the purpose for which this lease is granted; or
- (iv) the Lessee shall fail to observe or perform any other of the covenants contained in this lease on the part of the Lessee to be observed or performed and shall have failed to remedy such breach within a period of six months from the date of service on the Lessee of a notice in writing from the Authority specifying the nature of such breach

the Authority on behalf of the Commonwealth may terminate this lease but without prejudice to any claim which the Authority or the Commonwealth may have against the Lessee in respect of any breach of the covenants on the part of the Lessee to be observed or performed;

ACCEPTANCE OF RENT

- (b) That acceptance of rent or other moneys by the Authority during or after any period referred to in Clauses 5(a) (i), (ii), (iii) or (iv) of this lease shall not prevent or impede the exercise by the Authority of the powers conferred upon it by the said Clauses;

FURTHER LEASE

- (c) Subject to the Lessee paying all money required to be paid under the provisions of the Planning and Development Act 2007 the Lessee shall be entitled to a further lease of the land for such further term and at such rent and subject to such conditions as may then be provided or permitted by Statute Ordinance or Regulation;

NOTICES

- (d) That any notice requirement demand consent or other communication to be given to or served upon the Lessee under this lease shall be deemed to have been duly given or served if signed by or on behalf of the Authority and delivered to or sent in a prepaid letter addressed to the Lessee at the registered office of the Lessee in the said Territory BUT if for any reason the Lessee does not have a registered office in the said Territory then at the usual or last-known address of the Lessee or affixed in a conspicuous position on the premises;

EXERCISE OF
POWERS

- (e) Any and every right, power or remedy conferred on the Commonwealth or Territory in this lease, by law or implied by law may be exercised on behalf of the Commonwealth or the Territory or as the case may be by:
- (i) the Authority;
 - (ii) an authority or person for the time being authorised by the Authority or by law to exercise those powers or functions of the Commonwealth or Territory; or
 - (iii) an authority or person to whom the Authority has delegated all its powers or functions under the Planning and Development Act 2007.

IN WITNESS whereof the Authority on behalf of the Commonwealth and the Lessee have executed this lease.

Signed by)
a delegate authorised to execute this lease)
on behalf of the Commonwealth in the)
presence of)

.....
Delegate

.....
Witness

Signed by)
by:)

.....
Signature

.....
Signature

.....
Name in full

.....
Name in full

.....
Director/Secretary

.....
Director/Secretary

ANNEXURE C - SPECIAL CONDITIONS

48 FRONT LANDSCAPING

- 48.1 Notwithstanding clause 11 the Buyer acknowledges that it is solely responsible for providing the Font Landscaping to the Land.
- 48.2 This Contract is amended as follows:
- (a) in clause 5.1 inserting "special condition 48.1" after "11" ; and
 - (b) in clause 46.1 amending the definition of "Front Landscaping" by deleting the words " Seller providing".

For clarity, the Buyer acknowledges that the purpose of these amendments is to require the undertaking of the Front Landscaping as an obligation which is secured by the Compliance Bond.

49 PERMITTED NUMBER OF DWELLINGS

The Seller and Development Manager must ensure that the Lease contains a purpose clause that is the same as the Specimen Lease but the words <<Dwelling Limits>> are replaced with the applicable words set out in the table below:

Block	Section	Dwelling Limits
6	16	4

50 LEASE BACK

- 50.1 The Buyer has agreed to give Riverview Projects (ACT) Pty Ltd (Riverview) the benefit of exclusive possession of the Property following Completion.

Riverview must pay rent equal to 5% of the purchase price per annum + GST (Rent) to the Buyer. For clarity, the Rent is payable calendar monthly in arrears and subject to receipt of an invoice and the first instalment will be due one calendar month after Completion. Where the Rent is payable for a period that is less than one full calendar month then the Rent for that period will be calculated by taking the calendar monthly rent and dividing it by the number of days in the month to determine a daily rent figure and multiplying that by the number of days in that period.

- 50.2 The Buyer acknowledges that;
- (a) vacant possession will not be provided on Completion.
 - (b) possession of the Property is granted to Riverview until 30 June 2023 for uses related to the operation of the Ginninderry display village including car park, signage and landscaping, with an option at the sole option of Riverview to extend the term by up to 6 months; and
 - (c) payment for all rates, taxes and outgoings (exclusion electricity consumption) in respect of the Property is the responsibility of the Buyer following Completion of this Contract.
- 50.3 Riverview must on expiry of the lease back ensure that the Property is left in a clean and tidy condition and in the same condition that it was in on Completion, fair wear and tear excepted.

51 CAVEAT

- 51.1 The Buyer hereby charges its interest in the Land in favour of the Seller to secure the performance of the Buyer's obligations under this Contract. The Buyer acknowledges that by granting this charge it has granted to the Seller a caveatable interest over the Land.
- 51.2 The Seller may (but is not obliged to) lodge a caveat against the Land in order to protect its rights as contained in this Contract including clause 7, 10 and 40 and special condition 50 (**Caveat**).
- 51.3 The Buyer must not serve a notice seeking or requiring the removal or lapsing of the Caveat or take any other action to obtain or seek withdrawal or removal of the Caveat.
- 51.4 The Seller must provide the Buyer with a withdrawal of the Caveat it registers on the title of the Land pursuant to special condition 51.2 as soon as practicable following a request by the Buyer **after** issue of a certificate of compliance relating to the Land, but only if the Buyer has complied with all of its obligations under this Contract.

ANNEXURE D - HOUSING DEVELOPMENT REQUIREMENTS

Design Requirements for Block 6 Section 16 MU4

Strathnairn

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Part 1: Introduction

The Ginninderry vision: an inspiring 21st century community

The Ginninderry community will be unique in our region. It extends across the ACT/NSW border to the west of Belconnen and is being developed by a Joint Venture between the ACT Suburban Land Agency (SLA) and Riverview Developments (ACT) Pty Ltd.

From the start, our vision for Ginninderry has been to build a community of international significance, with innovation, diversity and ecological criteria at its core. Now we're bringing this vision to life.

Setting the highest standards

The multi-unit site at Ginninderry will form part of a whole neighbourhood design.

The project team has established high expectations for Ginninderry, perhaps best illustrated by the project's accreditation as Canberra's first 6 Star Green Star Community, through the Green Building Council of Australia. To achieve this certification, we've shown that Ginninderry will be a worldleading community, exhibiting international best practice in urban design and development.

All residents at Ginninderry will benefit from a vast conservation corridor, well connected pedestrian and cycling pathways, tree lined streets and easy access to public transport.

Ginninderry aspires to be recognised as a world leader in sustainable development, delivering a community that is:

- better planned and designed
- more dynamic and vibrant
- a healthy place to live work and play
- productive and prosperous
- flexible, adaptable and resilient.

Innovative ideas and technologies

Like all communities, Ginninderry will evolve and change over time, and so too will building design technologies and materials. It is quite possible that innovative energy, comfort and cost outcomes may be achieved by using new technologies, practices and principles not contemplated in this document.

At the discretion of the Development Manager, mandatory requirements may be varied if better alternatives and solutions are proposed, that do not compromise the overall integrity of Ginninderry's design philosophy.

Part 2:

Design Approval

Process

Multi-unit designs at Ginninderry need to comply with the following:

- These Design Requirements
- Plans relating to this block in Part 4 Appendices
- Relevant rules in the Multi Unit Housing Development Code (as applicable)
- Strathnairn Precinct Map and Code

Compliance Bond

An important part of the Contract for Sale of land at Ginninderry is the requirement for the payment of a Compliance Bond at the time of settlement. The Compliance Bond is to ensure the adherence to these Design Requirements.

Minimum Requirements

The conditions for the return of the Compliance Bond are:

- You must attend a pre application meeting with the Design Team prior to design submission. Pre application documents should include:
 - A concept site plan
 - Concept floor plans
 - Concept lane way elevation and open space elevation
- The design(s) has been submitted to and approved by the Development Manager prior to building commencement.
- The multi-unit homes have been built to the approved design in accordance with the Design Requirements

- A letter from your solar installer certifying that the PV system with inverter and Home Energy Management System has been installed to comply with the Sustainability Requirements
- Any damage caused by the construction of the multi-unit site to the surrounding verges, street trees, footpath, services and adjoining land has been rectified to the satisfaction of Transport Canberra and City Services (TCCS) and our Development Manager
- All waste on the public verge and adjoining land has been removed
- The purchaser (builder) may not seek to transfer the compliance bond requirements to the ultimate owner of the dwelling(s)
- If found to be compliant, your full Compliance Bond will be returned



Part 3: Design Requirements

The following information outlines the Design Requirements for Blocks 6 Section 16 within Strathnairn.

Design Principle	Design Requirements
Public Domain Interface Provide legible and attractive interfaces that achieve passive surveillance to public streets and lane-ways.	Front doors of each dwelling are clearly visible from a public street or lane-way and include a covered entry feature or portico. Windows fronting a public road from habitable rooms, balconies or decks overlook the public domain. Courtyard walls are to be provided to comply with the Precinct Code and are required to be coordinated with all service requirements, including clearance to any water meters and free access to any electrical meter boxes. Where development frontages are adjacent to open spaces, parks, public walkways or located on a corner, the following requirements apply: • Habitable rooms have windows to provide passive surveillance (i.e. no 'blank' facades) • Building entries and pathways are visible and legible from public domain.



Surveillance of Public Domain



Clear entries behind courtyard walls

Design Principle	Design Requirements
Local Character and Context The built form, articulation and scale relates to the local character of the area and its context.	The design should sit comfortably with the Strathnairn Master plan. Block 6 Section 16 is situated adjacent an important Green Link corridor within Strathnairn. The design should respond to its northern open space connection. The site has Blocks 1-3 Section 15 to its south via Ferrari Court and Blocks 7-10 Section 16 to its East. Blocks 1-5 Section 16 are located to the West with individual residential dwellings.
Landscape Design The landscape design requires healthy plant and tree growth space for medium sized trees.	Rear or internal courtyards must include 1 tree with mature height of 5-8m. The landscape plan proposes a combination of tree planting, for shade, mid height shrubs, lawn and ground covers. Include a mix of species that are appropriate for scale and shading. Synthetic or artificial grass is not permitted The verge areas between the front boundary of the Land and the kerb must be turfed. Refer Appendix B for suggested Landscape Planting Palette.

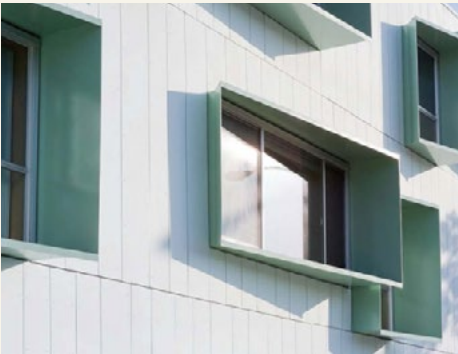


Courtyard spaces should allow natural light and cross-ventilation to living spaces



An example of a vertical greenwall to help soften small courtyard areas

Design Principle	Design Requirements
Visual Appearance and Façade Articulation To promote well designed buildings of high Architectural quality that contribute to the local character. The facades of the multi-unit homes must be designed as an integrated pack to provide an consistent streetscape.	The development is to incorporate articulation to frontages. The following elements help provide functional articulation. The design must demonstrate how it responds to the following elements: • Covered entry feature or portico is mandatory • A balcony, deck, pergola, terrace, or veranda • Extruded box window treatments • Bay windows • Awnings, sunhood, and louvres • Eaves • Access ramps as required The overall streetscape must have a light base colour as the prominent wall finish with light weight cladding and include a mix of materials to provide articulation. Double storey designs must incorporate balconies at bookends/ corners with a combination of solid and perforated metal or glass balustrades. Facade glazing to street frontages must be more vertical in proportion with mullion spacing less than 1.0m. Openings of 2.4m wide or more must be a minimum of 3 panels. Metal profile cladding systems or FC style boards with profile widths of a maximum 200mm are encouraged.



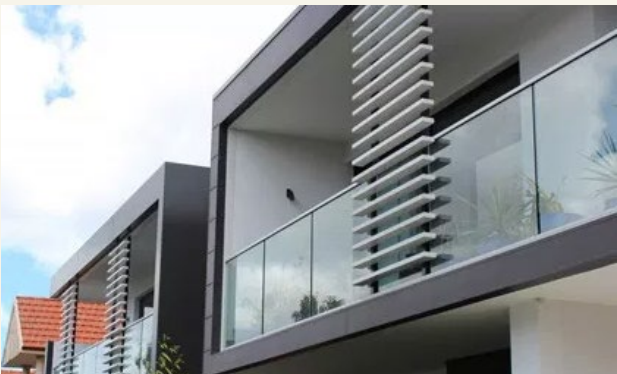
Sunhood and Awning



Light filled screened balconies.



Clearly articulated facades add value and character to the streetscape



Passive Surveillance with articulated and screened balconies



Clearly articulated facades add value and character to the streetscape

Design Principle	Design Requirements
Visual Appearance and Articulation to Corners	Refer to the block planning controls. Articulation elements such as balconies, blade walls, pergolas, sunhoods, awnings, façade treatments, material use and expressed structure are required to add visual interest and avoid large blank wall planes to prominent corners. Buildings may need to be stepped back further on corners to permit balconies, glazing and larger eaves without encroachment into secondary front setbacks. All materials must wrap around the corner dwellings by at least 4 metres.
Roof Form	The roof treatments are integrated into the building design and positively respond to open space and laneway and provide for individual expression for each dwelling. The roof form must consider how to integrate the solar panels. Lights and ventilation systems are integrated into the roof design. • Gable roof – minimum 25 degrees • Skillion – 10 to 15 degrees minimum
Roofing Materials	Metal profile roof sheeting only. Refer to Approved Colours and Finishes palette Part 4
Eaves, Awnings and Sunhoods	Minimum 450mm eaves required. Any windows that are not protected by an eave, i.e. Parapet walls, require awnings or sunhoods, except south facing windows.
Mailbox	Mailboxes should be incorporated into a courtyard wall (where permitted). Standalone mailboxes must compliment the home and must be constructed of masonry such as smooth face brick, stone faced masonry, rendered or bagged masonry or natural stone. Any pre-fabricated stand alone mailboxes must be of a high quality and may only be approved on merit.
Bush Fire Requirements	There are no bush fire requirements within Strathnairn
Energy Efficiency Rating	A minimum NatHERS rating of 7.0 is required for each dwelling.
Zoning	RZ5
Building Height	Up to 3 storeys permitted
Building Front Setback	Refer to Strathnairn Precinct Map and Code, Multi Unit Housing Development Code and Block Planning Control Plans.
Fencing & Courtyard Walls	Mandatory – refer to Fencing Controls Plan, Strathnairn Precinct Map and Code, Multi Unit Housing Development Code and Block Planning Control Plans.
PPOS Requirements	Refer to Strathnairn Precinct Map and Code, Multi Unit Housing Development Code (as applicable) and Block Planning Control Plans.

Design Principle	Design Requirements
Natural Ventilation	All habitable rooms must be naturally ventilated.
Dwelling Size and Layout	The dwelling has sufficient area to ensure the layout of rooms are functional, well organised and provide a high standard of amenity. Minimum Net Living Areas (NLA's) • 1 bed = 65m² (minimum 22.0m² to any upper floor living areas) • 2 bed = 90m² • 3+ bed = 115m² Kitchens are not part of circulation spaces such as hallways.
Garage and Garage Doors	Garages are to be located where zero boundary are permitted via the Strathnairn Precinct Code Provision, refer to the Block Planning Control Plan. Consider the use of masonry base elements to corners of garages and lightweight elements where appropriate. We may consider alternate articulation of rear laneways on architectural merit such as where surveillance units are adopted or unusual lot shapes require an alternate design response. Provide panel lift or tilt up garage doors. Roller doors are not permitted.
Storage	Multi-unit designs must provide adequate storage and at least 50% of the required storage must be within the dwelling. Minimum Storage Area Provision: • 1 bed = 6m³ • 2 bed = 8m³ • 3+ bed = 10m³ Bike storage must be covered and secure whether external or within garages. 10A general power outlet provision for Electric bike charging must be provided.



Garage storage solutions



Bicycle storage solutions



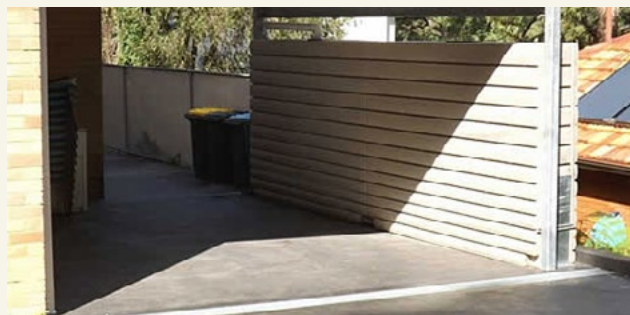
Laundry linen storage

Design Principle	Design Requirements
Bin Locations	Storage for three bins must be provided including general waste, recycling and green waste. Bin locations should be integrated with the dwelling designs and screened from public view. Kitchen design must allow for easy waste separation.
Ceiling Heights	Ceiling heights are to achieve sufficient natural ventilation and provide daylight access and spatial quality. Minimum ceiling heights: • 2.7m to ground floor habitable rooms • 2.7m to upper floor living areas • 2.5m to upper level bedrooms
Glazing	uPVC or thermally broken aluminum double glazing is required to all external windows and doors.
Home Energy Systems	Dwellings must be all-electric with no mains or bottled gas connections. A PV System with a Home Energy Systems and compatible inverter must be installed for all dwellings under the following provisions: - Minimum PV size: • 1-2 bedroom 3kW • 3 bedroom+ 4kW - Home Energy Systems must be a Reposit Power (battery is required) or Evergen. - The solar inverter must be compatible with the chosen Home Energy Systems above. - Where PV panels are located on a roof section fronting a street, they must be installed flush with the roof. - All hardware components must be installed by a certified Clean Energy Council Installer.
Appliances and Fixtures	Induction cooktops must be provided to all dwellings. All appliances, water fixtures and fittings must have a minimum 4 star rating under the water efficiency labeling and standards (WELS) scheme and (where required) a 4 star energy rating under the energy rating label (Energy Efficiency Rating) scheme. This includes showerheads, tap ware, toilets, fridges, freezers, washing machines, dryers and any other appliance provided with the dwelling.

