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Contract for the sale and purchase of land 2022 edition

TERM	MEANING OF TERM	NSW DAN:

BIRLING

vendor's agent		Tel: Contact: Email:
vendor		
vendor's solicitor	Contact: Anna Nucifora	Tel: 02 9233 5544 Fax: 02 9233 5400 Email: birling@swaab.com.au
date for completion	Refer to clause 33.1 (and clause 15)	
land (address, plan details and title reference)	**Lot , "Birling", 975 The Northern Road BRINGELLY NSW 2556** Lot in an unregistered plan of subdivision to be known as Deposited Plan 1298502 (being the pre-allocated Deposited Plan) which is part of Lot 102 in Deposited Plan 1298342 (being the pre-allocated Deposited Plan) which is part of Lot 120 in Deposited Plan 1284706 and being all of the land contained in Certificate of Title Folio Identifier 120/1284706	
	Vacant possession	
improvements	**Vacant land**	
attached copies	**Documents in the List of Documents as marked or numbered**	

A real estate agent is permitted by *legislation* to fill up the items in this box in a sale of residential property.

inclusions	Nil	
exclusions	Nil	
purchaser		
purchaser's solicitor		Tel: Contact: Email:
price	$	
deposit		
balance	$	(5% of the price, unless otherwise stated)
	$	
contract date		(if not stated, the date this contract was made)

Where there is more than one purchaser JOINT TENANTS
tenants in common in unequal shares, specify:

GST AMOUNT (optional) The price includes GST

buyer's agent is not applicable

Note: Clause 20.15 provides "Where this contract provides for choices, a choice in BLOCK CAPITALS applies unless a different choice is marked."

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SIGNING PAGE (Vendor)

Signed on behalf of Birling Estate Pty Ltd by its attorneys pursuant to power of attorney dated 2 October 2024 registered Book 4830 No 945

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SIGNING PAGE (Purchaser)

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GUARANTOR SIGNING PAGE (if applicable)

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Choices

Vendor agrees to accept a ***deposit-bond*** ☒ NO ☐ yes

Nominated *Electronic Lodgment Network* (*ELN*) (clause 4): PEXA

Manual transaction (clause 30) ☒ NO ☐ yes
(if yes, vendor must provide further details, including any applicable exception, in the space below):

Tax information (the *parties* promise this is correct as far as each *party* is aware)

Land tax is adjustable Refer to Item 2 of Details Section of Additional Provisions

GST: Taxable supply ☐ NO ☒ yes in full ☐ yes to an extent

Margin scheme will be used in making the taxable supply ☐ NO ☒ yes

This sale is not a taxable supply because (one or more of the following may apply) the sale is:

- ☐ not made in the course or furtherance of an enterprise that the vendor carries on (section 9-5(b))
- ☐ by a vendor who is neither registered nor required to be registered for GST (section 9-5(d))
- ☐ GST-free because the sale is the supply of a going concern under section 38-325
- ☐ GST-free because the sale is subdivided farm land or farm land supplied for farming under Subdivision 38-O
- ☐ input taxed because the sale is of eligible residential premises (sections 40-65, 40-75(2) and 195-1)

Purchaser must make a *GSTRW payment* (GST residential withholding payment) ☐ NO ☒ yes (if yes, vendor must provide details)

If the details below are not fully completed at the contract date, the vendor must provide all these details in a separate notice at least 7 days before the date for completion.

***GSTRW payment* (GST residential withholding payment) – details**

Frequently the supplier will be the vendor. However, sometimes further information will be required as to which entity is liable for GST, for example, if the supplier is a partnership, a trust, part of a GST group or a participant in a GST joint venture.

Supplier's name: ***BIRLING ESTATE PTY LTD ACN 657 548 073***

Supplier's ABN: ***83 657 548 073***

Supplier's GST branch number (if applicable): ***Not applicable***

Supplier's business address: ***975 The Northern Road, Bringelly NSW 2556***

Supplier's representative: ***Kathryn Morrison***

Supplier's contact phone number: ***02 4774 6000***

Supplier's proportion of *GSTRW payment*: $ ***whole of the GSTRW payment***

If more than one supplier, provide the above details for each supplier.

Amount purchaser must pay – price multiplied by the *GSTRW rate* (residential withholding rate)*: 7% of the purchase price, as margin scheme applies*

Amount must be paid: ☒ AT COMPLETION ☐ at another time (specify):

Is any of the consideration not expressed as an amount in money? ☒ NO ☐ yes

If "yes", the GST inclusive market value of the non-monetary consideration: $ *Not applicable*

Other details (including those required by regulation or the ATO forms):

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List of Documents

General

- ☒ 1 property certificate for the land
- ☒ 2 plan of the land
- ☒ 3 unregistered plan of the land

(Attachments 2 and 4)

- ☒ 4 plan of land to be subdivided

(Attachments 2 and 4)

- ☒ 5 document to be lodged with a relevant plan

(Attachment 3)

- ☒ 6 section 10.7(2) planning certificate under Environmental Planning and Assessment Act 1979
- ☒ 7 additional information included in that certificate under section 10.7(5)
- ☐ 8 sewerage infrastructure location diagram (service location diagram)
- ☐ 9 sewer lines location diagram (sewerage service diagram)
- ☒ 10 document that created or may have created an easement, profit à prendre, restriction on use or positive covenant disclosed in this contract
- ☐ 11 *planning agreement*
- ☐ 12 section 88G certificate (positive covenant)
- ☐ 13 survey report
- ☐ 14 building information certificate or building certificate given under *legislation*
- ☐ 15 occupation certificate
- ☐ 16 lease (with every relevant memorandum or variation)
- ☐ 17 other document relevant to tenancies
- ☐ 18 licence benefiting the land
- ☐ 19 old system document
- ☐ 20 Crown purchase statement of account
- ☐ 21 building management statement
- ☒ 22 form of requisitions

(Attachment 5)

- ☐ 23 *clearance certificate*
- ☐ 24 land tax certificate

Home Building Act 1989

- ☐ 25 insurance certificate
- ☐ 26 brochure or warning
- ☐ 27 evidence of alternative indemnity cover

Swimming Pools Act 1992

- ☐ 28 certificate of compliance
- ☐ 29 evidence of registration
- ☐ 30 relevant occupation certificate
- ☐ 31 certificate of non-compliance
- ☐ 32 detailed reasons of non-compliance

Strata or community title (clause 23 of the contract)

- ☐ 33 property certificate for strata common property
- ☐ 34 plan creating strata common property
- ☐ 35 strata by-laws
- ☐ 36 strata development contract or statement
- ☐ 37 strata management statement
- ☐ 38 strata renewal proposal
- ☐ 39 strata renewal plan
- ☐ 40 leasehold strata - lease of lot and common property
- ☐ 41 property certificate for neighbourhood property
- ☐ 42 plan creating neighbourhood property
- ☐ 43 neighbourhood development contract
- ☐ 44 neighbourhood management statement
- ☐ 45 property certificate for precinct property
- ☐ 46 plan creating precinct property
- ☐ 47 precinct development contract
- ☐ 48 precinct management statement
- ☐ 49 property certificate for community property
- ☐ 50 plan creating community property
- ☐ 51 community development contract
- ☐ 52 community management statement
- ☐ 53 document disclosing a change of by-laws
- ☐ 54 document disclosing a change in a development or management contract or statement
- ☐ 55 document disclosing a change in boundaries
- ☐ 56 information certificate under Strata Schemes Management Act 2015
- ☐ 57 information certificate under Community Land Management Act 2021
- ☐ 58 disclosure statement - off the plan contract
- ☐ 59 other document relevant to off the plan contract

Other

- ☒ 60

See documents attached to this contract as follows:

Attachment 2: Disclosure Statement
Attachment 2.1: Subdivision Plan
Attachment 2.2: Section 88B Instrument
Attachment 3: Lot Plan
Attachment 4: Superlot Plan
Attachment 5: Design & Landscape Guidelines
Attachment 6: Salinity Plan
Attachment 7: Traffic Assessment Acoustic Report
Attachment 8: Standard Requisitions

HOLDER OF STRATA OR COMMUNITY SCHEME RECORDS – Name, address, email address and telephone number

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IMPORTANT NOTICE TO VENDORS AND PURCHASERS
Before signing this contract you should ensure that you understand your rights and obligations, some of which are not written in this contract but are implied by law.

WARNING—SMOKE ALARMS
The owners of certain types of buildings and strata lots must have smoke alarms, or in certain cases heat alarms, installed in the building or lot in accordance with regulations under the *Environmental Planning and Assessment Act 1979*. It is an offence not to comply. It is also an offence to remove or interfere with a smoke alarm or heat alarm. Penalties apply.

WARNING—LOOSE-FILL ASBESTOS INSULATION
Before purchasing land that includes residential premises, within the meaning of the *Home Building Act 1989,* Part 8, Division 1A, built before 1985, a purchaser is strongly advised to consider the possibility that the premises may contain loose-fill asbestos insulation, within the meaning of the *Home Building Act 1989*, Part 8, Division 1A. In particular, a purchaser should—

(a) search the Register required to be maintained under the *Home Building Act 1989*, Part 8, Division 1A, and

(b) ask the relevant local council whether it holds records showing that the residential premises contain loose-fill asbestos insulation.

For further information about loose-fill asbestos insulation, including areas in which residential premises have been identified as containing loose-fill asbestos insulation, contact NSW Fair Trading.

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Cooling off period (purchaser's rights)

1 **This is the statement required by the *Conveyancing Act 1919*, section 66X. This statement applies to a contract for the sale of residential property.**

2 **EXCEPT in the circumstances listed in paragraph 3, the purchaser may rescind the contract before 5pm on—**

- **(a) for an off the plan contract—the tenth business day after the day on which the contract was made, or**
- **(b) in any other case—the fifth business day after the day on which the contract was made.**

3 **There is NO COOLING OFF PERIOD—**

- **(a) if, at or before the time the contract is made, the purchaser gives to the vendor, or the vendor's solicitor or agent, a certificate that complies with the Act, section 66W, or**
- **(b) if the property is sold by public auction, or**
- **(c) if the contract is made on the same day as the property was offered for sale by public auction but passed in, or**
- **(d) if the contract is made in consequence of the exercise of an option to purchase the property, other than an option that is void under the Act, section 66ZG.**

4 **A purchaser exercising the right to cool off by rescinding the contract forfeits 0.25% of the purchase price of the property to the vendor.**

5 **The vendor is entitled to recover the forfeited amount from an amount paid by the purchaser as a deposit under the contract. The purchaser is entitled to a refund of any balance.**

DISPUTES

If you get into a dispute with the other party, the Law Society and Real Estate Institute encourage you to use informal procedures such as negotiation, independent expert appraisal, the Law Society Conveyancing Dispute Resolution Scheme or mediation (for example mediation under the Law Society Mediation Program).

AUCTIONS

Regulations made under the Property and Stock Agents Act 2002 prescribe a number of conditions applying to sales by auction.

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WARNINGS

1. Various Acts of Parliament and other matters can affect the rights of the parties to this contract. Some important matters are actions, claims, decisions, licences, notices, orders, proposals or rights of way involving:

APA Group	**NSW Department of Education**
Australian Taxation Office	**NSW Fair Trading**
Council	**Owner of adjoining land**
County Council	**Privacy**
Department of Planning and Environment	**Public Works Advisory**
Department of Primary Industries	**Subsidence Advisory NSW**
Electricity and gas	**Telecommunications**
Land and Housing Corporation	**Transport for NSW**
Local Land Services	**Water, sewerage or drainage authority**

If you think that any of these matters affects the property, tell your solicitor.

2. A lease may be affected by the Agricultural Tenancies Act 1990, the Residential Tenancies Act 2010 or the Retail Leases Act 1994.

3. If any purchase money is owing to the Crown, it will become payable before obtaining consent, or if no consent is needed, when the transfer is registered.

4. If a consent to transfer is required under legislation, see clause 27 as to the obligations of the parties.

5. The vendor should continue the vendor's insurance until completion. If the vendor wants to give the purchaser possession before completion, the vendor should first ask the insurer to confirm this will not affect the insurance.

6. Most purchasers will have to pay transfer duty (and, sometimes, if the purchaser is not an Australian citizen, surcharge purchaser duty) on this contract. Some purchasers may be eligible to choose to pay first home buyer choice property tax instead of transfer duty. If a payment is not made on time, interest and penalties may be incurred.

7. If the purchaser agrees to the release of deposit, the purchaser's right to recover the deposit may stand behind the rights of others (for example the vendor's mortgagee).

8. The purchaser should arrange insurance as appropriate.

9. Some transactions involving personal property may be affected by the Personal Property Securities Act 2009.

10. A purchaser should be satisfied that finance will be available at the time of completing the purchase.

11. Where the market value of the property is at or above a legislated amount, the purchaser may have to comply with a foreign resident capital gains withholding payment obligation (even if the vendor is not a foreign resident). If so, this will affect the amount available to the vendor on completion.

12. Purchasers of some residential properties may have to withhold part of the purchase price to be credited towards the GST liability of the vendor. If so, this will also affect the amount available to the vendor. More information is available from the ATO.

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The vendor sells and the purchaser buys the *property* for the price under these provisions instead of Schedule 3 Conveyancing Act 1919, subject to any *legislation* that cannot be excluded.

1 Definitions (a term in italics is a defined term)

1.1 In this contract, these terms (in any form) mean –

adjustment date	the earlier of the giving of possession to the purchaser or completion;
adjustment figures	details of the adjustments to be made to the price under clause 14;
authorised Subscriber	a *Subscriber* (not being a *party's solicitor*) named in a notice *served* by a *party* as being authorised for the purposes of clause 20.6.8;
bank	the Reserve Bank of Australia or an authorised deposit-taking institution which is a bank, a building society or a credit union;
business day	any day except a bank or public holiday throughout NSW or a Saturday or Sunday;
cheque	a cheque that is not postdated or stale;
clearance certificate	a certificate within the meaning of s14-220 of Schedule 1 to the *TA Act,* that covers one or more days falling within the period from and including the contract date to completion;
completion time	the time of day at which completion is to occur;
conveyancing rules	the rules made under s12E of the Real Property Act 1900;
deposit-bond	a deposit bond or guarantee with each of the following approved by the vendor – ● the issuer; ● the expiry date (if any); and ● the amount;
depositholder	vendor's agent (or if no vendor's agent is named in this contract, the vendor's *solicitor,* or if no vendor's *solicitor* is named in this contract, the buyer's agent);
discharging mortgagee	any discharging mortgagee, chargee, covenant chargee or caveator whose provision of a *Digitally Signed* discharge of mortgage, discharge of charge or withdrawal of caveat is required in order for unencumbered title to the *property* to be transferred to the purchaser;
document of title	document relevant to the title or the passing of title;
ECNL	the Electronic Conveyancing National Law (NSW);
electronic document	a dealing as defined in the Real Property Act 1900 which may be created and *Digitally Signed* in an *Electronic Workspace*;
electronic transaction	a *Conveyancing Transaction* to be conducted for the *parties* by their legal representatives as *Subscribers* using an *ELN* and in accordance with the *ECNL* and the *participation rules*;
electronic transfer	a transfer of land under the Real Property Act 1900 for the *property* to be prepared and *Digitally Signed* in the *Electronic Workspace* established for the purposes of the *parties*' *Conveyancing Transaction*;
FRCGW percentage	the percentage mentioned in s14-200(3)(a) of Schedule 1 to the *TA Act* (12.5% as at 1 July 2017);
FRCGW remittance	a remittance which the purchaser must make under s14-200 of Schedule 1 to the *TA Act*, being the lesser of the *FRCGW percentage* of the price (inclusive of GST, if any) and the amount specified in a *variation served* by a *party*;
GST Act	A New Tax System (Goods and Services Tax) Act 1999;
GST rate	the rate mentioned in s4 of A New Tax System (Goods and Services Tax Imposition - General) Act 1999 (10% as at 1 July 2000);
GSTRW payment	a payment which the purchaser must make under s14-250 of Schedule 1 to the *TA Act* (the price multiplied by the *GSTRW rate*);
GSTRW rate	the rate determined under ss14-250(6), (8) or (9) of Schedule 1 to the *TA Act* (as at 1 July 2018, usually 7% of the price if the margin scheme applies, 1/11th if not);
incoming mortgagee	any mortgagee who is to provide finance to the purchaser on the security of the *property* and to enable the purchaser to pay the whole or part of the price*;*
legislation	an Act or a by-law, ordinance, regulation or rule made under an Act;
manual transaction	a *Conveyancing Transaction* in which a dealing forming part of the *Lodgment Case* at or following completion cannot be *Digitally Signed*;
normally	subject to any other provision of this contract;
participation rules	the participation rules as determined by the *ECNL;*
party	each of the vendor and the purchaser;
property	the land, the improvements, all fixtures and the inclusions, but not the exclusions;
planning agreement	a valid voluntary agreement within the meaning of s7.4 of the Environmental Planning and Assessment Act 1979 entered into in relation to the *property;*
populate	to complete data fields in the *Electronic Workspace*;

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requisition	an objection, question or requisition (but the term does not include a claim);
rescind	rescind this contract from the beginning;
serve	serve in writing on the other *party*;
settlement cheque	an unendorsed *cheque* made payable to the person to be paid and – ● issued by a *bank* and drawn on itself; or ● if authorised in writing by the vendor or the vendor's *solicitor*, some other *cheque*;
solicitor	in relation to a *party*, the *party's* solicitor or licensed conveyancer named in this contract or in a notice *served* by the *party*;
TA Act	Taxation Administration Act 1953;
terminate	terminate this contract for breach;
title data	the details of the title to the *property* made available to the *Electronic Workspace* by the *Land Registry*;
variation	a variation made under s14-235 of Schedule 1 to the *TA Act*;
within	in relation to a period, at any time before or during the period; and
work order	a valid direction, notice or order that requires work to be done or money to be spent on or in relation to the *property* or any adjoining footpath or road (but the term does not include a notice under s22E of the Swimming Pools Act 1992 or clause 22 of the Swimming Pools Regulation 2018).

1.2 Words and phrases used in this contract (italicised and in Title Case, such as *Conveyancing Transaction*, *Digitally Signed*, *Electronic Workspace*, *ELN*, *ELNO*, *Land Registry*, *Lodgment Case* and *Subscriber*) have the meanings given in the *participation rules*.

2 Deposit and other payments before completion

2.1 The purchaser must pay the deposit to the *depositholder* as stakeholder.
2.2 *Normally*, the purchaser must pay the deposit on the making of this contract, and this time is essential.
2.3 If this contract requires the purchaser to pay any of the deposit by a later time, that time is also essential.
2.4 The purchaser can pay any of the deposit by –
2.4.1 giving cash (up to $2,000) to the *depositholder*;
2.4.2 unconditionally giving a *cheque* to the *depositholder* or to the vendor, vendor's agent or vendor's *solicitor* for sending to the *depositholder*; or
2.4.3 electronic funds transfer to the *depositholder's* nominated account and, if requested by the vendor or the *depositholder*, providing evidence of that transfer.
2.5 The vendor can *terminate* if –
2.5.1 any of the deposit is not paid on time;
2.5.2 a *cheque* for any of the deposit is not honoured on presentation; or
2.5.3 a payment under clause 2.4.3 is not received in the *depositholder's* nominated account by 5.00 pm on the third *business day* after the time for payment.

This right to *terminate* is lost as soon as the deposit is paid in full.
2.6 If the vendor accepts a *deposit-bond* for the deposit, clauses 2.1 to 2.5 do not apply.
2.7 If the vendor accepts a *deposit-bond* for part of the deposit, clauses 2.1 to 2.5 apply only to the balance.
2.8 If any of the deposit or of the balance of the price is paid before completion to the vendor or as the vendor directs, it is a charge on the land in favour of the purchaser until *termination* by the vendor or completion, subject to any existing right.
2.9 If each *party* tells the *depositholder* that the deposit is to be invested, the *depositholder* is to invest the deposit (at the risk of the *party* who becomes entitled to it) with a *bank*, in an interest-bearing account in NSW, payable at call, with interest to be reinvested, and pay the interest to the *parties* equally, after deduction of all proper government taxes and financial institution charges and other charges.

3 Deposit-bond

3.1 This clause applies only if the vendor accepts a *deposit-bond* for the deposit (or part of it).
3.2 The purchaser must provide the *deposit-bond* to the vendor's *solicitor* (or if no solicitor the *depositholder*) at or before the making of this contract and this time is essential.
3.3 If the *deposit-bond* has an expiry date and completion does not occur by the date which is 14 days before the expiry date, the purchaser must *serve* a replacement *deposit-bond* at least 7 days before the expiry date. The time for service is essential.
3.4 The vendor must approve a replacement *deposit-bond* if –
3.4.1 it is from the same issuer and for the same amount as the earlier *deposit-bond;* and
3.4.2 it has an expiry date at least three months after its date of issue.
3.5 A breach of clauses 3.2 or 3.3 entitles the vendor to *terminate*. The right to *terminate* is lost as soon as –
3.5.1 the purchaser *serves* a replacement *deposit-bond*; or
3.5.2 the deposit is paid in full under clause 2.
3.6 Clauses 3.3 and 3.4 can operate more than once.

Vendor's Solicitor: The Quarter, Road, Bringelly NSW 2556

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3.7 If the purchaser *serves* a replacement *deposit-bond*, the vendor must *serve* the earlier *deposit-bond*.
3.8 The amount of any *deposit-bond* does not form part of the price for the purposes of clause 16.5.
3.9 The vendor must give the purchaser any original *deposit-bond* –
3.9.1 on completion; or
3.9.2 if this contract is *rescinded*.
3.10 If this contract is *terminated* by the vendor –
3.10.1 *normally*, the vendor can immediately demand payment from the issuer of the *deposit-bond*; or
3.10.2 if the purchaser *serves* prior to *termination* a notice disputing the vendor's right to *terminate*, the vendor must forward any original *deposit-bond* (or its proceeds if called up) to the *depositholder* as stakeholder.
3.11 If this contract is *terminated* by the purchaser –
3.11.1 *normally*, the vendor must give the purchaser any original *deposit-bond*; or
3.11.2 if the vendor *serves* prior to *termination* a notice disputing the purchaser's right to *terminate*, the vendor must forward any original *deposit-bond* (or its proceeds if called up) to the *depositholder* as stakeholder.

4 Electronic transaction

4.1 This *Conveyancing Transaction* is to be conducted as an *electronic transaction* unless –
4.1.1 the contract says this transaction is a *manual transaction*, giving the reason, or
4.1.2 a *party serves* a notice stating why the transaction is a *manual transaction*, in which case the *parties* do not have to complete earlier than 14 days after *service* of the notice, and clause 21.3 does not apply to this provision,
and in both cases clause 30 applies.
4.2 If, because of clause 4.1.2, this *Conveyancing Transaction* is to be conducted as a *manual transaction* –
4.2.1 each *party* must –
- bear equally any disbursements or fees; and
- otherwise bear that *party's* own costs;

incurred because this *Conveyancing Transaction* was to be conducted as an *electronic transaction*; and
4.2.2 if a *party* has paid all of a disbursement or fee which, by reason of this clause, is to be borne equally by the *parties*, that amount must be adjusted under clause 14.
4.3 The *parties* must conduct the *electronic transaction* –
4.3.1 in accordance with the *participation rules* and the *ECNL*; and
4.3.2 using the nominated *ELN*, unless the *parties* otherwise agree. This clause 4.3.2 does not prevent a *party* using an *ELN* which can interoperate with the nominated *ELN*.
4.4 A *party* must pay the fees and charges payable by that *party* to the *ELNO* and the *Land Registry*.
4.5 *Normally,* the vendor must *within* 7 days of the contract date create and *populate* an *Electronic Workspace* with *title data* and the date for completion, and invite the purchaser to the *Electronic Workspace*.
4.6 If the vendor has not created an *Electronic Workspace* in accordance with clause 4.5, the purchaser may create and *populate* an *Electronic Workspace* and, if it does so, the purchaser must invite the vendor to the *Electronic Workspace.*
4.7 The *parties* must, as applicable to their role in the *Conveyancing Transaction* and the steps taken under clauses 4.5 or 4.6 –
4.7.1 promptly join the *Electronic Workspace* after receipt of an invitation;
4.7.2 create and *populate* an *electronic transfer*;
4.7.3 invite any *discharging mortgagee* or *incoming mortgagee* to join the *Electronic Workspace*; and
4.7.4 *populate* the *Electronic Workspace* with a nominated *completion time*.
4.8 If the transferee in the *electronic transfer* is not the purchaser, the purchaser must give the vendor a direction signed by the purchaser personally for that transfer.
4.9 The vendor can require the purchaser to include a covenant or easement in the *electronic transfer* only if this contract contains the wording of the proposed covenant or easement, and a description of the land burdened and benefited.
4.10 If the purchaser must make a *GSTRW payment* or an *FRCGW remittance*, the purchaser must *populate* the *Electronic Workspace* with the payment details for the *GSTRW payment* or *FRCGW remittance* payable to the Deputy Commissioner of Taxation at least 2 *business days* before the date for completion.
4.11 Before completion, the *parties* must ensure that –
4.11.1 all *electronic documents* which a *party* must *Digitally Sign* to complete the *electronic transaction* are *populated* and *Digitally Signed*;
4.11.2 all certifications required by the *ECNL* are properly given; and
4.11.3 they do everything else in the *Electronic Workspace* which that *party* must do to enable the *electronic transaction* to proceed to completion.
4.12 If the computer systems of any of the *Land Registry*, the *ELNO,* Revenue NSW or the Reserve Bank of Australia are inoperative for any reason at the *completion time* agreed by the *parties*, a failure to complete this contract for that reason is not a default under this contract on the part of either *party*.

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4.13 If the computer systems of the *Land Registry* are inoperative for any reason at the *completion time* agreed by the *parties,* and the *parties* choose that financial settlement is to occur despite this, then on financial settlement occurring –

4.13.1 all *electronic documents Digitally Signed* by the vendor and any discharge of mortgage, withdrawal of caveat or other *electronic document* forming part of the *Lodgment Case* for the *electronic transaction* are taken to have been unconditionally and irrevocably delivered to the purchaser or the purchaser's mortgagee at the time of financial settlement together with the right to deal with the land; and

4.13.2 the vendor is taken to have no legal or equitable interest in the *property*.

4.14 If the *parties* do not agree about the delivery before completion of one or more documents or things that cannot be delivered through the *Electronic Workspace*, the *party* required to deliver the documents or things –

4.14.1 holds them on completion in escrow for the benefit of; and

4.14.2 must immediately after completion deliver the documents or things to, or as directed by;

the *party* entitled to them.

5 Requisitions

5.1 If a form of *requisitions* is attached to this contract, the purchaser is taken to have made those *requisitions*.

5.2 If the purchaser is or becomes entitled to make any other *requisition*, the purchaser can make it only by *serving* it –

5.2.1 if it arises out of this contract or it is a general question about the *property* or title - *within* 21 days after the contract date;

5.2.2 if it arises out of anything *served* by the vendor - *within* 21 days after the later of the contract date and that *service*; and

5.2.3 in any other case - *within* a reasonable time.

6 Error or misdescription

6.1 *Normally*, the purchaser can (but only before completion) claim compensation for an error or misdescription in this contract (as to the *property*, the title or anything else and whether substantial or not).

6.2 This clause applies even if the purchaser did not take notice of or rely on anything in this contract containing or giving rise to the error or misdescription.

6.3 However, this clause does not apply to the extent the purchaser knows the true position.

7 Claims by purchaser

Normally, the purchaser can make a claim (including a claim under clause 6) before completion only by *serving* it with a statement of the amount claimed, and if the purchaser makes one or more claims before completion –

7.1 the vendor can *rescind* if in the case of claims that are not claims for delay –

7.1.1 the total amount claimed exceeds 5% of the price;

7.1.2 the vendor *serves* notice of intention to *rescind*; and

7.1.3 the purchaser does not *serve* notice waiving the claims *within* 14 days after that *service*; and

7.2 if the vendor does not *rescind*, the *parties* must complete and if this contract is completed –

7.2.1 the lesser of the total amount claimed and 10% of the price must be paid out of the price to and held by the *depositholder* until the claims are finalised or lapse;

7.2.2 the amount held is to be invested in accordance with clause 2.9;

7.2.3 the claims must be finalised by an arbitrator appointed by the *parties* or, if an appointment is not made *within* 1 month of completion, by an arbitrator appointed by the President of the Law Society at the request of a *party* (in the latter case the *parties* are bound by the terms of the Conveyancing Arbitration Rules approved by the Law Society as at the date of the appointment);

7.2.4 the purchaser is not entitled, in respect of the claims, to more than the total amount claimed and the costs of the purchaser;

7.2.5 net interest on the amount held must be paid to the *parties* in the same proportion as the amount held is paid; and

7.2.6 if the *parties* do not appoint an arbitrator and neither *party* requests the President to appoint an arbitrator *within* 3 months after completion, the claims lapse and the amount belongs to the vendor.

8 Vendor's rights and obligations

8.1 The vendor can *rescind* if –

8.1.1 the vendor is, on reasonable grounds, unable or unwilling to comply with a *requisition*;

8.1.2 the vendor *serves* a notice of intention to *rescind* that specifies the *requisition* and those grounds; and

8.1.3 the purchaser does not *serve* a notice waiving the *requisition within* 14 days after that *service*.

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8.2 If the vendor does not comply with this contract (or a notice under or relating to it) in an essential respect, the purchaser can *terminate* by *serving* a notice. After the *termination* –
- 8.2.1 the purchaser can recover the deposit and any other money paid by the purchaser under this contract;
- 8.2.2 the purchaser can sue the vendor to recover damages for breach of contract; and
- 8.2.3 if the purchaser has been in possession a *party* can claim for a reasonable adjustment.

9 Purchaser's default

If the purchaser does not comply with this contract (or a notice under or relating to it) in an essential respect, the vendor can *terminate* by *serving* a notice. After the *termination* the vendor can –

9.1 keep or recover the deposit (to a maximum of 10% of the price);

9.2 hold any other money paid by the purchaser under this contract as security for anything recoverable under this clause –
- 9.2.1 for 12 months after the *termination*; or
- 9.2.2 if the vendor commences proceedings under this clause *within* 12 months, until those proceedings are concluded; and

9.3 sue the purchaser either –
- 9.3.1 where the vendor has resold the *property* under a contract made *within* 12 months after the *termination*, to recover –
  - the deficiency on resale (with credit for any of the deposit kept or recovered and after allowance for any capital gains tax or goods and services tax payable on anything recovered under this clause); and
  - the reasonable costs and expenses arising out of the purchaser's non-compliance with this contract or the notice and of resale and any attempted resale; or
- 9.3.2 to recover damages for breach of contract.

10 Restrictions on rights of purchaser

10.1 The purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of –
- 10.1.1 the ownership or location of any fence as defined in the Dividing Fences Act 1991;
- 10.1.2 a service for the *property* being a joint service or passing through another property, or any service for another property passing through the *property* ('service' includes air, communication, drainage, electricity, garbage, gas, oil, radio, sewerage, telephone, television or water service);
- 10.1.3 a wall being or not being a party wall in any sense of that term or the *property* being affected by an easement for support or not having the benefit of an easement for support;
- 10.1.4 any change in the *property* due to fair wear and tear before completion;
- 10.1.5 a promise, representation or statement about this contract, the *property* or the title, not set out or referred to in this contract;
- 10.1.6 a condition, exception, reservation or restriction in a Crown grant;
- 10.1.7 the existence of any authority or licence to explore or prospect for gas, minerals or petroleum;
- 10.1.8 any easement or restriction on use the substance of either of which is disclosed in this contract or any non-compliance with the easement or restriction on use; or
- 10.1.9 anything the substance of which is disclosed in this contract (except a caveat, charge, mortgage, priority notice or writ).

10.2 The purchaser cannot *rescind* or *terminate* only because of a defect in title to or quality of the inclusions.

10.3 *Normally*, the purchaser cannot make a claim or *requisition* or *rescind* or *terminate* or require the vendor to change the nature of the title disclosed in this contract (for example, to remove a caution evidencing qualified title, or to lodge a plan of survey as regards limited title).

11 Compliance with work orders

11.1 *Normally*, the vendor must by completion comply with a *work order* made on or before the contract date and if this contract is completed the purchaser must comply with any other *work order*.

11.2 If the purchaser complies with a *work order*, and this contract is *rescinded* or *terminated*, the vendor must pay the expense of compliance to the purchaser.

12 Certificates and inspections

The vendor must do everything reasonable to enable the purchaser, subject to the rights of any tenant –

12.1 to have the *property* inspected to obtain any certificate or report reasonably required;

12.2 to apply (if necessary in the name of the vendor) for –
- 12.2.1 any certificate that can be given in respect of the *property* under *legislation*; or
- 12.2.2 a copy of any approval, certificate, consent, direction, notice or order in respect of the *property* given under *legislation*, even if given after the contract date; and

12.3 to make 1 inspection of the *property* in the 3 days before a time appointed for completion.

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13 Goods and services tax (GST)

13.1 Terms used in this clause which are not defined elsewhere in this contract and have a defined meaning in the *GST Act* have the same meaning in this clause.

13.2 *Normally*, if a *party* must pay the price or any other amount to the other *party* under this contract, GST is not to be added to the price or amount.

13.3 If under this contract a *party* must make an adjustment or payment for an expense of another party or pay an expense payable by or to a third party (for example, under clauses 14 or 20.7) –

13.3.1 the *party* must adjust or pay on completion any GST added to or included in the expense; but

13.3.2 the amount of the expense must be reduced to the extent the party receiving the adjustment or payment (or the representative member of a GST group of which that party is a member) is entitled to an input tax credit for the expense; and

13.3.3 if the adjustment or payment under this contract is consideration for a taxable supply, an amount for GST must be added at the *GST rate*.