Design Principle	Design Requirements
Hot Water Systems	All dwellings must have a solar or heat pump hot water system installed. Roof top solar water collectors are not permitted on the roof fronting the street. Consideration must be given to the location of any tank including screening or placement within a cupboard or garage space. Hot water systems must be climate appropriate and have temperature application range down to -5 degrees ambient air temperature.
Heating and Cooling	Passive heating and cooling must be considered for all dwellings including ceiling fans and thermal mass) If Mechanical heating and/ or cooling systems are installed they must be: - reverse cycle air conditioning with: - Energy Efficiency Rating of 3.1 or higher for cooling cycle - Coefficient of Performance of 3.5 or higher for heating cycle - Outdoor unit with sound pressure level of 57dBA or lower for heating and cooling cycle - air conditioning with a cooling cycle only that achieves an Energy Efficiency Rating of 3.1 or higher - ducted evaporative cooling with self-closing damper - ground source heat pump. Considerations must be given to the location of any outdoor fan coil unit including screening and compliance with ACT EPA noise requirements.
Rainwater Tanks	Minimum requirement as per Multi Unit Housing Development Code. Please consider addition Water Sensitive Urban Design and Rainwater tank provisions for soft planting and environmental purposes.



Narrow style rainwater tanks can be used where space requirements are restrictive

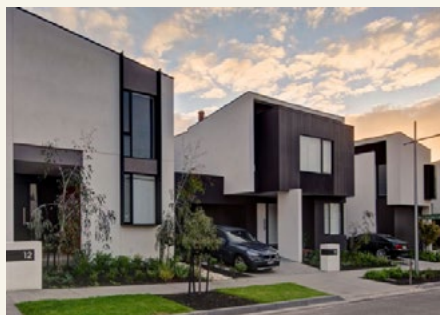


Rainwater tanks incorporated into a carport design shows clever and effective use of small spaces

Design Principle	Design Requirements
Electric Vehicle (EV) Charging Provision	One EV Ready parking space point per dwelling with: • 10amp General Power Outlet (GPO) with wiring capacity for 7KW AC charging • Wiring installed from EV Charger position to individual switchboard • Space for double-width circuit breaker in switchboard • Data cabling to be provided next to GPO If any future higher specification requirements are provided by the National Construction Code or ACT Government Territory Plan, the requirements from the National Construction Code or ACT Government Territory Plan take precedence.
Retaining Walls Extensive earthworks should be limited where possible to minimise the extent of retaining wall costs and the visual impacts to the streetscape.	Minimum Requirements: • The height of site cuts along the side boundaries with attached neighbouring wall cannot exceed 500mm in height • Retaining wall forward of the front building line must be constructed from the following materials at the discretion of the Ginninderry Development Manager - Approved face brick - Approved rendered masonry - Approved brickwork such as split face, honed or shot blast finishes - Approved stone faced masonry - Approved reinforced concrete finishes • Timber, concrete sleepers or prefabricated modular systems are not permitted forward of the building line. • Retaining walls alongside boundaries forward of the building line must be tapered or stepped in line with the finished ground level at the front boundary. • Where there are services such as water, electrical, communications, sewer and storm water, detailed coordination of all courtyard wall locations and associated services must be considered in the initial design process.



Arch split face block



Streetscape



Well articulated dwelling designs provide a functional and more attractive streetscape

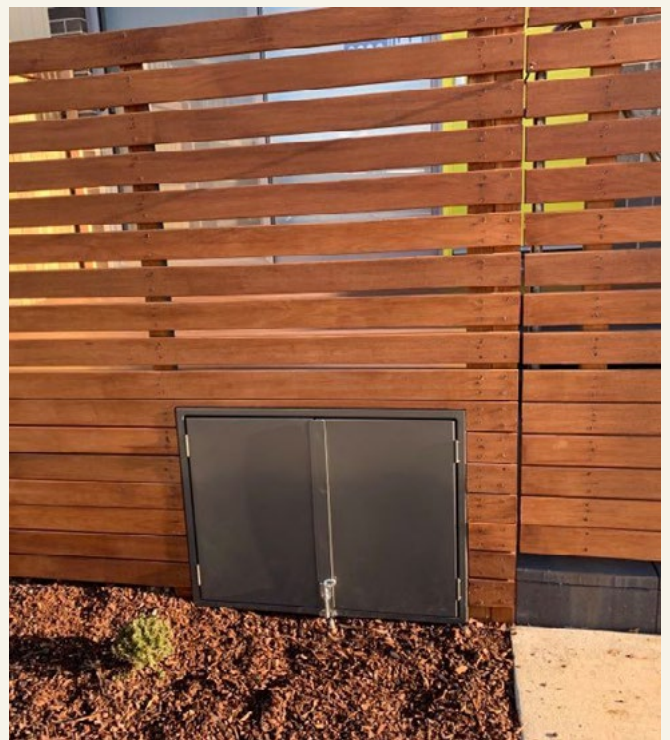
Design Principle	Design Requirements
Rear Lane Access	Block 6 Section 16 are rear loaded blocks. Access is via flush kerb from Ferrari Court to all blocks. Minimum Requirements: • Driveways must be constructed from either - plain concrete or - maximum 5% Oxide finish
Services and ancillary structures	Services such as water, electricity meter boxes, NBN and home energy system cabinets can have an adverse impact on the overall streetscape if not considered as part of the overall design. The location of the above services will be required to be shown on the site plan as part of the design approval process. Minimum Requirements: • Water, electricity meter boxes, NBN and home energy system cabinets must be integrated into the front façade and located away from the front door • Solar panels must sit flush with the roof line if located to the street frontages of the dwellings • Storage tank for solar HWS is not permitted to be mounted on the roof fronting the street • Aerials, satellite dishes, antennae, heat pumps, A/C units and evaporative units are to be located to the rear of the dwellings and must not be visible from the street. • Clothes drying lines and garbage bins are to be located to the rear of the terraces. If they are located to the side of the house within the Primary Building zone, they must be screened from public view. • Sheds, outdoor structures are to be located to the rear of the terraces and away from public view.
Dog and Cat containment	Minimum Requirements: Suburbs within Ginninderry are Cat Containment and Dog on Leash areas. Terrace designs should give consideration to responsible pet ownership principles including the use of enclosures or cat runs. More information can be obtained at: https://www.cityservices.act.gov.au/pets-and-wildlife/domestic-animals/cats/cat-containment • Dogs must remain on leash in public areas except within designated un-leashed areas such as dog parks. • Dogs are not permitted in the conservation corridor.



Cat containment



Integrated water meter details within courtyard walls





Site location map



Part 4: Appendix

External Colours and Finishes Schedule

Please tick the boxes below

Roof Tiles – Monier

Atura	☐	Mist Grey	☐	Saltspray	☐	Seashell	☐	Wildrice
Horizon	☐	Mist Grey	☐	Saltspray	☐	Seashell	☐	Wildrice

Roof Tiles – Boral

Vogue	☐	Stonewall
Contour	☐	Quartz
Slimline	☐	Stonewall

Roof Tiles – Bristle

Prestige	☐	Silver Gum	☐		☐	
Classic	☐	Alabaster	☐	Linen	☐	Silver Gum

Metal Roof – Colorbond

☐	Basalt	☐	Cove	☐	Dune	☐	Evening Haze	☐	Gully	☐	Windspray
☐	Jasper	☐	Shale Grey	☐	Surfmist	☐	Wallaby	☐	Paperbark		

Fence Colour - Colorbond

Side and Rear Boundary Fencing

☐	Jasper
--------------------------	--------

Fence Infill Panel / Street Facing Fencing - Colorbond

☐	Basalt	☐	Cove	☐	Dune	☐	Evening Haze	☐	Gully	☐	Windspray
☐	Jasper	☐	Natural Pearl	☐	Shale Grey	☐	Surfmist	☐	Wallaby	☐	Ultra Silver
☐	Precious Silver	☐	Silver Medalist								

Garage Doors

	Basalt		Cove		Dune		Evening Haze		Gully		Windspray
	Jasper		Natural Pearl		Shale Grey		Surfmist		Wallaby		Ultra Silver
	Precious Silver		Silver Medalist		Blushed Teak		Classic Cedar		Iron Bark		Kwila
	Merbau		Silky Oak		Weathered Timber		Western Red Cedar				

Façade Colours Walls / Render / Cladding

	Basalt		Cove		Dune		Evening Haze		Gully		Windspray
	Jasper		Natural Pearl		Shale Grey		Surfmist		Wallaby		Ultra Silver
	Precious Silver		Silver Medalist		Beige Royal		Braid		Cru		Lexicon
	Light Rice		Linseed		Natural White		Oyster Linen		Terrace White		Toffee Fingers
	Tuft		Warm Neutral								

Bricks – Austral

La Paloma			Miro		Chiffon		Pepper		
Urban One			Silver		Blue Gum		Blackbutt		
Wilderness Design			Silver Birch		Freedom		Leisure		
Everyday Life			Engage		Orpheus				
Whitsunday Range			Brampton		Cloudy Silver (F.O.)		Opaque Slate (F.O.)		Wild Storm (F.O.)
San Selmo Smoked			Grey Cashmere (F.O.)		Platinum		Titanium		Cuprum
Metallix			Quartz		Gun Metal Blue				
Park Lane			Biltmore		Grosvenor		Dorchester		Mayfair
			Westminster		Chesterfield (F.O.)				
Stratos			Winter Frost		Coastal Storm				
Bowral Highlands			Meryla (F.O.)		Penrose (F.O.)		Wingello (F.O.)		Jellore
		Tarlo							

F.O. Feature area only

Bricks – PGH

Alfresco		Vino		Chocolatto		Truffle		Espresso
		Urban Blue						
Altitude		Olympus		Apollo		Matterhorn		
Dry Pressed Architectural		Bennelong Blue		Bradfield Bronze		Flinders Red		Gledswood Blend
		Macquarie Blend		Tinto Cream		Mawson White		Silver Shadow
		McKinlay Brown		Monash Grey				
Dark and Stormy		Monsoon		Thunder		Whirlwind		Zephyr
Foundations		Gravel		Stone				
Highlands		Blackheath		Leura (F.O.)				
Manhattan		Chelsea (F.O.)		East Hampton (F.O.)		Tribeca (F.O.)		
Metallic		Nickel Flash		Pewter		Blue Steel Flash		
Morada		Blanco		Ceniza		Nero (F.O.)		Gris
Opaline		Tourmaline		Garnet		Tiger Eye		
Pure Linens		Cinders & Soot		Flannel Grey		Pebble Creek		Whispering White
Smooth		Mineral		Volcanic		Cream		Pearl Grey
		Brown		Terracota		Choc Tan		Copper Glow
		Black & Tan						
Urban Essence		Melbourne Blue (F.O.)		Storm (F.O.)				
Velour		Terracota		Cream		Pearl Grey		Red
		Brown		Choc Tan		Mineral		Volcanic

F.O. Feature area only

Appendix B

Landscape Concept Planting Palette

Edible Plants

Below is a list of edible plants that Ginninderry encourages you to plant when landscaping your garden.

Code	Botanical Name	Common Name	Mature Plant Size	Container Size	Spacing
Small Trees					
Mad	<i>Malus domestica</i>	Apple	3m x 3m	100L	-
Pyc	<i>Prunus cerasifera</i>	Cherry Plum	5m x 5m	100L	-
PrpA	<i>Prunus persica</i> 'Anzac'	Australian Peach	4m x 4m	100L	-
PrsAB	<i>Prunus salicina</i> 'Angelina Burdett'	Plum	4-10m x 2-4m	100L	-
Large Shrubs					
Cil	<i>Citrus limon</i> 'Meyer'	Meyer Lemon	3m x 2m	25L/300mm	1.5/m ²
Fes	<i>Feijoa sellowiana</i>	Pineapple Guava	4m x 2m	25L/300mm	1.5/m ²
Mia	<i>Microcitrus australasica</i>	Finger Lime	4m x 2m	25L/300mm	1.5/m ²
Small Shrubs					
Roo	<i>Rosemarinus officinalis</i>	Rosemary	0.5-1.5m x 1m	5L/200mm	3/m ²
Vac	<i>Vaccinium corymbosum</i>	Blueberry - Blue Rose	1-2m x 1-2m	5L/200mm	3/m ²
Cij	<i>Citrus japonica</i>	Kumquat	2-3m x 3m	5L/200mm	3/m ²
Groundcovers/ Climbers					
Fra	<i>Fragaria ananassa</i>	Strawberry	0.3m H	2.5L/150mm	4/m ²

Small Trees



Malus domestica



Malus domestica – fruit



Prunus cerasifera



Prunus persica



Prunus salicina - fruit

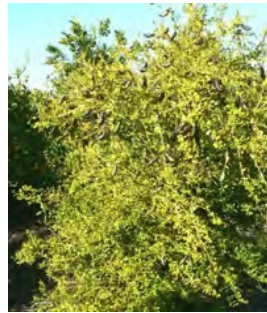
Large Shrubs



Citrus limon



Feijoa sellowiana



Microcitrus australasica

Groundcovers



Fragaria ananassa

Small Shrubs



Rosemarinus officinalis



Vaccinium corymbosum



Citrus japonica

Landscape Concept Planting Palette

Native Plants

Below is a list of native plants that Ginninderry encourages you to plant when landscaping your garden.

Code	Botanical Name	Common Name	Mature Plant Size	Container Size	Spacing
Large Shrubs (Hedging)					
BNm	<i>Banksia marginata</i>	Silver Banksia	5m x 3m	25L/300mm	1.5/m ²
BNsp	<i>Banksia spinulosa</i>	Hairpin Banksia	3m x 3m	25L/300mm	1.5/m ²
Cbf	<i>Callistemon 'Great Balls of Fire'</i>	Bottlebrush	2m x 2m	25L/300mm	1.5/m ²
Ckp	<i>Callistemon 'King's Park Special'</i>	Bottlebrush	2-4m x 3-4m	25L/300mm	1.5/m ²
Cra	<i>Callistemon viminalis 'Red Alert'</i>	Creek Bottlebrush	4m x 2m	25L/300mm	1.5/m ²
Gpp	<i>Grevillea 'Poorinda Peter'</i>	Poorinda Peter Grevillea	3m x 4m	25L/300mm	1.5/m ²
Gpq	<i>Grevillea 'Poorinda Queen'</i>	Poorinda Queen Grevillea	3m x 4m	25L/300mm	1.5/m ²
Gho	<i>Grevillea 'Red Hooks'</i>	Red Hooks Grevillea	3m x 4m	25L/300mm	1.5/m ²
Small Shrubs					
Anf	<i>Anigozanthus 'Bush Gem'</i>	Kangaroo Paw	0.6m x 1m	5L/200mm	3/m ²
Bkl	<i>Baeckea linifolia</i>	Flax-leaf Heath Myrtle	1-2.5m x 0.5-2m	5L/200mm	3/m ²
Gco	<i>Grevillea confertifolia</i>	Dense-leaf Grevillea	2m x 1-2m	5L/200mm	3/m ²
Gla	<i>Grevillea lanigera</i>	Wooly Grevillea	0.5-1m x 1-2m	5L/200mm	3/m ²
Wab	<i>Westingia sp. 'Aussie Box'</i>	Coast Rosemary	1.5m x 1.5m	5L/200mm	3/m ²
Small Shrubs (Hedging to Frontage)					
Cvc	<i>Callistemon viminalis 'Captain Cook'</i>	Bottlebrush		5L/200mm	3/m ²
Etm	<i>Philotheca myoporoides</i>	Long-leaf Waxflower	1.5-2m x 2m	5L/200mm	3/m ²
Gba	<i>Grevillea baueri</i>	Bauer's Grevillea	0.6-1.5m x 2m	5L/200mm	3/m ²
Wew	<i>Westingia fruticosa 'Grey Box'</i>	Coastal Rosemary	2m x 4m	5L/200mm	3/m ²
Groundcover/Climbers					
Acc	<i>Acacia cognata 'limelight'</i>	Dwarf River Wattle	0.5m x 1m	2.5L/150mm	4/m ²
Asfp	<i>Astartea fascicularis</i>	Winter Pink	0.3m x 1.5m	2.5L/150mm	4/m ²
BNsp	<i>Banksia spinulosa 'Birthday Candle'</i>	Birthday Candle Banksia	0.5m x 1.5m	2.5L/150mm	4/m ²
BRm	<i>Brachyscome multifida</i>	Rock Daisy	0.3m x 1.5m	2.5L/150mm	4/m ²
Coc	<i>Convolvulus cneorum</i>	Bush Morning Glory	0.6m x 1m	2.5L/150mm	4/m ²
Gbr	<i>Grevillea sp. 'Bronze Rambler'</i>	Bronze Rambler Grevillea	0.3m x 2m	2.5L/150mm	4/m ²