13.4 If this contract says this sale is the supply of a going concern –

13.4.1 the *parties* agree the supply of the *property* is a supply of a going concern;

13.4.2 the vendor must, between the contract date and completion, carry on the enterprise conducted on the land in a proper and business-like way;

13.4.3 if the purchaser is not registered by the date for completion, the *parties* must complete and the purchaser must pay on completion, in addition to the price, an amount being the price multiplied by the *GST rate* ("the retention sum"). The retention sum is to be held by the *depositholder* and dealt with as follows –

- if *within* 3 months of completion the purchaser *serves* a letter from the Australian Taxation Office stating the purchaser is registered with a date of effect of registration on or before completion, the *depositholder* is to pay the retention sum to the purchaser; but
- if the purchaser does not *serve* that letter *within* 3 months of completion, the *depositholder* is to pay the retention sum to the vendor; and

13.4.4 if the vendor, despite clause 13.4.1, *serves* a letter from the Australian Taxation Office stating the vendor has to pay GST on the supply, the purchaser must pay to the vendor on demand the amount of GST assessed.

13.5 *Normally*, the vendor promises the margin scheme will not apply to the supply of the *property*.

13.6 If this contract says the margin scheme is to apply in making the taxable supply, the *parties* agree that the margin scheme is to apply to the sale of the *property*.

13.7 If this contract says the sale is not a taxable supply –

13.7.1 the purchaser promises that the *property* will not be used and represents that the purchaser does not intend the *property* (or any part of the *property*) to be used in a way that could make the sale a taxable supply to any extent; and

13.7.2 the purchaser must pay the vendor on completion in addition to the price an amount calculated by multiplying the price by the *GST rate* if this sale is a taxable supply to any extent because of –

- a breach of clause 13.7.1; or
- something else known to the purchaser but not the vendor.

13.8 If this contract says this sale is a taxable supply in full and does not say the margin scheme applies to the *property*, the vendor must pay the purchaser on completion an amount of one-eleventh of the price if –

13.8.1 this sale is not a taxable supply in full; or

13.8.2 the margin scheme applies to the *property* (or any part of the *property*).

13.9 If this contract says this sale is a taxable supply to an extent –

13.9.1 clause 13.7.1 does not apply to any part of the *property* which is identified as being a taxable supply; and

13.9.2 the payments mentioned in clauses 13.7 and 13.8 are to be recalculated by multiplying the relevant payment by the proportion of the price which represents the value of that part of the *property* to which the clause applies (the proportion to be expressed as a number between 0 and 1). Any evidence of value must be obtained at the expense of the vendor.

13.10 *Normally*, on completion the vendor must give the recipient of the supply a tax invoice for any taxable supply by the vendor by or under this contract.

13.11 The vendor does not have to give the purchaser a tax invoice if the margin scheme applies to a taxable supply.

13.12 If the vendor is liable for GST on rents or profits due to issuing an invoice or receiving consideration before completion, any adjustment of those amounts must exclude an amount equal to the vendor's GST liability.

13.13 If the vendor *serves* details of a *GSTRW payment* which the purchaser must make, the purchaser does not have to complete earlier than 5 *business days* after that *service* and clause 21.3 does not apply to this provision.

13.14 If the purchaser must make a *GSTRW payment* the purchaser must, at least 2 *business days* before the date for completion, *serve* evidence of submission of a *GSTRW payment* notification form to the Australian Taxation Office by the purchaser or, if a direction under either clause 4.8 or clause 30.4 has been given, by the transferee named in the transfer the subject of that direction.

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14 Adjustments

14.1 *Normally*, the vendor is entitled to the rents and profits and will be liable for all rates, water, sewerage and drainage service and usage charges, land tax, levies and all other periodic outgoings up to and including the *adjustment date* after which the purchaser will be entitled and liable.

14.2 The *parties* must make any necessary adjustment on completion, and –

14.2.1 the purchaser must provide the vendor with *adjustment figures* at least 2 *business days* before the date for completion; and

14.2.2 the vendor must confirm the *adjustment figures* at least 1 *business day* before the date for completion.

14.3 If an amount that is adjustable under this contract has been reduced under *legislation*, the *parties* must on completion adjust the reduced amount.

14.4 The *parties* must not adjust surcharge land tax (as defined in the Land Tax Act 1956) but must adjust any other land tax for the year current at the *adjustment date* –

14.4.1 only if land tax has been paid or is payable for the year (whether by the vendor or by a predecessor in title) and this contract says that land tax is adjustable;

14.4.2 by adjusting the amount that would have been payable if at the start of the year –

- the person who owned the land owned no other land;
- the land was not subject to a special trust or owned by a non-concessional company; and
- if the land (or part of it) had no separate taxable value, by calculating its separate taxable value on a proportional area basis.

14.5 The *parties* must not adjust any first home buyer choice property tax.

14.6 If any other amount that is adjustable under this contract relates partly to the land and partly to other land, the *parties* must adjust it on a proportional area basis.

14.7 If on completion the last bill for a water, sewerage or drainage usage charge is for a period ending before the *adjustment date*, the vendor is liable for an amount calculated by dividing the bill by the number of days in the period then multiplying by the number of unbilled days up to and including the *adjustment date*.

14.8 The vendor is liable for any amount recoverable for work started on or before the contract date on the *property* or any adjoining footpath or road.

15 Date for completion

The *parties* must complete by the date for completion and, if they do not, a *party* can *serve* a notice to complete if that *party* is otherwise entitled to do so.

16 Completion

● Vendor

16.1 *Normally*, on completion the vendor must cause the legal title to the *property* (being the estate disclosed in this contract) to pass to the purchaser free of any charge, mortgage or other interest, subject to any necessary registration.

16.2 The legal title to the *property* does not pass before completion.

16.3 If the vendor gives the purchaser a document (other than the transfer) that needs to be lodged for registration, the vendor must pay the lodgment fee to the purchaser.

16.4 If a *party serves* a land tax certificate showing a charge on any of the land, by completion the vendor must do all things and pay all money required so that the charge is no longer effective against the land.

● Purchaser

16.5 On completion the purchaser must pay to the vendor –

16.5.1 the price less any –

- deposit paid;
- *FRCGW remittance* payable;
- *GSTRW payment*; and
- amount payable by the vendor to the purchaser under this contract; and

16.5.2 any other amount payable by the purchaser under this contract.

16.6 If any of the deposit is not covered by a *deposit-bond*, at least 1 *business day* before the date for completion the purchaser must give the vendor an order signed by the purchaser authorising the *depositholder* to account to the vendor for the deposit, to be held by the vendor in escrow until completion.

16.7 On completion the deposit belongs to the vendor.

17 Possession

17.1 *Normally*, the vendor must give the purchaser vacant possession of the *property* on completion.

17.2 The vendor does not have to give vacant possession if –

17.2.1 this contract says that the sale is subject to existing tenancies; and

17.2.2 the contract discloses the provisions of the tenancy (for example, by attaching a copy of the lease and any relevant memorandum or variation).

17.3 *Normally*, the purchaser can claim compensation (before or after completion) or *rescind* if any of the land is affected by a protected tenancy (a tenancy affected by Schedule 2, Part 7 of the Residential Tenancies Act 2010).

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18 Possession before completion

18.1 This clause applies only if the vendor gives the purchaser possession of the *property* before completion.

18.2 The purchaser must not before completion –

18.2.1 let or part with possession of any of the *property*;

18.2.2 make any change or structural alteration or addition to the *property;* or

18.2.3 contravene any agreement between the *parties* or any direction, document, *legislation*, notice or order affecting the *property*.

18.3 The purchaser must until completion –

18.3.1 keep the *property* in good condition and repair having regard to its condition at the giving of possession; and

18.3.2 allow the vendor or the vendor's authorised representative to enter and inspect it at all reasonable times.

18.4 The risk as to damage to the *property* passes to the purchaser immediately after the purchaser enters into possession.

18.5 If the purchaser does not comply with this clause, then without affecting any other right of the vendor –

18.5.1 the vendor can before completion, without notice, remedy the non-compliance; and

18.5.2 if the vendor pays the expense of doing this, the purchaser must pay it to the vendor with interest at the rate prescribed under s101 Civil Procedure Act 2005.

18.6 If this contract is *rescinded* or *terminated* the purchaser must immediately vacate the *property*.

18.7 If the *parties* or their *solicitors* on their behalf do not agree in writing to a fee or rent, none is payable.

19 Rescission of contract

19.1 If this contract expressly gives a *party* a right to *rescind*, the *party* can exercise the right –

19.1.1 only by *serving* a notice before completion; and

19.1.2 in spite of any making of a claim or *requisition*, any attempt to satisfy a claim or *requisition*, any arbitration, litigation, mediation or negotiation or any giving or taking of possession.

19.2 *Normally*, if a *party* exercises a right to *rescind* expressly given by this contract or any *legislation* –

19.2.1 the deposit and any other money paid by the purchaser under this contract must be refunded;

19.2.2 a *party* can claim for a reasonable adjustment if the purchaser has been in possession;

19.2.3 a *party* can claim for damages, costs or expenses arising out of a breach of this contract; and

19.2.4 a *party* will not otherwise be liable to pay the other *party* any damages, costs or expenses.

20 Miscellaneous

20.1 The *parties* acknowledge that anything stated in this contract to be attached was attached to this contract by the vendor before the purchaser signed it and is part of this contract.

20.2 Anything attached to this contract is part of this contract.

20.3 An area, bearing or dimension in this contract is only approximate.

20.4 If a *party* consists of 2 or more persons, this contract benefits and binds them separately and together.

20.5 A *party's solicitor* can receive any amount payable to the *party* under this contract or direct in writing that it is to be paid to another person.

20.6 A document under or relating to this contract is –

20.6.1 signed by a *party* if it is signed by the *party* or the *party's solicitor* (apart from a direction under clause 4.8 or clause 30.4);

20.6.2 *served* if it is *served* by the *party* or the *party's solicitor*;

20.6.3 *served* if it is *served* on the *party's solicitor*, even if the *party* has died or any of them has died;

20.6.4 *served* if it is *served* in any manner provided in s170 of the Conveyancing Act 1919;

20.6.5 *served* if it is sent by email or fax to the *party's solicitor*, unless in either case it is not received;

20.6.6 *served* on a person if it (or a copy of it) comes into the possession of the person;

20.6.7 *served* at the earliest time it is *served*, if it is *served* more than once; and

20.6.8 *served* if it is provided to or by the *party's solicitor* or an *authorised Subscriber* by means of an *Electronic Workspace* created under clause 4. However, this does not apply to a notice making an obligation essential, or a notice of *rescission* or *termination*.

20.7 An obligation to pay an expense of another *party* of doing something is an obligation to pay –

20.7.1 if the *party* does the thing personally - the reasonable cost of getting someone else to do it; or

20.7.2 if the *party* pays someone else to do the thing - the amount paid, to the extent it is reasonable.

20.8 Rights under clauses 4, 11, 13, 14, 17, 24, 30 and 31 continue after completion, whether or not other rights continue.

20.9 The vendor does not promise, represent or state that the purchaser has any cooling off rights.

20.10 The vendor does not promise, represent or state that any attached survey report is accurate or current.

20.11 A reference to any *legislation* (including any percentage or rate specified in *legislation*) is also a reference to any corresponding later *legislation*.

20.12 Each *party* must do whatever is necessary after completion to carry out the *party's* obligations under this contract.

20.13 Neither taking possession nor *serving* a transfer of itself implies acceptance of the *property* or the title.

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20.14 The details and information provided in this contract (for example, on pages 1 - 4) are, to the extent of each *party's* knowledge, true, and are part of this contract.
20.15 Where this contract provides for choices, a choice in BLOCK CAPITALS applies unless a different choice is marked.
20.16 Each *party* consents to –
20.16.1 any *party* signing this contract electronically; and
20.16.2 the making of this contract by the exchange of counterparts delivered by email, or by such other electronic means as may be agreed in writing by the *parties*.
20.17 Each *party* agrees that electronic signing by a *party* identifies that *party* and indicates that *party's* intention to be bound by this contract.

21 Time limits in these provisions
21.1 If the time for something to be done or to happen is not stated in these provisions, it is a reasonable time.
21.2 If there are conflicting times for something to be done or to happen, the latest of those times applies.
21.3 The time for one thing to be done or to happen does not extend the time for another thing to be done or to happen.
21.4 If the time for something to be done or to happen is the 29th, 30th or 31st day of a month, and the day does not exist, the time is instead the last day of the month.
21.5 If the time for something to be done or to happen is a day that is not a *business day*, the time is extended to the next *business day*, except in the case of clauses 2 and 3.2.
21.6 *Normally*, the time by which something must be done is fixed but not essential.

22 Foreign Acquisitions and Takeovers Act 1975
22.1 The purchaser promises that the Commonwealth Treasurer cannot prohibit and has not prohibited the transfer under the Foreign Acquisitions and Takeovers Act 1975.
22.2 This promise is essential and a breach of it entitles the vendor to *terminate*.

23 Strata or community title
● Definitions and modifications
23.1 This clause applies only if the land (or part of it) is a lot in a strata, neighbourhood, precinct or community scheme (or on completion is to be a lot in a scheme of that kind).
23.2 In this contract –
23.2.1 'change', in relation to a scheme, means –
- a registered or registrable change from by-laws set out in this contract;
- a change from a development or management contract or statement set out in this contract; or
- a change in the boundaries of common property;

23.2.2 'common property' includes association property for the scheme or any higher scheme;
23.2.3 'contribution' includes an amount payable under a by-law;
23.2.4 'information certificate' includes a certificate under s184 Strata Schemes Management Act 2015 and s171 Community Land Management Act 2021;
23.2.5 'interest notice' includes a strata interest notice under s22 Strata Schemes Management Act 2015 and an association interest notice under s20 Community Land Management Act 2021;
23.2.6 'normal expenses', in relation to an owners corporation for a scheme, means normal operating expenses usually payable from the administrative fund of an owners corporation for a scheme of the same kind;
23.2.7 'owners corporation' means the owners corporation or the association for the scheme or any higher scheme;
23.2.8 'the *property*' includes any interest in common property for the scheme associated with the lot; and
23.2.9 'special expenses', in relation to an owners corporation, means its actual, contingent or expected expenses, except to the extent they are –
- normal expenses;
- due to fair wear and tear;
- disclosed in this contract; or
- covered by moneys held in the capital works fund.

23.3 Clauses 11, 14.8 and 18.4 do not apply to an obligation of the owners corporation, or to property insurable by it.
23.4 Clauses 14.4.2 and 14.6 apply but on a unit entitlement basis instead of an area basis.
● Adjustments and liability for expenses
23.5 The *parties* must adjust under clause 14.1 –
23.5.1 a regular periodic contribution;
23.5.2 a contribution which is not a regular periodic contribution but is disclosed in this contract; and
23.5.3 on a unit entitlement basis, any amount paid by the vendor for a normal expense of the owners corporation to the extent the owners corporation has not paid the amount to the vendor.

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23.6 If a contribution is not a regular periodic contribution and is not disclosed in this contract –
- 23.6.1 the vendor is liable for it if it was determined on or before the contract date, even if it is payable by instalments; and
- 23.6.2 the purchaser is liable for all contributions determined after the contract date.

23.7 The vendor must pay or allow to the purchaser on completion the amount of any unpaid contributions for which the vendor is liable under clause 23.6.1.

23.8 *Normally*, the purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of –
- 23.8.1 an existing or future actual, contingent or expected expense of the owners corporation;
- 23.8.2 a proportional unit entitlement of the lot or a relevant lot or former lot, apart from a claim under clause 6; or
- 23.8.3 a past or future change in the scheme or a higher scheme.

23.9 However, the purchaser can *rescind* if –
- 23.9.1 the special expenses of the owners corporation at the later of the contract date and the creation of the owners corporation when calculated on a unit entitlement basis (and, if more than one lot or a higher scheme is involved, added together), less any contribution paid by the vendor, are more than 1% of the price;
- 23.9.2 in the case of the lot or a relevant lot or former lot in a higher scheme, a proportional unit entitlement for the lot is disclosed in this contract but the lot has a different proportional unit entitlement at the contract date or at any time before completion;
- 23.9.3 a change before the contract date or before completion in the scheme or a higher scheme materially prejudices the purchaser and is not disclosed in this contract; or
- 23.9.4 a resolution is passed by the owners corporation before the contract date or before completion to give to the owners in the scheme for their consideration a strata renewal plan that has not lapsed at the contract date and there is not attached to this contract a strata renewal proposal or the strata renewal plan.

● Notices, certificates and inspections

23.10 Before completion, the purchaser must *serve* a copy of an interest notice addressed to the owners corporation and signed by the purchaser.

23.11 After completion, the purchaser must insert the date of completion in the interest notice and send it to the owners corporation.

23.12 The vendor can complete and send the interest notice as agent for the purchaser.

23.13 The vendor must *serve* at least 7 days before the date for completion, an information certificate for the lot, the scheme or any higher scheme which relates to a period in which the date for completion falls.

23.14 The purchaser does not have to complete earlier than 7 days after *service* of the information certificate and clause 21.3 does not apply to this provision. On completion the purchaser must pay the vendor the prescribed fee for the information certificate.

23.15 The vendor authorises the purchaser to apply for the purchaser's own information certificate.

23.16 The vendor authorises the purchaser to apply for and make an inspection of any record or other document in the custody or control of the owners corporation or relating to the scheme or any higher scheme.

● Meetings of the owners corporation

23.17 If a general meeting of the owners corporation is convened before completion –
- 23.17.1 if the vendor receives notice of it, the vendor must immediately notify the purchaser of it; and
- 23.17.2 after the expiry of any cooling off period, the purchaser can require the vendor to appoint the purchaser (or the purchaser's nominee) to exercise any voting rights of the vendor in respect of the lot at the meeting.

24 Tenancies

24.1 If a tenant has not made a payment for a period preceding or current at the *adjustment date* –
- 24.1.1 for the purposes of clause 14.2, the amount is to be treated as if it were paid; and
- 24.1.2 the purchaser assigns the debt to the vendor on completion and will if required give a further assignment at the vendor's expense.

24.2 If a tenant has paid in advance of the *adjustment date* any periodic payment in addition to rent, it must be adjusted as if it were rent for the period to which it relates.

24.3 If the *property* is to be subject to a tenancy on completion or is subject to a tenancy on completion –
- 24.3.1 the vendor authorises the purchaser to have any accounting records relating to the tenancy inspected and audited and to have any other document relating to the tenancy inspected;
- 24.3.2 the vendor must *serve* any information about the tenancy reasonably requested by the purchaser before or after completion; and
- 24.3.3 *normally*, the purchaser can claim compensation (before or after completion) if –
  - a disclosure statement required by the Retail Leases Act 1994 was not given when required;
  - such a statement contained information that was materially false or misleading;
  - a provision of the lease is not enforceable because of a non-disclosure in such a statement; or
  - the lease was entered into in contravention of the Retail Leases Act 1994.

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24.4 If the *property* is subject to a tenancy on completion –
- 24.4.1 the vendor must allow or transfer –
  - any remaining bond money or any other security against the tenant's default (to the extent the security is transferable);
  - any money in a fund established under the lease for a purpose and compensation for any money in the fund or interest earnt by the fund that has been applied for any other purpose; and
  - any money paid by the tenant for a purpose that has not been applied for that purpose and compensation for any of the money that has been applied for any other purpose;
- 24.4.2 if the security is not transferable, each *party* must do everything reasonable to cause a replacement security to issue for the benefit of the purchaser and the vendor must hold the original security on trust for the benefit of the purchaser until the replacement security issues;
- 24.4.3 the vendor must give to the purchaser –
  - at least 2 *business days* before the date for completion, a proper notice of the transfer (an attornment notice) addressed to the tenant, to be held by the purchaser in escrow until completion;
  - any certificate given under the Retail Leases Act 1994 in relation to the tenancy;
  - a copy of any disclosure statement given under the Retail Leases Act 1994;
  - a copy of any document served on the tenant under the lease and written details of its service, if the document concerns the rights of the landlord or the tenant after completion; and
  - any document served by the tenant under the lease and written details of its service, if the document concerns the rights of the landlord or the tenant after completion;
- 24.4.4 the vendor must comply with any obligation to the tenant under the lease, to the extent it is to be complied with by completion; and
- 24.4.5 the purchaser must comply with any obligation to the tenant under the lease, to the extent that the obligation is disclosed in this contract and is to be complied with after completion.

25 Qualified title, limited title and old system title

25.1 This clause applies only if the land (or part of it) –
- 25.1.1 is under qualified, limited or old system title; or
- 25.1.2 on completion is to be under one of those titles.

25.2 The vendor must *serve* a proper abstract of title *within* 7 days after the contract date.

25.3 If an abstract of title or part of an abstract of title is attached to this contract or has been lent by the vendor to the purchaser before the contract date, the abstract or part is *served* on the contract date.

25.4 An abstract of title can be or include a list of documents, events and facts arranged (apart from a will or codicil) in date order, if the list in respect of each document –
- 25.4.1 shows its date, general nature, names of parties and any registration number; and
- 25.4.2 has attached a legible photocopy of it or of an official or registration copy of it.

25.5 An abstract of title –
- 25.5.1 must start with a good root of title (if the good root of title must be at least 30 years old, this means 30 years old at the contract date);
- 25.5.2 in the case of a leasehold interest, must include an abstract of the lease and any higher lease;
- 25.5.3 *normally*, need not include a Crown grant; and
- 25.5.4 need not include anything evidenced by the Register kept under the Real Property Act 1900.

25.6 In the case of land under old system title –
- 25.6.1 in this contract 'transfer' means conveyance;
- 25.6.2 the purchaser does not have to *serve* the transfer until after the vendor has *served* a proper abstract of title; and
- 25.6.3 each vendor must give proper covenants for title as regards that vendor's interest.

25.7 In the case of land under limited title but not under qualified title –
- 25.7.1 *normally*, the abstract of title need not include any document which does not show the location, area or dimensions of the land (for example, by including a metes and bounds description or a plan of the land);
- 25.7.2 clause 25.7.1 does not apply to a document which is the good root of title; and
- 25.7.3 the vendor does not have to provide an abstract if this contract contains a delimitation plan (whether in registrable form or not).

25.8 On completion the vendor must give the purchaser any *document of title* that relates only to the *property*.

25.9 If on completion the vendor has possession or control of a *document of title* that relates also to other property, the vendor must produce it as and where necessary.

25.10 The vendor must give a proper covenant to produce where relevant.

25.11 The vendor does not have to produce or covenant to produce a document that is not in the possession of the vendor or a mortgagee.

25.12 If the vendor is unable to produce an original document in the chain of title, the purchaser will accept a photocopy from the *Land Registry* of the registration copy of that document.

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26 Crown purchase money

26.1 This clause applies only if purchase money is payable to the Crown, whether or not due for payment.
26.2 The vendor is liable for the money, except to the extent this contract says the purchaser is liable for it.
26.3 To the extent the vendor is liable for it, the vendor is liable for any interest until completion.
26.4 To the extent the purchaser is liable for it, the *parties* must adjust any interest under clause 14.

27 Consent to transfer

27.1 This clause applies only if the land (or part of it) cannot be transferred without consent under *legislation* or a *planning agreement*.
27.2 The purchaser must properly complete and then *serve* the purchaser's part of an application for consent to transfer of the land (or part of it) *within* 7 days after the contract date.
27.3 The vendor must apply for consent *within* 7 days after *service* of the purchaser's part.
27.4 If consent is refused, either *party* can *rescind*.
27.5 If consent is given subject to one or more conditions that will substantially disadvantage a *party*, then that *party* can *rescind within* 7 days after receipt by or *service* upon the *party* of written notice of the conditions.
27.6 If consent is not given or refused –
27.6.1 *within* 42 days after the purchaser *serves* the purchaser's part of the application, the purchaser can *rescind*; or
27.6.2 *within* 30 days after the application is made, either *party* can *rescind*.
27.7 Each period in clause 27.6 becomes 90 days if the land (or part of it) is –
27.7.1 under a *planning agreement*; or
27.7.2 in the Western Division.
27.8 If the land (or part of it) is described as a lot in an unregistered plan, each time in clause 27.6 becomes the later of the time and 35 days after creation of a separate folio for the lot.
27.9 The date for completion becomes the later of the date for completion and 14 days after *service* of the notice granting consent to transfer.

28 Unregistered plan

28.1 This clause applies only if some of the land is described as a lot in an unregistered plan.
28.2 The vendor must do everything reasonable to have the plan registered *within* 6 months after the contract date, with or without any minor alteration to the plan or any document to be lodged with the plan validly required or made under *legislation*.
28.3 If the plan is not registered *within* that time and in that manner –
28.3.1 the purchaser can *rescind*; and
28.3.2 the vendor can *rescind*, but only if the vendor has complied with clause 28.2 and with any *legislation* governing the rescission.
28.4 Either *party* can *serve* notice of the registration of the plan and every relevant lot and plan number.
28.5 The date for completion becomes the later of the date for completion and 21 days after *service* of the notice.
28.6 Clauses 28.2 and 28.3 apply to another plan that is to be registered before the plan is registered.

29 Conditional contract

29.1 This clause applies only if a provision says this contract or completion is conditional on an event.
29.2 If the time for the event to happen is not stated, the time is 42 days after the contract date.
29.3 If this contract says the provision is for the benefit of a *party*, then it benefits only that *party*.
29.4 If anything is necessary to make the event happen, each *party* must do whatever is reasonably necessary to cause the event to happen.
29.5 A *party* can *rescind* under this clause only if the *party* has substantially complied with clause 29.4.
29.6 If the event involves an approval and the approval is given subject to a condition that will substantially disadvantage a *party* who has the benefit of the provision, the *party* can *rescind within* 7 days after either *party serves* notice of the condition.
29.7 If the *parties* can lawfully complete without the event happening –
29.7.1 if the event does not happen *within* the time for it to happen, a *party* who has the benefit of the provision can *rescind within* 7 days after the end of that time;
29.7.2 if the event involves an approval and an application for the approval is refused, a *party* who has the benefit of the provision can *rescind within* 7 days after either *party serves* notice of the refusal; and
29.7.3 the date for completion becomes the later of the date for completion and 21 days after the earliest of –
- either *party serving* notice of the event happening;
- every *party* who has the benefit of the provision *serving* notice waiving the provision; or
- the end of the time for the event to happen.

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29.8 If the *parties* cannot lawfully complete without the event happening –
- 29.8.1 if the event does not happen *within* the time for it to happen, either *party* can *rescind*;
- 29.8.2 if the event involves an approval and an application for the approval is refused, either *party* can *rescind*;
- 29.8.3 the date for completion becomes the later of the date for completion and 21 days after either *party* *serves* notice of the event happening.

29.9 A *party* cannot *rescind* under clauses 29.7 or 29.8 after the event happens.

30 Manual transaction

30.1 This clause applies if this transaction is to be conducted as a *manual transaction*.

● Transfer

30.2 *Normally*, the purchaser must *serve* the transfer at least 7 days before the date for completion.

30.3 If any information needed for the transfer is not disclosed in this contract, the vendor must *serve* it.

30.4 If the purchaser *serves* a transfer and the transferee is not the purchaser, the purchaser must give the vendor a direction signed by the purchaser personally for that transfer.

30.5 The vendor can require the purchaser to include a covenant or easement in the transfer only if this contract contains the wording of the proposed covenant or easement, and a description of the land burdened and benefited.

● Place for completion

30.6 *Normally*, the *parties* must complete at the completion address, which is –
- 30.6.1 if a special completion address is stated in this contract - that address; or
- 30.6.2 if none is stated, but a first mortgagee is disclosed in this contract and the mortgagee would usually discharge the mortgage at a particular place - that place; or
- 30.6.3 in any other case - the vendor's *solicitor's* address stated in this contract.

30.7 The vendor by reasonable notice can require completion at another place, if it is in NSW, but the vendor must pay the purchaser's additional expenses, including any agency or mortgagee fee.

30.8 If the purchaser requests completion at a place that is not the completion address, and the vendor agrees, the purchaser must pay the vendor's additional expenses, including any agency or mortgagee fee.

● Payments on completion

30.9 On completion the purchaser must pay to the vendor the amounts referred to in clauses 16.5.1 and 16.5.2, by cash (up to $2,000) or *settlement cheque*.

30.10 *Normally*, the vendor can direct the purchaser to produce a *settlement cheque* on completion to pay an amount adjustable under this contract and if so –
- 30.10.1 the amount is to be treated as if it were paid; and
- 30.10.2 the *cheque* must be forwarded to the payee immediately after completion (by the purchaser if the *cheque* relates only to the *property* or by the vendor in any other case).

30.11 If the vendor requires more than 5 *settlement cheques*, the vendor must pay $10 for each extra *cheque*.

30.12 If the purchaser must make a *GSTRW payment* the purchaser must –
- 30.12.1 produce on completion a *settlement cheque* for the *GSTRW payment* payable to the Deputy Commissioner of Taxation;
- 30.12.2 forward the *settlement cheque* to the payee immediately after completion; and
- 30.12.3 *serve* evidence of receipt of payment of the *GSTRW payment* and a copy of the settlement date confirmation form submitted to the Australian Taxation Office.

30.13 If the purchaser must pay an *FRCGW remittance*, the purchaser must –
- 30.13.1 produce on completion a *settlement cheque* for the *FRCGW remittance* payable to the Deputy Commissioner of Taxation;
- 30.13.2 forward the *settlement cheque* to the payee immediately after completion; and
- 30.13.3 *serve* evidence of receipt of payment of the *FRCGW remittance*.

31 Foreign Resident Capital Gains Withholding

31.1 This clause applies only if –
- 31.1.1 the sale is not an excluded transaction within the meaning of s14-215 of Schedule 1 to the *TA Act*; and
- 31.1.2 a *clearance certificate* in respect of every vendor is not attached to this contract.

31.2 If the vendor *serves* any *clearance certificate* or *variation*, the purchaser does not have to complete earlier than 5 *business days* after that *service* and clause 21.3 does not apply to this provision.

31.3 The purchaser must at least 2 *business days* before the date for completion, *serve* evidence of submission of a purchaser payment notification to the Australian Taxation Office by the purchaser or, if a direction under either clause 4.8 or clause 30.4 has been given, by the transferee named in the transfer the subject of that direction.

31.4 The vendor cannot refuse to complete if the purchaser complies with clause 31.3 and, as applicable, clauses 4.10 or 30.13.

31.5 If the vendor *serves* in respect of every vendor either a *clearance certificate* or a *variation* to 0.00 percent, clauses 31.3 and 31.4 do not apply.

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32 Residential off the plan contract

32.1 This clause applies if this contract is an off the plan contract within the meaning of Division 10 of Part 4 of the Conveyancing Act 1919 (the Division).

32.2 No provision of this contract has the effect of excluding, modifying or restricting the operation of the Division.

32.3 If the purchaser makes a claim for compensation under the terms prescribed by sections 4 to 6 of Schedule 3 to the Conveyancing (Sale of Land) Regulation 2022 –

32.3.1 the purchaser cannot make a claim under this contract about the same subject matter, including a claim under clauses 6 or 7; and

32.3.2 the claim for compensation is not a claim under this contract.

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BIRLING

STAGE 02 CONTRACT ADDITIONAL PROVISIONS

Ref MED: 243826 (Stage 2)

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Birling - Stage 02

DETAILS SECTION

1	***Registration Sunset Date***	
Clause 37	30 September 2026	
2	***Council rates and water rates – amounts for adjustment***	

Clauses 55, 56 and 57

Rates/Taxes	Amount	Period
Council Rates	$480	Quarterly adjustment amount
Water Rates	$290	Quarterly adjustment amount
Land Tax	☐ Yes ☐ No $3,500, if "Yes" is marked above and $Nil, if "No" is marked above Always subject to clause 52.2(e)	Annual adjustment amount

3	***Design & Landscape Guidelines Compliance Bond***	
Clause 59	Design & Landscape Guidelines Compliance Bond ☐ $5,000 inclusive of GST (if the property is not in a corner location) ☐ $10,000 inclusive of GST (if the property is in a corner location)	
4	***FIRB***	
Clause 46	Is purchaser a Foreign Person that requires FIRB approval to purchase? ☐ Yes ☐ No	
5	***Guarantor***	
Clause 33.1 and 74		

Address

Email

6	***Purchaser's Nominated Bank Account***	
Clause 60		

7 *Retaining Wall*

Clause 36.12

Will the property have a retaining wall on any part of the boundary?

☐ Yes

☐ No

ADDITIONAL PROVISIONS

PART 1 – DEFINITIONS AND INTERPRETATION

33 Definitions

33.1 In this contract these terms (in any form) mean:

Authority is any government, semi-government, statutory, public or other authority, company or organisation having jurisdiction over any aspect of the Development Site, the Development Activities, the Services or the Building Works, including but not limited to the Council.

Birling is the residential estate known as "Birling" to be created by the subdivision of the Development Site into the Superlots and then the further subdivision of the Superlots into primarily residential lots and secondarily commercial and retail lots.

Building Work is the construction of any dwelling, building, structure, or other improvement (including fences, letterboxes and driveways) on the *property*.

Council is Camden Council.

date for completion is the later of:

(a) 42 days from the date of this contract; and

(b) 21 days after the day on which the vendor serves copies of the Registered Subdivision Documents.

depositholder is the vendor's solicitor.

Design & Landscape Guidelines are the architectural, building and landscape standards designed to protect the integrity of Birling and to ensure that the same high standards are maintained throughout Birling, a draft of which is attached as **Attachment 5**.

Design & Landscape Guidelines Compliance Bond means the applicable amount in Item 3 of the Details Section relating to the *property*.

Design & Landscape Guidelines Compliance Certificate has the meaning given to it in clause 59.15.

Design & Landscape Guidelines Non-Compliance Certificate has the meaning given to it in clause 59.15.

Design Review Panel is a representative of the vendor appointed to assess and determine development applications lodged with respect to dwellings and other improvements to be constructed on lots (including the *property*) in the Development Site.

Development Activities means:

(a) any form of demolition work, excavation work or landscaping work on the Development Site;

(b) any form of building work or work ancillary to or associated with building work on the Development Site including, without limitation, the installation of Services;

(c) any form of work other than the forms of work referred to in paragraph (a) and (b) of this definition which is considered necessary or desirable by the vendor;

(d) subdivision of land forming part of the Development Site, including by any means including strata subdivision; and

(e) the dedication of land forming part of the Development Site in favour of Authorities.

Development Site is the land contained in lot 120 in Deposited Plan 1284706, lot 121 in Deposited Plan 1284706 and lot 4 in DP 1218798.

Disclosure Statement is the disclosure statement contained in this contract, prepared pursuant to Division 10 of Part 4 of the *Conveyancing Act 1919* (NSW).

Dwelling Construction Commencement is when footings for the dwelling to be constructed on the property have been laid, which must be after the purchaser complies with clause 59.7 and 59.8.

FIRB is the Foreign Investment Review Board constituted by the FIRB Act.

FIRB Act is the *Foreign Acquisitions and Takeover Act 1975* (Cth).

FIRB Application has the meaning given to it in clause 46.

FIRB Approval has the meaning given to it in clause 46.

Foreign Person has the meaning given to it in the FIRB Act.

GST refers to a tax under the GST Act.

Guarantor (if any) is any guarantor named in Item 5 of the Details Section.

Inspection Request has the meaning give to it in clause 58.

Interest Rate is 8%.

Item means an item in the Details Section.

Lot Plan means the indicative plan of the *property* layout, configuration and location of the driveway and Services attached as **Attachment 3**.

Mandatory Disclosure Documents are the documents attached as **Attachment 1**.

Materially Prejudices the Purchaser is a Relevant Change such that the purchaser:

(a) would not have entered into the contract had the purchaser been aware of the Relevant Change; and

(b) is materially prejudiced by the Relevant Change.

Occupation Certificate is an occupation certificate as defined under section 6.4(c) of the *Environmental Planning and Assessment Act 1979* (NSW) issued by a certifying Authority in respect of the Building Work.

Other Document Changes is defined in clause 39.

PCA is a principal certifying authority, referred to as a registered certifier in the *Environmental Planning & Assessment Act 1979* (NSW) and the *Building and Development Certifiers Act 2018* (NSW) and accredited by the Building Professionals Board.

PEXA means the electronic conveyancing platform known as "PEXA".

property has the meaning given to that term on the front page of this contract.

Registrar General means the Office of the Registrar General who oversees the operation of the NSW land title registry.

Registration is registration by the Registrar General.

Registration Sunset Date – see Item 1 of the Details Section.

Relevant Change is a 'Relevant Change' as referred to in:

(a) clause 38.3 (*Changes to the Subdivision Plan*), being any change to the Subdivision Plan; and

(b) clause 39.3 (*Changes to other documents*), being any Other Document Changes.

Relevant Date is:

(a) the date for completion if the Draft Subdivision Documents has not been registered as at the contract date; or

(b) the contract date if the Draft Subdivision Documents has been registered as at the contract date.

Restricted Matters is:

(a) matters relating to the undertaking of the Development Activities by the vendor;

(b) the exercise of any of the vendor's rights disclosed or referred to in this contract;

(c) anything required to effect the Registration of the Subdivision Documents, the Section 88B Instrument, or other matter disclosed or referred to in this contract;

(d) the carrying out of any of the vendor's obligations disclosed or referred to in this contract;

(e) the subject matter of any intention of the vendor disclosed or referred to in this contract;

(f) any other matter or thing required by the vendor to give effect to this contract; and

(g) the doing of anything or the giving effect to a requirement of or the satisfaction of a condition imposed by an Authority or by the Council.

Required Construction Start Date has the meaning given to that term in clause 59.12.

Salinity Plan means the Salinity Investigation and Management Plan 204684.01 dated June 2022 prepared by Douglas Partners, a copy of which is attached as **Attachment 6**.

Section 10.7 Certificate is the planning certificate issued by the Council attached to this contract as a Mandatory Disclosure Document.

Section 88B Instrument is the instrument creating easements and covenants to be registered with the Subdivision Plan, a draft of which is deemed to be included in the Disclosure Statement (and referred to as the 's88B instrument proposed to be lodged with draft plan'), by being attached as **Attachment 2.2**, with or without any changes permitted under this contract.

Selling and Leasing Activities comprise any activity connected with or relating to marketing, selling or leasing of any part of the Development Site and includes the placement and maintenance of:

(a) signs, advertisements, boards, writing, plates, signals, illuminations, banners and insignia; and

(b) stalls or associated facilities for the use of sales persons; and

(c) any event or function held on other property,

in connection with the selling and leasing of lots in the Development Site.

Service Providers includes Council, any Authority and any company in the business of supplying services and utilities to the public.

Services are services and utilities provided to the boundary of the property being access to a connection for the provision of sewer, potable water, electricity and telecommunications.

Stage 2 Superlot is lot 102 in Deposited Plan 1298342 (being a pre-allocated deposited plan) as marked on the Superlot Plan and to be created by the subdivision of the Development Site.

Standard Form is clauses 1 to 32 of this contract and the text and pages preceding those clauses (titled "Contract for the sale and purchase of land 2022 edition").

Standard Requisitions is the residential property requisitions of the Australian Law Stationers Pty Limited, a copy of which is attached in **Attachment 8**.

Subdivision Documents includes the Subdivision Plan and the Section 88B Instrument.

Subdivision Plan is the plan of subdivision of the Stage 2 Superlot which creates the *property*, a draft of which is deemed to be included in the Disclosure Statement (and referred to as the 'draft plan'), by being attached as **Attachment 2.1**, with or without any changes permitted under this contract.

Superlot Plan is the plan of subdivision of part of the Development Site (excluding lot 120 in Deposited Plan 1284706 and lot 4 in DP 1218798) creating Superlots including

the Stage 2 Superlot, a draft of which is deemed to be included in the Disclosure Statement (and referred to as the 'draft superlot plan'), by being attached as **Attachment 4**, with or without any changes permitted under this contract.

Superlots are large lots to be created by the subdivision of the Development Site and to be further subdivided into smaller residential and commercial lots in stages, and which includes (but is not limited to) the first eight large lots being Lots 101, 102, 103, 104, 105, 106, 107 and 108 in Deposited Plan 1298342 (being the pre-allocated deposited plan) being lots to be created by the subdivision of the Development Site.

Traffic Assessment Acoustic Report means the approved acoustic report "Birling Desktop Traffic Noise Assessment for Stage 1 & 2 – TM564-01F02 dated 30 August 2023 prepared by Renzo Tonin & Associates Acoustics, a copy of which is attached as **Attachment 7**.

34 Interpretation

(a) In this contract, unless the context otherwise requires, a reference to:

(i) any thing (including an amount, a right or a provision of this contract) is a reference to the whole and each part of it;

(ii) this contract includes any schedules and annexures;

(iii) a document (including this contract) includes the document as novated, varied, supplemented or replaced;

(iv) a time is to the time in New South Wales, Australia;

(v) a person (including a *party* to a document) includes their executors, administrators, successors, permitted assigns and substitutes (including persons taking by novation) and, in the case of a trustee, includes an additional trustee;

(vi) ***law*** means common law, equitable principles and laws made by a parliament;

(vii) a law made by a parliament (including a statute, ordinance or code) includes regulations and other instruments under it, and consolidations, amendments, re-enactments or replacements of it;

(viii) conduct means any conduct (including making a written or oral statement or giving a written or oral undertaking, or an omission);

(ix) *cost* or *costs* includes legal costs on a full indemnity basis;

(x) *person* includes any entity, such as an individual, a partnership, a body corporate, an unincorporated association, an agency or an authority;

(xi) *claim* includes any action, proceeding or litigation in respect of any claim;

(xii) the singular includes the plural and vice versa; and

(xiii) a word denoting a particular gender includes the other genders.

(b) In this contract, unless the context otherwise requires:

(i) if this contract requires an obligation to be performed (or something to happen) on or before a particular day and that day is not a *business day*, the obligation may be performed (or the thing is permitted to happen) on or by the next *business day*; and

(ii) where something is done (or happens) after 5.00 pm on a particular day, it is treated as being done (or having happened) on the next *business day*.

(c) *Normally*, if a period of time runs to or from a given date, act or event, the time is calculated exclusive of that date, act or event.

(d) Headings are for ease of reference and do not affect the interpretation of this contract.

(e) A rule of construction that would otherwise disadvantage a *party* because the *party* was responsible for the preparation of this contract, does not apply.

(f) The meaning of any general words is not limited by specific examples introduced by *including*, *for example*, *such as* or a similar expression.

(g) The provisions of this contract which are intended to have application after completion, continue to apply from completion.

(h) If there is an inconsistency between the Standard Form and these Additional Provisions, then these Additional Provisions prevail.

(i) Despite clause 1 of this contract, the terms defined in clause 1, in clause 33 (*Definitions*) and anywhere else in this contract are defined terms whether or not they are in italics in the text.

(j) In this contract, *in connection with this contract* is to be given the widest possible meaning and so includes anything (including a transaction) contemplated by this contract.

(k) If two or more parties are included within the same defined term in these Additional Provisions:

(i) a liability of those parties under this contract is a joint liability of all of them and a several liability of each of them;

(ii) a right given to those parties under this contracct is a right given severally to each of them; and

(iii) a representation, warranty or undertaking made by those parties is made by each of them.

35 Variations to the printed clauses of this Contract

clause	instruction	Text
1 (definition of *"depositholder")*	Delete definition and replace with	"*depositholder* the vendor's *solicitor*,"
1 (definition of bank)	Delete definition and replace with	"the Reserve Bank of Australia or an authorised deposit taking institution which is a bank."
2.2	Delete this text of clause	"Normally,"
3	Delete clause	-
5.1	Delete the text of this clause	
	Replace with	"The purchaser agrees that the only general requisitions on title that it may *serve* under clause 5 are the Standard Requisitions. The purchaser is taken to have made those *requisitions*."
5.2.2	Delete this text of clause	"21 days"
	Replace with	"7 days"
6.2	Delete clause	-
7	Delete this text of clause	"before completion"
	Replace with	"not less than 5 *business days* after the later of the date the vendor serves a copy of an Occupation Certificate and the date the vendor serves notice of Registration of the Subdivision Documents"
7.1.1	Delete this text of clause	"5%"
	Replace with	"1%"
7.1.3	Delete this text of clause	"14 days"

clause	instruction	Text
	Replace with	"7 days"
7.2.1	Delete this text of clause	"10%"
	Replace with	"1%"
7.2.6	Insert after the word "vendor" at the end of the clause	"and the amount held and all net interest must be paid to the vendor"
8.1.3	Delete this text of clause	"14 days"
	Replace with	"7 days"
10.1	Insert after "The purchaser cannot make a claim or *requisition* "	"or delay completion,"
10.1.8 and 10.1.9	Delete this text of clause	"substance"
	Replace with	"existence"
10.1.10	Insert a new clause 10.1.10	"any claim, grant, notice, order or declaration in connection with native title, land rights or heritage protection under *legislation*, the common law or otherwise"
10.2	Insert before the word "rescind"	"delay completion or"
10.3	Insert before the word "rescind"	"delay completion or"
12.3	Delete clause	
	Replace with	clause 58
13.8	Delete clause	
13.13	Delete this text of clause	"5 *business days*"
	Replace with	"2 *business days*"
16.4	Insert new sentence at end of clause.	"Alternatively, the vendor may pay all outstanding land tax direct to Revenue NSW on completion (whether that is evidenced by a Revenue NSW 'Letter for Presentation at Settlement' or otherwise) in which case the vendor must provide the purchaser with a land tax certificate showing that the charge is no longer effective against the land, within 5 business days after completion"
18.8	Insert a new clause 18.8	"18.8 The purchaser is not entitled to (and must not) make an objection, *requisition* or claim after entering into possession."
19.2.3	Insert before "; and"	"other than the breach or matter giving rise to the right to *rescind*"
20.4	Insert after "*party*"	"or Guarantor"
20.6A	Insert new clause 20.6A after clause 20.6.8	"20.6A A document under or relating to this contract: 20.6A.1 is not permitted to be served by email if it seeks to *rescind* or *terminate*; 20.6A.2 sent by fax is taken as served at the time the transmission report shows that the whole fax was sent;

clause	instruction	Text
		20.6A.3 sent by email is taken as served at the earlier of: • the time in the 'Sent' line of the sender's copy unless the sender receives a message (from its internet service provider or the recipient's mail server) within 2 hours after sending, indicating that it has not been successfully transmitted (in which case, the document is treated as not served) • the time the sender receives a message from the recipient's information system confirming delivery of the email; and • the time the email is available to be read at the recipient's email address."
22.3	Insert new clause 22.3	"The purchaser indemnifies the vendor against any liability, loss or cost arising out of any breach of clause 22.1".
23 to 27 (inclusive) and 29	Delete clause	-
30.9	Delete this text of clause	"cash (up to $2,000) or".
30.11	Delete clause	

PART 2 – DEVELOPMENT MATTERS

36 Vendor's disclosures and purchaser's acknowledgements

Staged Development

36.1 The vendor discloses the following:

(a) Birling is to be a primarily residential estate with ancillary commercial and retail offerings created by staged development;

(b) the Development Site is to be subdivided into Superlots;

(c) the Superlots are to be subdivided to create lots;

(d) Stage 2 Superlot is to be subdivided to create the Lot;

(e) the number of lots in each stage and the timing for the start and finish of each stage is uncertain at the contract date and is to be determined by the vendor; and

(f) the Lot Plan is indicative only and is intended as a guide to assist the purchaser with planning of the construction of a dwelling on the *property*.

36.2 The purchaser agrees that it has not relied on the Lot Plan in making its decision to enter into this contract and understands and acknowledges that the *property* as provided on completion of this contract may differ from that detailed in the Lot Plan, including in relation to dimensions or locations of any boundary, retaining wall or other improvement.

Services

36.3 The vendor discloses the following:

(a) the location of Services and infrastructure relating to the Services on the Lot Plan is indicative only and may change, including:

(i) a manhole, pit or vent may be on the *property*;

(ii) a Service may pass through the *property*;

(b) arrangements with Service Providers for the provision of Services to the Development Site may not have been concluded as at the date of this contract;

(c) it may be required to enter into arrangements with Service Providers to facilitate the provision of Services, including but not limited to, easements, restrictions on use, positive covenants, leases, bonds, guarantees or security deposits; and

(d) the vendor has entered into or proposes to enter into an agreement with NBN Co Limited for the provision of the national broadband network being the national telecommunication network.

36.4 The purchaser agrees that it has not relied on the Lot Plan in making its decision to enter into this contract and understands and acknowledges that the *property* as provided on completion of this contract may differ from that detailed in the Lot Plan, including in relation to Services and infrastructure for the provision of Services.

Development Activities

36.5 The vendor discloses and the purchaser acknowledges and agrees that, following completion, the vendor may continue to carry out Development Activities which may cause noise, dust, vibration and disturbance (including temporary interference with Services) to the occupiers of lots in the Development Site notwithstanding that this will be done within any restrictions (including as to hours of work) imposed by law or an Authority.

Other Easements and covenants

36.6 The vendor discloses that other easements, rights, restrictions on use or positive covenants may be required by an Authority or the Council over the Development Site.

36.7 The vendor discloses:

(a) the Salinity Plan; and

(b) the Traffic Assessment Acoustic Report,

which are referenced in the terms of restrictions on the use of land the Section 88B Instrument.

Sewer Diagrams

36.8 The vendor discloses the letter issued by Sydney Water dated 12 August 2024 at Attachment 1 stating that a sewer service diagram (also known as sewer lines location diagram) is not available for lot 120 in DP1284706 (being part of the Development Site on which the *property* will be developed).

36.9 The parties acknowledge the following:

(a) pursuant to clause 4 and schedule 1 (Prescribed Documents) of the *Conveyancing (Sale of Land) Regulation 2022* (NSW), the vendor is obliged to attach a sewer service diagram (also known as sewer lines location diagram) relating to the *property* from a recognised sewerage authority (if available from the authority in the ordinary course of administration);

(b) Sydney Water (which is the recognised sewerage authority for the *property*) do not have a sewer service diagram (also known as sewer lines location diagram) relating to the *property*; and

(c) the vendor has discharged its obligations under clause 4 and schedule 1 (Prescribed Documents) of the *Conveyancing (Sale of Land) Regulation 2022* (NSW) with respect to attaching a sewer service diagram (also known as sewer lines location diagram) relating to the *property* from a recognised sewerage authority (if available from the authority in the ordinary course of administration).

36.10 The vendor discloses that the *property* will be connected to sewer services although the ultimate location of the sewer connections is not known as at the date of this contract and the location on the Lot Plan is indicative only.

Section 10.7 Certificate

36.11 The vendor discloses the matters set out in the Section 10.7 Certificate. The purchaser the must satisfy itself as to the contents of the Section 10.7 Certificate, and is treated as having done so.

Retaining Walls

36.12 If the box marked "yes" is marked in item 7 of the Details Section, the vendor discloses that:

(a) it will be constructing a retaining wall along part of the boundaries of the *property;*

(b) the position and height of the retaining wall and the subsoil drainage on the Lot Plan is indicative and may change; and

(c) the vendor does not warrant or imply that the retaining wall will be watertight and will prevent the passage of water across the *property* and from and across other properties.

36.13 If the *property* is on the low side of the retaining wall constructed by the vendor, the purchaser must (at its cost) ensure provision for adequate subsoil drainage is constructed on the *property* as part of the purchaser's landscaping.

36.14 If:

(a) a retaining wall has been constructed along part of the side boundaries of the *property* by the vendor; and

(b) the retaining wall is on the same boundary as contains provision for a dwelling to be constructed up to the boundary of the *property*,

the purchaser must (at its cost) ensure subsoil drainage constructed by the vendor behind the retaining wall is connected to drainage installed as part of the dwelling construction or associated landscaping in a manner which ensures drainage freely to a controlled outlet from the *property*.

Design & Landscape Guidelines

36.15 The vendor discloses that the *property* will be subject to the Design & Landscape Guidelines.

36.16 The purchaser must comply with the Design & Landscape Guidelines.

Estate name

36.17 The vendor discloses that it intends to name the estate which is created by the development of the Development Site "Birling". However, if the use of this name is not permitted under any legal restriction, the vendor may elect to change the name.

Suburb

36.18 The vendor discloses that whilst at the date of this contract, the *property* is located in the suburb of Bringelly, it is possible that suburb boundaries are reconfigured, and a new suburb is created with another name (other than Bringelly) which incorporates the *property* and the Development Site.

36.19 The purchaser cannot object to, or raise any opposition against, a proposal that may result in the *property* and the Development Site being incorporated into a new suburb name.

No dual occupancies, secondary dwellings or further subdivision

36.20 The purchaser promises (in favour of the vendor) that the purchaser:

(a) will seek to construct one dwelling only on the *property*;

(b) will not seek to:

(i) further subdivide the *property*; or

(ii) create a dual occupancy or secondary dwelling.

No claims

36.21 The purchaser cannot make any claim or *requisition* or *rescind* or *terminate* because of any matter disclosed or noted in this clause 36.

No merger

36.22 Clauses 36.12 - 36.21 do not merge on completion of this contract and continue to apply after completion of this contract.

37 Registration of plans and documents

37.1 Completion of this contract is conditional on Registration of the Subdivision Documents.

37.2 The vendor must use reasonable endeavours to have the Subdivision Documents registered by the Registration Sunset Date.

37.3 If the Subdivision Documents have not been registered by the Registration Sunset Date either *party* can *rescind*.

37.4 Despite clause 37.3, the vendor is only entitled to *rescind* if the Subdivision Documents have not been registered by the Registration Sunset Date if the rescission is in accordance with section 66ZS of the *Conveyancing Act 1919* (NSW).

37.5 If the Subdivision Documents are registered after the Registration Sunset Date but prior to any rescission under clause 37.3 taking effect, then neither party will be entitled to *rescind*.

37.6 Subject to clause 37.7 the vendor can *serve* a notice or notices extending the Registration Sunset Date if Registration of the Subdivision Documents is delayed in whole or in part because of any cause, matter or thing beyond the control of the vendor including, but not limited to, any industrial strike, action or delay, weather delays, acts of God and legislative changes.

37.7 The date specified in any vendor's notice cannot extend the original Registration Sunset Date stated in Item 1 of the Details Section by a period of more than 24 months after that original date.

38 Changes to the Subdivision Plan

38.1 Before Registration, the vendor can make changes which the vendor considers necessary or desirable to the Subdivision Plan including:

(a) the total number of lots from those shown on the Subdivision Plan;

(b) the numbering of lots from those shown on the Subdivision Plan;

(c) the dimensions or areas of lots from those shown on the Subdivision Plan;

(d) the location of lots from those shown on the Subdivision Plan;

(e) the location of easements from those shown on the Subdivision Plan; and

(f) in respect of any matters disclosed or noted in this contract.

38.2 Subject to clause 38.3, the purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of any changes to the Subdivision Plan.

38.3 If there is any change to the Subdivision Plan on Registration from that shown in the Subdivision Plan attached to this contract, being a 'Relevant Change', and this Relevant Change Materially Prejudices the Purchaser, then the purchaser can *rescind* as follows:

(a) where the vendor *serves* a notice under clause 38.4 the purchaser can *rescind* but only (despite clause 19.1.1 of the Standard Form) within 7 days of service of that notice and this time is essential; or

(b) where the vendor does not *serve* a notice under clause 38.4 the purchaser can *rescind* (despite clause 19.1.1 of the Standard Form) within 7 days of the vendor serving notice of Registration of the Subdivision Plan and this time is essential.

38.4 The vendor can at any time *serve* on the purchaser a notice advising of amendments to the Subdivision Plan.

38.5 The purchaser cannot make a claim or *requisition* or *rescind* or *terminate* as a result of the treatment of unit entitlements as set out in this clause 38.

39 Changes to other documents

39.1 The vendor can do any of the following:

(a) make changes to the Design & Landscape Guidelines at **Attachment 5** to this contract including create further guidelines in addition to or in replacement of those guidelines set out in **Attachment 5**;

(b) make changes to the Section 88B Instrument attached to this contract including:

(i) change the location of easements as set out in the Subdivision Plan, Section 88B Instrument or disclosed in this contract; and

(ii) create further easements, covenants and restrictions as to user in addition to those set out in the Subdivision Plan, Section 88B Instrument or disclosed in this contract,

which the vendor considers necessary or desirable, all of which are referred to as "***Other Document Changes***".

39.2 Subject to clause 39.3, the purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of any Other Document Changes.

39.3 If any Other Document Changes are made, being a 'Relevant Change', and this Relevant Change Materially Prejudices the Purchaser, then the purchaser can *rescind* as follows:

(a) where the vendor *serves* a notice under clause 39.4, the purchaser can *rescind* (despite clause 19.1.1 of the Standard Form) within 7 days of service of that notice and this time is essential; or

(b) where the vendor does not *serve* a notice under clause 39.4 the purchaser can *rescind* but only (despite clause 19.1.1 of the Standard Form) within 7 days of the vendor serving notice of Registration of the Subdivision Plan and this time is essential.

39.4 The vendor can at any time *serve* a notice advising of any Other Document Changes.

40 Selling and Leasing activities

40.1 Both before completion and after completion (until the vendor completes the sale of all lots in the Development Site), the vendor and persons authorised by the vendor can conduct Selling and Leasing Activities on the Stage 2 Superlot and other Superlots.

40.2 The purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of any Selling and Leasing Activities on the Stage 2 Superlot or the Development Site.

PART 3 – SALE AND PURCHASE PROVISIONS

41 Deposit

41.1 The vendor may elect, in its sole discretion, to invest the deposit in accordance with this clause 41.

41.2 The purchaser consents to any investment of the deposit by the vendor in accordance with this clause 41.

41.3 The parties authorise and direct the *depositholder* to pay the deposit into an unsecured interest bearing controlled monies account with St George Bank situated at Barangaroo, Sydney (*CMA*).

41.4 Interest earned on the deposit less government and bank charges, must be paid promptly as follows:

(a) if this contract is completed, half to the purchaser and half to the vendor; and

(b) if this contract is rescinded or terminated, to the party entitled to the deposit.

41.5 The purchaser must provide the *depositholder* with:

(a) if the purchaser is a natural person, the purchaser's date of birth and tax file number;

(b) if the purchaser is not a natural person, its ABN or tax file number,

within two business days after the contract date.

41.6 The purchaser acknowledges that if their tax file number or Australian Business Number is not quoted to the vendor in accordance with clause 41.5; then notwithstanding clause 41.4, all of the interest credited to the CMA will be the *property* of the vendor and the purchaser waives all entitlement to that interest.

41.7 The vendor and the purchaser:

(a) must give all directions and do all such things as may be necessary to give effect to the provisions of this clause 41; and

(b) acknowledge that the deposit is invested at the risk of the party who becomes entitled to the deposit on completion, rescission or termination of this contract (whichever occurs).

41.8 Upon a party becoming entitled to the deposit under this contract, the vendor and purchaser authorise the *depositholder* to close the CMA and distribute the proceeds of it in accordance with this clause 41.

41.9 Subject to clause 41.6, any interest credited to the CMA will be and remains the property of:

(a) the vendor and the purchaser in equal shares, if completion of this contract occurs; or

(b) the party who is legally entitled to receive the deposit if completion of this contract does not occur.

42 Representations, warranties and acknowledgments

42.1 The provisions set out in this contract contain the entire agreement between the parties at the contract date despite any:

(a) negotiations or discussions held; or

(b) documents signed or brochures produced or other marketing material produced,

before the contract date.

42.2 In entering into this contract, the purchaser acknowledges and agrees that the purchaser has not relied on any warranty or representation made by or any other conduct of:

(a) the vendor; or

(b) any person on behalf of the vendor,

except those expressly provided in this contract or in *legislation*.

42.3 The purchaser acknowledges and agrees that the purchaser is relying entirely upon the purchaser's own enquiries relating to:

(a) the fitness or suitability for any particular purpose of the *property*;

(b) the purchaser's obligations and rights under this contract;

(c) any financial return, income and investment advice despite:

(i) any forecasts or feasibilities; and

(ii) information relating directly or indirectly to the purchase of the *property* by the purchaser as an investment on any basis whatsoever,

provided to the purchaser by or on behalf of the vendor.

42.4 The purchaser accepts the *property* in the *property's* state of repair and condition at the Relevant Date and subject to all latent and patent defects.

42.5 The purchaser acknowledges and agrees that:

(a) this contract describes what the vendor is contracting to deliver and is obliged to deliver to the purchaser on completion of this contract, despite any other materials that the purchaser has viewed, including any computer generated images, model and any other marketing material in relation to the *property*;

(b) the purchaser has been given the opportunity to take sufficient time to review and consider and take advice (including from its solicitor) in connection with all matters disclosed or described in this contract; and

(c) any specific matter which the purchaser desired to be addressed in this contract, including any matter set out or described in any computer generated images, model or any other marketing material for the *property*, should have been brought to the vendor's attention in writing before the contract date.

42.6 The purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of:

(a) the state of repair or condition of the *property* at the Relevant Date;

(b) any latent or patent defects; or

(c) any other matter referred to in this clause 42.

43 Fencing

43.1 If the vendor owns other land which adjoins the property, the purchaser agrees that it will not require the vendor to contribute to fencing work as defined in the *Dividing Fences Act 1991* (NSW) in respect of any dividing fence between the *property* and any adjoining land owned by the vendor.

43.2 This clause 43 does not merge on completion and continues to apply after completion of this contract.

44 Agent

44.1 The purchaser warrants that the purchaser was not introduced to the vendor or to the *property* by or through the medium of:

(a) a real estate agent;

(b) an employee of a real estate agent; or

(c) a person having a connection with a real estate agent,

other than the vendor's agent (if any).

44.2 The purchaser must at all times indemnify the vendor from and against:

(a) any claim for commission made by any person other than the vendor's agent arising out of a breach of the warranty in clause 44.1; and

(b) all actions, proceedings and expenses arising out of any such claim.

45 On Selling

45.1 The purchaser agrees that the purchaser:

(a) will not list the *property* for sale before the date of Dwelling Construction Commencement without the vendor's written consent; and

(b) may only enter into an agreement to sell the *property* before the date of Dwelling Construction Commencement with the vendor's written consent.

45.2 The purchaser acknowledges that:

(a) the vendor is unlikely to provide its consent to a request under clause 45.1, unless the purchaser demonstrates legitimate hardship to the vendor; and

(b) if the vendor provides its consent to a request under clause 45.1 it may do so with whatever conditions the vendor considers appropriate.

45.3 If the purchaser wishes to sell the *property* before the date of Dwelling Construction Commencement:

(a) the purchaser must give the vendor written notice of the purchaser's wish to sell the *property* before the purchaser takes any steps to sell the *property*, including but not limited to, appointing a selling agent; and

(b) despite any other provision of this clause 45, the vendor is entitled to exercise its rights to buy back the property as set out in clause 60.

45.4 This clause 45 does not merge on completion and continues to apply after completion of this contract.

46 FIRB

Where purchaser is not a Foreign Person

46.1 The provisions of clause 22 of the Standard Form apply unless Item 4 of the Details Section states that that the purchaser is a Foreign Person that requires FIRB Approval to purchase the *property*.

FIRB Approval where purchaser is a Foreign Person

46.2 If the purchaser discloses in writing to the vendor on or before the contract date that the purchaser is a Foreign Person then:

(a) this contract is subject to and conditional upon the purchaser obtaining the approval of the FIRB for the purchase of the *property*;

(b) the purchaser must, within 10 business days after the contract date, lodge an application for FIRB Approval to purchase the *property* (***FIRB Application***) and provide a copy of the FIRB Application to the vendor;

(c) the purchaser must keep the vendor fully informed of the progress of the FIRB Application and must provide to the vendor, a copy of all material correspondence

in connection with the FIRB Application within 2 business days of sending or receipt of the correspondence.

46.3 The purchaser must use its best endeavours to obtain approval from the FIRB with respect to the FIRB Application as soon as possible.

46.4 This contract will become unconditional with respect to the approval of the FIRB for the purchase of the *property* on the day the purchaser notifies the vendor in writing that the purchaser has received written consent from the FIRB for the purchase the property or written confirmation from the FIRB that the FIRB has no objection to the FIRB Application (***FIRB Approval***).

46.5 If within 2 months of the contract date the purchaser has either:

(a) not received FIRB Approval;

(b) received FIRB Approval but has not provided a copy of the FIRB Approval to the vendor,

the vendor may *rescind* this contract by notice in writing to the purchaser at any time up to the time the purchaser receives FIRB Approval and notifies the vendor in writing that the purchaser has received FIRB Approval.

46.6 If before the vendor *rescinds* this contract under clause 46.5 the purchaser receives written refusal or a written objection to the FIRB Application and provides a copy of that refusal or objection to the vendor, the purchaser may *rescind* this contract by notice in writing to the vendor.

46.7 For avoidance of doubt, despite the rights of the vendor under clause 46.5, the purchaser does not have the right to *rescind* this contract if the purchaser has received FIRB Approval but has not notified the vendor in writing that the purchaser has received the FIRB Approval.

47 No lodgement by purchaser of caveat

47.1 The purchaser must not lodge a caveat for notation on any certificate of title for the Stage 2 Superlot or the Development Site before Registration of the Subdivision Documents.

47.2 In consideration for the rights granted under this contract to the purchaser, the purchaser irrevocably appoints the vendor and persons authorised by the vendor, as the purchaser's attorney to withdraw any caveat lodged against the title to the Stage 2 Superlot or the Development Site (or any part of it) in breach of clause 47.1.

48 Restricted matters

48.1 The purchaser must:

(a) not lodge a development application in relation to the *property* before completion of this contract;

(b) not make an application to or otherwise approach Council or commence any proceedings in a court or tribunal that would prevent, delay, curtail or inhibit the Restricted Matters;

(c) not request or procure any person including any mortgagee to lodge an application with the Council or a court or tribunal of competent jurisdiction which would prevent, delay, curtail or inhibit the Restricted Matters; and

(d) do all things reasonably required by the vendor to give effect to the Restricted Matters.

48.2 The purchaser must use all reasonable endeavours to ensure any enrolled mortgagee and enrolled covenant chargee of the *property* complies with this clause 48.

48.3 This clause 48 continues to apply until the vendor has completed the sale of all of the residential lots in the Development Site.

48.4 The purchaser must procure any transferee of the *property* to acknowledge the matters disclosed or noted in this contract including this clause 48 and to enter into an agreement with the vendor in the form of this clause.

49 Transfer duty

49.1 The purchaser must pay any transfer or other duty or similar tax (including related fines, penalties and interest) in connection with this contract (including in connection with an instrument entered into under this contract or a transaction evidenced by this contract (or both)).