Hav	Hardenbergia violacea	Purple Coral Pea	3m x 1m	2.5L/150mm	4/m ²
Myp	Myoporum parvifolium	Creeping Boobialla	0.2m x 2m	2.5L/150mm	4/m ²
RHs	Rhagodia spinescens 'Aussie Flat Bush'	Aussie Flat Bush	0.3-0.5m x 1m	2.5L/150mm	4/m ²
Vih	Viola hederacea	Australian Native Violet	0.1m x 0.5m	2.5L/150mm	4/m ²
Grasses					
Dlc					
Dic	Dianella caerulea 'Cassa Blue'	Cassa Blue Flax Lily	0.7m x 1m	Growtube	6/m ²
DII	Dianella longifolia	Pale Flax Lily	0.6m x 0.4m	Growtube	6/m ²
Dlr	Dianella revoluta	Black Anther Flax Lily	0.5m x 0.5m	Growtube	6/m ²
DIt	Dianella tasmanica	Blue Flax Lily	0.7m x 1m	Growtube	6/m ²
LDIC	Lomandra longifolia 'Cassica'	Cassica Mat Rush	1.2m x 0.8m	Growtube	6/m ²
LDIT	Lomandra longifolia 'Tanika'	Tanika Mat Rush	0.5m x 0.5m	Growtube	6/m ²
POAIE	Poa labillardieri	Tussock Grass	0.6m x 0.4m	Growtube	6/m ²
THt	Themeda triandra	Kangaroo Grass	1m x 0.5m	Growtube	6/m ²

Large Shrubs (Hedging)



Banksia marginata



Banksia spinulosa



Callistemon 'Balls of Fire'



Callistemon 'Kings Park'



Callistemon 'Red Alert'



Grevillea 'Poorinda Peter'



Grevillea 'Poorinda Queen'



Grevillea 'Red Hooks'

Small Shrubs



Angiozanthus 'Bush Gem'



Baeckea linifolia



Grevillea confertifolia



Grevillea lanigerav

Small Shrubs (Hedging to Frontage)



Callistemon viminalis



Philotheca myoproides



Grevillea baueri



Westringia 'Grey Box'

Groundcover/Climbers



Acacia cognata 'Limelight'



Astartea fascicularis



Banksia 'Birthday Candles'



Brachyscome multifida



Convolvulus cneorum



Grevillea 'Bronze Rambler'



Hardenbergia violacea



Myoporum parvifolium



Rhagodia spinescens

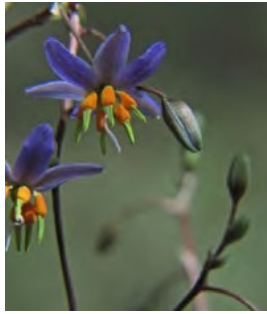


Viola hederacea

Grasses



Camellia sasanqua



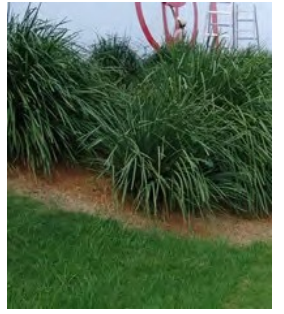
Cupressus sp.



Michelia figo



Thuja sp.



Viburnum tinus



Lomandra 'Tanika'



Poa labillardieri



Themeda triandra

Landscape Concept Planting Palette

Exotic Plants

Below is a list of exotic plants that Ginninderry encourages you to plant when landscaping your garden.

Code	Botanical Name	Common Name	Mature Plant Size	Container Size	Spacing
Small trees/Large Shrubs					
Acb	Acer buergeranum	Trident Maple	5m x 3m	100L	
Acj	Acer japonicum	Japanese Maple	5m x 5m	100L	
Cil	Citrus x Lemon	Lemon	-	25L/300mm	1.5/m2
Cra	Cordyline Australis	Cabbage Tree	2m x 1.5m	5L/200mm	3/m ²
CNc	Cornus capitata	Evergreen Dogwood	3m x 3m	25L/300mm	1.5/m ²
Dyk	Diospyros kaki	Japanese Persimmon	6-8m x 6m	100L	-
Dia	Dicksonia antarctica	Soft Tree Fern	2-4m x 2.5m	25L/300mm	-
Kop	Koelreuteria paniculata	Golden Rain Tree	5m x 8m	100L	-
Lai	Lagerstroemia indica	Crepe Myrtle	3m x 2m	25L/300mm	-
MGI	Magnolia grandiflora 'Little Gem'	-	6m x 3m	100L	-
Mgso	Magnolia soulangeana	Saucer Magnolia	4m (h)	100L	-
Mgst	Magnolia stellata	Star Magnolia	4-6m x 4.5m	100L	-
Pcp	Prunus cerasifera 'Pissardii'	Cherry Plum	5m x 5m	100L	-
Pcs	Prunus cerasifera 'Spire'	Black Cherry Plum	6m x 2m	100L	-
Pyc	Pyrus calleryana	Ornamental Pear	11m x 4m	100L	-
Large Shrubs (Hedging)					
CAMs	Camellia sasanqua	Sasanqua Camellia	4m x 3m	25L/300mm	1.5/m ²
Cup	Cupressus sp.	Cypress Sp.	-	25L/300mm	-
Eiv	Escallonia sp. 'Iveyi'	Escallonia	3m x 3m	25L/300mm	1.5/m ²
MIlf	Michelia figo	Port Wine Magnolia	2m x 2m	25L/300mm	1.5/m ²
Pitt	Pittosporum tenuifolium 'Green Pillar'	Pittosporum	3m x 2m	25L/300mm	1.5/m2
Pla	Prunus laurocerasus	Cherry Laurel	5m x 3m	25L/300mm	-
Plu	Prunus lusitanica	Portugese Laurel	4m x 2m	25L/300mm	-
THj	Thuja Sp.	Cedar Sp.	-	25L/300mm	-
VIO	Viburnum odoratissimum	Sweet Viburnum	4-6m x 4m	25L/300mm	1.5/m ²
VIT	Viburnum tinus	Lauristinus	3m x 3m	25L/300mm	1.5/m ²

Small Shrubs					
Azs	Azalea sp.	Azalea		5L/200mm - 25L/300mm	3/m ²
Bey	Beschorneria yuccoides	Mexican Lily	1-1.5m x 1-2m	25L/300mm	-
Epp	Escallonia sp. 'Pink Pixie'	Escallonia	0.8m x 0.8m	5L/200mm	3/m ²
LVA	Lavandula angustifolia	White English Lavender	0.3m x 0.3m	5L/200mm	3/m ²
LOn	Lonicera nitida	Dwarf Honeysuckle	2m x 3m	25L/300mm	1.5/m ²
NNn	Nandina domestica 'Nana'	Dwarf Screen Bamboo	0.3m x 2m	5L/200mm	3/m ²
Small Shrubs (Hedging to Frontage)					
ABg	Abelia grandiflora	Glossy Abelia	1.5m x 1.2m	5L/200mm	3/m ²
BUs	Buxus sempervirens	English Box	2m x 1m	5L/200mm	3/m ²
CYt	Choisya ternata	Mexican Orange Blossom	1.5m x 1.5m	25L/300mm	1.5/m ²
Erk	Escallonia sp. 'Red Knight'	Escallonia	1.5m x 1.5m	25L/300mm	1.5/m ²
GAf	Gardenia augusta 'Florida'	Gardenia Florida	1-1.5m x 1m	5L/200mm	3/m ²
Groundcovers/Climbers					
AJr	Ajuga reptans	Common Bugle	0.1m x 0.3m	2.5L/150mm	4/m ²
COPk	Coprosma x kirkii	Mirror Plant	0.6m x 1m	2.5L/150mm	4/m ²
HEc	Hedera canariensis (green form only)	Canary Island Ivy	n/a	2.5L/150mm	4/m ²
HYc	Hypericum calycinum	Aaron's Beard	0.3m x 0.5m	2.5L/150mm	4/m ²
RSI	Rosmarinus lavandulaceus	Creeping Rosemary	0.3m x 0.3m	2.5L/150mm	4/m ²
TRj	Trachelospermum jasminoides	Chinese Star Jasmine	n/a	2.5L/150mm	4/m ²
Vla	Vitis amurensis	Ornamental Grape Vine	n/a	2.5L/150mm	-
Grasses					
LIEg	Liriope 'Evergreen Giant'	Evergreen Giant Lily	0.4m x 0.7m	Growtube	6/m ²
Opn	Ophiopogon planiscapus 'Nigrescens'	Black Mondo Grass	0.2m x 0.8m	Growtube	6/m ²

Grasses



Liriope 'Evergreen Giant'



Ophiopogon 'Nigrescens'

Small Trees/ Large Shrubs



Acer buergerianum



Acer japonicum



Citrus x limon



Cordyline australis



Cornus capitata



Diospyros kaki



Koelreuteria paniculata



Lagerstroemia indica



Magnolia grandiflora



Magnolia soulangeana



Magnolia stellata



Prunus cerasifera 'Pissardii'



Prunus cerasifera 'Spire'



Ptrus calleryana

Large Shrubs (Hedging)



Camellia sasanqua



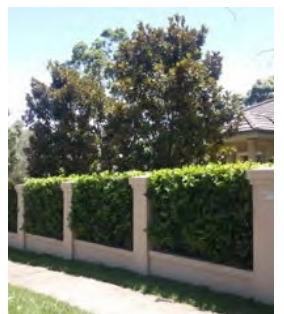
Cupressus sp.



Michelia figo



Thuja sp.



Viburnum tinus

Small Shrubs



Camellia sasanqua



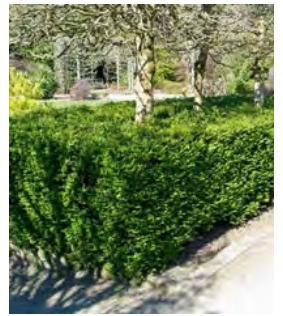
Cupressus sp.



Michelia figo



Thuja sp.



Viburnum tinus

Small Shrubs (Hedging to Frontage)



Abelia grandiflora



Buxus sempervirens



Choisya ternata



Gardenia augusta

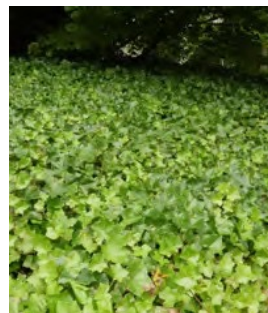
Groundcover/Climbers



Ajuga reptans



Coprosma x 'Kirkii'



Hedera canariensis



Hypericum calycinum



Rosmarinus lavandulaceus



Trachelospermum sp.



Vitis amurensis

Pest Plant List

Not for use at Ginninderry

Botanical Name	Common Name	Reason
<i>Ailanthus altissima</i>	Tree of Heaven	Declared pest plant of the ACT
<i>Alnus glutinosa</i>	Black Alder	Declared pest plant of the ACT
<i>Alternanthera philoxeroides</i>	Alligator Weed	Declared pest plant of the ACT
<i>Andropogon gayanus</i>	Gamba Grass	Declared pest plant of the ACT
<i>Annona glabra</i>	Pond Apple	Declared pest plant of the ACT
<i>Anredera cordifolia</i>	Madeira Vine	Declared pest plant of the ACT
<i>Asparagus aethiopicus</i>	Ground Asparagus Fern	Declared pest plant of the ACT
<i>Asparagus africanus</i>	Climbing Asparagus Fern	Declared pest plant of the ACT
<i>Asparagus asparagoides</i>	Bridal Creeper	Declared pest plant of the ACT
<i>Asparagus asparagoides</i> Western Cape Form	Bridal Creeper – Western Cape Form	Declared pest plant of the ACT
<i>Asparagus declinatus</i>	Bridal Veil	Declared pest plant of the ACT
<i>Asparagus plumosa</i>	Climbing Asparagus Fern	Declared pest plant of the ACT
<i>Asparagus scandens</i>	Asparagus Fern	Declared pest plant of the ACT
<i>Austrocylindropuntia</i> (ALL species)	Coral Cacti	Declared pest plant of the ACT
<i>Cabomba caroliniana</i>	Cabomba	Declared pest plant of the ACT
<i>Carduus nutans</i>	Nodding Thistle	Declared pest plant of the ACT
<i>Carduus pycnocephalus</i>	Slender Thistle	Declared pest plant of the ACT
<i>Carduus tenuiflorus</i>	Slender Thistle	Declared pest plant of the ACT
<i>Carthamus lanatus</i>	Saffron Thistle	Declared pest plant of the ACT
<i>Celtis australis</i>	Nettle Tree	Declared pest plant of the ACT
<i>Centaurea maculosa</i>	Spotted Knapweed	Declared pest plant of the ACT
<i>Chrysanthemoides monilifera</i>	Bitou Bush / Boneseed	Declared pest plant of the ACT
<i>Cortaderia jubata</i>	Pampas Grass	Declared pest plant of the ACT
<i>Cortaderia selloana</i>	Pampas Grass	Declared pest plant of the ACT
<i>Cotoneaster franchettii</i>	Cotoneaster	Declared pest plant of the ACT
<i>Cotoneaster glaucophyllus</i>	Cotoneaster	Declared pest plant of the ACT
<i>Cotoneaster pannosus</i>	Cotoneaster	Declared pest plant of the ACT
<i>Cotoneaster salicifolius</i>	Willow-leaf Cotoneaster	Declared pest plant of the ACT
<i>Cotoneaster simonsii</i>	Cotoneaster	Declared pest plant of the ACT

Botanical Name	Common Name	Reason
<i>Crataegus monogyna</i>	Hawthorn	Declared pest plant of the ACT
<i>Cryptostegia grandiflora</i>	Rubber Vine	Declared pest plant of the ACT
<i>Cylindropuntia</i> (ALL species)	Pear Cacti	Declared pest plant of the ACT
<i>Cytisus</i> (ALL species)	Broom species	Declared pest plant of the ACT
<i>Echium plantagineum</i>	Paterson's Curse	Declared pest plant of the ACT
<i>Echium vulgare</i>	Viper's Bugloss	Declared pest plant of the ACT
<i>Eichornia crassipes</i>	Water Hyacinth	Declared pest plant of the ACT
<i>Equisetum</i> species	Horsetail	Declared pest plant of the ACT
<i>Eragrostis curvula</i>	African Love Grass	Declared pest plant of the ACT
<i>Genista</i> (ALL species)	Broom species	Declared pest plant of the ACT
<i>Gymnocoronis spilanthoides</i>	Senegal Tea Plant	Declared pest plant of the ACT
<i>Hedera helix</i>	English Ivy	Declared pest plant of the ACT
<i>Hieracium aurantiacum</i>	Orange Hawkweed	Declared pest plant of the ACT
<i>Hieracium pilosella</i>	Mouse-ear Hawkweed	Declared pest plant of the ACT
<i>Hymenachne amplexicaulis</i>	Hymenachne	Declared pest plant of the ACT
<i>Hypericum perforatum</i>	St John's Wort	Declared pest plant of the ACT
<i>Jatropha gossypifolia</i>	Bellyache Bush	Declared pest plant of the ACT
<i>Kochia scoparia</i>	Kochia	Declared pest plant of the ACT
<i>Lagarosiphon major</i>	Lagarosiphon	Declared pest plant of the ACT
<i>Lantana camara</i>	Lantana	Declared pest plant of the ACT
<i>Ligustrum lucidum</i>	Broad-leaf privet	Declared pest plant of the ACT
<i>Ligustrum sinense</i>	Narrow-leaf privet	Declared pest plant of the ACT
<i>Lonicera japonica</i>	Japanese Honeysuckle	Declared pest plant of the ACT
<i>Lycium ferocissimum</i>	African Boxthorn	Declared pest plant of the ACT
<i>Macfadyena unguis-cati</i>	Cat's Claw Creeper	Declared pest plant of the ACT
<i>Mimosa pigra</i>	Mimosa	Declared pest plant of the ACT
<i>Miscanthus sinensis</i> (ALL varieties)	Chinese Fairy Grass	Declared pest plant of the ACT
<i>Myriophyllum aquaticum</i>	Parrot's Feather	Declared pest plant of the ACT
<i>Nasella tenuissima</i>	Mexican Feather Grass	Declared pest plant of the ACT
<i>Nassella charruana</i>	Lobed Needlegrass	Declared pest plant of the ACT
<i>Nassella neesiana</i>	Chilean Needle Grass	Declared pest plant of the ACT
<i>Nassella trichotoma</i>	Serrated Tussock	Declared pest plant of the ACT
<i>Onopordum acanthium</i>	Scotch Thistle	Declared pest plant of the ACT
<i>Onopordum illyricum</i>	Illyrian Thistle	Declared pest plant of the ACT
<i>Opuntia</i> (ALL species) (excludes <i>O. ficus-indica</i>)		
Prickly Pears	Declared pest plant of the ACT	
<i>Parkinsonia aculeata</i>	Parkinsonia	Declared pest plant of the ACT
<i>Parthenium hysterophorus</i>	Parthenium Weed	Declared pest plant of the ACT
<i>Pennisetum setaceum</i>	African Fountain Grass	Declared pest plant of the ACT

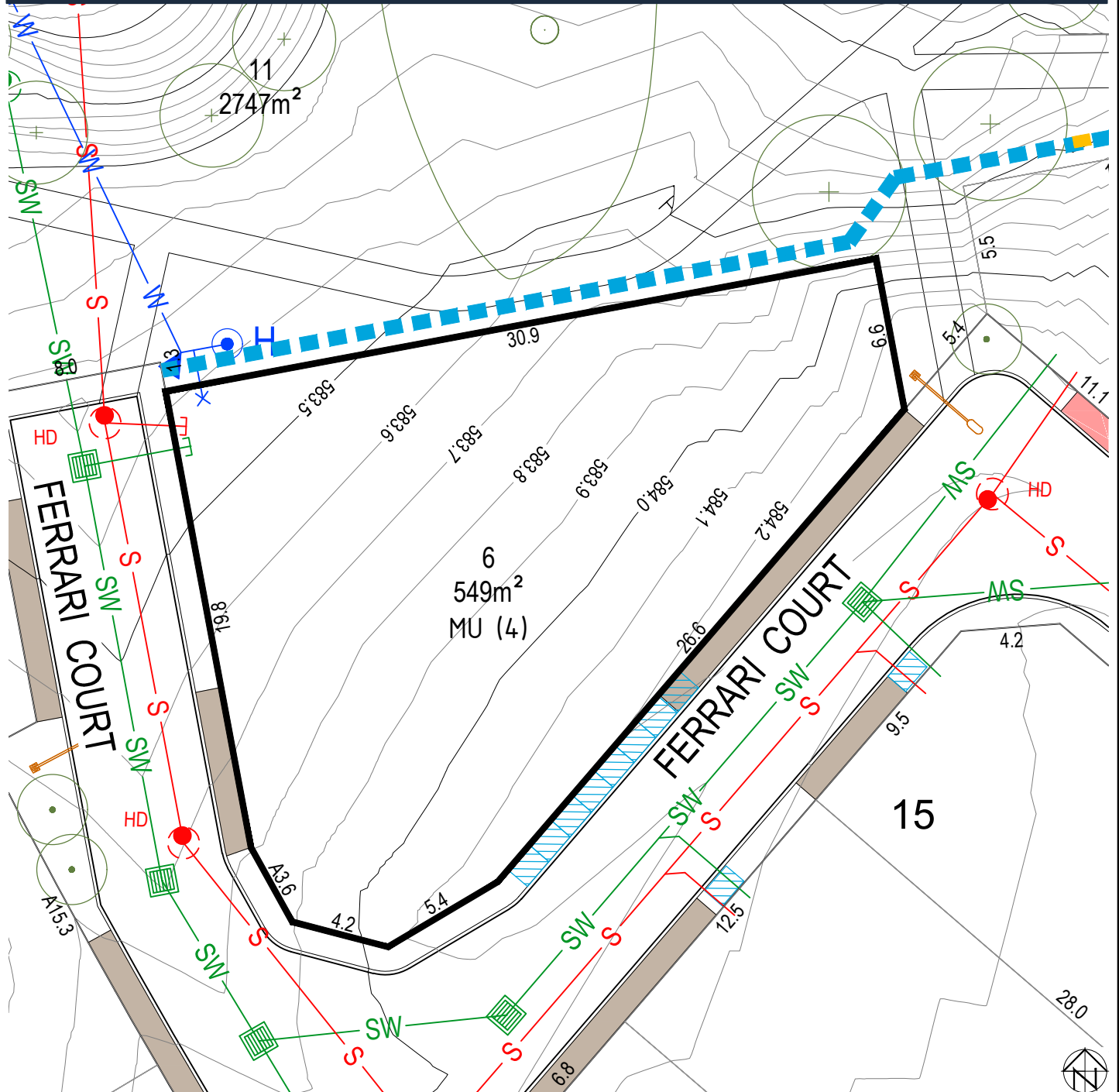
Botanical Name	Common Name	Reason
Phyllostachys aurea	Yellow Bamboo	Declared pest plant of the ACT
Pinus radiata	Radiata Pine	Declared pest plant of the ACT
Pistia stratiotes	Water Lettuce	Declared pest plant of the ACT
Populus alba	White Poplar	Declared pest plant of the ACT
Populus nigra 'Italica'	Lombardy Poplar	Declared pest plant of the ACT
Prosopis spp.	Mesquite	Declared pest plant of the ACT
Pyracantha angustifolia	Firethorn	Declared pest plant of the ACT
Pyracantha coccinea	Scarlet Firethorn	Declared pest plant of the ACT
Pyracantha fortuneana	Firethorn	Declared pest plant of the ACT
Robinia pseudoacacia	False Acacia	Declared pest plant of the ACT
Rosa rubiginosa	Sweet Briar, Briar Rose	Declared pest plant of the ACT
Rubus fruticosus (aggregate) All species except for the permitted cultivars: R. armeniacus and R. ulmifolius species hybrid R. armeniacus species hybrid R. ursinus and R. armeniacus species hybrid	All Blackberry except for the permitted cultivars: Black Satin, Chester Thornless, Dirksen Loch Ne and Chehale.	Declared pest plant of the ACT
Sagittaria platyphylla	Sagittaria	Declared pest plant of the ACT
Salix ALL species of willow, except for the permitted species: Salix babylonica S. babylonica S. caladendron S. reichardtii	All Willows except for the permitted species: Weeping Willow Weeping Willow Pussy Willow Sterile Pussy Willow	Declared pest plant of the ACT
Salvinia molesta	Salvinia	Declared pest plant of the ACT
Senecio madagascariensis	Fireweed	Declared pest plant of the ACT
Solanum elaeagnifolium	Silverleaf Nightshade	Declared pest plant of the ACT
Sorbus sp.	Service Tree, Rowan	Declared pest plant of the ACT
Spartium junceum	Spanish Broom	Declared pest plant of the ACT
Tamarix aphylla	Athel Pine	
Toxicodendron succedaneum	Rhus Tree	Declared pest plant of the ACT
Ulex europaeus	Gorse	Declared pest plant of the ACT
Vinca major	Periwinkle	Declared pest plant of the ACT
Xanthium occidentale	Noogoora Burr	Declared pest plant of the ACT
Xanthium spinosum	Bathurst Burr	Declared pest plant of the ACT
Landscaping Plant Species		
Agapanthus species	Agapanthus	Multiple varieties where the seed is easily distributed and forms dense monocultures in conservation areas

Botanical Name	Common Name	Reason
Nandina domestica	Sacred Bamboo	Berries toxic to birds, seed easily distributed into the conservation zone
Photinia species	Photinia	Seed easily distributed into conservation zone
Wisteria sinensis	Chinese Wisteria	Spread by seed, particularly along established waterways

Appendix C



Block Disclosure Plan



BLOCK LAYOUT - SCALE 1:250

ISSUE DATE: 05/09/2018

LEGEND

	LOT BOUNDARY		SEWER MAIN / MANHOLE / TIE		SERVICES TRENCH		WASTE COLLECTION POINT
	EASEMENT		STORMWATER MAIN / SUMP / MANHOLE / TIE		NBNC PIT		SUBSTATION
	CONTOUR 0.5m INTERVAL		WATER MAIN / STOP VALVE / HYDRANT / TIE		STREETLIGHT		STREET TREES
	CONTOUR 0.1m INTERVAL		WATER MAIN (IRRIGATION)		ABOVE GROUND MINIPILLAR		GARAGE OFFSET FROM REAR BOUNDARY
	RETAINING WALL		REINFORCED CONCRETE DRIVEWAY BY PURCHASER		IN GROUND MINIPILLAR		BLOCK SUBJECT TO MID-SIZED PROVISIONS
	MANDATORY TWO(2) STOREYS		POTENTIALLY NOISE AFFECTED BLOCK		FRONT FENCING AND GATE BY DEVELOPER		
	SEWER MAINTENANCE ACCESS ROUTE REQUIRED						

PLEASE NOTE: INFORMATION SHOWN IN THIS DRAWING IS FROM FINAL DESIGN AND SUBJECT TO CHANGE DURING CONSTRUCTION
REFER ALSO TO PLANNING CONTROLS PLAN AND FENCING CONTROLS PLAN

Disclaimer: All care has been taken in the preparation of this material. No responsibility is taken by the vendor for any errors or omissions, and details may be subject to change. All road designs, contours, block sizes, block dimensions, easements, services, ties and trees are subject to change.

Appendix D

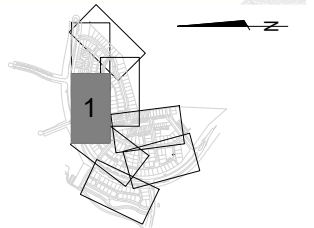


WARNING

THIS PLAN ONLY INDICATES AREAS OF FILL OF WHICH THE DEVELOPER AND THEIR AGENTS ARE AWARE. IT HAS NOT BEEN CHECKED BY THE DEVELOPER, AND THE DEVELOPER DOES NOT GUARANTEE ITS ACCURACY. IN NO WAY SHOULD THIS PLAN BE READ AS A CONCLUSIVE STATEMENT OF THE FULL EXTENT OF THE FILL THAT MAY BE FOUND ON THE WHOLE LAND DEPICTED. LESSEES AND PURCHASERS SHOULD MAKE THEIR OWN INQUIRIES IN REGARD TO THE EXACT DRAINAGE, GEOTECHNICAL AND FILL CONDITIONS AFFECTING THEIR BLOCKS.

LEGEND

- GRADING LIMITS
- FILL
- DESIGN CONTOURS @ 1m INTERVALS
- × 0.3 FILL DEPTHS (IN METRES)



FIRST ISSUE SB DC	DESIGN SB DC	CHECK DC	APPROVED DC	DATE	AMENDMENT DETAILS	 	NAME PROJECT	SCALE (METRES) 5 0 5 10 15 20 25 1:1000	CLIENT Ginninderry PROJECT GINNINDERRY STAGE 1A, 1B & 1C	 ©2016 www.calibreconsulting.co	DRAWING TITLE BLOCK FILL PLANS STAGE 1A - SHEET 1 OF 5 SECTIONS AH, AI & AQ	DRAWING NUMBER 15-004671-FB01	AMEND.

Appendix E

Site Classification Summary Report

Client	Calibre Consulting (ACT) Pty Ltd	Project No.	77356.22
Project	Strathnairn Stage 1 Site Classification	Date	October 2018
Address	Block 6 (k) Section 16 (AI), Strathnairn	Doc No.	R.001.Rev1.B6S16

Classification Procedure

Subsurface Conditions: The field work comprised the excavation of 2 test pits (Pits 7 and 8) using a Kubota KX057-4 mini- excavator (~6 tonne) fitted with a 300 mm wide bucket to depths of 1.6 m and 0.7 m. The pits were logged onsite by an experienced geo-environmental scientist.

Details of the subsurface conditions encountered are summarised in the attached test pit logs. The logs must be read in conjunction with the accompanied notes that define classification methods and terms used to describe the soils and rocks. A brief description of each test pit is provided below.

Test Pit 7: Sandy clay filling to 0.2 m depth, sandy silt to 0.5 m depth, then sandy clay to 1.4 m depth overlying to sandy silty clay to the limit of investigation depth of 1.6 m.

Test Pit 8: Gravelly sandy clay to 0.2 m depth then silty clay to 0.5 m overlying granodiorite to the limit of investigation depth of 0.7 m.

Bulk Earthworks:

Filling within the block was placed under Level 1 control as defined in AS 3798 – 2007 (Ref 1).

Laboratory Results:

Previous laboratory results indicated liquid limit ranging from 52-81%, plasticity index ranging from 39-68% and linear shrinkage ranging from 13.5-22.5%

Site Classification

Site classification in accordance with AS2870 – 2011 (Ref 2) provides guidance on the patterns and magnitude of moisture related seasonal ground movements that must be considered in design. Due to adverse moisture conditions due to the presence of a large tree adjacent to the northern boundary of the block, the site is classified as Class P (problem site). Notwithstanding the Class P classification, based on soil reactivity including the additional tree-induced suction change and allowing for variation in the subsoil profile, the natural soil profile would be equivalent to Class H1* (highly reactive/filled site) conditions.

It must be noted that the south-west corner of the block would be equivalent to Class S conditions due to shallow rock. If the site is subjected to cut to fill, dual classifications of Class A (where rock is entirely exposed) and Class S, M or H1 (in engineered fill areas) could be possible. Therefore the classification must be reassessed should the soil profile change either by adding fill or removing soil

from the block and/or if the presence of service trenches or retaining walls are within the zone of influence of the block. Reference should be made to the comments provided below.

Footing Systems

Design must be based on engineering principles (i.e. Class P conditions) by a suitably qualified structural engineer taking into consideration any onsite or offsite constraints. Dwelling design will need to ensure uniform moisture conditions are maintained in the vicinity of the footings.

All footings should found within a uniform bearing stratum of suitable strength/material, below the zone of influence of any uncontrolled filling, service trenches, retaining walls or underground structures. Masonry walls should be articulated in accordance with current best practice.

Maintenance Guidelines

Reference should be made to the attached CSIRO Sheet BTF 18 'Foundation Maintenance & Footing Performance' to comments about gardens, landscaping and trees on the performance of foundation soils.

Comments

- The successful purchaser must make their own interpretations, deductions and conclusions from the information made available and will need to accept full responsibility for such interpretations, deductions and conclusions.
- Development specific geotechnical investigations must be undertaken.
- Additional topsoils / filling may have been spread subsequent to the investigation.
- Site preparation prior to the construction should include removal of all vegetation, topsoil and any uncontrolled filling.
- All new filling must be placed under controlled conditions (AS 3798-2007). If filling is placed uncontrolled, those areas would require a Class P site classification.
- Some variability in subsurface conditions must be anticipated.
- Moisture condition of site soils and/or the presence of groundwater may vary considerably from time of investigation compared to at the time of construction.
- Hard rock excavation must be anticipated.
- It is recommended that footing excavations be inspected by a geotechnical engineer.

References

1. AS 3798-2007 'Guidelines on Earthworks for Commercial and Residential Developments' Standards Association of Australia.
2. AS 2870-2011 'Residential Slabs and Footings,' Standards Association of Australia.

Limitations

This report must be read in conjunction with the attached notes "Limitations", "About this Report", "Drawing 2", "Explanatory Notes" and "Test Pit Logs (7 and 8)".

Douglas Partners Pty Ltd



Shannon Goodsell
Geo-Environmental Scientist

Reviewed by



Michael Jones
Principal

Attachments: Limitations
 About this Report
 Drawing 2
 Explanatory Notes
 Test Pit Logs (Pits 7 and 8)
 CSIRO Publication

Limitations

Douglas Partners (DP) has prepared this report for this project at Stage 1 Strathnairn in accordance with DP's proposal dated 9 August 2017 and acceptance received from Calibre Consulting (ACT) Pty Ltd dated 29 September 2018. The work was carried out under an amended Calibre Consulting (ACT) Pty Ltd Professional Services Agreement. This report is provided for the exclusive use of Calibre Consulting (ACT) Pty Ltd for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.

The results provided in the report are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

The contents of this report do not constitute formal design components such as are required, by the Health and Safety Legislation and Regulations, to be included in a Safety Report specifying the hazards likely to be encountered during construction and the controls required to mitigate risk. This design process requires risk assessment to be undertaken, with such assessment being dependent upon factors relating to likelihood of occurrence and consequences of damage to property and to life. This, in turn, requires project data and analysis presently beyond the knowledge and project role respectively of DP. DP may be able, however, to assist the client in carrying out a risk assessment of potential hazards contained in the Comments section of this report, as an extension to the current scope of works, if so requested, and provided that suitable additional information is made available to DP. Any such risk assessment would, however, be necessarily restricted to the geotechnical components set out in this report and to their application by the project designers to project design, construction, maintenance and demolition.