49.2 The purchaser indemnifies the vendor on demand against any liability, loss, damage, expense or claim incurred in connection with transfer duty.

PART 4 – COMPLETION MATTERS

50 Registered Documents

50.1 The vendor may provide copies of registered documents to the purchaser by email or making soft copies available via a virtual data room.

50.2 The purchaser acknowledges that in the event that the vendor makes copies of the registered documents available in accordance with clause 50.1 the vendor will not be required to provide the purchaser with hard copies of those documents.

50.3 The purchaser cannot make any claim or *requisition* or *rescind* or *terminate* because of any matter disclosed or noted in this clause 50.

51 Notations on certificates of title

51.1 The purchaser is aware that the notations in or to the effect of those contained in the Subdivision Documents or otherwise disclosed or noted in this contract may be endorsed on the certificate of title issued or to be issued in respect of the *property.*

51.2 The purchaser cannot make a claim or *requisition* or *rescind* or *terminate* in respect of the existence of:

(a) the notations in or to the effect of those contained in the Subdivision Documents or contemplated by this contract; or

(b) any matter disclosed or noted in this contract which may be noted on those certificates of title.

52 Late completion

52.1 For the purpose of clause 15:

(a) 3.00 pm on the day being not less than 14 *business days* after the date of service of a notice to complete is a reasonable period to allow for completion; and

(b) without affecting any other right, a *party* who has issued a notice to complete under this contract can, at any time before the expiration of the notice, revoke the notice by serving a notice of revocation.

52.2 If completion does not take place in accordance with clause 15:

(a) the purchaser must pay interest on the unpaid balance of the price at the Interest Rate calculated daily from and including the date for completion to but excluding the actual day of completion;

(b) it is an essential term of this contract that the interest must be paid on and as a condition of completion;

(c) interest payable under this clause is a genuine pre-estimate of the vendor's loss as a result of the purchaser's failure to complete in accordance with this contract;

(d) the right to interest does not limit any other rights the vendor may have as a result of the purchaser's failure to complete in accordance with this contract;

(e) if completion does not take place during the land tax year at the date completion is due, the vendor will require a land tax adjustment for the following land tax year; and

(f) the vendor can by serving a notice at any time before completion elect to fix the date for completion as the adjustment date.

52.3 The purchaser need not pay interest under clause 52.2 for any period during which completion has been delayed by the vendor.

53 Existing encumbrances

53.1 If at completion there is noted on any certificate of title for the *property* a mortgage or caveat (other than a caveat to which clause 53.2 applies) the purchaser must on completion accept a discharge of that mortgage or a withdrawal of that caveat in registrable form so far as it relates to the *property*.

53.2 If at completion there is noted on any certificate of title for the *property* a caveat lodged by or on behalf of:

(a) the purchaser;

(b) any assignee of the purchaser's interest under this contract; or

(c) any person claiming through or under the purchaser,

the purchaser must complete despite the notation of that caveat.

54 GST

54.1 The vendor and purchaser acknowledge and agree:

(a) that the sale of the *property* is a taxable supply;

(b) that the price includes GST; and

(c) to utilise the margin scheme in paying GST in respect of the taxable supply under this contract.

54.2 The purchaser must pay any GST applicable to the adjustments that are made in accordance with clause 14 of this contract.

55 Land Tax

55.1 If at completion no separate assessment for land tax for the *property* for the year current at completion has been issued then:

(a) no regard is to be had to the actual assessment when it issues;

(b) the purchaser agrees to accept the amount per annum referred to in Item 2 of the Details Section as the amount payable for land tax for the *property* for the year current at completion which amount must be adjusted (on the basis that it is paid) on completion in accordance with clause 14; and

(c) the vendor must pay any assessment of land tax which may be issued for the *property* for the year current at completion when such assessment is issued.

56 Council Rates

56.1 If at completion no separate assessment for council rates for the *property* for the year or quarter current at completion has been issued then:

(a) no regard is to be had to the actual assessment when it issues;

(b) the purchaser agrees to accept the amount per annum referred to in Item 2 of the Details Section as the amount payable for Council rates for the *property* for the year current at completion which amount must be adjusted (on the basis that it is paid) on completion in accordance with clause 14; and

(c) the vendor must pay any assessment of Council rates which may be issued for the *property* for the year current at completion when such assessment is issued.

57 Water Rates

57.1 If at completion no separate assessment for water and sewerage rates for the *property* for the quarter current at completion has been issued then:

(a) no regard is to be had to the actual assessment when it issues;

(b) the purchaser agrees to accept the amount per quarter referred to in Item 2 of the Details Section as the amount payable for water and sewerage rates for the *property* for the quarter current at completion which amount must be adjusted (on the basis that it is paid) on completion in accordance with clause 14; and

(c) the vendor must pay any assessment of water and sewerage rates which may be issued for the *property* for the quarter current at completion when such assessment is issued.

58 Inspection

58.1 The purchaser is entitled to 1 inspection of the *property* before completion.

58.2 The purchaser must make an inspection request (***Inspection Request***) which nominates an inspection time that is at least 5 business days before the date for completion.

58.3 Promptly after receiving the Inspection Request, the vendor must notify the purchaser:

(a) that the purchaser's inspection is to be in accordance with the Inspection Request; or

(b) of the inspection time required by the vendor (being before the date for completion and between 9.00 am and 6.00 pm Monday to Saturday), in which case the purchaser's inspection time is that time nominated by the vendor instead of the time requested in the Inspection Request.

PART 5 – POST COMPLETION MATTERS

59 Design & Landscape Guidelines

Purpose of Design & Landscape Guidelines

59.1 The purchaser acknowledges that the Design & Landscape Guidelines are intended to protect the integrity of Birling and to ensure that the same high standards are maintained throughout the Development Site.

Design & Landscape Guidelines and the law

59.2 The purchaser must comply with:

(a) the Design & Landscape Guidelines;

(b) any easements, restrictions and covenants registered on the title of the *property* once the Subdivision Documents are registered;

(c) all applicable legislation, regulations, Development Control Plans, orders and directions issued by an Authority in relation to any dwelling constructed on the *property; and*

(d) all applicable guides published from time to time by nbn (Australia's Broadband Network) for homeowners and builders.

59.3 The purchaser must ensure that the driveway leading to the *property* is constructed in the location identified in the Lot Plan unless the Design Review Panel determines otherwise.

59.4 The Design Review Panel is the sole determiner of compliance by an owner of a lot in the Development Site with the Design & Landscape Guidelines.

Design & Landscape Guidelines Compliance Bond

59.5 On completion, the purchaser must pay the vendor the applicable Design & Landscape Guidelines Compliance Bond as security for the purchaser's compliance with the Design & Landscape Guidelines.

59.6 The vendor and the purchaser direct the depositholder to hold the Design & Landscape Guidelines Compliance Bond in the *depositholder's* trust account.

Approval of Design Review Panel

59.7 The purchaser must obtain the written consent of the Design Review Panel before the purchaser:

(a) lodges any development application or complying development certificate application in respect of the property with Council or a PCA and in this regard, the purchaser must submit a copy of any proposed application and supporting plans and reports to the Design Review Panel; or

(b) carries out any Building Work on the property and in this regard, the purchaser must submit a copy of all construction certificate application and supporting construction drawings and reports to the Design Review Panel.

59.8 In addition to the consent of the Design Review Panel, the purchaser must also obtain the consent of, if required, a PCA, the Council or other Authority.

Acknowledgement

59.9 The purchaser acknowledges having read and considered the Design & Landscape Guidelines.

Compliance with Home Building Act and Design & Landscape Guidelines

59.10 All Building Work constructed on the *property* must be constructed by a builder holding the relevant licence pursuant to the *Home Building Act 1989* (NSW) pursuant to a building contract between the purchaser and a builder.

59.11 The purchaser must procure a builder to carry out any Building Work in accordance with the Design & Landscape Guidelines.

Timing

59.12 On or before the date that is 12 months after completion (***Required Construction Start Date***), the purchaser must achieve Dwelling Construction Commencement for a dwelling on the property approved by the Design Review Panel.

59.13 If the purchaser fails to comply with clause 59.12. the purchaser agrees that:

(a) damages are an inadequate remedy for the vendor; and

(b) the vendor is entitled to:

(i) seek injunctive relief in respect of that breach; or

(ii) exercise its rights under clause 60.

59.14 On or before the date that is 24 months after completion, the purchaser must complete the construction of the dwelling on the property referred to in clause 59.12 and give the vendor an Occupation Certificate with respect to the dwelling constructed on the property.

Release of the Design & Landscape Guidelines Compliance Bond

59.15 Promptly after the purchaser has provided the vendor with an Occupation Certificate under clause 59.14, the Design Review Panel must inspect the dwelling and give the vendor:

(a) a certificate of compliance confirming the purchaser's compliance with the Design & Landscape Guidelines (***Design & Landscape Guidelines Compliance Certificate***), if compliance with the Design & Landscape Guidelines has been met; or

(b) a certificate of non-compliance detailing the purchaser's breach of the Design & Landscape Guidelines (***Design & Landscape Guidelines Non-Compliance Certificate)***, if compliance with the Design & Landscape Guidelines has not been met.

59.16 The purchaser must facilitate the required inspection of the dwelling by the Design Review Panel as contemplated in clause 59.15.

59.17 If the Design Review Panel gives the purchaser a Design & Landscape Guidelines Compliance Certificate, the vendor and the purchaser irrevocably direct the *depositholder* to release the Design & Landscape Guidelines Compliance Bond to the purchaser.

59.18 If:

(a) the purchaser fails to comply with clause 59.14; or

(b) the Design Review Panel gives the purchaser a Design & Landscape Guidelines Non-Compliance Certificate under clause 59.15 and the purchaser fails to rectify all the items listed in the Design & Landscape Guidelines Non Compliance Certificate to the reasonable satisfaction of the Design Review Panel within the time frame nominated by the Design Review Panel in the Design & Landscape Guidelines Non Compliance Certificate:

(i) the purchaser automatically forfeits the Design & Landscape Guidelines Compliance Bond in favour of the vendor; and

(ii) the vendor and the purchaser irrevocably direct the *depositholder* to release the Design & Landscape Guidelines Compliance Bond to the vendor.

Decision

59.19 A decision of the Design Review Panel is final and binding on the vendor and the purchaser.

59.20 The purchaser has no claim against the vendor if the Design & Landscape Guidelines Compliance Bond is released to the vendor in accordance with the provisions of clause 59.17 and 59.18.

No merger

59.21 This clause 59 does not merge on completion of this contract and continues to apply after completion of this contract.

60 Vendor's right to buy back property due to purchaser's failure to commence construction

60.1 This clause 60 applies if:

(a) the purchaser wishes to sell the *property* before the Dwelling Construction Commencement; or

(b) by the day that is 6 months after the Required Construction Start Date:

(i) the purchaser has not submitted to the Design Review Panel the documents required under clause 59.7; or

(ii) the Design Review Panel has not approved documents submitted by the purchaser under clause 59.7; or

(iii) the purchaser has not achieved Dwelling Construction Commencement for a dwelling on the *property* as approved by the Design Review Panel.

60.2 In this clause 60:

(a) ***Buy Back Price*** means an amount equal to the price paid by the purchaser under this contract less the following:

(i) the stamp duty payable by the vendor on the transfer of the *property* from the purchaser to the vendor; and

(ii) any GST paid by the vendor on the sale of the *property* to the purchaser under this contract.

(b) ***Purchaser's Nominated Bank Account*** means the bank account, the details of which are set out in Item 6 of the Details Section.

60.3 If requested by the vendor in writing:

(a) after the purchaser gives the vendor a notice that it wishes to sell the *property* under clause 45; or

(b) any time after the Required Construction Start Date (but before the purchaser commences construction of a dwelling on the *property* approved by the Design Review Panel),

the purchaser must within 20 business days after receiving that written request, do whatever is required in PEXA to effect a transfer of clear title to the *property* to the vendor.

60.4 The vendor must, simultaneously with the purchaser complying with clause 60.3, cause clear funds in the amount of the Buy Back Price to be paid to the Purchaser's Nominated Bank Account or such other bank accounts notified in writing by the purchaser.

60.5 If the purchaser does not comply with the purchaser's obligations under clause 60.3, the vendor:

(a) can effect a transfer of clear title to the *property* to the vendor as the purchaser's attorney (pursuant to the power of attorney created by clause 61);

(b) prepare and execute as attorney any document, create any workspace, destination or entry on PEXA to ensure the vendor receives clear title to the *property*;

(c) is entitled to coordinate the discharge of any mortgage over the *property* as the purchaser's attorney (pursuant to the power of attorney created by clause 61) for the purposes of effecting a transfer of clear title to the *property* to the vendor; and

(d) must simultaneously with registration of transfer of clear title to the *property* to the vendor, pay the Buy Back Price to the Purchaser's Nominated Bank Account or as directed by the purchaser or the purchaser's mortgagee (or other person who has a charge over the *property* which is being discharged).

60.6 This clause 60 does not merge on completion of this contract and continues to apply after completion of this contract.

61 Power of Attorney

61.1 The purchaser for valuable consideration (which comprises, without limitation, the vendor's agreement to sell the property to the purchaser under this contract) irrevocably nominates and appoints the vendor as the purchaser's attorney for the purpose of effecting a transfer of clear title to the property from the purchaser to the vendor and doing anything else the vendor requires the purchaser to do to enable the registration of the transfer of clear title to the property to the vendor (including procuring a discharge of any mortgage over the property or withdrawal of caveat noted on the title to the property).

61.2 The purchaser:

(a) must ratify and confirm any lawful act of the vendor as attorney; and

(b) acknowledges that this contract may be registered in the General Registry of Deeds to evidence this power of attorney created by this clause 61.

61.3 This clause 61 does not merge on completion of this contract and continues to apply after completion of this contract.

62 Charge in favour of vendor

62.1 The purchaser charges its right, title and interest in the *property* in favour of the vendor to secure the proper performance of its obligations under clauses 59, 60 and 61.

62.2 The purchaser agrees that, on and from the day that is 7 days after completion of this contract:

(a) the vendor may register a caveat to note its interest in the *property* arising from the charge granted by the purchaser in favour of the vendor under clause 62.1; and

(b) it will not seek to have any caveat registered by the vendor removed from the title to the *property* until it has complied with its obligations under clauses 59, 60 and 61.

62.3 The vendor must provide its consent to the registration of all plans and dealings submitted by the purchaser at NSW Land Registry Services and which do not have an adverse effect on the interest or rights claimed by the vendor in respect of the *property*.

63 Subsequent purchaser to be bound and continuing obligations

63.1 The purchaser must not sell, transfer or otherwise dispose of the purchaser's interest in the *property* before the Dwelling Construction Commencement or the Required Construction Start Date (as the case may be) without first procuring that the purchaser, transferee or disponee enters into a deed with the vendor, in a form reasonably required

by the vendor, whereby that other person agrees to be bound by the same obligations as the purchaser is bound by under clauses 59, 60 and 61.

63.2 This clause 62 does not merge on completion of this contract and continues to apply after completion of this contract.

64 No merger

64.1 For abundant clarity, clauses 59, 60, 61 and 62 do not merge on completion and continue to apply after completion of this contract.

PART 6 - GENERAL

65 Capacity

65.1 The vendor may *rescind* if the purchaser is an individual who:

(a) dies; or

(b) suffers loss of capacity through unsoundness of mind or in respect of whom an order is applied for (or made) to place their assets and affairs under administration under any law relating to mental health.

65.2 The vendor may *terminate* by serving a notice if the purchaser is a company, which:

(a) resolves to wind itself up, gives notice of intention to do so, has a petition for its winding-up presented and not withdrawn within 14 days of presentation or is ordered to be wound up;

(b) executes a deed of company arrangement or enters into any compromise or arrangement with its creditors or members under the *Corporations Act 2001* or similar *legislation*;

(c) resolves to go into liquidation;

(d) has a liquidator, provisional liquidator, administrator, controller, managing controller, receiver or receiver and manager appointed to it or an asset, or any action is taken preparatory to such an appointment; or

(e) has an event happen in relation to it which has a substantially similar effect to any of these things.

66 Confidentiality

66.1 All information disclosed to a party under this contract or during the negotiations preceding this contract is confidential and may not be disclosed to any person except to perform any of its obligations under this contract or in relation to any of the transactions contemplated by it.

66.2 Despite clause 66.1, either party may make disclosure:

(a) where agreed by the vendor and the purchaser;

(b) to a party's professional advisers (including legal advisers) who are subject to a duty of confidentiality;

(c) to a party's financiers;

(d) to a party's employees, where the disclosure is necessary for the operation of the party's business and the employees are subject to a duty of confidentiality;

(e) to any Authority where it is required to make disclosure in accordance with the law; or

(f) where the information is in the public domain or is a matter of public record.

66.3 Each party must take all necessary precautions to ensure that its employees, advisers and agents comply with clause 66.1.

67 No set-off

The purchaser must pay all amounts payable under this contract without set-off, counterclaim or withholding (unless that withholding is expressly permitted under this contract).

68 Severance and reading down

68.1 If a provision of this contract would otherwise be illegal, void or unenforceable or impose an obligation or liability that is prohibited by law, the provision is to be read down to the extent necessary to be enforceable or to comply with the law whilst still largely reflecting the parties' commercial intentions as apparent from this contract.

68.2 If clause 68.1 is not possible, the contract is to be read as if the provision was omitted.

68.3 In either case, the remaining provisions of this contract continue in force.

68.4 This clause does not apply to an essential provision, to a provision that relates to the consideration under this contract or to one of two or more provisions that can reasonably be interpreted as being intended to operate reciprocally or not at all.

69 Waiver

A waiver of any breach of this contract or of any of the terms of this contract is not effective unless that waiver is in writing and is signed by the party granting the waiver. A waiver of a breach does not operate as a waiver of any other breach.

70 Rights to continue after completion

Any provision of this contract which is capable of taking effect after completion of this contract will not merge on completion and will continue in full force and effect.

71 Signing and Exchange

71.1 A party must sign this contract electronically within the OPEX electronic conveyancing platform.

71.2 The signature referred to in clause 71.1 is treated as being appropriate signing of this contract (including where the person signs on behalf of another party - for example, as attorney or as an officer of a body corporate).

71.3 This contract will be signed and exchanged via the OPEX electronic conveyancing platform or other service. Signing and exchange effected in accordance with the rules and functionality of an electronic platform or service constitute due signing and exchange of this contract.

71.4 This clause 71 does not limit any other method of signing, execution or exchange of this contract or its counterparts.

72 Governing law and jurisdiction

This contract is governed by the laws of New South Wales, Australia. Each party irrevocably and unconditionally submits to the non-exclusive jurisdiction of the courts of New South Wales, Australia.

PART 7 – GUARANTEE AND TRUSTEE PURCHASER

73 Trustee Purchaser

73.1 This clause 73 applies if the purchaser enters into this contract as a trustee of a trust.

73.2 For the purposes of this clause:

(a) ***Purchaser's Trust*** means the trust for which the purchaser enters into this contract as trustee.

(b) ***Trust Deed*** means the trust deed establishing the Purchaser's Trust.

73.3 If this clause applies, the purchaser, in its personal capacity, represents and warrants to the vendor on the contract date and again at completion that:

(a) the purchaser has the legal capacity and power under the Trust Deed to enter into and perform its obligations under this contract, as trustee of the Purchaser's Trust;

(b) the purchaser has in full force and effect the authorisations necessary to enter into this contract, observe obligations under this contract and allow them to be enforced;

(c) the purchaser's obligations under this contract are valid and binding and are enforceable against the purchaser in accordance with their terms;

(d) the purchaser has fulfilled all conditions and done all things required under the Trust Deed (including the obtaining of any necessary authorisations):

(i) to enable the purchaser to lawfully enter into, and exercise its rights and perform its obligations under this contract; and

(ii) to ensure that this contract constitutes its legally binding obligations, enforceable against it in accordance with their terms;

(e) the purchaser is the sole trustee of the Purchaser's Trust;

(f) the purchaser has a right to be fully indemnified out of the property of the Purchaser's Trust in respect of obligations incurred by it under this contract, and the only limitation on the purchaser's right of indemnity against the property of the Purchaser's Trust applies when there has been a breach of trust, breach of duty, fraud or negligence on the part of the purchaser;

(g) the purchaser is not in default under the Trust Deed;

(h) no action has been taken or is proposed to be taken to terminate the Purchaser's Trust or to remove the purchaser as the trustee of the Purchaser's Trust;

(i) the purchaser and the purchaser's directors have complied with their obligations in connection with the Purchaser's Trust;

(j) no change will be made to the Trust Deed of the Purchaser's Trust prior to completion which would materially prejudice the vendor;

(k) where the Purchaser's Trust is a unit trust, no change to the beneficial ownership of the units in the Purchaser's Trust will be effected and approved by the purchaser prior to completion;

(l) this contract does not contravene:

(i) the purchaser's constituent documents;

(ii) any law, regulation or official directive; or

(iii) any of its obligations or undertakings by which it or the assets of the Purchaser's Trust are bound;

(m) this contract does not cause a limitation on its powers or the powers of the purchaser's directors to be exceeded; and

(n) the Purchaser's Trust is not Insolvent.

74 Guarantee

74.1 In consideration of the vendor entering into this contract at the request of the Guarantor, the Guarantor:

(a) guarantees to the vendor:

(i) payment of all moneys payable by the purchaser; and

(ii) the performance by the purchaser of all other obligations under this contract; and

(b) indemnifies the vendor against any liability, loss, damage, expense or claim incurred by the vendor arising directly or indirectly from any breach of this contract by the purchaser.

74.2 This guarantee and indemnity is a principal obligation of the Guarantor and is not collateral to any other obligation.

74.3 The liabilities of the Guarantor are not affected by:

(a) the granting to the purchaser or to any other person of any time, waiver, indulgence, consideration or concession or the discharge or release of the purchaser;

(b) the death, bankruptcy or liquidation of the purchaser, the Guarantor or any one of them;

(c) reason of the vendor becoming a party to or bound by any compromise, assignment of property or scheme of arrangement or composition of debts or scheme or reconstruction by or relating to the purchaser, the Guarantor or any other person;

(d) the vendor exercising or refraining from exercising any of the rights, powers or remedies conferred on the vendor by law or by any contract or arrangement with the purchaser, the Guarantor or any other person or any guarantee, bond, covenant, mortgage or other security; or

(e) the vendor obtaining a judgment against the purchaser, the Guarantor or any other person for the payment of the moneys payable under this contract.

74.4 This guarantee and indemnity will continue notwithstanding:

(a) the vendor has exercised any of the vendor's rights under this contract including any right of termination;

(b) the purchaser is wound up; or

(c) this guarantee and indemnity is for any reason unenforceable either in whole or in part.

74.5 This guarantee and indemnity:

(a) is of a continuing nature and will remain in effect until final discharge of the guarantee or indemnity is given by the vendor to the Guarantor;

(b) may not be considered wholly or partially discharged by the payment of the whole or any part of the amount owed by the purchaser to the vendor; and

(c) extends to the entire amount that is now owed or that may become owing at any time in the future to the vendor by the purchaser pursuant to or contemplated by this contract including any interest, costs or charges payable to the vendor under this contract.

74.6 If any payment made to the vendor by or on behalf of the purchaser or the Guarantor is subsequently avoided by any statutory provision or otherwise:

(a) that payment is to be treated as not discharging the Guarantor's liability for the amount of that payment; and

(b) the vendor and the Guarantor will be restored to the position in which each would have been and will be entitled to exercise all rights which each would have had if that payment had not been made.

74.7 The vendor can proceed to recover the amount claimed as a debt or damages from the Guarantor without having instituted legal proceedings against the purchaser and without first exhausting the vendor's remedies against the purchaser.

74.8 It is an essential term of this contract that the Guarantor signs this contract.

ATTACHMENTS

1	Mandatory Disclosure Documents	Attachment "1"
2	Disclosure Statement	Attachment "2"
	2.1 Subdivision Plan	
	2.2 Section 88B Instrument	
3	Lot Plan	Attachment "3"
4	Superlot Plan	Attachment "4"
5	Design & Landscape Guidelines	Attachment "5"
6	Salinity Plan	Attachment "6"
7	Traffic Assessment Acoustic Report	Attachment "7"
8	Standard Requisitions	Attachment "8"

ATTACHMENT 1 – MANDATORY DISCLOSURE DOCUMENTS

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 120/1284706

SEARCH DATE	TIME	EDITION NO	DATE
29/8/2024	4:46 PM	3	6/5/2024

LAND

LOT 120 IN DEPOSITED PLAN 1284706
AT BRINGELLY
LOCAL GOVERNMENT AREA CAMDEN
PARISH OF COOK COUNTY OF CUMBERLAND
TITLE DIAGRAM DP1284706

FIRST SCHEDULE

BIRLING ESTATE PTY LTD (T AT543602)

SECOND SCHEDULE (5 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 DP1218798 RIGHT OF CARRIAGEWAY 10 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
3 DP1218798 EASEMENT FOR SERVICES 10 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
4 DP1284706 RIGHT OF CARRIAGEWAY 10 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM
5 DP1284706 EASEMENT FOR SERVICES 10 METRE(S) WIDE AFFECTING THE PART(S) SHOWN SO BURDENED IN THE TITLE DIAGRAM

NOTATIONS

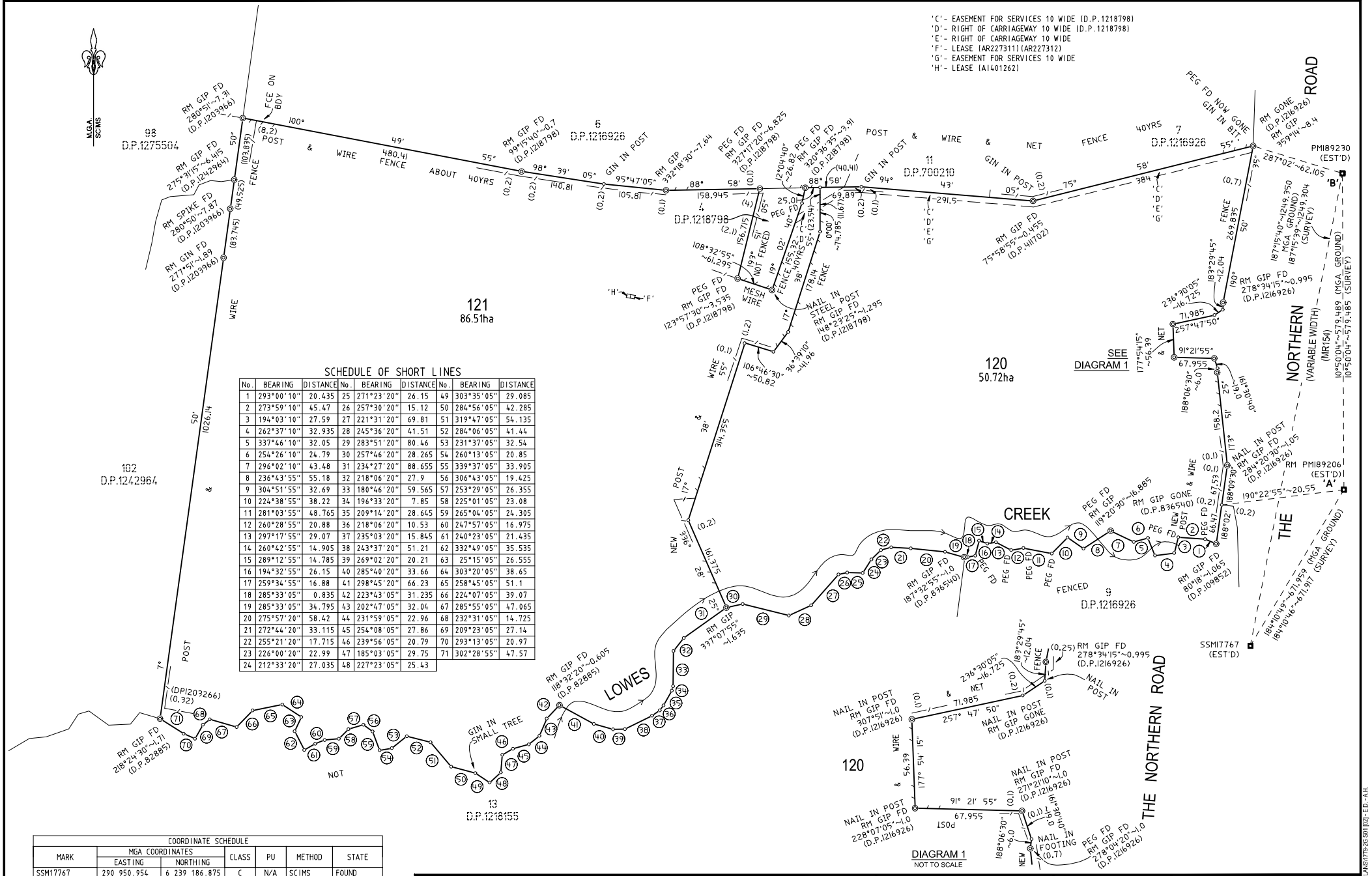
UNREGISTERED DEALINGS: PP DP1298342 PP DP1298371 PP DP1298502 PP DP1304037.

*** END OF SEARCH ***

* Any entries preceded by an asterisk do not appear on the current edition of the Certificate of Title. Warning: the information appearing under notations has not been formally recorded in the Register. InfoTrack an approved NSW Information Broker hereby certifies that the information contained in this document has been provided electronically by the Registrar General in accordance with Section 96B(2) of the Real Property Act 1900.

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Received: 29/08/2024 16:46:44



SCHEDULE OF SHORT LINES

No.	BEARING	DISTANCE	No.	BEARING	DISTANCE	No.	BEARING	DISTANCE
1	293°00'10"	20.435	25	271°23'20"	26.15	49	303°35'05"	29.085
2	273°59'10"	45.47	26	257°30'20"	15.12	50	284°56'05"	42.285
3	194°03'10"	27.59	27	221°31'20"	69.81	51	319°47'05"	54.135
4	262°37'10"	32.935	28	245°36'20"	41.51	52	284°06'05"	41.44
5	337°46'10"	32.05	29	283°51'20"	80.46	53	231°37'05"	32.54
6	254°26'10"	24.79	30	257°46'20"	28.265	54	260°13'05"	20.85
7	296°02'10"	43.48	31	234°27'20"	88.655	55	339°37'05"	33.905
8	236°43'55"	55.18	32	218°06'20"	27.9	56	306°43'05"	19.425
9	304°51'55"	32.69	33	180°46'20"	59.565	57	253°29'05"	26.355
10	224°38'55"	38.22	34	196°33'20"	7.85	58	225°01'05"	23.08
11	281°03'55"	48.765	35	209°14'20"	28.645	59	265°04'05"	24.305
12	260°28'55"	20.88	36	218°06'20"	10.53	60	247°57'05"	16.975
13	297°17'55"	29.07	37	235°03'20"	15.845	61	240°23'05"	21.435
14	260°42'55"	14.905	38	243°37'20"	51.21	62	332°49'05"	35.535
15	289°12'55"	14.785	39	269°02'20"	20.21	63	25°15'05"	26.555
16	194°32'55"	26.15	40	285°40'20"	33.66	64	303°20'05"	38.65
17	259°34'55"	16.88	41	298°45'20"	66.23	65	258°45'05"	51.1
18	285°33'05"	0.835	42	223°43'05"	31.235	66	224°07'05"	39.07
19	285°33'05"	34.795	43	202°47'05"	32.04	67	285°55'05"	47.065
20	275°57'20"	58.42	44	231°59'05"	22.96	68	232°31'05"	14.725
21	272°44'20"	33.115	45	254°08'05"	27.86	69	209°23'05"	27.14
22	255°21'20"	17.715	46	239°56'05"	20.79	70	293°13'05"	20.97
23	226°00'20"	22.99	47	185°03'05"	29.75	71	302°28'55"	47.57
24	212°33'20"	27.035	48	227°23'05"	25.43			

COORDINATE SCHEDULE

MARK	MGA COORDINATES EASTING	MGA COORDINATES NORTHING	CLASS	PU	METHOD	STATE
SSM17767	290 950.954	6 239 186.875	C	N/A	SCIMS	FOUND
PM189206	290 999.941	6 239 857.128	B	0.02	SCIMS	FOUND
PM189230	291 108.882	6 240 426.357	B	0.02	SCIMS	FOUND

DATE OF SCIMS COORDINATES: 24 MAY, 2022 MGA ZONE: 56 COMBINED SCALE FACTOR: 1.000122 MGA DATUM: GDA2020

SURVEYOR Name: AARON MICHAEL HAWKE Date: 24 MAY 2022 Reference: 1779-2G S01 / REPORT	PLAN OF SUBDIVISION OF LOT 20 IN DP1227094	LGA: CAMDEN Locality: BRINGELLY Reduction Ratio: 1: 4000 Lengths are in metres	Registered 25/07/2023	DP1284706

Req:R685344 /Doc:DP 1284706 P /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2024 14:10 /Seq:1 of 7
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CAD REF: Z:\1779\CA_PLANS\1779-2G S01 [02] - ED - A.H.