About this Report

Douglas Partners



Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

About this Report

Site Anomalies

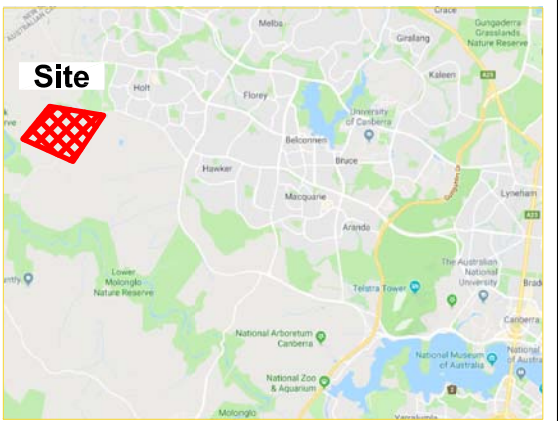
In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

Information for Contractual Purposes

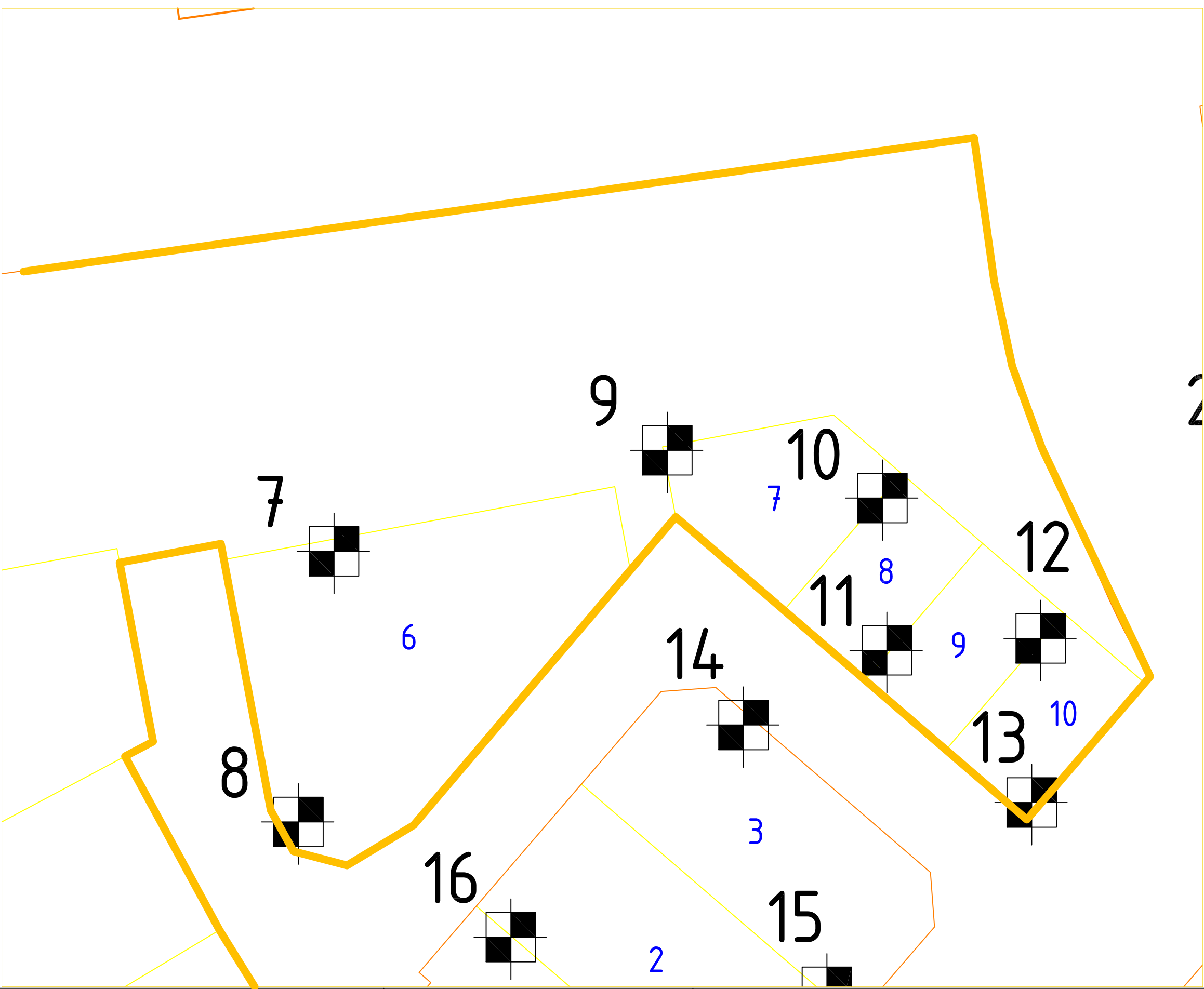
Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

Site Inspection

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.



Locality Plan



LEGEND

- Test Pit Location
- Block Number
- Block Boundary
- Section Boundary

NOTE: Base drawing from Calibre Consulting (ACT) Pty Ltd



CLIENT: Calibre Consulting (ACT) Pty Ltd

OFFICE: Canberra

DRAWN BY: SDG

SCALE: NTS

DATE: 18.09.2018

TITLE: **Test Pit Location Plan**
Strathnairn Stage 1
Blocks 6 - 10 Section 16, Strathnairn



PROJECT No: 77356.22

DRAWING No: 2

REVISION: 0



Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low

reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:
4,6,7
N=13
- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:
15, 30/40 mm

Sampling Methods

The results of the SPT tests can be related empirically to the engineering properties of the soils.

Dynamic Cone Penetrometer Tests / Perth Sand Penetrometer Tests

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.



Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS 1726-1993, Geotechnical Site Investigations Code. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	20 - 63
Medium gravel	6 - 20
Fine gravel	2.36 - 6
Coarse sand	0.6 - 2.36
Medium sand	0.2 - 0.6
Fine sand	0.075 - 0.2

The proportions of secondary constituents of soils are described as:

Term	Proportion	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	20 - 35%	Sandy Clay
Slightly	12 - 20%	Slightly Sandy Clay
With some	5 - 12%	Clay with some sand
With a trace of	0 - 5%	Clay with a trace of sand

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	vs	<12
Soft	s	12 - 25
Firm	f	25 - 50
Stiff	st	50 - 100
Very stiff	vst	100 - 200
Hard	h	>200

Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	SPT N value	CPT qc value (MPa)
Very loose	vl	<4	<2
Loose	l	4 - 10	2 - 5
Medium dense	md	10 - 30	5 - 15
Dense	d	30 - 50	15 - 25
Very dense	vd	>50	>25

Soil Descriptions

Soil Origin

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Transported soils - formed somewhere else and transported by nature to the site; or
- Filling - moved by man.

Transported soils may be further subdivided into:

- Alluvium - river deposits
- Lacustrine - lake deposits
- Aeolian - wind deposits
- Littoral - beach deposits
- Estuarine - tidal river deposits
- Talus - scree or coarse colluvium
- Slopewash or Colluvium - transported downslope by gravity assisted by water. Often includes angular rock fragments and boulders.



Rock Strength

Rock strength is defined by the Point Load Strength Index ($Is_{(50)}$) and refers to the strength of the rock substance and not the strength of the overall rock mass, which may be considerably weaker due to defects. The test procedure is described by Australian Standard 4133.4.1 - 2007. The terms used to describe rock strength are as follows:

Term	Abbreviation	Point Load Index $Is_{(50)}$ MPa	Approximate Unconfined Compressive Strength MPa*
Extremely low	EL	<0.03	<0.6
Very low	VL	0.03 - 0.1	0.6 - 2
Low	L	0.1 - 0.3	2 - 6
Medium	M	0.3 - 1.0	6 - 20
High	H	1 - 3	20 - 60
Very high	VH	3 - 10	60 - 200
Extremely high	EH	>10	>200

* Assumes a ratio of 20:1 for UCS to $Is_{(50)}$. It should be noted that the UCS to $Is_{(50)}$ ratio varies significantly for different rock types and specific ratios should be determined for each site.

Degree of Weathering

The degree of weathering of rock is classified as follows:

Term	Abbreviation	Description
Extremely weathered	EW	Rock substance has soil properties, i.e. it can be remoulded and classified as a soil but the texture of the original rock is still evident.
Highly weathered	HW	Limonite staining or bleaching affects whole of rock substance and other signs of decomposition are evident. Porosity and strength may be altered as a result of iron leaching or deposition. Colour and strength of original fresh rock is not recognisable
Moderately weathered	MW	Staining and discolouration of rock substance has taken place
Slightly weathered	SW	Rock substance is slightly discoloured but shows little or no change of strength from fresh rock
Fresh stained	Fs	Rock substance unaffected by weathering but staining visible along defects
Fresh	Fr	No signs of decomposition or staining

Degree of Fracturing

The following classification applies to the spacing of natural fractures in diamond drill cores. It includes bedding plane partings, joints and other defects, but excludes drilling breaks.

Term	Description
Fragmented	Fragments of <20 mm
Highly Fractured	Core lengths of 20-40 mm with some fragments
Fractured	Core lengths of 40-200 mm with some shorter and longer sections
Slightly Fractured	Core lengths of 200-1000 mm with some shorter and longer sections
Unbroken	Core lengths mostly > 1000 mm

Rock Descriptions

Rock Quality Designation

The quality of the cored rock can be measured using the Rock Quality Designation (RQD) index, defined as:

$$\text{RQD \%} = \frac{\text{cumulative length of 'sound' core sections} \geq 100 \text{ mm long}}{\text{total drilled length of section being assessed}}$$

where 'sound' rock is assessed to be rock of low strength or better. The RQD applies only to natural fractures. If the core is broken by drilling or handling (i.e. drilling breaks) then the broken pieces are fitted back together and are not included in the calculation of RQD.

Stratification Spacing

For sedimentary rocks the following terms may be used to describe the spacing of bedding partings:

Term	Separation of Stratification Planes
Thinly laminated	< 6 mm
Laminated	6 mm to 20 mm
Very thinly bedded	20 mm to 60 mm
Thinly bedded	60 mm to 0.2 m
Medium bedded	0.2 m to 0.6 m
Thickly bedded	0.6 m to 2 m
Very thickly bedded	> 2 m

Symbols & Abbreviations

Douglas Partners



Introduction

These notes summarise abbreviations commonly used on borehole logs and test pit reports.

Drilling or Excavation Methods

C	Core drilling
R	Rotary drilling
SFA	Spiral flight augers
NMLC	Diamond core - 52 mm dia
NQ	Diamond core - 47 mm dia
HQ	Diamond core - 63 mm dia
PQ	Diamond core - 81 mm dia

Water

▷	Water seep
▽	Water level

Sampling and Testing

A	Auger sample
B	Bulk sample
D	Disturbed sample
E	Environmental sample
U ₅₀	Undisturbed tube sample (50mm)
W	Water sample
pp	Pocket penetrometer (kPa)
PID	Photo ionisation detector
PL	Point load strength Is(50) MPa
S	Standard Penetration Test
V	Shear vane (kPa)

Description of Defects in Rock

The abbreviated descriptions of the defects should be in the following order: Depth, Type, Orientation, Coating, Shape, Roughness and Other. Drilling and handling breaks are not usually included on the logs.

Defect Type

B	Bedding plane
Cs	Clay seam
Cv	Cleavage
Cz	Crushed zone
Ds	Decomposed seam
F	Fault
J	Joint
Lam	Lamination
Pt	Parting
Sz	Sheared Zone
V	Vein

Orientation

The inclination of defects is always measured from the perpendicular to the core axis.

h	horizontal
v	vertical
sh	sub-horizontal
sv	sub-vertical

Coating or Infilling Term

cln	clean
co	coating
he	healed
inf	infilled
stn	stained
ti	tight
vn	veneer

Coating Descriptor

ca	calcite
cbs	carbonaceous
cly	clay
fe	iron oxide
mn	manganese
slt	silty

Shape

cu	curved
ir	irregular
pl	planar
st	stepped
un	undulating

Roughness

po	polished
ro	rough
sl	slickensided
sm	smooth
vr	very rough

Other

fg	fragmented
bnd	band
qtz	quartz

Symbols & Abbreviations

Graphic Symbols for Soil and Rock

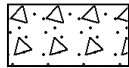
General



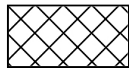
Asphalt



Road base



Concrete



Filling

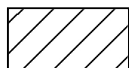
Soils



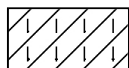
Topsoil



Peat



Clay



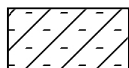
Silty clay



Sandy clay



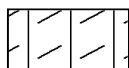
Gravelly clay



Shaly clay



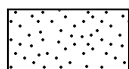
Silt



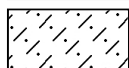
Clayey silt



Sandy silt



Sand



Clayey sand



Silty sand



Gravel



Sandy gravel



Cobbles, boulders



Talus

Sedimentary Rocks



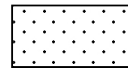
Boulder conglomerate



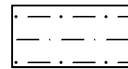
Conglomerate



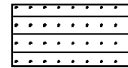
Conglomeratic sandstone



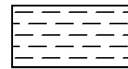
Sandstone



Siltstone



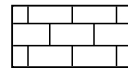
Laminite



Mudstone, claystone, shale

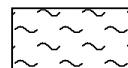


Coal

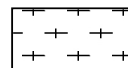


Limestone

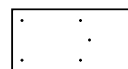
Metamorphic Rocks



Slate, phyllite, schist

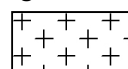


Gneiss

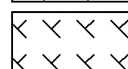


Quartzite

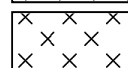
Igneous Rocks



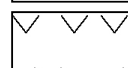
Granite



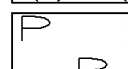
Dolerite, basalt, andesite



Dacite, epidote



Tuff, breccia



Porphyry

TEST PIT LOG

CLIENT: Calibre Consulting (ACT) Pty Ltd
PROJECT: Ginnindery Residential Development
LOCATION: Strathnairn Stage 1

SURFACE LEVEL: 583.6 AHD
EASTING: 198710.05
NORTHING: 609445.85

PIT No: 7
PROJECT No: 77356.22
DATE: 12/9/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per mm)			
				Type	Depth	Sample	Results & Comments		5	10	15	20
583	0.2	FILLING-generally comprising well compacted, dry to moist, yellow brown, medium to high plasticity sandy clay		D	0.4		pp >400					
		SANDY SILT-hard, dry to moist, grey brown, low plasticity sandy silt										
	0.5	SILTY CLAY-hard, dry, orange/yellow brown, medium to high plasticity silty clay with trace coarse grained sand										
582	1.4	SANDY SILTY CLAY-hard, dry, orange/grey brown, medium plasticity sandy silty clay		D	1.5		pp >400					
	1.6	Pit discontinued at 1.6m -limit of investigation										
581	2											

RIG: Kubota KX057-4 mini-excavator, 300mm bucket

LOGGED: SDG

SURVEY DATUM: MGA94

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

- ☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

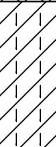
SAMPLING & IN SITU TESTING LEGEND					
A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U _s	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	W _s	Water seep	S	Standard penetration test
E	Environmental sample	W _L	Water level	V	Shear vane (kPa)

TEST PIT LOG

CLIENT: Calibre Consulting (ACT) Pty Ltd
PROJECT: Ginnindery Residential Development
LOCATION: Strathnairn Stage 1

SURFACE LEVEL: 583.8 AHD
EASTING: 198707.29
NORTHING: 609424.83

PIT No: 8
PROJECT No: 77356.22
DATE: 12/9/2018
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per mm)			
				Type	Depth	Sample	Results & Comments		5	10	15	20
583		FILLING-generally comprising well compacted, dry to moist, brown, medium plasticity gravelly sandy clay										
	0.2	SILTY CLAY-hard, dry to moist, yellow brown, medium plasticity silty clay										
	0.5	GRANODIORITE-very low to low strength, highly to moderately weathered, orange brown/greenish white, fine to coarse grained granodiorite										
	0.7	Pit discontinued at 0.7m -slow progress		D	0.7							
581	1											
582	2											

RIG: Kubota KX057-4 mini-excavator, 300mm bucket

LOGGED: SDG

SURVEY DATUM: MGA94

WATER OBSERVATIONS: No free groundwater observed

REMARKS:

- ☐ Sand Penetrometer AS1289.6.3.3
☐ Cone Penetrometer AS1289.6.3.2

SAMPLING & IN SITU TESTING LEGEND					
A	Auger sample	G	Gas sample	PID	Photo ionisation detector (ppm)
B	Bulk sample	P	Piston sample	PL(A)	Point load axial test Is(50) (MPa)
BLK	Block sample	U _s	Tube sample (x mm dia.)	PL(D)	Point load diametral test Is(50) (MPa)
C	Core drilling	W	Water sample	pp	Pocket penetrometer (kPa)
D	Disturbed sample	W	Water seep	S	Standard penetration test
E	Environmental sample	W	Water level	V	Shear vane (kPa)

Foundation Maintenance and Footing Performance: A Homeowner's Guide



BTF 18
replaces
Information
Sheet 10/91

Buildings can and often do move. This movement can be up, down, lateral or rotational. The fundamental cause of movement in buildings can usually be related to one or more problems in the foundation soil. It is important for the homeowner to identify the soil type in order to ascertain the measures that should be put in place in order to ensure that problems in the foundation soil can be prevented, thus protecting against building movement.

This Building Technology File is designed to identify causes of soil-related building movement, and to suggest methods of prevention of resultant cracking in buildings.

Soil Types

The types of soils usually present under the topsoil in land zoned for residential buildings can be split into two approximate groups – granular and clay. Quite often, foundation soil is a mixture of both types. The general problems associated with soils having granular content are usually caused by erosion. Clay soils are subject to saturation and swell/shrink problems.

Classifications for a given area can generally be obtained by application to the local authority, but these are sometimes unreliable and if there is doubt, a geotechnical report should be commissioned. As most buildings suffering movement problems are founded on clay soils, there is an emphasis on classification of soils according to the amount of swell and shrinkage they experience with variations of water content. The table below is Table 2.1 from AS 2870, the Residential Slab and Footing Code.

Causes of Movement

Settlement due to construction

There are two types of settlement that occur as a result of construction:

- Immediate settlement occurs when a building is first placed on its foundation soil, as a result of compaction of the soil under the weight of the structure. The cohesive quality of clay soil mitigates against this, but granular (particularly sandy) soil is susceptible.
- Consolidation settlement is a feature of clay soil and may take place because of the expulsion of moisture from the soil or because of the soil's lack of resistance to local compressive or shear stresses. This will usually take place during the first few months after construction, but has been known to take many years in exceptional cases.

These problems are the province of the builder and should be taken into consideration as part of the preparation of the site for construction. Building Technology File 19 (BTF 19) deals with these problems.

Erosion

All soils are prone to erosion, but sandy soil is particularly susceptible to being washed away. Even clay with a sand component of say 10% or more can suffer from erosion.

Saturation

This is particularly a problem in clay soils. Saturation creates a bog-like suspension of the soil that causes it to lose virtually all of its bearing capacity. To a lesser degree, sand is affected by saturation because saturated sand may undergo a reduction in volume – particularly imported sand fill for bedding and blinding layers. However, this usually occurs as immediate settlement and should normally be the province of the builder.

Seasonal swelling and shrinkage of soil

All clays react to the presence of water by slowly absorbing it, making the soil increase in volume (see table below). The degree of increase varies considerably between different clays, as does the degree of decrease during the subsequent drying out caused by fair weather periods. Because of the low absorption and expulsion rate, this phenomenon will not usually be noticeable unless there are prolonged rainy or dry periods, usually of weeks or months, depending on the land and soil characteristics.

The swelling of soil creates an upward force on the footings of the building, and shrinkage creates subsidence that takes away the support needed by the footing to retain equilibrium.

Shear failure

This phenomenon occurs when the foundation soil does not have sufficient strength to support the weight of the footing. There are two major post-construction causes:

- Significant load increase.
- Reduction of lateral support of the soil under the footing due to erosion or excavation.
- In clay soil, shear failure can be caused by saturation of the soil adjacent to or under the footing.

GENERAL DEFINITIONS OF SITE CLASSES

Class	Foundation
A	Most sand and rock sites with little or no ground movement from moisture changes
S	Slightly reactive clay sites with only slight ground movement from moisture changes
M	Moderately reactive clay or silt sites, which can experience moderate ground movement from moisture changes
H	Highly reactive clay sites, which can experience high ground movement from moisture changes
E	Extremely reactive sites, which can experience extreme ground movement from moisture changes
A to P	Filled sites
P	Sites which include soft soils, such as soft clay or silt or loose sands; landslip; mine subsidence; collapsing soils; soils subject to erosion; reactive sites subject to abnormal moisture conditions or sites which cannot be classified otherwise

Tree root growth

Trees and shrubs that are allowed to grow in the vicinity of footings can cause foundation soil movement in two ways:

- Roots that grow under footings may increase in cross-sectional size, exerting upward pressure on footings.
- Roots in the vicinity of footings will absorb much of the moisture in the foundation soil, causing shrinkage or subsidence.

Unevenness of Movement

The types of ground movement described above usually occur unevenly throughout the building's foundation soil. Settlement due to construction tends to be uneven because of:

- Differing compaction of foundation soil prior to construction.
- Differing moisture content of foundation soil prior to construction.

Movement due to non-construction causes is usually more uneven still. Erosion can undermine a footing that traverses the flow or can create the conditions for shear failure by eroding soil adjacent to a footing that runs in the same direction as the flow.

Saturation of clay foundation soil may occur where subfloor walls create a dam that makes water pond. It can also occur wherever there is a source of water near footings in clay soil. This leads to a severe reduction in the strength of the soil which may create local shear failure.

Seasonal swelling and shrinkage of clay soil affects the perimeter of the building first, then gradually spreads to the interior. The swelling process will usually begin at the uphill extreme of the building, or on the weather side where the land is flat. Swelling gradually reaches the interior soil as absorption continues. Shrinkage usually begins where the sun's heat is greatest.

Effects of Uneven Soil Movement on Structures

Erosion and saturation

Erosion removes the support from under footings, tending to create subsidence of the part of the structure under which it occurs. Brickwork walls will resist the stress created by this removal of support by bridging the gap or cantilevering until the bricks or the mortar bedding fail. Older masonry has little resistance. Evidence of failure varies according to circumstances and symptoms may include:

- Step cracking in the mortar beds in the body of the wall or above/below openings such as doors or windows.
- Vertical cracking in the bricks (usually but not necessarily in line with the vertical beds or perpendes).

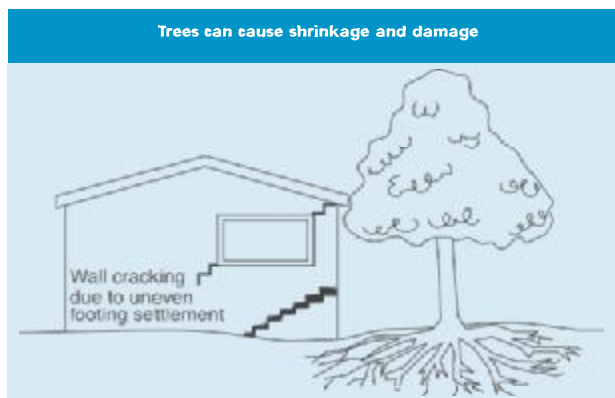
Isolated piers affected by erosion or saturation of foundations will eventually lose contact with the bearers they support and may tilt or fall over. The floors that have lost this support will become bouncy, sometimes rattling ornaments etc.

Seasonal swelling/shrinkage in clay

Swelling foundation soil due to rainy periods first lifts the most exposed extremities of the footing system, then the remainder of the perimeter footings while gradually permeating inside the building footprint to lift internal footings. This swelling first tends to create a dish effect, because the external footings are pushed higher than the internal ones.

The first noticeable symptom may be that the floor appears slightly dished. This is often accompanied by some doors binding on the floor or the door head, together with some cracking of cornice mitres. In buildings with timber flooring supported by bearers and joists, the floor can be bouncy. Externally there may be visible dishing of the hip or ridge lines.

As the moisture absorption process completes its journey to the innermost areas of the building, the internal footings will rise. If the spread of moisture is roughly even, it may be that the symptoms will temporarily disappear, but it is more likely that swelling will be uneven, creating a difference rather than a disappearance in symptoms. In buildings with timber flooring supported by bearers and joists, the isolated piers will rise more easily than the strip footings or piers under walls, creating noticeable doming of flooring.



As the weather pattern changes and the soil begins to dry out, the external footings will be first affected, beginning with the locations where the sun's effect is strongest. This has the effect of lowering the external footings. The doming is accentuated and cracking reduces or disappears where it occurred because of dishing, but other cracks open up. The roof lines may become convex.

Doming and dishing are also affected by weather in other ways. In areas where warm, wet summers and cooler dry winters prevail, water migration tends to be toward the interior and doming will be accentuated, whereas where summers are dry and winters are cold and wet, migration tends to be toward the exterior and the underlying propensity is toward dishing.

Movement caused by tree roots

In general, growing roots will exert an upward pressure on footings, whereas soil subject to drying because of tree or shrub roots will tend to remove support from under footings by inducing shrinkage.

Complications caused by the structure itself

Most forces that the soil causes to be exerted on structures are vertical – i.e. either up or down. However, because these forces are seldom spread evenly around the footings, and because the building resists uneven movement because of its rigidity, forces are exerted from one part of the building to another. The net result of all these forces is usually rotational. This resultant force often complicates the diagnosis because the visible symptoms do not simply reflect the original cause. A common symptom is binding of doors on the vertical member of the frame.

Effects on full masonry structures

Brickwork will resist cracking where it can. It will attempt to span areas that lose support because of subsided foundations or raised points. It is therefore usual to see cracking at weak points, such as openings for windows or doors.

In the event of construction settlement, cracking will usually remain unchanged after the process of settlement has ceased.

With local shear or erosion, cracking will usually continue to develop until the original cause has been remedied, or until the subsidence has completely neutralised the affected portion of footing and the structure has stabilised on other footings that remain effective.

In the case of swell/shrink effects, the brickwork will in some cases return to its original position after completion of a cycle, however it is more likely that the rotational effect will not be exactly reversed, and it is also usual that brickwork will settle in its new position and will resist the forces trying to return it to its original position. This means that in a case where swelling takes place after construction and cracking occurs, the cracking is likely to at least partly remain after the shrink segment of the cycle is complete. Thus, each time the cycle is repeated, the likelihood is that the cracking will become wider until the sections of brickwork become virtually independent.

With repeated cycles, once the cracking is established, if there is no other complication, it is normal for the incidence of cracking to stabilise, as the building has the articulation it needs to cope with the problem. This is by no means always the case, however, and monitoring of cracks in walls and floors should always be treated seriously.

Upheaval caused by growth of tree roots under footings is not a simple vertical shear stress. There is a tendency for the root to also exert lateral forces that attempt to separate sections of brickwork after initial cracking has occurred.

The normal structural arrangement is that the inner leaf of brickwork in the external walls and at least some of the internal walls (depending on the roof type) comprise the load-bearing structure on which any upper floors, ceilings and the roof are supported. In these cases, it is internally visible cracking that should be the main focus of attention, however there are a few examples of dwellings whose external leaf of masonry plays some supporting role, so this should be checked if there is any doubt. In any case, externally visible cracking is important as a guide to stresses on the structure generally, and it should also be remembered that the external walls must be capable of supporting themselves.

Effects on framed structures

Timber or steel framed buildings are less likely to exhibit cracking due to swell/shrink than masonry buildings because of their flexibility. Also, the doming/dishing effects tend to be lower because of the lighter weight of walls. The main risks to framed buildings are encountered because of the isolated pier footings used under walls. Where erosion or saturation cause a footing to fall away, this can double the span which a wall must bridge. This additional stress can create cracking in wall linings, particularly where there is a weak point in the structure caused by a door or window opening. It is, however, unlikely that framed structures will be so stressed as to suffer serious damage without first exhibiting some or all of the above symptoms for a considerable period. The same warning period should apply in the case of upheaval. It should be noted, however, that where framed buildings are supported by strip footings there is only one leaf of brickwork and therefore the externally visible walls are the supporting structure for the building. In this case, the subfloor masonry walls can be expected to behave as full brickwork walls.

Effects on brick veneer structures

Because the load-bearing structure of a brick veneer building is the frame that makes up the interior leaf of the external walls plus perhaps the internal walls, depending on the type of roof, the building can be expected to behave as a framed structure, except that the external masonry will behave in a similar way to the external leaf of a full masonry structure.

Water Service and Drainage

Where a water service pipe, a sewer or stormwater drainage pipe is in the vicinity of a building, a water leak can cause erosion, swelling or saturation of susceptible soil. Even a minuscule leak can be enough to saturate a clay foundation. A leaking tap near a building can have the same effect. In addition, trenches containing pipes can become watercourses even though backfilled, particularly where broken rubble is used as fill. Water that runs along these trenches can be responsible for serious erosion, interstrata seepage into subfloor areas and saturation.

Pipe leakage and trench water flows also encourage tree and shrub roots to the source of water, complicating and exacerbating the problem.

Poor roof plumbing can result in large volumes of rainwater being concentrated in a small area of soil:

- Incorrect falls in roof guttering may result in overflows, as may gutters blocked with leaves etc.

- Corroded guttering or downpipes can spill water to ground.
- Downpipes not positively connected to a proper stormwater collection system will direct a concentration of water to soil that is directly adjacent to footings, sometimes causing large-scale problems such as erosion, saturation and migration of water under the building.

Seriousness of Cracking

In general, most cracking found in masonry walls is a cosmetic nuisance only and can be kept in repair or even ignored. The table below is a reproduction of Table C1 of AS 2870.

AS 2870 also publishes figures relating to cracking in concrete floors, however because wall cracking will usually reach the critical point significantly earlier than cracking in slabs, this table is not reproduced here.

Prevention/Cure

Plumbing

Where building movement is caused by water service, roof plumbing, sewer or stormwater failure, the remedy is to repair the problem. It is prudent, however, to consider also rerouting pipes away from the building where possible, and relocating taps to positions where any leakage will not direct water to the building vicinity. Even where gully traps are present, there is sometimes sufficient spill to create erosion or saturation, particularly in modern installations using smaller diameter PVC fixtures. Indeed, some gully traps are not situated directly under the taps that are installed to charge them, with the result that water from the tap may enter the backfilled trench that houses the sewer piping. If the trench has been poorly backfilled, the water will either pond or flow along the bottom of the trench. As these trenches usually run alongside the footings and can be at a similar depth, it is not hard to see how any water that is thus directed into a trench can easily affect the foundation's ability to support footings or even gain entry to the subfloor area.

Ground drainage

In all soils there is the capacity for water to travel on the surface and below it. Surface water flows can be established by inspection during and after heavy or prolonged rain. If necessary, a grated drain system connected to the stormwater collection system is usually an easy solution.

It is, however, sometimes necessary when attempting to prevent water migration that testing be carried out to establish watertable height and subsoil water flows. This subject is referred to in BTF 19 and may properly be regarded as an area for an expert consultant.

Protection of the building perimeter

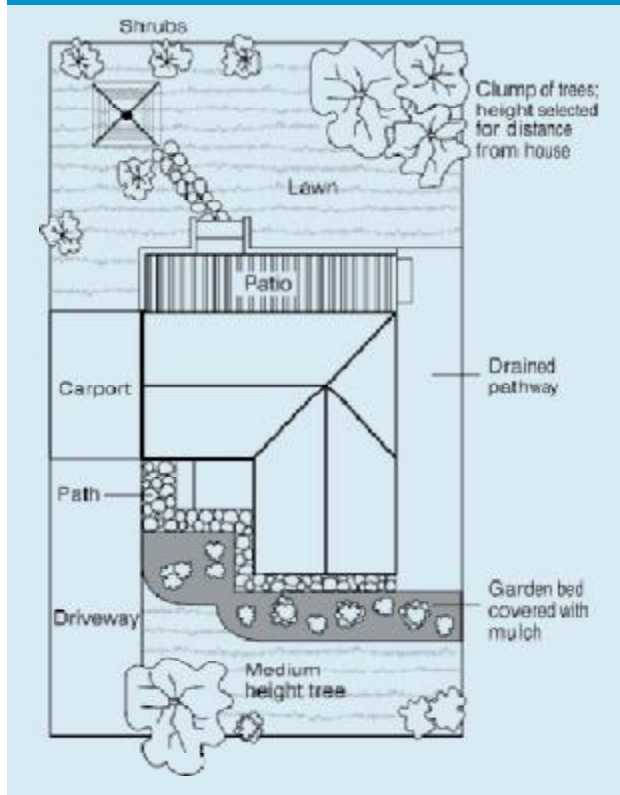
It is essential to remember that the soil that affects footings extends well beyond the actual building line. Watering of garden plants, shrubs and trees causes some of the most serious water problems.

For this reason, particularly where problems exist or are likely to occur, it is recommended that an apron of paving be installed around as much of the building perimeter as necessary. This paving

CLASSIFICATION OF DAMAGE WITH REFERENCE TO WALLS

Description of typical damage and required repair	Approximate crack width limit (see Note 3)	Damage category
Hairline cracks	<0.1 mm	0
Fine cracks which do not need repair	<1 mm	1
Cracks noticeable but easily filled. Doors and windows stick slightly	<5 mm	2
Cracks can be repaired and possibly a small amount of wall will need to be replaced. Doors and windows stick. Service pipes can fracture. Weathertightness often impaired	5–15 mm (or a number of cracks 3 mm or more in one group)	3
Extensive repair work involving breaking-out and replacing sections of walls, especially over doors and windows. Window and door frames distort. Walls lean or bulge noticeably, some loss of bearing in beams. Service pipes disrupted	15–25 mm but also depend on number of cracks	4

Gardens for a reactive site



should extend outwards a minimum of 900 mm (more in highly reactive soil) and should have a minimum fall away from the building of 1:60. The finished paving should be no less than 100 mm below brick vent bases.

It is prudent to relocate drainage pipes away from this paving, if possible, to avoid complications from future leakage. If this is not practical, earthenware pipes should be replaced by PVC and backfilling should be of the same soil type as the surrounding soil and compacted to the same density.

Except in areas where freezing of water is an issue, it is wise to remove taps in the building area and relocate them well away from the building – preferably not uphill from it (see BTF 19).

It may be desirable to install a grated drain at the outside edge of the paving on the uphill side of the building. If subsoil drainage is needed this can be installed under the surface drain.

Condensation

In buildings with a subfloor void such as where bearers and joists support flooring, insufficient ventilation creates ideal conditions for condensation, particularly where there is little clearance between the floor and the ground. Condensation adds to the moisture already present in the subfloor and significantly slows the process of drying out. Installation of an adequate subfloor ventilation system, either natural or mechanical, is desirable.

Warning: Although this Building Technology File deals with cracking in buildings, it should be said that subfloor moisture can result in the development of other problems, notably:

- Water that is transmitted into masonry, metal or timber building elements causes damage and/or decay to those elements.
- High subfloor humidity and moisture content create an ideal environment for various pests, including termites and spiders.
- Where high moisture levels are transmitted to the flooring and walls, an increase in the dust mite count can ensue within the living areas. Dust mites, as well as dampness in general, can be a health hazard to inhabitants, particularly those who are abnormally susceptible to respiratory ailments.

The garden

The ideal vegetation layout is to have lawn or plants that require only light watering immediately adjacent to the drainage or paving edge, then more demanding plants, shrubs and trees spread out in that order.

Overwatering due to misuse of automatic watering systems is a common cause of saturation and water migration under footings. If it is necessary to use these systems, it is important to remove garden beds to a completely safe distance from buildings.

Existing trees

Where a tree is causing a problem of soil drying or there is the existence or threat of upheaval of footings, if the offending roots are subsidiary and their removal will not significantly damage the tree, they should be severed and a concrete or metal barrier placed vertically in the soil to prevent future root growth in the direction of the building. If it is not possible to remove the relevant roots without damage to the tree, an application to remove the tree should be made to the local authority. A prudent plan is to transplant likely offenders before they become a problem.

Information on trees, plants and shrubs

State departments overseeing agriculture can give information regarding root patterns, volume of water needed and safe distance from buildings of most species. Botanic gardens are also sources of information. For information on plant roots and drains, see Building Technology File 17.

Excavation

Excavation around footings must be properly engineered. Soil supporting footings can only be safely excavated at an angle that allows the soil under the footing to remain stable. This angle is called the angle of repose (or friction) and varies significantly between soil types and conditions. Removal of soil within the angle of repose will cause subsidence.

Remediation

Where erosion has occurred that has washed away soil adjacent to footings, soil of the same classification should be introduced and compacted to the same density. Where footings have been undermined, augmentation or other specialist work may be required. Remediation of footings and foundations is generally the realm of a specialist consultant.

Where isolated footings rise and fall because of swell/shrink effect, the homeowner may be tempted to alleviate floor bounce by filling the gap that has appeared between the bearer and the pier with blocking. The danger here is that when the next swell segment of the cycle occurs, the extra blocking will push the floor up into an accentuated dome and may also cause local shear failure in the soil. If it is necessary to use blocking, it should be by a pair of fine wedges and monitoring should be carried out fortnightly.