Req:R685344 /Doc:DP 1284706 P /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2
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Plan Form 6_Digital (2021)

Deposited Plan Administration Sheet | Sheet 1 of ~~8~~ 6

OFFICE USE ONLY

Registered 25/07/2023

Title System TORRENS

DP1284706

LGA CAMDEN

LOCALITY BRINGELLY

PARISH COOK

COUNTY CUMBERLAND

Plan of Subdivision of lot 20 in DP1227094

Survey Certificate Survey

I, Aaron Michael Hawke of Craig & Rhodes P/L, a surveyor registered under Surveying and Spatial Information Act 2002, certify that:

The land shown in the plan was surveyed in accordance with the Surveying and Spatial Information Regulation 2017, is accurate and the survey was completed on: 24/05/2022

Urban/Rural

Urban

Datum Line

'A' - 'B'

Signature

Dated 24/5/2022

Surveyor Identification No. SU003741

Surveyor registered under the *Surveying and Spatial Information Act 2002.*

Crown Lands NSW/Western Lands Office Approval

I, (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature Date

File Number Office

Subdivision Certificate (Check One)

I, NICOLE FRANKLIN

- [x] Authorised Person
- [ ] General Manager
- [ ] Registered Certifier

certify that the provisions of section 6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature

Consent Authority

CAMDEN COUNCIL

Date of Endorsement 19.12.2022

Subdivision Certificate Number 14.2022.56.1

File Number

DA/2022/56/1

Plans Used in the preparation of this survey

DP82885, DP109852, DP411702, DP700210, DP836540, DP1203966, DP1216926, DP1218155, DP1218798, DP1227094, DP1242964, DP1275504

Statement of intention to dedicate public roads, create public reserves and drainage reserves, acquire/resume land.

Surveyor's Reference 1779-2G S01/ REPORT

Signatures, Seals and Section 88B Statements should appear on the following sheet(s)

Downloaded from NSW LRS Connect on 24/05/2022 12:32 PM

Req:R685344 /Doc:DP 1284706 P /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2
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Plan Form 6_Digital (2021)	**Deposited Plan Administration Sheet**	Sheet 2 of 6
Registered 25/07/2023 OFFICE USE ONLY	DP1284706	

Plan of Subdivision of lot 20 in DP1227094

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate Number
14. 2022.56.1

Date of Endorsement
19. 12. 2022

LOT NUMBER	SUB-ADDRESS NUMBER	ADDRESS NUMBER	ROAD NAME	ROAD TYPE	LOCALITY NAME
120		975	The Northern	Road	Bringelly
121		965	The Northern	Road	Bringelly

.....
Camden Council Authorised Person

Surveyor's Reference 1779-2G S01

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Plan Form 6_Digital (2021)	**Deposited Plan Administration Sheet**	Sheet 3 of 6
Registered 25/07/2023 OFFICE USE ONLY	DP1284706	

Plan of Subdivision of lot 20 in DP1227094

Subdivision Certificate Number
14.2022.56.1

Date of Endorsement
19.12.2022

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919, AS AMENDED, IT IS INTENDED TO create:

1. Right of carriageway 10 Wide (E)
2. Easement for services 10 Wide (G)

.....
Camden Council Authorised Person

Surveyor's Reference 1779-2G S01

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Plan Form 6_Digital (2021)	**Deposited Plan Administration Sheet**	Sheet 4 of 6
Registered 25/07/2023 OFFICE USE ONLY	DP1284706	

Plan of Subdivision of lot 20 in DP1227094

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate Number
14.2022.56.1

Date of Endorsement
19.12.2022

Executed on behalf of the Corporation named below by the authorised person(s) whose signature(s) appear below pursuant to the authority specified

Company Name:
CAMELON BRAE PROPERTIES PTY LTD

Company ~~ACN~~ or ABN:
38 143 979 515

Authority:

Signature:

Name:
ANDREW HAZLETT

Position:
DIRECTOR

Signature:

Name:
WINTON ANTON

Position:
COMPANY SECRETARY

.....
Camden Council Authorised Person

Surveyor's Reference 1779-2G S01

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Plan Form 6_Digital (2021)	**Deposited Plan Administration Sheet**	Sheet 5 of 6
Registered 25/07/2023 OFFICE USE ONLY	DP1284706	

Plan of Subdivision of lot 20 in DP1227094

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate Number
14.2022.56.1

Date of Endorsement
19.12.2022

.....
Camden Council Authorised Person

Surveyor's Reference 1779-2G S01

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Req:R685344 /Doc:DP 1284706 P /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2
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Plan Form 6_Digital (2021)	**Deposited Plan Administration Sheet**	Sheet 6 of 6
Registered 25/07/2023 OFFICE USE ONLY	DP1284706	
Plan of Subdivision of lot 20 in DP1227094	This sheet is for the provision of the following information as required: • A schedule of lots and addresses - See 60(c) *SSI Regulation 2017* • Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919* • Signatures and seals- see 195D *Conveyancing Act 1919* • Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.	
Subdivision Certificate Number 14.2022.56.1 Date of Endorsement 19.12.2022.		

.....
Camden Council Authorised Person

Surveyor's Reference 1779-2G S01

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Instrument setting out terms of Easements or Profits à Prendre intended to be created or released and of Restrictions on the Use of Land or Positive Covenants intended to be created pursuant to Section 88B Conveyancing Act 1919.

Plan of Subdivision of lot 20 in DP1227094

Plan: DP1284706

Full Name and Address of the Owner(s) of the land

CAMERON BRAE PROPERTIES PTY LTD

975 The Northern Rd Bringelly NSW 2556

Covered by Subdivision Certificate No. 14.2022.56.1

dated 19.12.2022

Part 1 (Creation)

Number of item shown in the intention panel on the plan	Identity of the easement, profit prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s)	Benefited lot(s), road(s), bodies or Prescribed Authorities:
1	Right of carriageway 10 Wide (E)	120	121
2	Easement for services 10 Wide (G)	120	121

.....

Camden Council Authorised Person

Attesting Witness

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Req:R685345 /Doc:DP 1284706 B /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2024 14:10 /Seq:2 of 5
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Plan: DP1284706

Plan of Subdivision of lot 20 in DP1227094
SUBDIVISION CERTIFICATE NO. 14.2022.56.1
DATED. 19.12.2022.

Part 2 (Terms)

Terms of easement, profit à prendre, restriction or positive covenant numbered 1 in the plan

Name of Authority who has the power to release, vary or Modify the Right of Carriageway 10 wide numbered 1 in the plan: Camden Council

Terms of easement, profit à prendre, restriction or positive covenant numbered 2 in the plan

The name of the Authority who has the power to release, vary or modify the easement for services 10 wide numbered 2 in the plan: Camden Council

.....
Camden Council Authorised Person

Attesting Witness

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Req:R685345 /Doc:DP 1284706 B /Rev:25-Jul-2023 /NSW LRS /Prt:04-Jul-2024 14:10 /Seq:3 of 5
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Plan: DP1284706

Plan of Subdivision of lot 20 in DP1227094
SUBDIVISION CERTIFICATE NO. 14.2022.56.1
DATED. 19.12.2022

Executed on behalf of the Corporation named below by the authorised person(s) whose signature(s) appear below pursuant to the authority specified

Company Name:

CAMERON BRAE PROPERTIES PTY LTD.

Company ~~ACN~~ or ABN:

38 143 979 515

Authority:

Signature:

Name: ANDREW HAZLETT

Position:

DIRECTOR

Signature:

Name: WINTON ANTON

Position:

COMPANY SECRETARY

.....
Camden Council Authorised Person

Attesting Witness

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Plan: DP1284706

Plan of Subdivision of lot 20 in DP1227094
GEO SUBDIVISION CERTIFICATE NO. 14.2022.56.1
DATED. 19.12.2022.

Execution by Camden Council:

Signature: .....

Signed by: NICOLE FRANKLIN

Authorised officer as a delegate of Camden Council pursuant to S.378 of the Local Government Act 1993 and I hereby certify that I have no notice of revocation of such delegation.

Authority of Officer: ACTING TEAM LEADER ENGINEERING CERTIFICATION

Witness Signature: .....

Name of Witness: RUBEN BRAVO.

Address of Witness: 70 CENTRAL AVENUE OLAN PARK

.....
Camden Council Authorised Person

Attesting Witness

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© Office of the Registrar-General /Src:InfoTrack /Ref:243826

Plan: DP1284706

Plan of Subdivision of lot 20 in DP1227094
SUBDIVISION CERTIFICATE NO. 14.2022.56.1
DATED. 19.12.2022

REGISTERED: 25/07/2023

.....
Camden Council Authorised Person

Attesting Witness

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InfoTrack

SCHEDULE OF REFERENCE MARKS

No.	BEARING	DISTANCE	DESCRIPTION	
A	277°51'00"	1.89	R.M. GIN FD	(D.P.1203966)
B	280°50'00"	7.87	R.M. G.I.S. FD	(D.P.1203966)
C	280°51'00"	7.31	R.M. G.I.P. FD	(D.P.1203966)
D	274°40'00"	1.41	R.M. G.I.S. FD	(D.P.828851)
E	99°15'20"	0.7	R.M. G.I.P. BY ME	(D.P.4117021)
F	75°58'45"	0.455	R.M. G.I.P. FD	(D.P.4117021)
G	272°26'00"	1.015	R.M. G.I.P. FD	(D.P.1216926)
H	277°50'20"	1.005	R.M. G.I.P. FD BURIED 0.7	(D.P.828851)
I	99°48'05"	2.015	R.M. G.I.P. FD	(D.P.1010854)
J	320°36'15"	3.91	R.M. G.I.P.	
K	148°23'05"	1.295	R.M. G.I.P.	
L	123°57'20"	3.535	R.M. G.I.P.	
M	327°11'	6.825	R.M. G.I.P.	

SCHEDULE OF LINES
(PO DIMENSIONS VIDE D.P.828851)

No.	BEARING	DISTANCE	No.	BEARING	DISTANCE
1	188°02'40"	66.475	37	235°02'30"	15.83
2	292°59'45"	20.435	38	243°36'30"	51.175
3	273°58'45"	45.47	39	269°01'30"	28.195
4	194°02'45"	27.59	40	285°39'30"	33.635
5	262°36'45"	32.935	41	298°44'30"	66.185
6	337°45'45"	32.05	42	223°44'30"	31.28
7	254°25'45"	24.79	43	202°48'30"	32.085
8	296°01'45"	43.48	44	232°00'30"	22.995
9	236°43'30"	55.18	45	254°09'30"	27.9
10	304°51'30"	32.69	46	239°57'30"	20.82
11	224°38'30"	38.22	47	185°04'30"	29.795
12	281°03'30"	48.765	48	227°24'30"	25.47
13	260°25'30"	20.88	49	303°36'30"	29.13
14	297°17'30"	29.07	50	284°57'30"	42.345
15	260°42'30"	14.905	51	319°48'30"	54.215
16	289°12'30"	14.785	52	284°07'30"	41.5
17	194°32'30"	26.15	53	231°38'30"	32.59
18	259°34'30"	16.88	54	260°14'30"	20.88
19	285°32'30"	35.61	55	339°38'30"	33.955
20	275°56'30"	58.38	56	306°44'30"	19.455
21	272°43'30"	33.09	57	253°30'30"	26.395
22	255°20'30"	17.705	58	225°02'30"	23.115
23	225°59'30"	22.975	59	265°05'30"	24.34
24	212°32'30"	27.015	60	247°59'30"	17
25	271°22'30"	26.13	61	240°24'30"	21.465
26	257°29'30"	15.18	62	332°50'30"	35.585
27	221°30'30"	69.765	63	25°16'30"	26.595
28	245°35'30"	41.48	64	303°21'30"	38.705
29	283°50'30"	80.405	65	258°46'30"	51.175
30	257°45'30"	28.245	66	224°08'30"	39.125
31	234°26'30"	68.595	67	285°56'30"	47.135
32	218°05'30"	27.88	68	232°32'30"	14.745
33	180°45'30"	59.525	69	209°26'30"	27.18
34	196°32'30"	7.845	70	293°14'30"	21
35	209°13'30"	28.625	71	302°30'30"	47.635
36	218°05'30"	10.52			

DIAGRAM 2
SCALE 1:1250

DIAGRAM 1
SCALE 1:800

SURVEYING & SPATIAL INFORMATION REGULATION 2012 CLAUSE 61(2)				
M.G.A. COORDINATES				
MARK	EASTING	NORTHING	CLASS	ORDER
S.S.M.17759	291 155.444	6 240 854.903	C	3
S.S.M.17760	291 158.317	6 240 835.519	C	3
S.S.M.17761	291 098.049	6 240 409.261	C	3
S.S.M.17762	291 078.333	6 240 403.458	C	3
S.S.M.17763	291 077.301	6 239 845.320	C	3
S.S.M.17764	291 054.555	6 239 874.444	C	3
COMBINED SCALE FACTOR 1.000123 ZONE 56				
SOURCE: S.C.I.M.S. DATED 10 MARCH 2016				

'A' - EASEMENT FOR TRANSMISSION LINE (VARIABLE WIDTH) VIDE X639297
'B' - RIGHT OF CARRIAGEWAY 10 WIDE
'C' - EASEMENT FOR SERVICES 10 WIDE

Surveyor: ANDREW RICHARD THOMAS Date of Survey 10 MARCH 2016 Surveyor's Ref 1779-2016 M7100 (329) PARTIAL SURVEY	PLAN OF SUBDIVISION OF LOTS 3 & 4 D.P 119173	LGA: CAMDEN Locality BRINGELLY Subdivision No 47/2016/2/1 Lengths are in metres Reduction Ratio 1 : 5000	Registered 25.7.2016	DP1218798

Req:R685348 /Doc:DP 1218798 P /Rev:25-Jul-2016 /NSW LRS /Pgs:ALL /Prt:04-Jul-2024 14:11 /Seq:1 of 3
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PLAN FORM 6 (2013) WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET

Office Use Only

Registered: 25.7.2016

Title System: TORRENS

Purpose: SUBDIVISION

Office Use Only

DP1218798

PLAN OF
SUBDIVISION OF LOTS 3 & 4 D.P.119173

LGA: CAMDEN

Locality: BRINGELLY

Parish: COOK

County: CUMBERLAND

Crown Lands NSW/Western Lands Office Approval

I, ... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature: .....

Date: .....

File Number: .....

Office: .....

Subdivision Certificate

I, Daniel Streeter

Authorised Person/~~General Manager~~/*~~Accredited Certifier~~, certify that the provisions of s.109J of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: —

Consent Authority: Camden Council

Date of endorsement: 29.04.2016

Subdivision Certificate number: — 47/2016/2/1

File number: —

*Strike through inapplicable parts.

Survey Certificate

I, ANDREW RICHARD THOMAS

of CRAIG & RHODES PTY LTD

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

~~*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2012*, is accurate and the survey was completed on .....~~

*(b) The part of the land shown in the plan(*being/~~*excluding~~ ^ LOT 4, LOT 3 PARTLY COMPILED) was surveyed in accordance with the *Surveying and Spatial Information Regulation 2012*, is accurate and the survey was completed on, 10/3/16 the part not surveyed was compiled in accordance with that regulation.

~~*(c) The land shown in the plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2012*.~~

Signature: Andrew R. Thomas Dated: 11/3/16

Surveyor ID: 247

Datum Line: 'A' - 'B'

Type: ~~*Urban~~/*Rural

The Terrain is *Level-Undulating / ~~*Steep-Mountainous~~

*Strike through if inapplicable.

^Specify the land actually surveyed or specify and land shown in the plan that is not the subject of the survey.

Statements of intention to dedicate public roads create public reserves and drainage reserves, acquire/resume land.

Plans used in the preparation of survey/compilation

D.P.82885	D.P.785645
D.P.119173	D.P.836540
D.P.411702	D.P.872135
D.P.614494	D.P.1010854
D.P.640405	D.P.1203966
D.P.700210	D.P.1216926

If space is insufficient continue on PLAN FORM 6A

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

Surveyor's Reference: 1779-2016 M7100(329) PARTIAL SURVEY

CAD REF: Z:\1779\CR_PLANS\1779 S01 [01] - K.S. - A.T.

Req:R685348 /Doc:DP 1218798 P /Rev:25-Jul-2016 /NSW LRS /Pgs:ALL /Prt:04-Jul-2024 14:11 /Seq:3 of 3
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PLAN FORM 6A (2012) WARNING: **Creasing or folding will lead to rejection**

DEPOSITED PLAN ADMINISTRATION SHEET Sheet 2 of 2 sheet(s)

Office Use Only

Registered: 25.7.2016

Office Use Only

DP1218798

PLAN OF
SUBDIVISION OF LOTS 3 & 4 D.P.119173

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2012*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals - see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: — 47/2016/2/1

Date of Endorsement: 29.04.2016

SURVEYING & SPATIAL INFORMATION REGULATION 2012 CLAUSE 60(c)
SCHEDULE OF LOTS & ADDRESSES
STREET ADDRESSES NOT AVAILABLE

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 AS AMENDED AND IN TERMS OF THE ACCOMPANYING INSTRUMENT IT IS INTENDED

TO CREATE:

1. RIGHT OF CARRIAGEWAY 10 WIDE
2. EASEMENT FOR SERVICES 10 WIDE
3. RESTRICTION ON USE OF LAND

WINTON ANTON
SECRETARY
SHARGAZ PTY LTD
(ACN 143 979 515)

DAVID HAZLETT
DIRECTOR
SHARGAZ PTY LTD
(ACN 143 979 515)

Mortgagee under Mortgage No. U758198

Signed at NAB HOUSE this 20TH day of MAY 2016 for National Australia Bank Limited ABN 12 004 044 937 by RACHEL TWEEDY its duly appointed Attorney under Power of Attorney No. 39 Book 4512

2
Level Attorney

Witness/Bank Officer
LEVEL 27, 25 GEORGE STREET
SYDNEY, NSW 2000

RACHEL TWEEDY
Associate Director
NAB Corporate Property NSW

ANTHONY NGUYEN
ANALYST
Corporate Property NSW

Council Authorised Person

If space is insufficient use additional annexure sheet

Surveyor's Reference: 1779 - 2016 M7100 (329) PARTIAL SURVEY

CAD REF: Z:\1779\CR_PLANS\1779 S01 (011 - K.S. - A.T.

Req:R685349 /Doc:DP 1218798 B /Rev:25-Jul-2016 /NSW LRS /Pgs:ALL /Prt:04-Jul-2024 14:11 /Seq:1 of 2
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Instrument setting out terms of Easements or Profits à Prendre intended to be created or released and of Restrictions on the Use of Land or Positive Covenants intended to be created pursuant to Section 88B of the Conveyancing Act 1919.

Lengths are in Metres

Plan:
DP1218798

Plan of Subdivision of Lots 3 & 4 D.P. 119173 covered by Council's Subdivision Certificate No. 47/2016/2/1

Full Name and address of Proprietor of land:	SHARGAZ PTY LTD (ACN 143 979 515) 975 THE NORTHERN ROAD BRINGELLY NSW 2556

Part 1

	Identity of Easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan:-	Burdened lot(s) or parcel(s):-	Benefited lot(s), road(s), bodies or Prescribed Authorities:-
1.	Right of Carriageway 10 Wide	3	4
2.	Easement for Services 10 Wide	3	4
3.	Restriction on Use of Land	4	Camden Council

Part 2

Name of Authority empowered to release vary or modify Easements numbered 1 & 2 in the plan is Camden Council.

Terms of easement, profit à prendre, restriction or positive covenant numbered 3 in the plan.

No building on the lot burdened may be used for Residential Accommodation (as defined in the Camden Local Environmental Plan 2010).

Name of Authority empowered to release vary or modify Restriction numbered 3 in the plan is Camden Council.

APPROVED BY CAMDEN COUNCIL .....

~~General Manager~~ / Authorised Officer

Req:R685349 /Doc:DP 1218798 B /Rev:25-Jul-2016 /NSW LRS /Pgs:ALL /Prt:04-Jul-2024 14:11 /Seq:2 of 2
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Lengths are in Metres

Plan:

DP1218798

Plan of Subdivision of Lots 3 & 4
D.P. 119173 covered by Council's
Subdivision Certificate No. 47/2016/2/1

Part 2 (cont)

EXECUTED by)
SHARGAZ PTY LTD)
(ACN 143 979 515))
in accordance with section 127 of the)
Corporations Act:)

.....
Signature of Director

.....
Signature of ~~Director~~/Secretary

DAVID HAZLETT
.....
Name of Director

WINTON J ANTON
.....
Name of ~~Director~~/Secretary

Mortgagee under Mortgage No. U758198
Signed at HOBART this 20TH day of
MAY 2016 for National
Australia Bank Limited ABN 12 004 044 937
by RACHEL TWEEDY
its duly appointed Attorney under Power of
Attorney No. 39 Book 4512

.....
Level 2 Attorney

RACHEL TWEEDY
Associate Director
NAB Corporate Property NSW

.....
Witness/Bank Officer
LEVEL 22, 25 GEORGE STREET
SYDNEY NSW 2000

ANTHONY NGUYEN
ANALYST
Corporate Property NSW

REGISTERED 25.7.2016

APPROVED BY CAMDEN COUNCIL .....
~~General Manager~~ / Authorised Officer

PLANNING CERTIFICATE UNDER
SECTION 10.7
ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

APPLICANT: InfoTrack
GPO Box 4029
SYDNEY NSW 2001

Certificate number:	20228817
Reference number:	1091800
Certificate issue date:	04/07/2024
Certificate fee:	$174.00
Applicant's reference:	
Property number:	1192010
Applicant's email:	ecertificates@infotrack.com.au

DESCRIPTION OF PROPERTY

Land Description: LOT: 120 DP: 1284706

Address: **975 The Northern Road BRINGELLY NSW 2556**

BACKGROUND INFORMATION

This certificate provides information on how a property (such as land, a house, commercial building, etc.,) may be used and the limits on its development. The certificate contains information Council is aware of through records and environmental plans with data supplied by the State Government. The details contained in this certificate are limited to that required by Section 10.7 of the Environmental Planning and Assessment Act 1979 (the Act).

1 NAMES OF RELEVANT PLANNING INSTRUMENTS AND DEVELOPMENT CONTROL PLANS

(1) The name of each environmental planning instrument and development control plan that applies to the carrying out of development on the land.

(2) The name of each proposed environmental planning instrument and draft development control plan, which is or has been subject to community consultation or public exhibition under the Act, that will apply to the carrying out of development on the land.

(3) Subsection (2) does not apply in relation to a proposed environmental planning instrument or draft development control plan if—

(a) it has been more than 3 years since the end of the public exhibition period for the proposed instrument or draft plan, or

(b) for a proposed environmental planning instrument—the Planning Secretary has notified the council that the making of the proposed instrument has been deferred indefinitely or has not been approved.

(4) In this section—

proposed environmental planning instrument means a draft environmental planning instrument and includes a planning proposal for a local environmental plan.

STATE ENVIRONMENTAL PLANNING POLICIES (SEPPs)

SEPP (Exempt and Complying Development Codes) 2008

SEPP (Housing) 2021

SEPP (Planning Systems) 2021

SEPP (Biodiversity and Conservation) 2021

SEPP (Resilience and Hazards) 2021

SEPP (Transport and Infrastructure) 2021

SEPP (Industry and Employment) 2021

SEPP (Resources and Energy) 2021

SEPP (Primary Production) 2021

SEPP (Precincts - Western Parkland City) 2021

SEPP (Sustainable Buildings) 2022

Note: The above SEPPs may apply subject to the relevant criteria and requirements as listed in each chapter of the policies.

LOCAL ENVIRONMENTAL PLANS (LEPs)

The land is not within a Local Environmental Plan.

DEVELOPMENT CONTROL PLANS (DCPs)

Camden Growth Centre Precincts Development Control Plan, as amended

PROPOSED STATE ENVIRONMENTAL PLANNING POLICIES (SEPPs)

SEPP (Housing) 2021 - Proposed amendments - manufactured home estates, caravan parks and camping grounds

SEPP (Transport and Infrastructure) 2021 – Proposed amendments – protection of fuel pipelines; temporary uses in future infrastructure corridors; an exempt and complying development framework for cemeteries; improving planning processes to deliver infrastructure faster

SEPP (Exempt and Complying Development Codes) 2008 - Proposed amendment – complying development for farm buildings, rural sheds and earthworks

SEPP (Precincts-Western Parkland City) 2021 – Proposed amendment – Birling Planning Proposal

PROPOSED LOCAL ENVIRONMENTAL PLANS (LEPs)

No.

DRAFT DEVELOPMENT CONTROL PLANS (DCPs)

Draft Camden Growth Centre Precincts DCP – Housekeeping Amendment

Draft Camden Growth Centre Precincts DCP – Birling Planning Proposal

Draft Camden Growth Centre Precincts DCP – Ridgelines and Steep Land Amendment

Note: The above draft SEPPs, draft LEPs or draft DCPs may apply subject to the relevant criteria and requirements as listed in each of these draft instruments.

2 ZONING AND LAND USE UNDER RELEVANT PLANNING INSTRUMENTS

The following matters apply for each environmental planning instrument or draft environmental planning instrument that includes the land in a zone, however described—

(a) ZONE B5 BUSINESS DEVELOPMENT - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Nil

(ii) Permitted with consent

Building identification signs; Bulky goods premises; Business identification signs; Car parks; Centre-based child care facilities; Community facilities; Drainage; Environmental facilities; Environmental protection works; Flood mitigation works; Food and drink premises; Hotel or motel accommodation; Landscaping material supplies; Liquid fuel depots; Office premises; Passenger transport facilities; Places of public worship; Public administration buildings; Pubs; Recreation areas; Recreation facilities (indoor); Recreation

facilities (outdoor); Registered clubs; Restaurants; Roads; Self-storage units; Service stations; Timber and building supplies; Vehicle sales or hire premises; Warehouse or distribution centres

(iii) Prohibited

Any development not specified in item (i) or (ii)

(a) ZONE C2 ENVIRONMENTAL CONSERVATION - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Nil

(ii) Permitted with consent

Drainage; Environmental facilities; Environmental protection works; Flood mitigation works; Information and education facilities; Kiosks; Recreation areas; Research stations; Roads; Signage; Waterbodies (artificial)

(iii) Prohibited

Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Restricted premises; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any other development not specified in item (i) or (ii)

(a) ZONE R2 LOW DENSITY RESIDENTIAL - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Home-based child care; Home occupations

(ii) Permitted with consent

Bed and breakfast accommodation; Boarding houses; Business identification signs; Centre-based child care facilities; Community facilities; Drainage; Dual occupancies; Dwelling houses; Earthworks; Educational establishments; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Group homes; Health consulting rooms; Home businesses; Home industries; Information and education facilities; Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Roads; Secondary dwellings; Semi-detached dwellings; Seniors housing; Shop top housing; Studio dwellings; Veterinary hospitals; Waterbodies (artificial)

(iii) Prohibited

Any development not specified in item (i) or (ii)

(a) ZONE R3 MEDIUM DENSITY RESIDENTIAL - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Home-based child care; Home occupations

(ii) Permitted with consent

Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Centre-based child care facilities; Community facilities; Dual occupancies; Dwelling houses; Group homes; Manor homes; Multi dwelling housing; Neighbourhood shops; Places of public worship; Residential flat buildings; Roads; Secondary dwellings; Semi-detached dwellings; Seniors housing; Studio dwellings; Any other development not specified in item (i) or (iii)

(iii) Prohibited

Agriculture; Air transport facilities; Airstrips; Amusement centres; Boat repair facilities; Boat sheds; Business premises; Caravan parks; Cemeteries; Charter and tourism boating facilities; Correctional centres; Crematoria; Depots; Electricity generating works; Entertainment facilities; Extractive industries; Freight transport facilities; Function centres; Helipads; Highway service centres; Home occupations (sex services); Industries; Information and education facilities; Marinas; Moorings; Mortuaries; Office premises; Passenger transport facilities; Public administration buildings; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Research stations; Restricted premises; Retail premises; Rural supplies; Service stations; Sex services premises; Signage; Storage premises; Tourist and visitor accommodation; Transport depots; Truck depots; Vehicle body repair workshops; Vehicle repair stations; Vehicle sales or hire premises; Veterinary hospitals; Warehouse or distribution centres; Waste or resource management facilities; Water recreation structures; Wholesale supplies

(a) ZONE RE1 PUBLIC RECREATION - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Environmental protection works

(ii) Permitted with consent

Building identification signs; Business identification signs; Centre-based child care facilities; Community facilities; Drainage; Environmental facilities; Flood mitigation works; Information and education facilities; Kiosks; Markets; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Restaurants; Roads; Take away food and drink premises; Water recreation structures; Waterbodies (artificial)

(iii) Prohibited

Any development not specified in item (i) or (ii)

(a) ZONE RE2 PRIVATE RECREATION - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Nil

(ii) Permitted with consent

Caravan parks; Community facilities; Drainage; Electricity generating works; Environmental facilities; Environmental protection works; Flood mitigation works; Information and education facilities; Kiosks; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Registered clubs; Restaurants; Roads; Signage; Water recycling facilities; Waterbodies (artificial)

(iii) Prohibited

Any development not specified in item (i) or (ii)

(a) ZONE SP2 INFRASTRUCTURE - CAMDEN GROWTH CENTRES PRECINCT PLAN

(b) In this zone, development for the following purposes is -

(i) Permitted without consent

Roads

(ii) Permitted with consent

The purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose

(iii) Prohibited

Any development not specified in item (i) or (ii)

(c) Whether additional permitted uses apply to the land,

No.

(d) Whether development standards applying to the land fix minimum land dimensions for the erection of a dwelling house on the land and, if so, the fixed minimum land dimensions,

R2 Low Density Residential:
Camden Growth Centres Precinct Plan, Section 4.1AB, fixes a minimum 300m2 for the erection of a dwelling house in the R2 Low Density Residential zone, however exceptions apply in circumstances as specified under Sections 4.1AD, 4.1AE and 4.1AF for minimum land dimensions of 250m2, 225m2 and 200m2

R3 Medium Density Residential:
Camden Growth Centres Precinct Plan, Sections 4.1AB, fixes a minimum 300m2 for the erection of a dwelling house in the R3 Medium Density Residential zone; however exceptions apply in circumstances as specified under Sections 4.1AD and 4.1AF for land dimensions of minimum 225m2 and minimum 125m2

(e) Whether the land is in an area of outstanding biodiversity value under the Biodiversity Conservation Act 2016,

No.

(f) Whether the land is in a conservation area, however described,

No.

(g) Whether an item of environmental heritage however described, is located on the land

No.

3 CONTRIBUTIONS

(1) The name of each contributions plan under the Act, Division 7.1 applying to the land, including draft contributions plans

Camden Growth Areas Contributions Plan Amendment 3.

Camden Section 7.11 Contributions Plan – Heavy Haulage 2023

Camden Section 7.12 Development Contributions Plan 2023

(2) If the land is in a region within the meaning of the Act, Division 7.1, Subdivision 4 –

(a) the name of the region

No

(b) the name of the Ministerial planning order in which the region is identified

No

(3) If the land is in a special contributions area to which a continued 7.23 determination applies, the name of the area

Western Sydney Growth Areas Special Contributions Area

(4) In this section—

continued 7.23 determination means a 7.23 determination that—

(a) has been continued in force by the Act, Schedule 4, Part 1, and
(b) has not been repealed as provided by that part.

Note: The Act, Schedule 4, Part 1 contains other definitions that affect the interpretation of this section.

4 COMPLYING DEVELOPMENT

(1) If the land is land on which complying development may be carried out under each of the complying development codes under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, because of that Policy, clause 1.17A(1)(c)–(e), (2), (3) or (4), 1.18(1)(c3) or 1.19.

(2) If complying development may not be carried out on the land because of one of those clauses, the reasons why it may not be carried out under the clause.

(3) If the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land, a statement that—

(a) a restriction applies to the land, but it may not apply to all of the land, and

(b) the council does not have sufficient information to ascertain the extent to which complying development may or may not be carried out on the land.

(4) If the complying development codes are varied, under that Policy, clause 1.12, in relation to the land.

HOUSING CODE

Complying development MAY or MAY NOT be carried out on the land. Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,

* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

RURAL HOUSING CODE

Complying development MAY or MAY NOT be carried out on the land.
Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,
* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

LOW RISE HOUSING DIVERSITY CODE

Complying development MAY or MAY NOT be carried out on the land.
Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,
* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

Note: Under clause 1.19(3B) of the SEPP (Exempt and Complying Development Codes) 2008, development specified in the Low Rise Housing Diversity Code is not complying development under that code if the development is—
(a) for the purposes of dual occupancies, and
(b) carried out on land in Zone R2 Low Density Residential, and
(c) permitted with development consent under SEPP (Housing) 2021, Chapter 3, Part 12 but not under another environmental planning instrument.

AGRITOURISM AND FARM STAY ACCOMMODATION CODE

Complying development MAY or MAY NOT be carried out on the land. Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,

* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

GREENFIELD HOUSING CODE

Complying development MAY or MAY NOT be carried out on the land.
Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,
* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

Note: The Greenfield Housing Code only applies to certain land within the Camden Local Government Area. Under Clause 3C.1 of the SEPP (Exempt and Complying Development Codes) 2008, the code applies to land identified within the Greenfield Housing Code Area, as shown on the Greenfield Housing Code Area Maps.

INLAND CODE

The Inland Code does not apply to the Camden Local Government Area.

HOUSING ALTERATIONS CODE

Complying development MAY be carried out on the land.

GENERAL DEVELOPMENT CODE

Complying development MAY be carried out on the land.

INDUSTRIAL AND BUSINESS ALTERATIONS CODE

Complying development MAY be carried out on the land.

INDUSTRIAL AND BUSINESS NEW BUILDINGS CODE

Complying development MAY or MAY NOT be carried out on the land.
Council does not have sufficient information to ascertain or identify the extent to which complying development may or may not be carried out on the land. The land is either wholly or partially affected by specific land use exclusions in relation to complying development, as listed below,
* The land has been identified by an environmental planning instrument as being within riparian and/or native vegetation protection areas.
* The land is reserved for a public purpose.