This BTF was prepared by John Lewer FAIB, MIAMA, Partner, Construction Diagnosis.

The information in this and other issues in the series was derived from various sources and was believed to be correct when published.

The information is advisory. It is provided in good faith and not claimed to be an exhaustive treatment of the relevant subject.

Further professional advice needs to be obtained before taking any action based on the information provided.

Distributed by

CSIRO PUBLISHING PO Box 1139, Collingwood 3066, Australia

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Appendix F

Appendix G

Delegate name	DALE BILLING
Date	9/3/2018

	MULTI-UNIT SITES TO HAVE EXTERNAL NOMINATED WASTE COLLECTION POINTS
	MULTI-UNIT SITES TO HAVE INTERNAL ACCESS FOR WASTE COLLECTION
	SINGLE DWELLINGS WITH NOMINATED WASTE COLLECTION POINT
	STAGE 1 EDP BOUNDARY
	COMMON GARBAGE BIN COLLECTION POINT AND IDENTIFIER. REFER TABLE

A diagram showing two adjacent rectangles. The left rectangle is shaded with diagonal lines and labeled '1'. The right rectangle is unshaded and labeled '2'. They share a common vertical boundary.

1. ARRANGEMENTS ARE TO BE IN ACCORDANCE WITH 'DEVELOPMENT CONTROL CODE FOR BEST PRACTICE' IN WASTE MANAGEMENT IN THE ACT 2014.
2. GARBAGE COLLECTION FOR MULTI-UNIT SITES, COMMERCIAL SITE AND COMMUNITY FACILITY SHALL BE ON BLOCK.

FIRST ISSUE	DESIGN SB	DRAWN LA	CHECK <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DATE 14/06/2016	AMENDMENT DETAILS
A						
E						
N						
S						
T						
A	SB	JK	<i>[Signature]</i>	<i>[Signature]</i>	23/08/2016	AMENDED TO SUIT REVISED LAYOUT

Knight Frank
Town Planning

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RobertsDay
planning-design-place

GROUPOGSA

Cia landscapes + colour

FOR CONTINUATION REFER TO DRAWING 15-002280-WCP.2+

WAE No.

PROJECT No.

A3 PLOT SCALE (METRES)

1:2000

CONSULT AUSTRALIA

A1 PLOT

1:1000

CLIENT

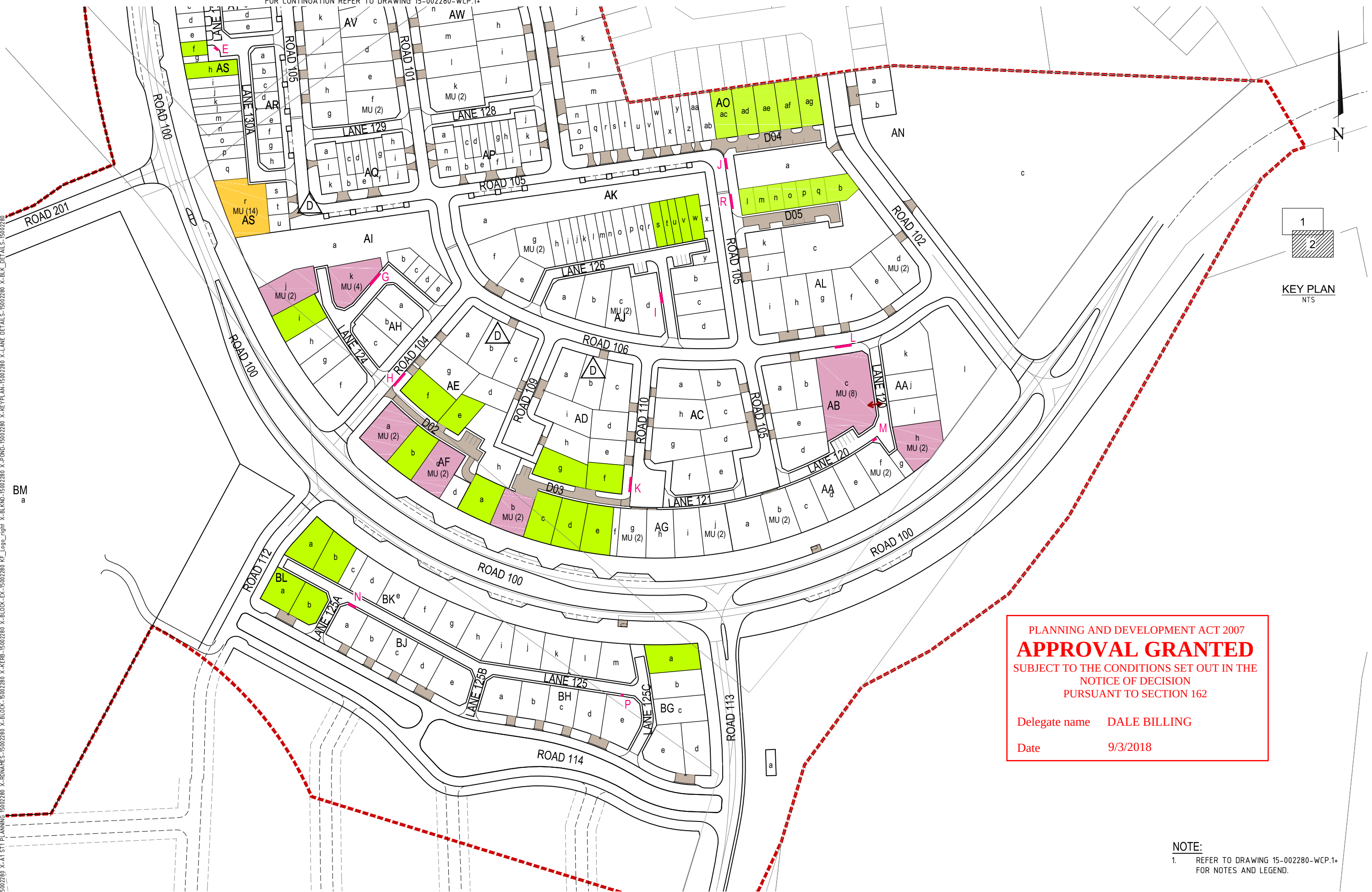
RIVERVIEW PROJECTS (ACT)

PROJECT

WEST BELCONNEN STAGE 1 PI ANNING

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DRAWING TITLE	
WASTE COLLECTION PLAN SHEET 1 OF 2	
DRAWING NUMBER	AMENDMENT
15-002280-WCP.1+	PLAN NO: 23.1 A



Delegate name	DALE BILLING
Date	9/3/2018

NOTE:

1. REFER TO DRAWING 15-002280-WCP.1+
FOR NOTES AND LEGEND.

A M E N D M E N T S X-SHEET LAYOUT	DESIGN	DRAWN	CHECK	APPROVED	DATE	AMENDMENT DETAILS
	SB	LA	<i>OK</i>	<i>AP</i>	14/06/2016	
A	SB	JK	<i>OK</i>	<i>AP</i>	23/09/2016	AMENDED TO SUIT REVISED LAYOUT
B	SB	JK	<i>OK</i>	<i>AP</i>	05/10/2016	STAGE BOUNDARY AMENDED
C	SB	JK	<i>OK</i>	<i>AP</i>	16/12/2016	DRIVEWAY AMENDMENTS
D	SB	JK	<i>OK</i>	<i>AP</i>		



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Cia
landscapes
+
colour

WAE No.

PROJECT No.

A3 PLOT SCALE (METRES)

1:2000 

A1 PLOT 1:1000



CLIENT

 RIVERVIEW PROJECTS (ACT)

PROJECT

WEST BELCONNEN
STAGE 1
PLANNING



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DRAWING TITLE

WASTE COLLECTION PLAN SHEET 2

DRAWING NUMBER

AMEND.

15-002280-WCP.2+ PLAN NO: 23.2 D

Appendix H

Smart living.

Building what's best for
you and the environment



Ginninderry

Building a new house is one of the most costly decisions you will make in your lifetime.

A new home – if built well – can last more than 100 years, so building it right the first time is important! The decisions you make around the size, orientation and materials can make a significant impact on the long term running costs of your home. At Ginninderry, our aim is to help you design a home that is more comfortable to live in, will provide a better lifestyle and will help you save on energy costs. Here we've put together some tips and guidelines to help you make the most of your investment.

Setting the Highest Standards



Ginninderry has achieved a World Leading 6 Star rating through the Green Building Council of Australia's Green Star – Communities program.

Ginninderry has been designed with best practice sustainability features front of mind. Now it's your turn!

Your house Building the shell

Insulation and Draught Proofing

Controlling how air flows in and out of your home is important. The shell of your home should act like an esky – you want to seal and insulate it the best you can. Increasing the insulation in your ceilings and walls is one way to keep you warm in winter and cool in summer by giving you the greatest barrier between you and the external climate. This will not only help you save money on heating and cooling but will also stop air escaping unwillingly.

Consider having an air leakage test. A newly built house should achieve less than 10 air changes an hour.

Windows and Glazing

Windows and glass doors let in light, fresh air and provide good indoor and outdoor living connections. Windows are also the weakest link in the insulation of your building and can be a major source of unwanted heat gain in summer and significant heat loss in winter. Where possible, consider using double glazed, or low-e glass. The thermal performance of your windows also includes your frames. Aim for a window system with thermally broken frames, low U-values (less than 4.1) and high solar heat gain coefficient (around 0.66). A single glazed window can be up to 15 times worse at insulating your house than a wall. Choose the location of your windows carefully and size them appropriately.

Roof

Your roof plays an important part in orientating your solar panels. Your panels will work best if installed facing North at 30 degrees from horizontal. When designing your home, think about your roof design to easily cater for your panels. The more basic the design, the easier your job will be!

The colour of your roof could also affect how much heat your home absorbs. Pick lighter shades of roofing so yours doesn't have unwanted heat in your ceiling space.

Designing for the Canberra Climate

Canberra is a cool, temperate area of Australia. It has low humidity and large changes between day and night (diurnal) temperatures and four very distinct seasons. We have highly variable spring and autumn conditions, cold to very cold winters and hot, dry summers.

The variability of our climate will only become greater with climate change. Winter sun and summer shading will help to passively heat and cool your home when it needs it most.

Energy Efficiency Rating

In the ACT, all new homes are required to meet a minimum 6 Star Energy Efficiency Rating (EER). The EER of your home assesses the building design, materials, and layout; and predicts how much heating and cooling you need to be comfortable. The overall EER is made up of both heating and cooling components. The heating load tells you how much heating is required to make your home comfortable. The cooling load tells you how much cooling you will require. The bigger the home, the more it takes to heat and cool your home and therefore affect your EER. The overall EER is a balance of both (like a see-saw) so make sure your EER is not weighted heavily to either heating or cooling. Or better still, ask how to achieve a higher EER!

Reduce Material Use

Think about a secure car port rather than a garage. While your car might need to be protected from the elements, you can create secure car ports that are cheaper than a fully bricked garage. Also consider future-proofing for electric vehicles by installing cabling in your garage or carport wall. This will save you time and money adapting in the future.

Questions to ask:

- Will my roof design allow for the PV panels I need?
- Is my heating load from my EER sensible for the Canberra climate?
- How can I achieve a higher EER?
- Is my insulation the highest it can be in my walls, floor, and roof?
- Should I install double glazing?
- Do my windows give me good air flow throughout my home?
- Are my windows shaded from the summer sun?
- Can I orientate my living areas to the North to make use of the sun in winter?

Your house The inside

Generating, Managing & Storing Energy

Reducing the amount of energy you use is the most cost effective way to cut your energy costs.

Your PV panels and demand management system can help to provide renewable energy for you home.

Your demand management system (DMS) can help you monitor and manage your energy use. Air conditioner systems, heat pump hot water systems, lighting and security systems can also be managed by your DMS as long as the right appliances are selected.

Talk to your energy package provider about how appliances can be connected to your DMS.

Household Solar Battery systems can also store the power you generate with your PV system, letting you use the power when the sun isn't shining. Remember to consider the location of your battery – either now or allocating space for it in the future. It may need to be on an external wall or within a fire rated enclosure.

Indoor Air Quality

The paints, sealants and glues used in your home can sometimes be quite toxic. Look for materials with low or no Volatile Organic Compounds (VOCs). Removing VOCs from your home will result in a fresher, healthier home environment.

Designing for Accessibility

Designing for accessibility is about thinking about how your house caters for a range of mobility and health levels and how these needs can change over time.

Accessibility is important for:

Families with young children – making it easier to manoeuvre prams and strollers and removing trip hazards for toddlers

People with temporary injuries – larger doorways and step-free entries make it easier for people in wheelchair and crutches.

Ageing population – for both residents and elderly visitors, family and friends

People with a disability and their families – not only in their own homes but for visiting others.

Lighting

Think about using natural light from windows before using artificial light. Installing energy efficient LED lighting will save you money over time. Reduce the number of downlights you install in your home. If you really need them, make sure they are fully sealed, LED downlights which can allow insulation around them. Traditional downlights act as big holes in your ceiling – making your insulation less effective.

Reduce Materials

The less materials required to build your home, the cheaper it will be. Consider using polished concrete floors, exposed brick (rather than adding a render) and other material which don't require further finishes where sensible

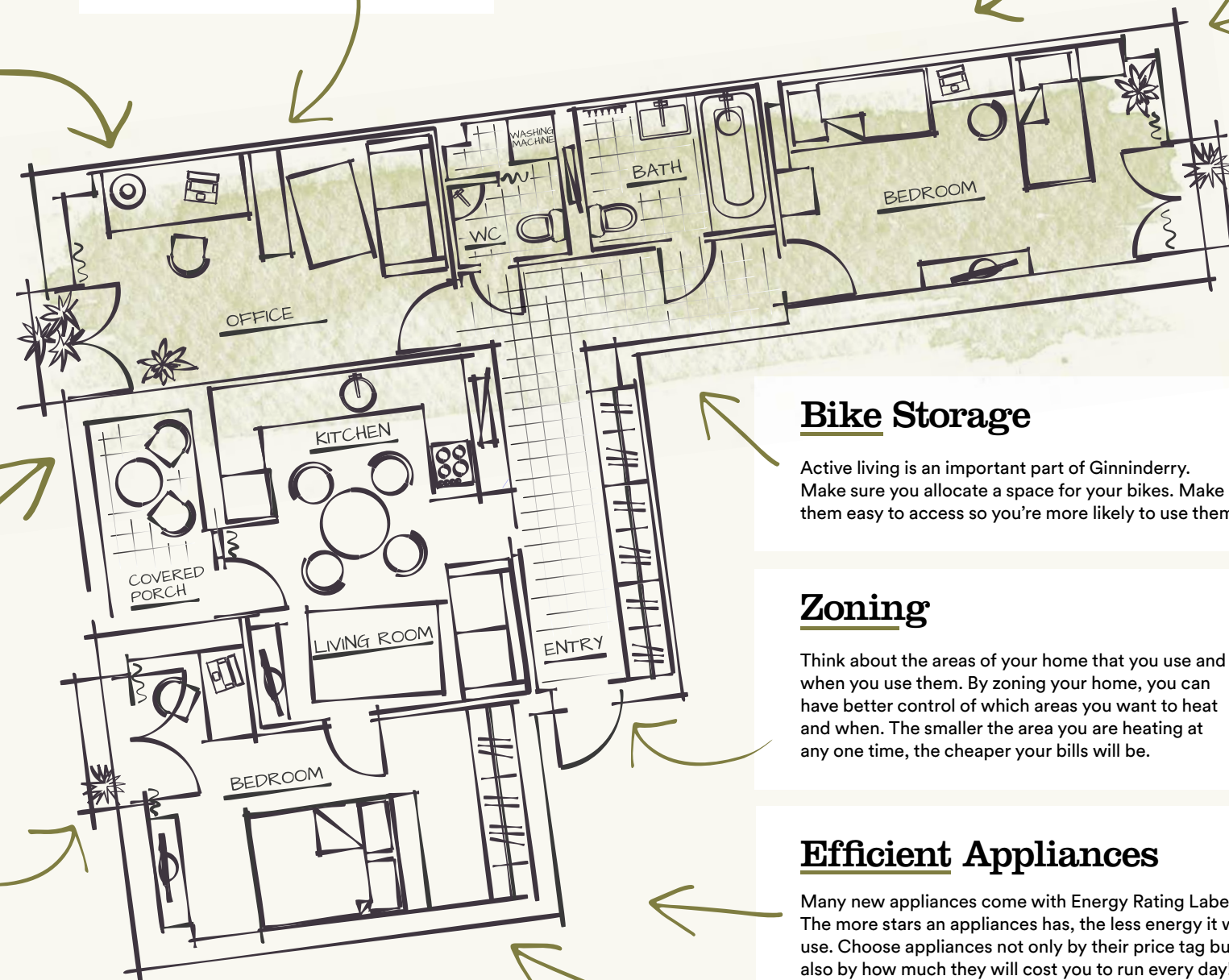
Make Recycling Easy

Designing separate waste bins into your kitchen will make it easier on bin day! Design for composting, recycling and general waste.

Heating and Cooling

The cheapest way to heat your home is with the sun. To make the most of it, your house should allow for lots of winter sun and keep out the harsh summer sun. Place rooms that you're likely to spend daylight hours in (typically your living rooms) to the north of your block. This will allow you to get good winter sunlight and reduce the hot summer sun.