CONTAINER RECYCLING FACILITIES CODE

Complying development MAY be carried out on the land.

SUBDIVISIONS CODE

Complying development MAY be carried out on the land.

DEMOLITION CODE

Complying development MAY be carried out on the land.

FIRE SAFETY CODE

Complying development MAY be carried out on the land.

Where complying development MAY be carried out, on land not affected by exclusions, it is subject to the requirements and standards of the SEPP and the relevant Codes, including requirements relating to the zoning of the land.

5 EXEMPT DEVELOPMENT

(1) If the land is land on which exempt development may be carried out under each of the exempt development codes under State Environmental Planning Policy (Exempt and Complying Development Codes) 2008, because of that Policy, clause 1.16(1)(b1)–(d) or 1.16A.

(2) If exempt development may not be carried out on the land because of one of those clauses, the reasons why it may not be carried out under the clause.

(3) If the council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land, a statement that—

(a) a restriction applies to the land, but it may not apply to all of the land, and

(b) the council does not have sufficient information to ascertain the extent to which exempt development may or may not be carried out on the land.

(4) If the exempt development codes are varied, under that Policy, clause 1.12, in relation to the land.

GENERAL EXEMPT DEVELOPMENT CODE

Exempt development MAY be carried out on the land

ADVERTISING AND SIGNAGE EXEMPT DEVELOPMENT CODE

Exempt development MAY be carried out on the land

TEMPORARY USES AND STRUCTURES EXEMPT DEVELOPMENT CODE

Exempt development MAY be carried out on the land

Where exempt development MAY be carried out, on land not affected by exclusions, it is subject to the requirements and standards of the SEPP and the relevant Codes, including requirements relating to the zoning of the land.

6 AFFECTED BUILDING NOTICES AND BUILDING PRODUCT RECTIFICATION ORDERS

(1) Whether the council is aware that—

(a) an affected building notice is in force in relation to the land, or

(b) a building product rectification order is in force in relation to the land that has not been fully complied with, or

(c) a notice of intention to make a building product rectification order given in relation to the land is outstanding.

(2) In this section—

affected building notice has the same meaning as in the Building Products (Safety) Act 2017, Part 4.

building product rectification order has the same meaning as in the Building Products (Safety) Act 2017.

No.

7 LAND RESERVED FOR ACQUISITION

Whether an environmental planning instrument or proposed environmental planning instrument referred to in section 1 makes provision in relation to the acquisition of the land by an authority of the State, as referred to in the Act, section 3.15.

Yes, clause 5.1 of the Camden Growth Centres Precinct Plan applies to the land as shown on the Land Reservation Acquisition Maps under State Environmental Planning Policy (Precincts—Western Parkland City) 2021.

8 ROAD WIDENING AND ROAD REALIGNMENT

Whether the land is affected by road widening or road realignment under—

(a) the Roads Act 1993, Part 3, Division 2, or

(b) an environmental planning instrument, or

(c) a resolution of the council.

Yes.

9 FLOOD RELATED DEVELOPMENT CONTROLS

(1) If the land or part of the land is within the flood planning area and subject to flood related development controls.

Yes.

(2) If the land or part of the land is between the flood planning area and the probable maximum flood and subject to flood related development controls.

No response required

(3) In this section—

flood planning area has the same meaning as in the Flood Risk Management Manual.

Flood Risk Management Manual means the Flood Risk Management Manual, ISBN 978-1-923076-17-4, published by the NSW Government in June 2023.

probable maximum flood has the same meaning as in the Flood Risk Management Manual.

10 COUNCIL AND OTHER PUBLIC AUTHORITY POLICIES ON HAZARD RISK RESTRICTIONS

(1) Whether any of the land is affected by an adopted policy that restricts the development of the land because of the likelihood of land slip, bush fire, tidal inundation, subsidence, acid sulfate soils, contamination, aircraft noise, salinity, coastal hazards, sea level rise or another risk, other than flooding.

(2) In this section—

adopted policy means a policy adopted—

(a) by the council, or

(b) by another public authority, if the public authority has notified the council that the policy will be included in a planning certificate issued by the council.

LAND SLIP

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of landslip.

BUSH FIRE

The land is affected by the provisions of a Development Control Plan and by Planning for Bush Fire Protection (NSW Rural Fire Service) that may restrict the development of the land because of the likelihood of bushfire.

TIDAL INUNDATION

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of tidal inundation.

SUBSIDENCE

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of subsidence.

ACID SULFATE SOILS

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of acid sulfate soils.

CONTAMINATION

Council's policy 'Management of Contaminated Lands' applies to the whole of the council area and may restrict, development of land. The policy is implemented when zoning or land use changes are proposed, or when further development is proposed, where land has been used for contaminating or potentially contaminating activities, including those activities listed in schedule 1 of the policy. A copy of the policy is available on Council's website.

AIRCRAFT NOISE

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of aircraft noise.

SALINITY

There are requirements for salinity and salinity assessment for specific types of development within the Camden local government area. This includes mandatory building requirements, unless other requirements are identified in any site specific salinity risk assessment or salinity management plan applying to the land. Please refer to Council's policy 'Building in a Salinity Prone Environment' and to requirements in the relevant Development Control Plan that applies to the land.

COASTAL HAZARDS

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of coastal hazards.

SEA LEVEL RISE

The subject land is not affected by a policy adopted by the Council or with Council being notified of a policy adopted by any other public authority that restricts the development of the subject land because of the likelihood of sea level rise.

11 BUSH FIRE PRONE LAND

(1) If any of the land is bush fire prone land, designated by the Commissioner of the NSW Rural Fire Service under the Act, section 10.3, a statement that all or some of the land is bush fire prone land.

(2) If none of the land is bush fire prone land, a statement to that effect.

Some of the land has been identified as bush fire prone land on the Camden Council Bush Fire Prone Land Mapping, as certified by the Commissioner of the NSW Rural Fire Service under Section 10.3(2) of the Environmental Planning and Assessment Act, 1979.

12 LOOSE-FILL ASBESTOS INSULATION

If the land includes residential premises, within the meaning of the Home Building Act 1989, Part 8, Division 1A, that are listed on the Register kept under that Division, a statement to that effect.

No.

13 MINE SUBSIDENCE

Whether the land is declared to be a mine subsidence district, within the meaning of the Coal Mine Subsidence Compensation Act 2017.

No.

14 PAPER SUBDIVISION INFORMATION

(1) The name of a development plan adopted by a relevant authority that—

(a) applies to the land, or

(b) is proposed to be subject to a ballot.

(2) The date of a subdivision order that applies to the land.

(3) Words and expressions used in this section have the same meaning as in the Environmental Planning and Assessment Regulation 2021, Part 10 and the Act, Schedule 7.

Not Applicable

15 PROPERTY VEGETATION PLANS

If the land is land in relation to which a property vegetation plan is approved and in force under the Native Vegetation Act 2003, Part 4, a statement to that effect, but only if the council has been notified of the existence of the plan by the person or body that approved the plan under that Act.

No.

16 BIODIVERSITY STEWARDSHIP SITES

If the land is a biodiversity stewardship site under a biodiversity stewardship agreement under the Biodiversity Conservation Act 2016, Part 5, a statement to that effect, but only if the council has been notified of the existence of the agreement by the Biodiversity Conservation Trust.

Note: Biodiversity stewardship agreements include biobanking agreements under the Threatened Species Conservation Act 1995, Part 7A that are taken to be biodiversity stewardship agreements under the Biodiversity Conservation Act 2016, Part 5.

No.

17 BIODIVERSITY CERTIFIED LAND

If the land is biodiversity certified land under the Biodiversity Conservation Act 2016, Part 8, a statement to that effect.

Note: Biodiversity certified land includes land certified under the Threatened Species Conservation Act 1995, Part 7AA that is taken to be certified under the Biodiversity Conservation Act 2016, Part 8.

The subject land is biodiversity certified land, under Part 8 of the Biodiversity Conservation Act 2016, or under Part 7AA and/or Schedule 7 Part 7 of the Threatened Species Conservation Act 1995, which remain in force under the Biodiversity Conservation (Savings and Transitional) Regulation 2017.

For more information about biodiversity certification, and the extent of the property that is certified, please visit: www.camden.nsw.gov.au/environment/biodiversity

18 ORDERS UNDER TREES (DISPUTES BETWEEN NEIGHBOURS) ACT 2006

Whether an order has been made under the Trees (Disputes Between Neighbours) Act 2006 to carry out work in relation to a tree on the land, but only if the council has been notified of the order.

No.

19 ANNUAL CHARGES UNDER LOCAL GOVERNMENT ACT 1993 FOR COASTAL PROTECTION SERVICES THAT RELATE TO EXISTING COASTAL PROTECTION WORKS

Not Applicable.

20 WESTERN SYDNEY AEROTROPOLIS

Whether under State Environmental Planning Policy (Precincts—Western Parkland City) 2021, Chapter 4 the land is—

(a) in an ANEF or ANEC contour of 20 or greater, as referred to in that Chapter, section 4.17,

No.

(b) or shown on the Lighting Intensity and Wind Shear Map,

No.

(c) or shown on the Obstacle Limitation Surface Map,

Yes, the subject land is shown on the Obstacle Limitation Surface Map.

(d) or in the “public safety area” on the Public Safety Area Map,

No.

(e) or in the “3 kilometre wildlife buffer zone” or the “13 kilometre wildlife buffer zone” on the Wildlife Buffer Zone Map.

Yes, the subject land is located within the 13 kilometre Wildlife Buffer Zone.

21 DEVELOPMENT CONSENT CONDITIONS FOR SENIORS HOUSING

If State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 5 applies to the land, any conditions of a development consent granted after 11 October 2007 in relation to the land that are of the kind set out in that Policy, section 88(2).

No.

22 SITE COMPATIBILITY CERTIFICATES AND DEVELOPMENT CONSENT CONDITIONS FOR AFFORDABLE RENTAL HOUSING

(1) Whether there is a current site compatibility certificate under State Environmental Planning Policy (Housing) 2021, or a former site compatibility certificate, of which the council is aware, in relation to proposed development on the land and, if there is a certificate—

(a) the period for which the certificate is current, and

(b) that a copy may be obtained from the Department.

No.

(2) If State Environmental Planning Policy (Housing) 2021, Chapter 2, Part 2, Division 1 or 5 applies to the land, any conditions of a development consent in relation to the land that are of a kind referred to in that Policy, section 21(1) or 40(1).

No.

(3) Any conditions of a development consent in relation to land that are of a kind referred to in State Environmental Planning Policy (Affordable Rental Housing) 2009, clause 17(1) or 38(1).

No.

(4) In this section—

former site compatibility certificate means a site compatibility certificate issued under State Environmental Planning Policy (Affordable Rental Housing) 2009.

23 WATER OR SEWERAGE SERVICES

If water or sewerage services are, or are to be, provided to the land under the Water Industry Competition Act 2006, a statement to that effect.

Not applicable.

Note: A public water utility may not be the provider of some or all of the services to the land. If a water or sewerage service is provided to the land by a licensee under the Water Industry Competition Act 2006, a contract for the service will be deemed to have been entered into between the licensee and the owner of the land. A register relating to approvals and licences necessary for the provision of water or sewerage services under the Water Industry Competition Act 2006 is maintained by the Independent Pricing and Regulatory Tribunal and

provides information about the areas serviced, or to be serviced, under that Act. Purchasers should check the register to understand who will service the property. Outstanding charges for water or sewerage services provided under the Water Industry Competition Act 2006 become the responsibility of the purchaser.

MATTERS PRESCRIBED BY SECTION 59 (2) OF THE CONTAMINATED LAND MANAGEMENT ACT 1997

The following matters are prescribed by section 59 (2) of the Contaminated Land Management Act 1997 as additional matters to be specified in a planning certificate:

(a) that the land to which the certificate relates is significantly contaminated land within the meaning of that Act—if the land (or part of the land) is significantly contaminated land at the date when the certificate is issued,

No.

(b) that the land to which the certificate relates is subject to a management order within the meaning of that Act—if it is subject to such an order at the date when the certificate is issued,

No.

(c) that the land to which the certificate relates is the subject of an approved voluntary management proposal within the meaning of that Act - if it is the subject of such an approved proposal at the date when the certificate is issued,

No.

(d) that the land to which the certificate relates is subject to an ongoing maintenance order within the meaning of that Act - if it is subject to such an order at the date when the certificate is issued,

No.

(e) that the land to which the certificate relates is the subject of a site audit statement within the meaning of that Act - if a copy of such a statement has been provided at any time to the local authority issuing the certificate.

No.

INFORMATION PROVIDED UNDER SECTION 10.7(5) OF THE ACT:

OTHER INFORMATION

1. Western Sydney Airport and Western Sydney Aerotropolis

On 15 April 2014 the Australian Government confirmed that the site of Western Sydney's new airport will be Badgerys Creek. A draft Environmental Impact Statement (EIS) and draft Airport Plan were on public exhibition from 19 October to 18 December 2015.

On 15 September 2016 the final EIS was presented to the Commonwealth Minister for the Environment and Energy. On 11 November the Minister provided a notice of environmental conditions to be placed on the airport development.

On 12 December 2016 the Minister for Urban Infrastructure determined the Western Sydney Airport Plan. This determination provides the authorisation to allow the construction and operation of stage 1 of the proposed airport (a single runway facility expected to be operational in late 2026).

The Stage 1 Land Use and Infrastructure Implementation Plan (LUIIP) was exhibited between 21 August 2018 and 2 November 2018 by the Department of Planning, Industry and Environment. This plan provided an overview of future land uses and the proposed sequence of development to ensure new jobs and homes are delivered in time with infrastructure.

Between 6 December 2019 and 13 March 2020, the Western Sydney Aerotropolis Plan (WSAP) was exhibited by the Department of Planning, Industry and Environment. The WSAP sets the planning framework for the Western Sydney Aerotropolis and builds upon the exhibited LUIIP for the Aerotropolis.

On 27 June 2023, the Australian Government released its preliminary flight path design for single runway operation of the Western Sydney International (Nancy-Bird Walton) Airport for the community to view.

Further information on Western Sydney Aerotropolis is available at https://www.planning.nsw.gov.au/Plans-for-your-area/Priority-Growth-Areas-and-Precincts/Western-Sydney-Aerotropolis,
or from the Commonwealth Department of Infrastructure, Transport, Regional Development, Communications and the Arts at https://www.westernsydneyairport.gov.au

2. Outer Sydney Orbital Corridor Identification, North South Rail Line and South West Rail Link Extension Corridor Identification

On 26 March 2018, the NSW Government released for comment a recommended corridor of land for the Outer Sydney Orbital, North South Rail Line and South West Rail Link Extension which may affect land in the Camden Local Government Area (LGA).

On 22 June 2018, the NSW Government announced a revised corridor of land for the Outer Sydney Orbital in response to community feedback.

On 30 June 2020, the NSW Government confirmed the final corridors to support the delivery of the proposed Sydney Metro – Western Sydney Airport project, South West Rail Link Extension and Western Sydney Freight Line. The North South Rail Line Corridor is proposed to run from the Western Sydney Airport to Macarthur, with a tunnel from Oran Park. The South West Rail Link Extension will extend the existing passenger rail line from Leppington Station to the Aerotropolis. A new State Environmental Planning Policy identifies the land that is intended to be used in the future as an infrastructure corridor.

State Environmental Planning Policy (Transport and Infrastructure) 2021, Chapter 4, identifies the location, and relevant planning controls applying to land identified within the North South Rail Line and South West Rail Link Extension corridors, including land within the Camden LGA. The identification of the Outer Sydney Orbital Corridor was not included in this State Environmental Planning Policy.

Further information is available at www.transport.nsw.gov.au/corridors

3. Miscellaneous Information

* COAL SEAM GAS EXTRACTION:

Coal Seam Gas Extraction has previously taken place within the Camden Local Government Area. The Camden Gas Plant ceased production in August 2023. Decommissioning of the plant and the progressive capping and abandoning of the remaining wells and rehabilitation of the land is ongoing. Enquiries may be

made to AGL Gas Production (Camden) Pty Limited, or the relevant licence holder, as to the location of gas wells.

* WESTERN SYDNEY AIRPORT - Obstacle Limitation Surface:

The land is within the Obstacle Limitation Surface (OLS) established within a radius of approximately 15km of Western Sydney Airport, with potential height or development limitations to protect airport airspace.

Further information, including the height of the OLS at any point around the airport, is available on Western Sydney Airport website:https://www.wsaco.com.au/about/airspace-protection-for-western-sydney-airport

* SOUTH WEST GROWTH AREA:

On 2 November 2019, the State Government announced a new approach to precinct planning for land within the South West Growth Area. Under this announcement, a collaborative approach was determined for the following precincts: Leppington Stages Two and Five, Lowes Creek Maryland, Pondicherry and South Creek West Precincts Two and Five. Under this pathway, the Department of Planning, Industry and Environment (DPIE) will play a co-ordination role to facilitate collaborative partnerships between DPIE and Camden Council to resolve complex issues involving other state agencies. Subsequent rezonings will generally be implemented by Council, although in certain cases they could become State-led. Camden Council is working with DPIE to further clarify how these precincts will be delivered including the planning pathway, governance arrangements, timeframes and resources.

On 16 July 2021, Leppington Precinct Stages Two and Five and Lowes Creek Maryland Precinct were rezoned.

For further information, please see DPIE's website at: https://www.planning.nsw.gov.au/Plans-for-your-area/A-new-approach-to-precincts

* CAMDEN SECTION 7.12 DEVELOPMENT CONTRIBUTIONS PLAN:

For development including alterations and additions or the knockdown and rebuild of dwellings, the provisions of this Plan do not come into effect until 20 October 2025. To clarify, a development application (DA) or Complying Development Certificate (CDC) which has been submitted prior to 20 October 2025 but not determined shall be determined and include contribution conditions in accordance with the provisions of the Plan which applied at the date of determination.

* ADDITIONAL FLOOD INFORMATION:MAINSTREAM FLOODING

The subject land is affected by mainstream flooding and subject to flood related development controls.

DISCLAIMER AND CAUTION

The information on zones, controls etc., given above relates to the land for which the certificate was sought. If enquirers wish to know what zones, other controls, etc., apply or are proposed on nearby land then they should make enquiries in person at Council's offices.

The information contained in this certificate is accurate as at the date of this certificate.

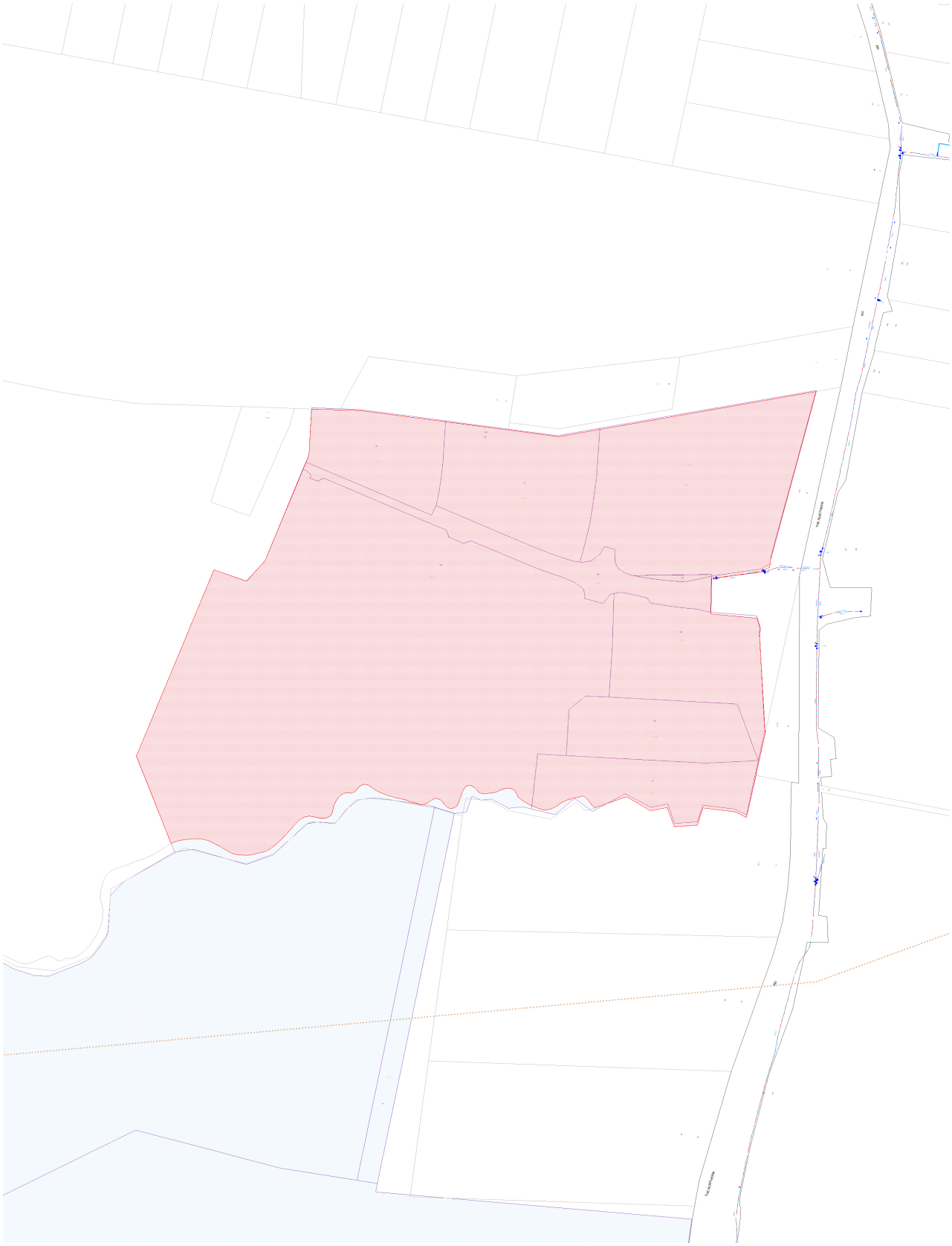
In providing this certificate Council has in good faith relied upon information provided to it or sourced from third parties. Where Council has obtained the information from third parties, either exclusively or in conjunction with information held by Council, the Certificate details the source of that third party information. Council cautions persons against relying upon information in the Certificate sourced from third parties as to its accuracy, applicability to specific lands and its currency without verification from the specified third party and, where appropriate,

professional advice and the adoption of prudent land acquisition measures and appropriate professional advice. To the full extent permitted by law Council disclaims liability with respect to any information in this Certificate sourced from third parties.

Andrew Carfield
General Manager

Service Location Print

Application Number: 8003631575



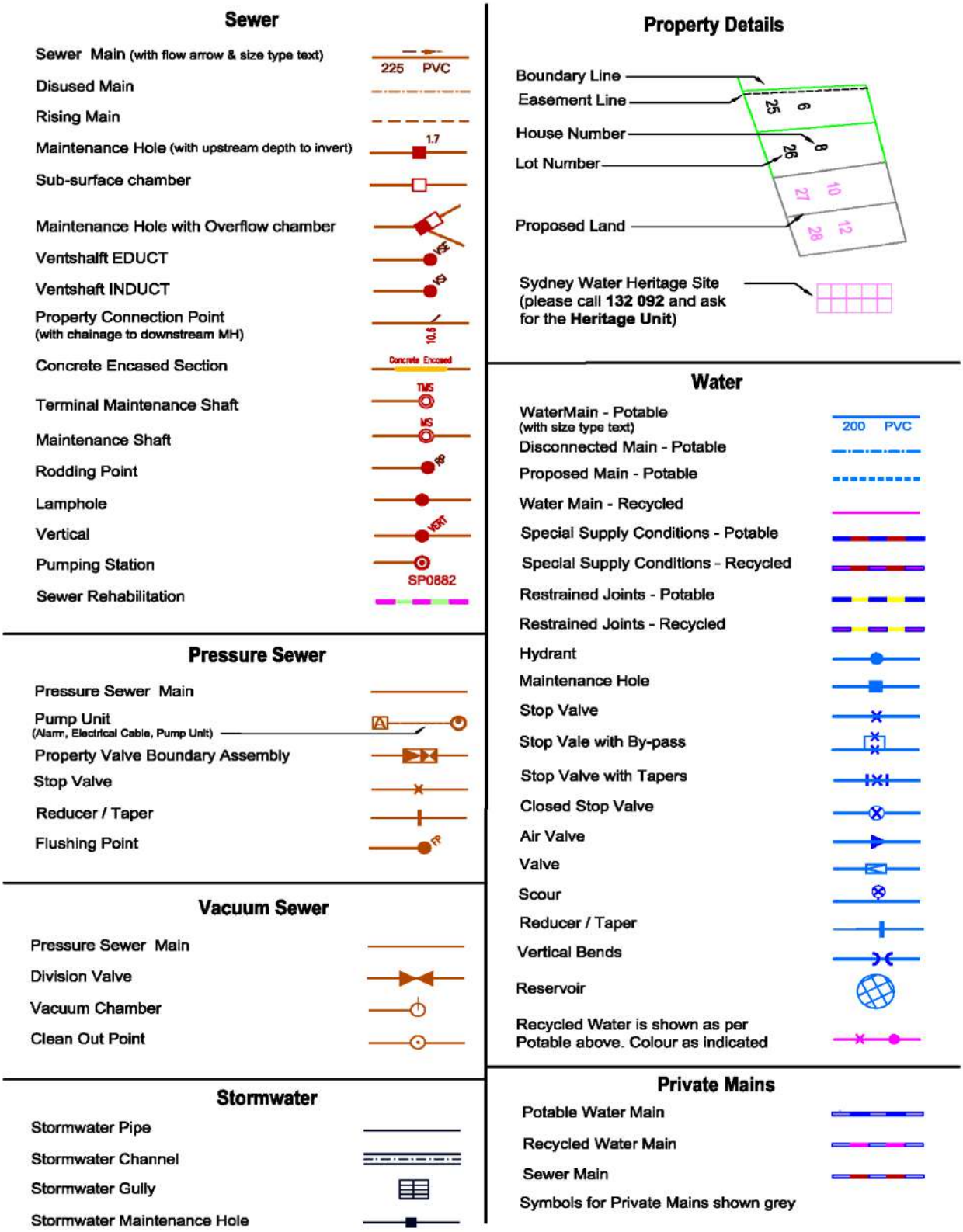
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Disclaimer

The information on this print shows if we provide any water, wastewater or stormwater services to this property. It may not be accurate or to scale. If you'd like to see the location of private wastewater pipes on the property, please buy a **Sewer service diagram**.

Asset Information

Legend



Disclaimer
The information on this print shows if we provide any water, wastewater or stormwater services to this property. It may not be accurate or to scale. If you'd like to see the location of private wastewater pipes on the property, please buy a **Sewer service diagram**.

Pipe Types

ABS	Acrylonitrile Butadiene Styrene	**AC**	Asbestos Cement
BRICK	Brick	**CI**	Cast Iron
CICL	Cast Iron Cement Lined	**CONC**	Concrete
COPPER	Copper	**DI**	Ductile Iron
DICL	Ductile Iron Cement (mortar) Lined	**DIPL**	Ductile Iron Polymeric Lined
EW	Earthenware	**FIBG**	Fibreglass
FL BAR	Forged Locking Bar	**GI**	Galvanised Iron
GRP	Glass Reinforced Plastics	**HDPE**	High Density Polyethylene
MS	Mild Steel	**MSCL**	Mild Steel Cement Lined
PE	Polyethylene	**PC**	Polymer Concrete
PP	Polypropylene	**PVC**	Polyvinylchloride
PVC - M	Polyvinylchloride, Modified	**PVC - O**	Polyvinylchloride, Oriented
PVC - U	Polyvinylchloride, Unplasticised	**RC**	Reinforced Concrete
RC-PL	Reinforced Concrete Plastics Lined	**S**	Steel
SCL	Steel Cement (mortar) Lined	**SCL IBL**	Steel Cement Lined Internal Bitumen Lined
SGW	Salt Glazed Ware	**SPL**	Steel Polymeric Lined
SS	Stainless Steel	**STONE**	Stone
VC	Vitrified Clay	**WI**	Wrought Iron
WS	Woodstave		

Further Information

Please consult the Dial Before You Dig enquiries page on the Sydney Water website.

For general enquiries please call the Customer Contact Centre on 132 092

In an emergency, or to notify Sydney Water of damage or threats to its structures, call 13 20 90 (24 hours, 7 days)

Disclaimer
The information on this print shows if we provide any water, wastewater or stormwater services to this property. It may not be accurate or to scale. If you'd like to see the location of private wastewater pipes on the property, please buy a **Sewer service diagram**.

12 August 2024

Infotrack Pty Limited

Reference number: **8003631576**

Property address: **975 The Northern Rd Bringelly NSW 2556**

Sewer service diagram is not available

Unfortunately, we don't have a Sewer service diagram available for this property.

This may indicate that a diagram was never drawn, an inspection did not occur or that the relevant fees and charges were not paid to submit the diagram to NSW Fair Trading.

The fee you paid has been used to cover the cost of searching our records.

Sincerely

The Sydney Water team

ATTACHMENT 2 – DISCLOSURE STATEMENT

Version 1.0 – October 2019

Disclosure Statement – Off the Plan Contracts

This is the approved form for the purposes of s66ZM of the Conveyancing Act 1919.

VENDOR	Birling Estates Pty Ltd ACN: 677 710 977
PROPERTY	Lot [##] in an unregistered plan of subdivision to be known as Deposited Plan 1298502 (being the pre-allocated Deposited Plan) which is part of Lot 102 in Deposited Plan 1298342 (being the pre-allocated Deposited Plan) which is part of Lot 120 in Deposited Plan 1284706 and being all of the land contained in Certificate of Title Folio Identifier 120/1284706

TITLE STRUCTURE	
Will the lot be a lot in a strata scheme?	☒ No ☐ Yes
Will the lot also be subject to a Strata Management Statement or Building Management Statement?	☒ No ☐ Yes
Will the lot form part of a community, precinct or neighbourhood scheme?	☒ No ☐ Yes **If Yes, please specify scheme type:** Not applicable

DETAILS					
Completion	The later of 42 days after the date of the contract or 21 days after the vendor serves notice of the registration of the subdivision documents.		**Refer to clause(s):**	See definition of date for completion in clause 33.1 and clause 37	
Is there a sunset date?	☐ No ☒ Yes	**Can this date be extended?**	☐ No ☒ Yes	**Refer to clause(s):**	See clause 37
Does the purchaser pay anything more if they do not complete on time?	☐ No ☒ Yes	Provide details, including relevant clause(s) of contract:	In accordance with clause 52.2 of the contract, the purchaser must pay interest at the rate of 8% per annum on the unpaid balance of the price if completion does not occur on date for completion, and this is not due to a delay by the vendor.		
Has development approval been obtained?	☐ No ☒ Yes	Development Approval No:	Consent issued by Camden Council in respect of the Development Application DA2023/486/1 (as may be varied)		
Has a principal certifying authority been appointed?	☐ No ☒ Yes	Provide details:	Camden Council		
Can the vendor cancel the contract if an event preventing or enabling the development does or does not occur?	☐ No ☒ Yes	Provide details, including relevant clause(s) of contract:	Under clause 37, the vendor is entitled to rescind the contract if the subdivision documents are not registered by the sunset date, subject to the vendor complying with section 66ZS of the *Conveyancing Act 1919* Under clause 46, the vendor is entitled to rescind the contract if the purchaser is a foreign person and does not obtain FIRB Approval within 2 months after the contract date.		

ATTACHMENTS *(s66ZM(2) of the Conveyancing Act 1919)*			
The following prescribed documents are included in this disclosure statement *(select all that apply).*			
☒	draft plan [deemed to be attached to this statement by reference to the same document which is attached to the contract- See Attachment "2.1" to the contract]	☐	draft community/ precinct/ neighbourhood/ management statement
☒	s88B instrument proposed to be lodged with draft plan [deemed to be attached to this statement by reference to the same document which is attached to the contract- See Attachment "2.2" to the contract]	☐	draft community/ precinct/ neighbourhood/ development contract
☐	proposed schedule of finishes	☐	draft strata management statement
☐	draft strata by-laws	☐	draft building management statement
☐	Draft strata development contract		

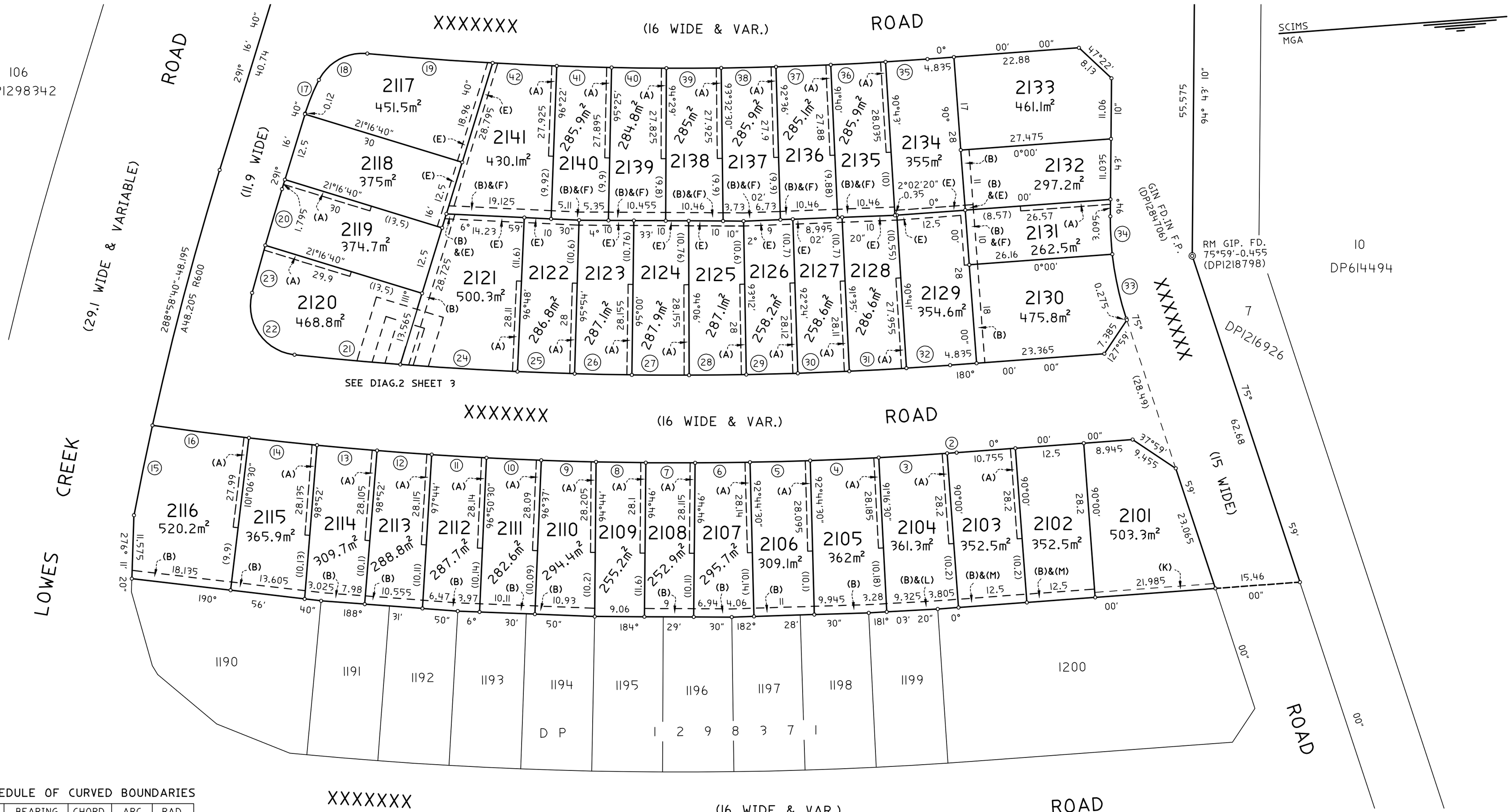
ATTACHMENT 2.1 – SUBDIVISION PLAN



NOTES:

ALL DIMENSIONS AND AREAS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF PLANS OF SUBDIVISION AT N.S.W. LAND REGISTRY SERVICES.

SURVEYOR: Name: Vincent J Kennedy Date: xx xxxxx 2024 Reference: 5421-ST2-DP	PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342	LGA: CAMDEN Locality: BRINGELLY Reduction Ratio: 1:600 Lengths are in metres	Registered	DRAFT DP1298502 Version 2 - 9/1/25



SCHEDULE OF CURVED BOUNDARIES

No.	BEARING	CHORD	ARC	RAD.
2	359°59'	1.745	1.745	681.5
3	0°41'	12.5	12.5	681.5
4	1°43'	12.5	12.5	681.5
5	2°43'	11	11	681.5
6	3°36'	10	10	681.5
7	4°23'	9	9	681.5
8	5°09'	9.08	9.08	681.5
9	5°57'	10	10	681.5
10	6°48'	10	10	681.5
11	7°38'	10	10	681.5
12	8°29'	10	10	681.5
13	9°22'	11	11	681.5
14	10°21'	12.5	12.5	681.5
15	285°53'	16.725	16.725	600
16	11°37'	17.74	17.74	681.5

No.	BEARING	CHORD	ARC	RAD.
17	296°29'	6.62	6.625	36.5
18	335°39'	10.055	10.67	9
19	8°32'20"	22.93	22.935	609.5
20	290°45'	10.705	10.705	588.1
21	189°28'40"	19.375	19.375	665.5
22	239°50'	13.69	15.56	9
23	289°48'	8.995	8.995	588.1
24	187°43'20"	21.415	21.42	665.5
25	186°21'	10.44	10.44	665.5
26	185°27'	10.44	10.44	665.5
27	184°33'	10.44	10.44	665.5
28	183°39'	10.44	10.44	665.5

No.	BEARING	CHORD	ARC	RAD.
29	182°48'	9.395	9.395	665.5
30	181°59'	9.395	9.395	665.5
31	181°08'	10.44	10.44	665.5
32	180°20'	8	8	665.5
33	81°56'	12.03	12.05	58
34	91°18'	6.92	6.92	58
35	0°21'	7.665	7.665	609.5

No.	BEARING	CHORD	ARC	RAD.
36	1°11'	10	10	609.5
37	2°08'	10	10	609.5
38	3°04'	10	10	609.5
39	4°01'	10	10	609.5
40	4°57'	10	10	609.5
41	5°53'	10	10	609.5
42	6°55'	11.71	11.71	609.5

(A) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(B) EASEMENT FOR DRAINAGE OF WATER 1.5 WIDE
(E) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(F) EASEMENT FOR SUPPORT & MAINTENANCE 1.5 WIDE
(K) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE (DP1298371)
(L) EASEMENT FOR SUPPORT & MAINTENANCE 1.5 WIDE (DP1298371)
(M) EASEMENT FOR SUPPORT & MAINTENANCE 1.5 WIDE (DP1298371)

NOTES:

ALL DIMENSIONS AND AREAS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF PLANS OF SUBDIVISION AT N.S.W. LAND REGISTRY SERVICES.

SURVEYOR:
Name: Vincent J Kennedy
Date: xx xxxxx 2024
Reference: 5421-ST2-DP

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN 1298342

LGA: CAMDEN
Locality:BRINGELLY
Reduction Ratio: 1:600
Lengths are in metres

Registered

DRAFT DP1298502
Version 2 - 9/1/25

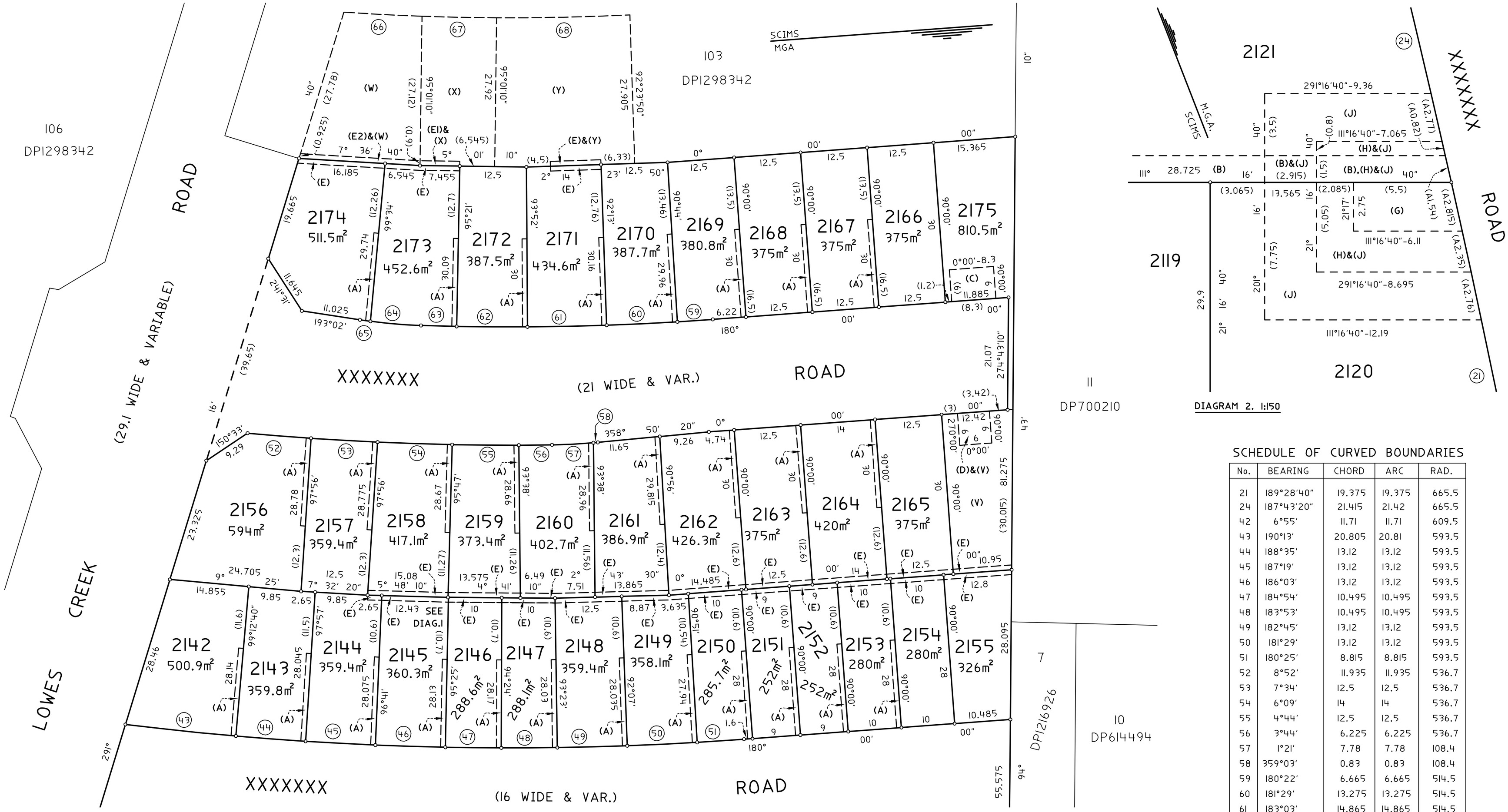


DIAGRAM 2. 1:150

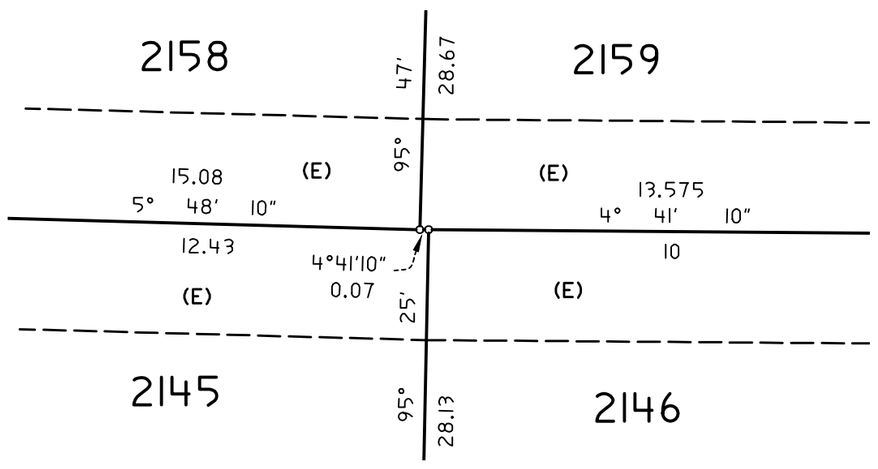


DIAGRAM 1. 1:50

SCHEDULE OF CURVED BOUNDARIES

No.	BEARING	CHORD	ARC	RAD.
21	189°28'40"	19.375	19.375	665.5
24	187°43'20"	21.415	21.42	665.5
42	6°55'	11.71	11.71	609.5
43	190°13'	20.805	20.81	593.5
44	188°35'	13.12	13.12	593.5
45	187°19'	13.12	13.12	593.5
46	186°03'	13.12	13.12	593.5
47	184°54'	10.495	10.495	593.5
48	183°53'	10.495	10.495	593.5
49	182°45'	13.12	13.12	593.5
50	181°29'	13.12	13.12	593.5
51	180°25'	8.815	8.815	593.5
52	8°52'	11.935	11.935	536.7
53	7°34'	12.5	12.5	536.7
54	6°09'	14	14	536.7
55	4°44'	12.5	12.5	536.7
56	3°44'	6.225	6.225	536.7
57	1°21'	7.78	7.78	108.4
58	359°03'	0.83	0.83	108.4
59	180°22'	6.665	6.665	514.5
60	181°29'	13.275	13.275	514.5
61	183°03'	14.865	14.865	514.5
62	184°37'	13.27	13.275	514.5
63	185°44'	6.69	6.69	514.5
64	188°58'	9.505	9.51	95.1
65	192°26'	1.99	1.99	95.1
66	7°14'	14.68	14.68	456.5
67	5°26'	14	14	456.5
68	2°59'	25	25	456.5

(A) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(B) EASEMENT FOR DRAINAGE OF WATER 1.5 WIDE
(C) RIGHT OF ACCESS 8.3 WIDE
(D) RIGHT OF ACCESS 6 WIDE
(E) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(E1) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(E2) EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE
(G) EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE
(H) RESTRICTION ON THE USE OF LAND
(J) RESTRICTION ON THE USE OF LAND
(V),(W),(X),&(Y) BENEFITED BY EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE **(E)**

NOTES:

ALL DIMENSIONS AND AREAS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF PLANS OF SUBDIVISION AT N.S.W. LAND REGISTRY SERVICES.

SURVEYOR: Name: Vincent J Kennedy Date: xx xxxxx 2024 Reference: 5421-ST2-DP	PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN 1298342	LGA: CAMDEN Locality: BRINGELLY Reduction Ratio: 1:600 Lengths are in metres	Registered	DRAFT DP1298502 Version 2 - 9/1/25

PLAN FORM 6 (2019) WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET

Sheet 1 of 1 sheet(s)

Office Use Only

Registered:

Title System:

Office Use Only

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

LGA: Camden

Locality: Bringelly

Parish: Cook

County: Cumberland

Survey Certificate

I, Vincent J Kennedy of YSCO Geomatics, Suite 4, 114 Hampden Road Artarmon NSW 2064,

a surveyor registered under the *Surveying and Spatial Information Act 2002*, certify that:

*(a) The land shown in the plan was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, is accurate and the survey was completed on ……., or

*(b) ~~The part of the land shown in the plan (*being/*excluding **) was surveyed in accordance with the *Surveying and Spatial Information Regulation 2017*, the part surveyed is accurate and the survey was completed on, , the part not surveyed was compiled in accordance with that Regulation, or~~

*(c) ~~The land shown in this plan was compiled in accordance with the *Surveying and Spatial Information Regulation 2017*.~~

Datum Line: 'A'-'B'

Type: *Urban/*Rural

The terrain is *Level-Undulating / *Steep-Mountainous.

Signature:…… Dated: ……..

Surveyor Identification No: SU008366
Surveyor registered under the *Surveying and Spatial Information Act 2002*

*Strike out inappropriate words.

**Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.

Crown Lands NSW/Western Lands Office Approval

I, ... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.

Signature: .....

Date: .....

File Number: .....

Office:

Subdivision Certificate

I, ...
*Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.6.15 of the *Environmental Planning and Assessment Act 1979* have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.

Signature: .....

Accreditation number: .....

Consent Authority: ……..

Date of endorsement: .....

Subdivision Certificate number: ……

File number: ……..

*Strike through if inapplicable.

Plans used in the preparation of survey/compilation.

DP1298371, DP1216926, DP1218798, DP1284706, DP1298342.

Statements of intention to dedicate public roads create public reserves and drainage reserves, acquire/resume land.

IT IS INTENDED TO DEDICATE XXXXXXXX TO THE PUBLIC AS PUBLIC ROAD

Surveyor's Reference: 5421-ST2-DP

Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A

PLAN FORM 6A (2019) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 2 of 6 sheet(s)

Office Use Only

Office Use Only

Registered:

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

Subdivision Certificate number: .....

Date of Endorsement: .....

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT, 1919, IT IS INTENDED

TO CREATE;

1. EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE (A)
2. EASEMENT FOR DRAINAGE OF WATER 1.5 WIDE (B)
3. RIGHT OF ACCESS 8.3 WIDE (C)
4. RIGHT OF ACCESS 6 WIDE (D)
5. EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE (E)
6. EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE (E1)
7. EASEMENT FOR SUPPORT & MAINTENANCE 0.9 WIDE (E2)
8. EASEMENT FOR SUPPORT & MAINTENANCE 1.5 WIDE (F)
9. EASEMENT FOR PADMOUNT SUBSTATION 2.75 WIDE (G)
10. RESTRICTION ON THE USE OF LAND (H)
11. RESTRICTION ON THE USE OF LAND (J)
12. RESTRICTION ON THE USE OF LAND
13. RESTRICTION ON THE USE OF LAND

TO RELEASE;

1. EASEMENT FOR DRAINAGE OF WATER 1.5 WIDE CREATED BY DP1298371

If space is insufficient use additional annexure sheet

Surveyor's Reference: 5421-ST2-DP

PLAN FORM 6A (2019) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 3 of 6 sheet(s)

Office Use Only

Office Use Only

Registered:

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: ……..

Date of Endorsement: .....

The Surveying & Spatial Information Regulation 2017, Clause 60

Lot	Street No.	Street Name	Street Type	Suburb
2101	TBD	TBD		Bringelly
2102	TBD	TBD		Bringelly
2103	TBD	TBD		Bringelly
2104	TBD	TBD		Bringelly
2105	TBD	TBD		Bringelly
2106	TBD	TBD		Bringelly
2107	TBD	TBD		Bringelly
2108	TBD	TBD		Bringelly
2109	TBD	TBD		Bringelly
2110	TBD	TBD		Bringelly
2111	TBD	TBD		Bringelly
2112	TBD	TBD		Bringelly
2113	TBD	TBD		Bringelly
2114	TBD	TBD		Bringelly
2115	TBD	TBD		Bringelly
2116	TBD	TBD		Bringelly
2117	TBD	TBD		Bringelly
2118	TBD	TBD		Bringelly
2119	TBD	TBD		Bringelly
2120	TBD	TBD		Bringelly
2121	TBD	TBD		Bringelly
2122	TBD	TBD		Bringelly
2123	TBD	TBD		Bringelly
2124	TBD	TBD		Bringelly

If space is insufficient use additional annexure sheet

Surveyor's Reference: 5421-ST2-DP

PLAN FORM 6A (2019) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 4 of 6 sheet(s)

Office Use Only

Registered:

Office Use Only

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: .....

Date of Endorsement: .....

The Surveying & Spatial Information Regulation 2017, Clause 60

Lot	Street No.	Street Name	Street Type	Suburb
2125	TBD	TBD		Bringelly
2126	TBD	TBD		Bringelly
2127	TBD	TBD		Bringelly
2128	TBD	TBD		Bringelly
2129	TBD	TBD		Bringelly
2130	TBD	TBD		Bringelly
2131	TBD	TBD		Bringelly
2132	TBD	TBD		Bringelly
2133	TBD	TBD		Bringelly
2134	TBD	TBD		Bringelly
2135	TBD	TBD		Bringelly
2136	TBD	TBD		Bringelly
2137	TBD	TBD		Bringelly
2138	TBD	TBD		Bringelly
2139	TBD	TBD		Bringelly
2140	TBD	TBD		Bringelly
2141	TBD	TBD		Bringelly
2142	TBD	TBD		Bringelly
2143	TBD	TBD		Bringelly
2144	TBD	TBD		Bringelly
2145	TBD	TBD		Bringelly
2146	TBD	TBD		Bringelly
2147	TBD	TBD		Bringelly
2148	TBD	TBD		Bringelly
2149	TBD	TBD		Bringelly
2150	TBD	TBD		Bringelly

if space is insufficient use additional annexure sheet

Surveyor's Reference: 5421-ST2-DP

PLAN FORM 6A (2019) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 5 of 6 sheet(s)

Office Use Only

Registered:

Office Use Only

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: .....

Date of Endorsement: .....

The Surveying & Spatial Information Regulation 2017, Clause 60

Lot	Street No.	Street Name	Street Type	Suburb
2151	TBD	TBD		Bringelly
2152	TBD	TBD		Bringelly
2153	TBD	TBD		Bringelly
2154	TBD	TBD		Bringelly
2155	TBD	TBD		Bringelly
2156	TBD	TBD		Bringelly
2157	TBD	TBD		Bringelly
2158	TBD	TBD		Bringelly
2159	TBD	TBD		Bringelly
2160	TBD	TBD		Bringelly
2161	TBD	TBD		Bringelly
2162	TBD	TBD		Bringelly
2163	TBD	TBD		Bringelly
2164	TBD	TBD		Bringelly
2165	TBD	TBD		Bringelly
2166	TBD	TBD		Bringelly
2167	TBD	TBD		Bringelly
2168	TBD	TBD		Bringelly
2169	TBD	TBD		Bringelly
2170	TBD	TBD		Bringelly
2171	TBD	TBD		Bringelly
2172	TBD	TBD		Bringelly
2173	TBD	TBD		Bringelly
2174	TBD	TBD		Bringelly
2175	TBD	TBD		Bringelly

if space is insufficient use additional annexure sheet

Surveyor's Reference: 5421-ST2-DP

PLAN FORM 6A (2019) **DEPOSITED PLAN ADMINISTRATION SHEET** Sheet 6 of 6 sheet(s)

Office Use Only

Registered:

Office Use Only

PLAN OF SUBDIVISION OF LOT 102 IN DP1298342 AND EASEMENTS IN LOT 103 IN DP1298342.

This sheet is for the provision of the following information as required:

- A schedule of lots and addresses - See 60(c) *SSI Regulation 2017*
- Statements of intention to create and release affecting interests in accordance with section 88B *Conveyancing Act 1919*
- Signatures and seals- see 195D *Conveyancing Act 1919*
- Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.

Subdivision Certificate number: ……..

Date of Endorsement: .....

Registered Proprietor:

Executed for and on behalf of Birling Estate Developments Pty Ltd ABN 83 657 548 073 pursuant to section 127 Corporations Act 2001.

…… ……..

Director/Secretary Name (Print)

…… ……..

Director Name (print)

if space is insufficient use additional annexure sheet

Surveyor's Reference: 5421-ST2-DP

ATTACHMENT 2.2 – 88B INSTRUMENT

Instrument setting out terms of Easements or Profits à Prendre intended to be created or released and of Restrictions on the Use of Land or Positive Covenants intended to be created pursuant to Section 88B Conveyancing Act 1919

Plan: DP1298502 (DRAFT)

Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

Full Name and Address of the owner of the land:

Birling Estate Pty Ltd ACN 657 548 073
975 The Northern Road, Bringelly 2556

PART 1 (Creation)

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities
1	Easement for Support & Maintenance 0.9 Wide (A)	2103	2102
		2104	2103
		2105	2104
		2106	2105
		2107	2106
		2108	2107
		2109	2108
		2110	2109
		2111	2110
		2112	2111
		2113	2112
		2114	2113
		2115	2114
		2116	2115
		2119	2118
		2120	2119
		2121	2112
		2122	2123
		2123	2124
		2124	2125
		2125	2126
		2126	2127
		2127	2128
		2128	2129
		2131	2132
		2135	2134
		2136	2135

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

		2137	2136
		2138	2137
		2139	2138
		2140	2139
		2141	2140
		2142	2143
		2143	2144
		2144	2145
		2145	2146
		2146	2147
		2147	2148
		2148	2149
		2149	2150
		2150	2151
		2151	2152
		2152	2153
		2153	2154
		2156	2157
		2157	2158
		2158	2159
		2159	2160
		2160	2161
		2161	2162
		2162	2163
		2163	2164
		2164	2165
		2167	2166
		2168	2167
		2169	2168
		2170	2169
		2171	2170
		2172	2171
		2173	2172
		2174	2173
2	Easement for Drainage of Water 1.5 Wide (B)	2102	2101
		2103	2102, 2101

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

		2104	2103, 2102, 2101
		2105	2104, 2103, 2102, 2101
		2106	2105, 2104, 2103, 2102, 2101
		2107	2106, 2105, 2104, 2103, 2102, 2101
		2108	2101 to 2107 inclusive
		2110	2109
		2111	2110, 2109
		2112	2111, 2110, 2109
		2113	2112, 2111, 2110, 2109
		2114	2113, 2112, 2111, 2110, 2109
		2115	2114, 2113, 2112, 2111, 2110, 2109
		2116	2109 to 2115 inclusive
		2121	2134 to 2141 inclusive
		2130	2131, 2132, 2133
		2131	2132, 2133
		2132	2133
		2135	2134
		2136	2135, 2134
		2137	2136, 2135, 2134
		2138	2137, 2136, 2135, 2134
		2139	2138, 2137, 2136, 2135, 2134
		2140	2139, 2138, 2137, 2136, 2135, 2134
		2141	2134 to 2140 inclusive
3	Right of Access 8.3 wide (C)	2175	Camden Council
4	Right of Access 6 wide (D)	2175	Camden Council
5	Easement for Support & Maintenance 0.9 Wide (E)	2117	2141
		2118	2141
		2121	2141

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

		2122	2140, 2141
		2123	2139, 2140
		2124	2138, 2139
		2125	2137, 2138
		2126	2136, 2137
		2127	2135, 2136
		2128	2135
		2129	2131, 2134
		2132	2131
		2134	2128, 2129
		2141	2117, 2118
		2144	2158
		2145	2158, 2159
		2146	2159
		2147	2159, 2160
		2148	2160, 2161
		2149	2161, 2162
		2150	2162
		2151	2162, 2163
		2152	2163, 2164
		2153	2164, 2165
		2154	2165
		2155	2165, part of 2175 designated (V)
		2158	2144, 2145
		2159	2146, 2147
		2160	2147, 2148
		2161	2148, 2149
		2162	2149, 2150, 2151
		2163	2151, 2152
		2164	2152, 2153
		2165	2153, 2154, 2155
		2171	Part of 103/1298342 designated (Y)
		2173	Part of 103/1298342 designated (W) & (X)
		2174	Part of 103/1298342 designated (W)

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

		2175 103/1298342	2155 2171
6	Easement for Support & Maintenance 0.9 Wide (E1)	103/1298342	2173
7	Easement for Support & Maintenance 0.9 Wide (E2)	103/1298342	2173, 2174
8	Easement for Support & Maintenance 1.5 wide (F)	2135 2136 2137 2138 2139 2140 2141	2127, 2128 2126, 2127 2125, 2126 2124, 2125 2123, 2124 2122, 2123 2121, 2122
9	Easement for Padmount Station 2.75 wide (G)	2120	Epsilon Distribution Ministerial Holding Corporation
10	Restriction(s) on the use of Land (Fire Rating of Building Material) (H)	Parts of 2120, 2121	Epsilon Distribution Ministerial Holding Corporation
11	Restriction on use of Land (No Pool/Spa) (J)	Parts of 2120, 2121	Epsilon Distribution Ministerial Holding Corporation
12	Restriction(s) on the use of Land (Salinity Plan)	Each lot	Camden Council
13	Restriction(s) on the use of Land (Traffic Acoustics)	2116 to 2120 inclusive, 2142, 2156 to 2174 inclusive	Camden Council
14	Restriction on use of Land (Ramps and Road Related Infrastructure)	Each lot	Camden Council
15	Restriction(s) on use of Land (Building Covenants)	Each lot	Every other lot 2101-2175 inclusive 104/1298342
16	Restriction(s) on use of Land (Birling Design & Landscape Guidelines)	Each lot	Every other lot 2101-2175 inclusive 104/1298342
17	Restriction on use of Land (Classification)	Each lot	Every other lot 2101-2175 inclusive 104/1298342

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

18	Restriction on use of Land (Height of Dwellings)	2101, 2116 – 2120 inclusive, 2130, 2133, 2142, 2156, 2174	Every other lot 2101-2175 inclusive 104/1298342
19	Restriction on use of Land (No Building or Structure)	2175	Camden Council

PART 1A (Release)

Number of item shown in the intention panel on the plan	Identity of easement, profit à prendre, restriction or positive covenant to be created and referred to in the plan	Burdened lot(s) or parcel(s):	Benefited lot(s), road(s), bodies or Prescribed Authorities
1	Easement for Drainage of Water 1.5 wide created by DP1298371	1195/1298371	2109 to 2175, roads being that part formerly comprised in 102/1293842

PART 2 (Terms)

1 Dictionary

1.1 Defined Terms

The following terms have the following meanings where used in this Instrument:

(a) **Act** means the *Conveyancing Act 1919*.

(b) **Agent** means a person authorised by the Owner.

(c) **Birling Design & Landscape Guidelines** means the design guidelines (as may be varied from time to time) specified by the Design Review Panel which regulate all building and ancillary landscaping work as applicable to the Development.

(d) **Council** means Camden Council.

(e) **Design Review Panel** means design review panel constituted from time to time by Birling Estate Developments Pty Ltd ACN 668 807 663.

(f) **Development** means the whole of the multi-staged development known as "Birling" comprised of the land known as lots 120 and 121 in deposited plan 1284706 and lot 4 in deposited plan 1218798 (prior to subdivision for the purpose of the development of Birling) or any future lots created from the subdivision of these parcels.

(g) **Instrument** means this s88B instrument.

(h) **Lot Classification Report** means the report titled ***[yet to be identified]*** prepared by [***yet to be identified]*** and dated ***[not yet known].***

(i) **Owner** means a person who is entitled to an estate or interest in possession in a lot from time to time.

2 Terms of easement for Support & Maintenance 0.9 wide (A) numbered 1 in the abovementioned plan

2.1 The Owner of the lot burdened grants:

(a) to the Owner of the lot benefited full and free right and liberty to have a building or any part of a building or any structure erected on the lot benefited, supported, upheld and maintained by

the soil and structure erected in that portion of the lot burdened denoted (A) in the abovementioned plan; and

(b) to the Owner of the lot benefited, and every Agent of the Owner of the lot benefited, full and free right and liberty to enter upon the lot burdened with any tools, implements or machinery necessary and remain there for any reasonable time for the purpose of repairing and maintaining any part of the soil and structure erected on that portion of the lot burdened denoted (A) in the abovementioned plan.

2.2 The Owner of the lot burdened must not allow any part of a building or any structure or item to be constructed or to remain on that portion of the lot burdened denoted (A) in the abovementioned plan that would prevent or constrain access by the Owner of the lot benefited to that portion of the lot burdened denoted (A) in the abovementioned plan.

2.3 The Owner of the lot benefited may:

(a) at the expiration of a reasonable notice period (in the circumstances) given to the Owner or occupier of the lot burdened, use that portion of the lot burdened denoted (A) in the abovementioned plan, for the purpose of carrying out necessary work (including but not limited to construction, maintenance and repair) on:

(i) the lot benefited; and

(ii) any structure constructed or to be constructed by the Owner of the lot benefited,

which cannot otherwise reasonably be carried out;

(b) do anything reasonably necessary for the purpose set out in clause 2.3(a) including:

(i) entering into the lot burdened;

(ii) taking anything onto the lot burdened; and

(iii) carrying out the necessary works.

2.4 In exercising the powers in this easement, the Owner of the lot benefited must:

(a) ensure all work on the lot benefited is done properly and carried out as quickly as is practicable;

(b) cause as little inconvenience as is practicable to the Owner and any occupier of the lot burdened;

(c) cause as little damage as is practicable to the lot burdened and any improvement on it;

(d) restore the lot burdened as nearly as is practicable to its former condition, and

(e) make good any collateral damage.

Name of person or authority empowered to release, vary or modify the easement for Support & Maintenance 0.9 wide (A) numbered 1 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

3 Terms of easement for Drainage of Water 1.5 wide (B) numbered 2 in the abovementioned plan

3.1 An easement for drainage of water on the terms set out in Schedule 8 of the *Conveyancing Act, 1919,* as amended, is created.

Name of person or authority empowered to release, vary or modify the easement for Drainage of Water 1.5 wide (B) numbered 2 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

4 Terms of easement for Access 8.3 wide (C) numbered 3 in the abovementioned plan

4.1 A right of access as set out in Schedule 4A, Part 11 of the *Conveyancing Act, 1919,* as amended, together with the right for the benefited authority and every person authorised by it to go, pass and repass across the easement site at all times with or without vehicles.

Name of person or authority empowered to release, vary or modify the easement for Access 8.3 wide numbered 3 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

5 Terms of easement for Access 6 wide (D) numbered 4 in the abovementioned plan

5.1 A right of access as set out in Schedule 4A, Part 11 of the *Conveyancing Act, 1919,* as amended, together with the right for the benefited authority and every person authorised by it to go, pass and repass across the easement site at all times with or without vehicles.

Name of person or authority empowered to release, vary or modify the easement for Access 8.3 wide numbered 4 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

6 Terms of easement for Support & Maintenance 0.9 wide (E) numbered 5 in the abovementioned plan

6.1 The Owner of the lot burdened grants to the Owner of the lot benefited:

(a) full and free right and liberty to have the retaining wall, any part of the retaining wall or any structure appurtenant to the retaining wall constructed on the lot benefited, supported, upheld and maintained by the soil and any structure erected in that portion of the lot burdened denoted (E) in the abovementioned plan; and

(b) full and free right for the Owner of the lot benefited and every Agent of the Owner of the Lot benefited, to:

(i) at the expiration of a reasonable notice period (in the circumstances) given to the Owner or occupier of the lot burdened, use that portion of the lot burdened denoted (E) in the abovementioned plan, for the purpose of carrying out necessary work (including but not limited to construction, maintenance and repair) on the retaining wall located on the lot benefited which cannot otherwise reasonably be carried out;

(ii) do anything reasonably necessary for the purpose set out in clause including:

(A) entering into the lot burdened;

(B) taking anything onto the lot burdened; and

(C) carrying out the necessary works.