Use thermal mass to store the sun's heat and provide night time warmth in cold conditions. This can be achieved with tiled or polished concrete floors in north facing living areas. This allows the sun to heat the area inside and contribute to a naturally cool home in summer.



Bike Storage

Active living is an important part of Ginninderry. Make sure you allocate a space for your bikes. Make them easy to access so you're more likely to use them.

Zoning

Think about the areas of your home that you use and when you use them. By zoning your home, you can have better control of which areas you want to heat and when. The smaller the area you are heating at any one time, the cheaper your bills will be.

Efficient Appliances

Many new appliances come with Energy Rating Labels. The more stars an appliances has, the less energy it will use. Choose appliances not only by their price tag but also by how much they will cost you to run every day!

Saving Water

Using rain water to flush your toilets and wash your clothes (as well as for your garden) can help you save money on your water bill.

Installing water efficient fixtures and fittings will also help you save water.

Cross Ventilation

Your doors and windows can help cool your home on summer nights by allowing air to travel through your home. Install flyscreens to your openable windows and doors so that you can securely open your windows and doors.

Questions to ask:

- Is my home zoned in a way that I can heat and cool different areas separately?
- Is there good ventilation throughout the house?
- Has my heating and cooling system been designed to take into account my EER rating?
- Can I use no or low VOC products in building my home?
- Can my demand management system be connected to other appliances like my air conditioner?
- Have I allocated space for bikes?

Indoor Drying Space

Canberra winters are cold but we get really lovely sunny days. Consider space inside for your washing that gets good winter sun. This will reduce the need for a dryer.

Your house Landscape

Choose a garden you can maintain

Not everyone has a green thumb. Pick a garden design that suits your lifestyle. If you forget to water your plants, pick drought tolerant, hardy natives or woody herbs like rosemary that don't require a lot of attention.

Free Water

Most homes in Ginninderry have a rain water tank. Rain water is great for watering your plants.

Green Shading

Plants do a great job of shading East and West facing windows. Use them to keep you cool in summer. Choose plants that can be pruned back in winter (or that are deciduous) so that you can let in the winter sun.

Make your plants useful plantings

Whether you plant edible foods or plants that attract bees (or other pollinators and wildlife), your garden can not only look pretty but also have a higher purpose.

Space for Bins

The ACT Government is currently trialling green bins for garden waste. To futureproof for a potential ACT-wide rollout, allocate space for three bins:

- General waste (red lid)
- Mixed Recycling (yellow lid)
- Green waste (green lid)

Clothes Drying

Allocate an outdoor drying space that has good access to winter sun. This is usually on the northern side of your home. Using the sun to dry your clothes is a lot cheaper than a dryer!

Soft space vs Hard space

The more concrete or hard surfaces in your yard, the hotter your house will be in summer. Think about how you can use grasses, plantings or permeable pavers to limit the amount of hard spaces you have.

This will help you save money by reducing your energy and water required to keep your home cool.

Compost

Use your kitchen scraps as compost for your yard or get a worm garden. Don't have room? Donate your scraps to the Community Garden!

This will help reduce unnecessary waste going to landfill.

Questions to ask:

- How can I reduce the amount concrete and hard spaces in my yard?
- Can I use alternatives like permeable paving, groundcovers or mulch?
- Have I allowed enough space for my bins?
- Have I checked that my plants won't become weeds in the conservation corridor?
- Are my plants edible or good for birds, bees and other pollinators?
- Is my garden drought and frost tolerant?
- Have I made the most of my rain water tank?



Mandatory Requirements:

Check the Ginninderry Housing Development Requirements

More Info:

FACTSHEETS

Ginninderry Front Garden Landscape Concept Designs

Ginninderry Energy Package Factsheet

Are your garden plants going bush? ACT Government Parks and Conservation Service

WEBSITES

YourHome – Australia's guide to environmentally sustainable homes www.yourhome.gov.au

Josh's House – showcasing the benefits of sustainable housing to the community through demonstration and inspiration www.joshshouse.com.au

Scinergy – the science of energy efficiency www.scinergy.com.au/airleakage

Water Efficient Labelling and Standards (WELS) Scheme www.waterrating.gov.au

Energy Rating – the more stars the more savings www.energyrating.gov.au

National House Energy Rating Scheme (NATHERS) www.nathers.gov.au

Livable Housing Australia www.livablehousingaustralia.org.au

BOOKS

The Energy-Freedom Home: how to wipe out electricity and gas bills in nine steps. Beyond Zero Emissions (2015)

The CSIRO home energy saving handbook: how to save energy, save money and reduce your carbon footprint. John Wright, Peter Osman Peta Ashworth (2009)

Got More Questions?

Contact Ginninderry and ask to speak to our Design Co-ordinator or Sustainability Manager:

 enquiries@ginninderry.com

 ginninderry.com

Phone 1800 316 900

Fax 02 6239 6004

For more information

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ACT
Government

Suburban Land
Agency



Riverview
Developments

DISCLAIMER: The plans, examples and information contained herein are for illustrative purposes only and should not, without further inquiry, be relied upon as to their ultimate accuracy, to the extent permitted by law. The Suburban Land Agency, Riverview Developments and Riverview Projects (ACT) Pty Ltd will not be responsible for any loss or damage that may be incurred as a result of any reliance upon this material.

Strathnairn Housing Development Requirements Application Form

Ginninderry Housing Development Requirements Application Form



Ginninderry

Property details

Block	
Section	
Block size	
Suburb	

Purchaser details

Name	
Phone	
Mobile	
Email	

Architect/designer details

Name	
Company	
Phone	
Mobile	
Email	

Builder details

Name	
Company	
Phone	
Mobile	
Email	

Required documents

- ☐ **1. 1:200 site plan with the following details:**
 - Overall building envelope with setback dimensions
 - Extent of any retaining walls
 - Location and size of Principal Private Open Space (PPOS)
 - Location and clearance of all easements
 - Services locations such as electrical and NBN meter boxes, water and gas meter, water tank, condenser units, HWS, clothes line
 - Finished floor levels for the house and garage as well as gradient of driveway
 - Extent of driveway and location of letterbox
- ☐ **2. Provide a fencing plan show all precinct code fencing requirements.**
 - Include location of letter box incorporated in wall on as a masonry pier.
- ☐ **3. 1:200 erosion sediment controls plan.**
- ☐ **4. 1:100 floor plan and roof plan(s) with dimensions and size of dwelling area.**
- ☐ **5. 1:100 elevations with the following details:**
 - Natural and proposed ground level with proposed FFL from boundary to boundary
 - Extent of cut and/or fill and any retaining walls, including details of the height and materials
 - Roof pitch
- ☐ **6. Energy efficiency rating certificate for the dwelling.**
- ☐ **8. Water fixture list.**

Contact us:

E: designs@ginninderry.com

P: 1800 316 900 **M:** Charlotte 0411 844 645 (Tuesday to Thursday)

Ginninderry is a joint venture between the Suburban Land Agency and Riverview Developments, with Riverview Projects (ACT) Pty Ltd ABN 30 165 870 539 acting as development manager. Correct as at 26/10/2020

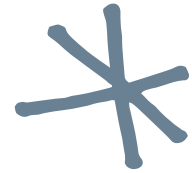
Ginninderry Housing Development Requirements



Ginninderry

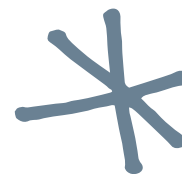
	Minimum requirements	Record for your home
Star rating as shown on your energy efficiency rating certificate	6 Star	☐ Certificate Provided
Solar PV array size (kW)	Block size <250m ² : 2kW Block size 251m ² < 350m ² : 3kW Block size 351m ² < 500m ² : 4kW Block size > 500m ² : 5kW	Panel Array Size:
Home energy management system	Reposit Power, Combined Energy and Evergen home energy management systems have been pre-approved. If an alternative system is installed, please provide a copy of a signed Alternative Home Energy System Assessment.	Brand:
Inverter	Inverter compatible with an approved home energy management system above.	Brand: Model:
Hot water system	Solar or Heat Pump Systems Only Temperature range to -5°C.	Brand: Model:

Ginninderry Housing Development Requirements



Ginninderry

Minimum requirements	Record for your home
Heating and cooling systems Please select: ☐ Reverse cycle air conditioning ☐ Air conditioning – cooling only ☐ Ducted evaporative cooling ☐ Ground source heat pump ☐ Other (please specify) Cooling Cycle: EER ≥ 3 SPL < 57 Temp. Range -5°C to 43°C Heating Cycle: COP ≥ 3.5 SPL < 57 Temp. Range -10°C to 15°C EER = Energy Efficiency Ratio SPL = Sound Pressure Level of outdoor unit measured at 1m. Why is this important? Read more here COP = Coefficient of Performance	Brand: Model: EER: SPL: Temp Range: COP: SPL: Temp Range:
Water fixtures and fittings	Showerheads 3 star ($< 9\text{L/min}$) Tapware 4 star Toilets 4 star ☐ All fixtures comply ☐ Fixture List Provided
Rain water tank	Block Size $< 250\text{m}^2$: N/A Block Size $251\text{m}^2 < 350\text{m}^2$: 2,000L Block Size $351\text{m}^2 < 600\text{m}^2$: 4,000L Block Size $601\text{m}^2 < 800\text{m}^2$: 8,000L Block Size $> 800\text{m}^2$: 10,000L Tank Size: ☐ Connected to Laundry, toilets and all external taps



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External colours and finishes schedule (Please tick the boxes below)

Roof Tiles – Monier

Atura

☐	Babylon	☐	Barramundi	☐	Caraway	☐	Mist Grey	☐	Saltspray	☐	Seashell
☐	Silver Pearch	☐	Wildrice	☐	Wollemi	☐	Aniseed				

Horizon

☐	Babylon	☐	Barramundi	☐	Camelot	☐	Caraway	☐	Mist Grey	☐	Saltspray
☐	Seashell	☐	Silver Perch	☐	Wildrice	☐	Wollemi	☐	Aniseed		

Roof Tiles – Boral

Artline

☐	Earth	☐	Fossil	☐	Basalt	☐	Night Quartz	☐	Eclipse	☐	Asphalt
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Wave

☐	Earth	☐	Fossil	☐	Basalt	☐	Night Quartz	☐	Eclipse	☐	Asphalt
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Vogue

☐	Shale	☐	Gunmetal	☐	Charcoal Grey	☐	Stonewall	☐	Taupe
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Contour

☐	Quartz	☐	Taupe	☐	Walnut	☐	Shale	☐	Gunmetal	☐	Peat
☐	Charcoal Grey										

Striata

☐	Gunmetal	☐	Taupe	☐	Walnut	☐	Charcoal Grey
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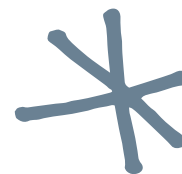
Slimline

☐	Gunmetal	☐	Stonewall	☐	Taupe
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Roof Tiles – Bristle

Prestige

☐	Lithium	☐	Palladium	☐	Titanium	☐	Mercury	☐	Tungsten
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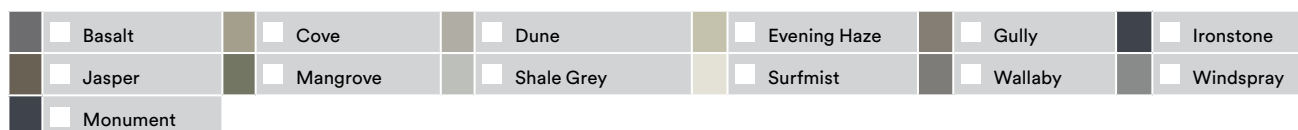
Roof Tiles – Bristle (cont.)

Classic

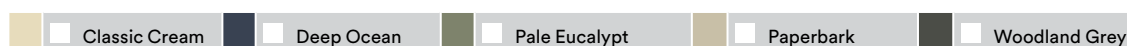


Metal Roof – Colorbond

Contemporary Colours



Classic Colours



Matt Colours



Fence Colour

Side and Rear Boundary Fencing



Window Frame Colour

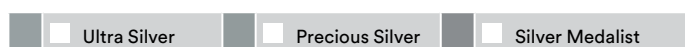
Contemporary Colours

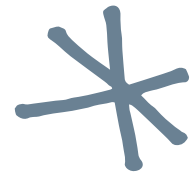


Standard Colours



Selected Pearls





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Bricks – Austral

Ultra Smooth		☐ Tempo		☐ Chill		☐ Jazz		☐ Rhythm
La Paloma		☐ Miro		☐ Azul				
Urban One		☐ Silver		☐ Latte		☐ Chiffon		☐ Pepper

Wilderness Design

	☐ Grey Gum		☐ Silver Birch		☐ Blue Gum		☐ Blackberry		☐ Blackbutt
	☐ Rosewood								

Everyday Life

	☐ Engage		☐ Freedom		☐ Leisure		☐ Stimulate		☐ Unwind
	☐ Escape								

Whitsunday Range

Metropolis

	☐ Brampton		☐ Orpheus		☐ Alabaster		☐ Marcasite		☐ Topaz
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San Selmo Smoked

	☐ Grey Cashmere (feature only or arch merit)		☐ Cloudy Silver (feature only or arch merit)		☐ Opaque Slate (feature only or arch merit)		☐ Wild Storm (feature only or arch merit)
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Metallix

	☐ Quartz		☐ Platinum		☐ Titanium		☐ Cuprum		☐ Bronze
	☐ Gun Metal Blue								

Bricks – PGH

Alfresco		☐ Vino		☐ Choccolato		☐ Truffle		☐ Cocoa
		☐ Espresso						
Altitude		☐ Olympus		☐ Apollo		☐ Matterhorn		
Academy		☐ Quantum		☐ Alumni		☐ Oscar		☐ Nobel
		☐ Juilliard						
		☐ Quantum		☐ Alumni		☐ Oscar		☐ Nobel
		☐ Juilliard						
Composite		☐ Pebble		☐ Aluminium		☐ Urban Blue		☐ Charcoal
Dry Pressed Architectural		☐ Hawkesbury Bronze		☐ Livingston Gold		☐ Mowbray Blue		☐ Macarthur Mix
		☐ Balmerino Blend		☐ Tinto Cream		☐ Red Rum		☐ Silver Shadow
		☐ Black Beauty						



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Bricks – PGH (cont.)

Dark and Stormy		☐ Monsoon		☐ Thunder		☐ Whirlwind		☐ Zephyr
Foundations		☐ Gravel		☐ Stone				
Highlands		☐ Blackheath		☐ Leura (feature only)				
Manhattan		☐ Chelsea (feature only or arch merit)		☐ East Hampton (feature only or arch merit)		☐ Tribeca (feature only or arch merit)		
Metallic		☐ Nickel Flash		☐ Pewter		☐ Blue Steel Flash		
Morada		☐ Blanco		☐ Ceniza		☐ Nero (feature only)		☐ Gris
Opaline		☐ Tourmaline		☐ Garnet		☐ Tiger Eye		
Palazzo		☐ Sorbetto						
Pure Linens		☐ Cinders & Soot		☐ Flannel Grey		☐ Pebble Creek		☐ Whispering White
Smooth		☐ Harvest Cream		☐ Cashmere		☐ Cream		☐ Pearl Grey
		☐ Mineral		☐ Volcanic		☐ Rustic Harvest Cream		☐ Copper Glow
		☐ Black & Tan		☐ Brown		☐ Choc Tan		☐ Terracota
Foundations		☐ Granite		☐ Red				
Urban Essence		☐ Melbourne Blue (feature only)		☐ Storm (feature only)				
Velour		☐ Crevole		☐ Cream		☐ Pearl Grey		☐ Red
		☐ Brown		☐ Choc Tan		☐ Mineral		☐ Volcanic
		☐ Terracota		☐ Granite				

Additional colour and finishes information

Driveway finish colour:

Retaining wall material finish and colour:

Courtyard wall material and finish:

Feature materials or colours:

Rendered wall colours:

Light weight cladding:

Fencing along street frontage:

Side gate & fencing parallel to street frontage:

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ANNEXURE E - DIRECTOR'S GUARANTEE

I/we, the Director/s of _____ [insert Buyer], agree as follows:

1. In consideration of the Seller entering into this Contract at my/our request, I/we agree to guarantee to the Seller:
 - 1.1.1 the performance and observance by the Buyer of all its obligations under this Contract, before, on and after Completion of this Contract; and
 - 1.1.2 the payment of all money payable to the Seller or to third parties under this Contract or otherwise.
2. This is a continuing guarantee and binds me/us notwithstanding:
 - 2.1.1 my/our subsequent death, bankruptcy or liquidation or the subsequent death, bankruptcy or liquidation of any one or more of the Buyer or the Buyer's Guarantor;
 - 2.1.2 any indulgence, waiver or extension of time by the Seller to the Buyer or to me/us or to the Buyer's Guarantor; and
 - 2.1.3 Completion of this Contract.
3. In the event of any breach by the Buyer covered by this guarantee, including in the payment of any money payable to the Seller or to third parties under this Contract or otherwise, the Seller may proceed to recover the amount claimed as a debt or as damages from me/us without having instituted legal proceedings against the Buyer or any other of the Buyer's Guarantor and without first exhausting the Seller's remedies against the Buyer.
4. I /we agree to keep the Seller indemnified against any liability, loss, damage or claim due to the default of the Buyer which the Seller may incur in respect of this Contract.

Dated this _____ day of _____ 2020

Signed, sealed and delivered in the presence of:

Signature of witness

Signature of Guarantor

Full name of witness

Full name of Guarantor

Signed, sealed and delivered in the presence of:

Address of Guarantor

Signature of witness

Signature of Guarantor

Full name of witness

Full name of Guarantor

Address of Guarantor