6.2 In exercising the powers in this easement, the Owner of the lot benefited must:

(a) ensure all work carried out from the lot burdened is done properly and carried out as quickly as is practicable;

(b) cause as little inconvenience as is practicable to the Owner and any occupier of the lot burdened;

(c) cause as little damage as is practicable to the lot burdened and any improvement on it;

(d) restore the lot burdened as nearly as is practicable to its former condition, and

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

(e) make good any collateral damage.

6.3 The Owner of the lot burdened is not permitted to alter the surface level, carry out any excavation or restrict access within that part of the lot burdened in the abovementioned plan.

Name of person or authority empowered to release, vary or modify the easement for Support & Maintenance 0.9 wide (E) numbered 5 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

7 Terms of easement for Support & Maintenance 0.9 wide (E1) numbered 6 in the abovementioned plan

7.1 The Owner of the lot burdened grants to the Owner of the lot benefited:

(a) full and free right and liberty to have the retaining wall, any part of the retaining wall or any structure appurtenant to the retaining wall constructed on the lot benefited, supported, upheld and maintained by the soil and any structure erected in that portion of the lot burdened denoted (E1) in the abovementioned plan; and

(b) full and free right for the Owner of the lot benefited and every Agent of the Owner of the Lot benefited, to:

(i) at the expiration of a reasonable notice period (in the circumstances) given to the Owner or occupier of the lot burdened, use that portion of the lot burdened denoted (E1) in the abovementioned plan, for the purpose of carrying out necessary work (including but not limited to construction, maintenance and repair) on the retaining wall located on the lot benefited which cannot otherwise reasonably be carried out;

(ii) do anything reasonably necessary for the purpose set out in clause including:

(A) entering into the lot burdened;

(B) taking anything onto the lot burdened; and

(C) carrying out the necessary works.

7.2 In exercising the powers in this easement, the Owner of the lot benefited must:

(a) ensure all work carried out from the lot burdened is done properly and carried out as quickly as is practicable;

(b) cause as little inconvenience as is practicable to the Owner and any occupier of the lot burdened;

(c) cause as little damage as is practicable to the lot burdened and any improvement on it;

(d) restore the lot burdened as nearly as is practicable to its former condition, and

(e) make good any collateral damage.

7.3 The Owner of the lot burdened is not permitted to alter the surface level, carry out any excavation or restrict access within that part of the lot burdened in the abovementioned plan.

Name of person or authority empowered to release, vary or modify the easement for Support & Maintenance 0.9 wide (E1) numbered 6 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

8 Terms of easement for Support & Maintenance 0.9 wide (E2) numbered 7 in the abovementioned plan

8.1 The Owner of the lot burdened grants to the Owner of the lot benefited:

(a) full and free right and liberty to have the retaining wall, any part of the retaining wall or any structure appurtenant to the retaining wall constructed on the lot benefited, supported, upheld and maintained by the soil and any structure erected in that portion of the lot burdened denoted (E2) in the abovementioned plan; and

(b) full and free right for the Owner of the lot benefited and every Agent of the Owner of the Lot benefited, to:

(i) at the expiration of a reasonable notice period (in the circumstances) given to the Owner or occupier of the lot burdened, use that portion of the lot burdened denoted (E2) in the abovementioned plan, for the purpose of carrying out necessary work (including but not limited to construction, maintenance and repair) on the retaining wall located on the lot benefited which cannot otherwise reasonably be carried out;

(ii) do anything reasonably necessary for the purpose set out in clause including:

(A) entering into the lot burdened;

(B) taking anything onto the lot burdened; and

(C) carrying out the necessary works.

8.2 In exercising the powers in this easement, the Owner of the lot benefited must:

(a) ensure all work carried out from the lot burdened is done properly and carried out as quickly as is practicable;

(b) cause as little inconvenience as is practicable to the Owner and any occupier of the lot burdened;

(c) cause as little damage as is practicable to the lot burdened and any improvement on it;

(d) restore the lot burdened as nearly as is practicable to its former condition, and

(e) make good any collateral damage.

8.3 The Owner of the lot burdened is not permitted to alter the surface level, carry out any excavation or restrict access within that part of the lot burdened in the abovementioned plan.

Name of person or authority empowered to release, vary or modify the easement for Support & Maintenance 0.9 wide (E2) numbered 7 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

9 Terms of easement for Support & Maintenance 1.5 wide (F) numbered 8 in the abovementioned plan

9.1 The Owner of the lot burdened grants to the Owner of the lot benefited:

(a) full and free right and liberty to have the retaining wall, any part of the retaining wall or any structure appurtenant to the retaining wall constructed on the lot benefited, supported, upheld and maintained by the soil and any structure erected in that portion of the lot burdened denoted (F) in the abovementioned plan; and

(b) full and free right for the Owner of the lot benefited and every Agent of the Owner of the Lot benefited, to:

(i) at the expiration of a reasonable notice period (in the circumstances) given to the Owner or occupier of the lot burdened, use that portion of the lot burdened denoted (F) in the abovementioned plan, for the purpose of carrying out necessary work

(including but not limited to construction, maintenance and repair) on the retaining wall located on the lot benefited which cannot otherwise reasonably be carried out;

(ii) do anything reasonably necessary for the purpose set out in clause including:

(A) entering into the lot burdened;

(B) taking anything onto the lot burdened; and

(C) carrying out the necessary works.

9.2 In exercising the powers in this easement, the Owner of the lot benefited must:

(a) ensure all work carried out from the lot burdened is done properly and carried out as quickly as is practicable;

(b) cause as little inconvenience as is practicable to the Owner and any occupier of the lot burdened;

(c) cause as little damage as is practicable to the lot burdened and any improvement on it;

(d) restore the lot burdened as nearly as is practicable to its former condition, and

(e) make good any collateral damage.

9.3 The Owner of the lot burdened is not permitted to alter the surface level, carry out any excavation or restrict access within that part of the lot burdened in the abovementioned plan.

Name of person or authority empowered to release, vary or modify the easement or Support & Maintenance 1.5 wide (F) numbered 8 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

10 Terms of easement for Padmount Station 2.75 wide (G) numbered 9 in the abovementioned plan

10.1 The terms set out in Section 1 of Memorandum No. AR578978 registered at NSW Land Registry Services are incorporated into this Instrument.

Name of person or authority empowered to release, vary or modify the easement for Padmount Station 2.75 wide (G) numbered 9 in the abovementioned plan

Epsilon Distribution Ministerial Holding Corporation

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

11 Terms of restriction on Use of Land ((H) Fire Rating of Building Material) numbered 10 in the abovementioned plan

11.1 The terms set out in Section 1 of Memorandum No. AR578978 registered at NSW Land Registry Services are incorporated into this Instrument.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (H) (Fire Rating of Building Material) numbered 10 in the abovementioned plan

Epsilon Distribution Ministerial Holding Corporation

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

12 Terms of restriction on Use of Land (J) (No pool/spa) numbered 11 in the abovementioned plan

12.1 The terms set out in Section 1 of Memorandum No. AR578978 registered at NSW Land Registry Services are incorporated into this Instrument.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (J) (No pool/Spa) numbered 11 in the abovementioned plan

Epsilon Distribution Ministerial Holding Corporation

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

13 Terms of restriction on Use of Land (Salinity Plan) numbered 12 in the abovementioned plan

13.1 In this restriction "**Salinity Plan**" means the Salinity Investigation and Management Plan 204684.01 dated June 2022, prepared by Douglas Partners.

13.2 No construction work including earthworks, imported fill, landscaping, buildings, and associated infrastructure is permitted on the lot burdened unless carried out, or constructed in accordance with the Salinity Plan.

13.3 No building shall be constructed on the lot burdened unless the footings/foundations have been designed by a qualified Civil/Structural Engineer.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Salinity Plan) numbered 12 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

14 Terms of restriction on Use of Land (Traffic Acoustic) numbered 13 in the abovementioned plan

14.1 In this restriction, "**Traffic Assessment Acoustic Report**" means the approved acoustic report "Birling Desktop Traffic Noise Assessment for Stage 1 & 2 – TM564-01F02" dated 30 August 2023 prepared by Renzo Tonin & Associates Acoustics.

14.2 No dwelling, boundary fence or improvement shall be constructed on the lot burdened unless constructed in accordance with Traffic Assessment Acoustic Report.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Traffic Acoustic) numbered 13 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

15 Terms of restriction on Use of Land (Ramps and Road Related Infrastructure) numbered 14 in the abovementioned plan

No driveway is permitted to be constructed on a lot within 1m of pram ramps or in locations where it would conflict with other road related infrastructure.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Ramps and Road Related Infrastructure) numbered 14 in the abovementioned plan

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

16 Terms of restriction on Use of Land (Building Covenants) numbered 15 in the abovementioned plan

16.1 In this restriction on use of land, **Birling** means Birling Estate Pty Ltd ACN 657 548 073 and each of its successors and assigns excluding purchasers on sale.

16.2 No subdivision of a lot burdened shall be carried resulting in a lot burdened becoming more than one lot.

16.3 No fencing shall be constructed or erected on the lot burdened to divide it from any adjoining land owned by Birling unless Birling grants its consent to the construction or erection of the fencing and the fencing is constructed or erected without expense to Birling or its successors or assigns (other than purchasers of lots).

16.4 No structure of a temporary or relocatable character or nature which is intended for habitation, including, but without limitation, any tent, shed, shack, garage, trailer, camper or caravan, shall be used at any time as a dwelling or residence on the lot burdened.

16.5 No commercial activity, including without limitation, the operation of a display home, shall be conducted or carried out on any lot burdened without the approval of Birling.

16.6 No wall of any dwelling constructed on the lot burdened is to be located within 900mm of the side boundary of the lot burdened unless there is a registered easement for support and maintenance addressing the support, access and maintenance obligations benefiting the adjoining lot.

16.7 No fuel storage tanks (except any such tank or tanks used for oil heating purposes) shall be placed upon or permitted to remain on any lot burdened.

16.8 No noxious, noisome or offensive occupation, trade, business, manufacturing or home industry shall be conducted or carried out on any lot burdened.

16.9 No animal breeding shall be conducted or carried out on any lot burdened.

16.10 No commercial or boarding kennels shall be constructed or permitted to remain on any lot burdened.

16.11 No advertisement hoarding sign or matter of any description shall be erected or displayed on any lot burdened without the prior written consent of Birling having been given to the Owner of the lot burdened. The required approval may be given or withheld at the absolute discretion of Birling but nothing in this restriction shall prevent the Owner of any lot burdened from displaying not more than one (1) sign on the lot burdened advertising the fact that the dwelling on the relevant lot burdened is for sale if: -

(a) a dwelling is constructed on the lot burdened;

(b) any such sign does not exceed nine hundred millimetres (900mm) in width and nine hundred millimetres (900mm) in height; and

(c) any such sign is painted and/or decorated in its entirety by a professional signwriter.

16.12 No motor truck, lorry, semi-trailer or commercial vehicle with a load carrying capacity exceeding two point five (2.5) tonnes shall be parked or permitted to be parked on any lot burdened, adjoining lot and/or public street unless the same is used in connection with the construction of a dwelling on the relevant lot burdened.

16.13 No building shall be permitted to be constructed on the lot burdened nor shall the construction of any building be permitted to continue on the lot burdened unless the lot burdened is maintained in clean and tidy condition as is practicable having regard to the nature of the construction on the lot burdened.

16.14 No clothes line shall be erected or permitted to remain on the lot burdened unless the same is not visible from any public road and/or place but nothing in this restriction shall prevent the erection and

maintenance of a clothes line where all care has been taken to ensure that the same is as least obvious as possible having regard to the topography of the relevant lot burdened as related to any surrounding public roads and/or places.

16.15 No air conditioning plant and/or equipment shall be installed or permitted to remain on any building constructed on the lot burdened unless the same is either:

(a) not visible from any public road and/or place; or

(b) is screened from any public road and/or place in a manner approved by Birling.

16.16 No radio masts and/or antennas shall be erected or permitted to remain on any lot burdened unless the same are not visible from any public road and/or place.

16.17 No television masts and/or antennas shall be erected or permitted to remain on the lot burdened unless the same are erected at or near the rear of the main building erected on the lot burdened.

16.18 No child minding centre, day care centre, preschool, long day care centre, kindergarten, occasional childminding centre or such other like childminding facility or activity shall be constructed or permitted to remain or conducted or caried out on the lot burdened without the prior written consent of Birling having been given to the Owner of the lot burdened. The required approval may be given or withheld at the absolute discretion of Birling.

16.19 No visually obtrusive or unsightly items such as hot water storage tanks, rain water tanks, utility metres, roof and window mounted air-conditioning units, condensers, solar roof collectors, air-conditioning service lines, clotheslines, aerials, gardens sheds etc are to be directly visible from the street/public places and should have a minimal visual impact on an adjacent dwelling including their private open space.

16.20 No external (attached to the outer side of the façade or windows of a dwelling) shutters, blinds, canopies, awnings, security devices or any external improvement visible from the ground level outside the lot burdened other than fly screens is to be constructed, installed or maintained on or in a lot burdened.

16.21 No garbage containers and recyclable materials are to be stored on or in a lot burdened unless secured and stored so that they are hidden from view outside the lot burdened and do not omit odours.

16.22 No vehicle may be parked on a lot burdened unless it is parked:

(a) in a garage or driveway on the lot burdened; or

(b) in an area designated as being an area where a vehicle may be parked.

16.23 No boats, trailers, caravans, campers or like vehicles or unregistered vehicles shall be parked or remain parked on or in a lot burdened if the boat, trailer, caravan, camper, like vehicle or unregistered vehicle is visible from the ground level outside the lot burdened.

16.24 No overgrown vegetation, weeds, grass or greenery shall be permitted to remain on a lot burdened.

16.25 No dwelling on a lot burdened shall be permitted to fall into disrepair.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Building Covenants) numbered 15 in the abovementioned plan

Birling Estate Pty Ltd ACN 657 548 073 and/or its successors, nominees and/or assigns (other than purchasers on sales) for such period as it is the Owner of any lot or any part or interest in any lot in the abovementioned plan or is the Owner of any lot or any part or interest in any lot benefited by this restriction on Use of Land.

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

17 Terms of restriction on the Use of Land (Birling Design & Landscape Guidelines) numbered 16 in the abovementioned plan

17.1 No building, driveway or pathway shall be constructed on the lot burdened, and the Owner of the lot burdened must not make or consent to the making of an application to the Council or a private certifying authority for a development consent or complying development certificate to approve or certify a building, driveway or pathway to be constructed on the lot burdened, unless the building, driveway, pathway and ancillary landscaping and fencing complies with:

(a) the Birling Design & Landscape Guidelines; and

(b) any other conditions required by any relevant consent authority.

17.2 The Owner of the lot burdened must not do any of the following unless and until the Owner of the lot burdened obtains the prior written approval of the Design Review Panel:

(a) erect any building or structure;

(b) carry out any siteworks (including fencing, excavation, filling or retaining walls);

(c) erect a fence or wall;

(d) construct a driveway;

(e) erect any external sign, hoarding, tank, clothes line, letter box, mast, pole, television antenna, satellite dish or radio aerial either freestanding or fixed to any building; or

(f) erect or place any external floodlights or spotlights to any lights illuminating any pool or other similar enclosure.

17.3 These restrictions shall expire and have no further force or effect on the date being two years after the date an occupancy certificate is issued to the Owner of a dwelling approved by the Design Review Panel on the last remaining lot in the Development such that there are no further vacant lots in the Development Site (excluding any lots upon which no dwelling is permitted to be constructed).

Name of person or authority empowered to release, vary or modify the restriction on the Use of Land (Birling Design & Landscape Guidelines) numbered 16 in the abovementioned plan

Birling Estate Pty Ltd ACN 657 548 073 and/or its successors, nominees and/or assigns (other than purchasers on sales) for such period as it is the Owner of any lot or any part or interest in any lot in the abovementioned plan or is the Owner of any lot or any part or interest in any lot benefited by this restriction on Use of Land.

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects

18 Terms of restriction on Use of Land (Classification) numbered 17 in the abovementioned plan

No building shall be constructed on the lot burdened, no landscaping shall be carried out on the lot burdened and no works shall be carried out on the lot burdened other than in accordance with the provisions of the Lot Classification Report relevant to the lot burdened.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Classification) numbered 17 in the abovementioned plan

Birling Estate Pty Ltd ACN 657 548 073 and/or its successors, nominees and/or assigns (other than purchasers on sales) for such period as it is the Owner of any lot or any part or interest in any lot in the abovementioned plan or is the Owner of any lot or any part or interest in any lot benefited by this restriction on Use of Land.

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan: Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

19 Terms of restriction on Use of Land (Building Height) numbered 18 in the abovementioned plan

No dwelling shall be constructed or permitted to be constructed or remain on the lots burdened other than double storey dwellings.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (Building Height) numbered 18 in the abovementioned plan

Birling Estate Pty Ltd ACN 657 548 073 and/or its successors, nominees and/or assigns (other than purchasers on sales) for such period as it is the Owner of any lot or any part or interest in any lot in the abovementioned plan or is the Owner of any lot or any part or interest in any lot benefited by this restriction on Use of Land.

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

20 Terms of restriction on Use of Land (No Building or Structure) numbered 19 in the abovementioned plan

20.1 No dwelling, building or structure shall be constructed or permitted to be constructed or remain on the lot burdened.

Name of person or authority empowered to release, vary or modify the restriction on Use of Land (No Building or Structure) numbered 19 in the abovementioned plan

Camden Council

The cost and expense of such release, variation or modification shall be borne by the person or corporation requesting same in all respects.

Plan:	Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

Execution by Registered Proprietor

Executed by **Birling Estate Pty Ltd ACN 657 548 073** in accordance with section 127 of the *Corporations Act 2001*

.....	.....
Signature of director	Signature of director/secretary
.....	.....
Name of director – BLOCK LETTERS	Name of director/secretary – BLOCK LETTERS

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

Execution by the Prescribed Authority

This document was signed in counterpart and was witnessed over audio visual link in accordance with section 14G of the Electronic Transactions Act 2000.

I certify that I am an eligible witness and that the delegate signed in my presence	**Executed** by **Prescribed Authority** by its Authorised delegate pursuant to s.377 Local Government Act 1993
.....	.....
Signature of Witness*	Signature of Authorised Delegate
Electronic signature of me, ,	Electronic signature of me, ,
affixed by me, or at my direction, on ..... at	affixed by me, or at my direction, on ..... at .....
.....	.....
Name of Witness	Name of Authorised Delegate
.....	.....
Address of Witness	Position of Authorised Delegate

Plan:	Plan of subdivision of Lot 102 in DP1298342 and easements in Lot 103 in DP 1298342, covered by Council Subdivision Certificate No. *[to be inserted]*

* *s117 RP Act requires that you must have known the signatory for more than 12 months or have sighted identifying documentation.*

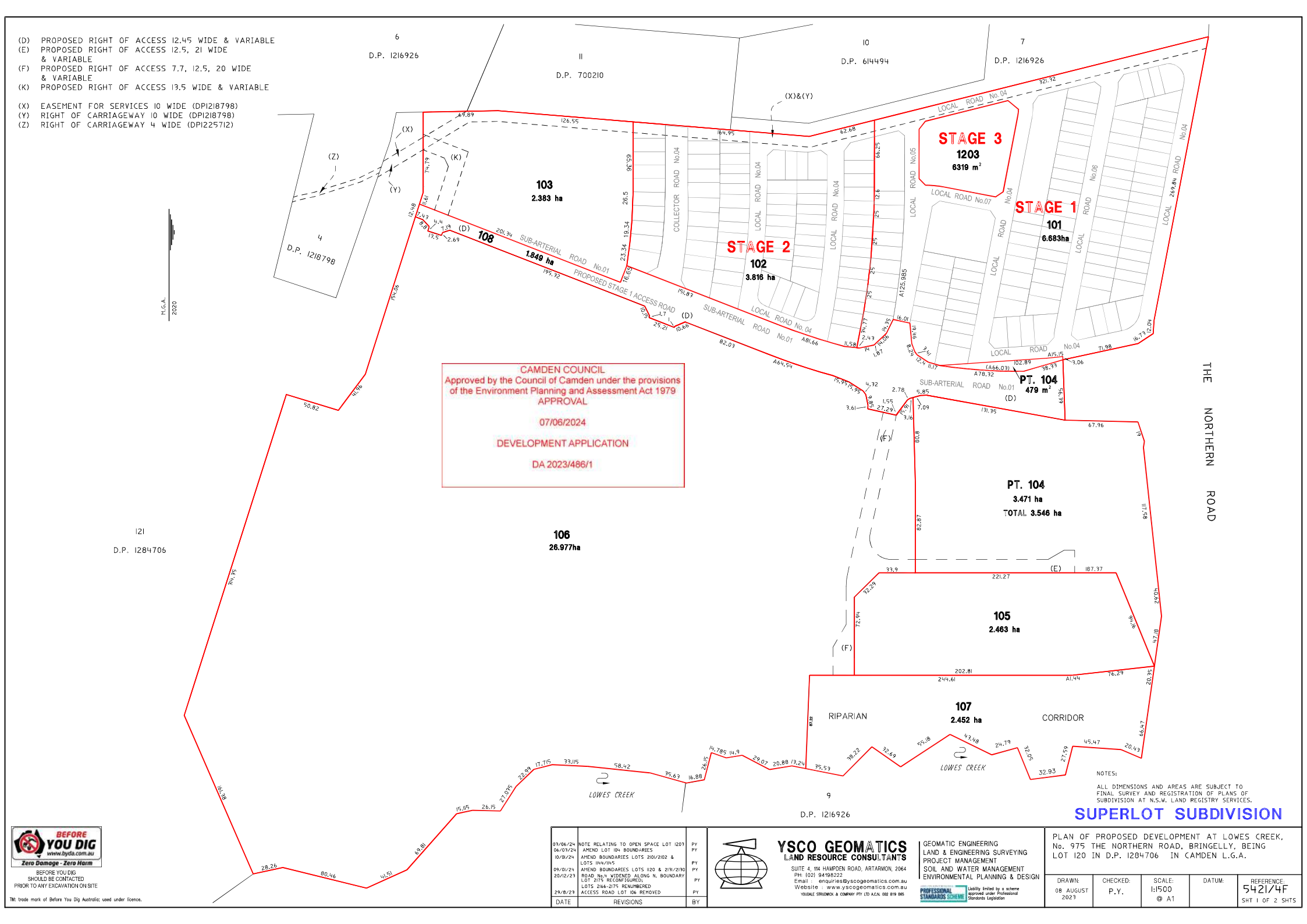
ATTACHMENT 3 – LOT PLAN

LOT PLAN TO BE INSERTED

ATTACHMENT 4 – SUPERLOT PLAN

(D) PROPOSED RIGHT OF ACCESS 12.45 WIDE & VARIABLE
(E) PROPOSED RIGHT OF ACCESS 12.5, 21 WIDE & VARIABLE
(F) PROPOSED RIGHT OF ACCESS 7.7, 12.5, 20 WIDE & VARIABLE
(K) PROPOSED RIGHT OF ACCESS 13.5 WIDE & VARIABLE

(X) EASEMENT FOR SERVICES 10 WIDE (DP1218798)
(Y) RIGHT OF CARRIAGEWAY 10 WIDE (DP1218798)
(Z) RIGHT OF CARRIAGEWAY 4 WIDE (DP1225712)



CAMDEN COUNCIL
Approved by the Council of Camden under the provisions of the Environment Planning and Assessment Act 1979
APPROVAL
07/06/2024
DEVELOPMENT APPLICATION
DA 2023/486/1

NOTES:
ALL DIMENSIONS AND AREAS ARE SUBJECT TO FINAL SURVEY AND REGISTRATION OF PLANS OF SUBDIVISION AT N.S.W. LAND REGISTRY SERVICES.

SUPERLOT SUBDIVISION

BEFORE YOU DIG www.byda.com.au Zero Damage - Zero Harm
BEFORE YOU DIG SHOULD BE CONTACTED PRIOR TO ANY EXCAVATION ON SITE
TM: trade mark of Before You Dig Australia; used under licence.

DATE	REVISIONS	BY
03/06/24	NOTE RELATING TO OPEN SPACE LOT 1203	PY
06/03/24	AMEND LOT 104 BOUNDARIES	PY
10/01/24	AMEND BOUNDARIES LOTS 2101/2102 & LOTS 1144/1145	PY
09/01/24	AMEND BOUNDARIES LOTS 1120 & 2131/2130	PY
20/12/23	ROAD No.4 WIDENED ALONG N. BOUNDARY LOT 2175 RECONFIGURED; LOTS 2166-2175 RENUMBERED	PY
29/8/23	ACCESS ROAD LOT 106 REMOVED	PY

YSCO GEOMATICS
LAND RESOURCE CONSULTANTS
SUITE 4, 114 HAMPDEN ROAD, ARTARMON, 2064
PH: (02) 94198222
Email : enquiries@yscogeomatics.com.au
Website www.yscogeomatics.com.au
YOUDALE STRUDWICK & COMPANY PTY LTD A.C.N. 002 819 865

GEOMATIC ENGINEERING
LAND & ENGINEERING SURVEYING
PROJECT MANAGEMENT
SOIL AND WATER MANAGEMENT
ENVIRONMENTAL PLANNING & DESIGN

PROFESSIONAL STANDARDS SCHEME — Liability limited by a scheme approved under Professional Standards Legislation

PLAN OF PROPOSED DEVELOPMENT AT LOWES CREEK, No. 975 THE NORTHERN ROAD, BRINGELLY, BEING LOT 120 IN D.P. 1284706 IN CAMDEN L.G.A.

DRAWN:	CHECKED:	SCALE:	DATUM:	REFERENCE:
08 AUGUST 2023	P.Y.	1:1500 @ A1		5421/4F SHT 1 OF 2 SHTS

ATTACHMENT 5 – DESIGN & LANDSCAPE GUIDELINES

BIRLING

BRINGELLY

Design & Landscape Guidelines

Contents

01 Vision for Birling 02

02 Purpose of these Guidelines 04

03 Approval Process 06

04 Facade Design & Articulation 08

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06 Materials & Colour Palette 12

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08 General Items – Street Amenity & Privacy 22

01

VISION FOR BIRLING

South West Sydney's Home of Bright Futures

Birling is a beacon of dynamic growth, where visionary urban development meets harmonious natural surroundings. Integrating nature throughout the masterplan to create a distinctive green identity. As Birling evolves, it will exemplify how urban living can coexist with the natural environment, fostering a vibrant, resilient, and accessible community for generations to come.



02

The Purpose of our Design & Landscape Guidelines

The Birling Design & Landscape Guidelines (the ‘Design Guidelines’) help to create a beautiful new neighbourhood and make sure your home's value is protected. They ensure that your community has cohesive and attractive streetscapes with well-designed, complementary residences and consistent landscaping. You’ll enjoy an environment that’s aesthetically appealing and feels welcoming, living in a home that’s part of a thoughtfully planned community that reflects our shared vision for Birling.

The Design Guidelines form part of the Contract of Sale for your block of land (lot) and are also included in the restrictions on title known as the 88B. They apply in addition to and not in lieu of other statutory requirements and approvals. Approval by Camden Council under the Growth Centres Precincts Development Control Plan (DCP) or by a Principal Certifying Authority (PCA) under the NSW Greenfields Housing Code (Complying Development) is still required.

The Birling Design Review Panel (DRP) will review all proposed home designs within Birling for compliance with these guidelines. Purchasers or their selected builders or designers must submit their house designs along with their landscape plans for review and approval by the Birling DRP prior to lodgement with Camden Council or a Principal Certifying Authority (PCA) for approval.

Purchasers are required to provide a compliance bond at the time of settlement of your lot purchase. This is noted in the contract under special conditions. The Design Guidelines Compliance Bond amount is $5,000 for all lots except corner lots, for which it is $10,000. If your home and landscaping are completed within 24 months (two years) of settlement of your lot, you will be eligible to receive a refund of your Design Guidelines Compliance Bond.

If you have any questions relating to these guidelines, please call or visit the Birling Sales and Information Centre. Alternatively you can email the DRP at: birlingdesignreview@birlingcommunity.com.au

03

Approval Process

Step 01

PAYMENT OF COMPLIANCE BOND AND SETTLEMENT OF LAND

Payment of the Design Guidelines Compliance Bond must be paid at the settlement of the lot.

Step 02

INFORM YOUR BUILDER ABOUT THE BIRLING DESIGN AND LANDSCAPING GUIDELINES

Provide your builder with a copy of the Design Guidelines, which are also available for download from the 'Build at Birling' page at birlingcommunity.com.au. Ensure your builder understands that compliance with the Birling Guidelines is a condition of your Contract of sale and the Restrictions on Title in the 88B.

Step 03

SEEK BIRLING DESIGN REVIEW PANEL APPROVAL

Before lodging your plans for approval with Camden Council (or an accredited Private Principal Certifying Authority), ensure that your house plans are approved by the Birling DRP. Complete the Birling Design and Landscaping Guidelines Application Checklist, which can be downloaded from the 'Build at Birling' page on the website, and submit it along with your building plans, material and colour palette, and landscape plan for approval. You, your builder, or designer can lodge the plans.

Step 04

AUTHORITY APPROVAL

Lodge your plans with the Council (or Private Principal Certifying Authority) for approval after receiving approval from the Birling Design Review Panel (DRP).

Step 05

COMPLIANCE BOND PROCESS

If you complete your home and landscaping within 24 months (two years) of settlement of your lot purchase and rectify any damage to the adjoining public street, including street trees, footpaths, or service utility fixtures, you can apply to receive a refund of your Design Guidelines Compliance Bond by lodging the application via our online form.

Step 06

REFUND OF DESIGN GUIDELINES COMPLIANCE BOND

Once you request a refund, a representative of the DRP will inspect your home and landscaping to verify that all works have been completed in accordance with the DRP-approved building and landscape plans and are otherwise consistent with the Design Guidelines. Once approved by DRP, the Design Guidelines Compliance Bond will be refunded to you within 14 business days.



What to Submit to Birling DRP for Approval

Your plans submitted to Birling DRP for approval must include house plans, materials and colour palette, landscape plan and a copy of our design guideline checklist.

House Plans

The plans submitted for DRP approval must be the same plans being lodged for DA approval with Camden Council or Private Principal Certifying Authority.

Materials and Colour Palette

Your chosen materials and colours must comply with the Birling Material and Colour Palette.

Landscape Plan

A landscape plan must be either separate to or show on the site plan.

Design Guideline Checklist

You can download this checklist from the 'Build at Birling' page.

Online Resources

All online forms, checklists and frequently asked questions can be found at the 'Build at Birling' page on our website:

birlingcommunity.com.au

04

Facade Design & Articulation

The facade of a home expresses its identity and defines its integration with the surrounding environment. Articulation to the front of a home, including thoughtful variations in depth, materials, and design elements, plays a key role in achieving this. We place great importance on creating homes that complement the surrounding residences and enhance the unique Birling aesthetic, ensuring a visually harmonious streetscape that you can be proud of.



4.1 – Front Facade

PRIMARY STREET

- Your home must have a front door which is visually prominent and covered with a porch, portico or verandah to allow for passive surveillance. The front facade must include articulation and a minimum of two complementary finishes, such as a blend of feature brick, masonry, bagged or smooth renders, stack stone, paint or lightweight cladding. The materials and colours on the front facade must wrap around the corners and return a minimum of 1m on both side facades on non-corner lots.
- Parapet wall elements are allowed if they are not excessively dominant, cover less than 50% of the facade width if the dwelling is single-storey and are finished in colours that complement the rest of the facade.
- Full parapet facades may be considered for double-storey homes only, provided that the prominence of the walls is reduced through additional articulation and changes in colour or material.
- No sliding windows are permitted on front facades. Awning or double-hung windows are permitted.
- Front facades of single-storey homes must have a minimum of 25% of the area of walls or masonry columns as painted masonry or cladding.
- Single-storey homes can have up to a maximum of 75% of front facade wall area as cladding.
- Garage doors must be sectional or panel-lift type garage doors. Roller doors are not permitted.



Front facade (primary street) – single-storey



Front facade (primary street) – double-storey

4.2 – Secondary Street Facade

CORNER LOT SECONDARY STREET

- Homes on corner lots must address the secondary street and include articulation, facade elements, colours and materials that wrap around the corner from the primary facade to the secondary facade. These must be the same as or complement the primary street facade.
- No sliding windows are permitted on the secondary street facade. Awning or double-hung windows are permitted.
- A ground-floor habitable room window must be included, facing the secondary street frontage and positioned forward of the fence line.
- No sliding doors are permitted on the ground floor forward of the fence line.
- Garage doors must be sectional or panel-lift type garage doors. Roller doors are not permitted.
- For corner lots, the maximum length of an uninterrupted wall break on the secondary street frontage is 12m. To provide articulation, a step of at least 480mm must be incorporated into the wall for a minimum length of 3m. Blank walls will not be permitted.



Secondary street facade – corner lot



Full parapet facade – double-storey

All images are artist impressions.

05

Roofs & Eaves

We believe in the importance of creating a cohesive look that respects the Birling style and acknowledges contemporary design trends. Roofs and eaves are not merely functional elements but play a crucial role in defining the character and charm of our homes, ensuring that they complement the aesthetic requirements of our community. Thoughtfully designed roofs can enrich architectural appeal and contribute to energy efficiency. Our guidelines provide direction on acceptable roof design and pitches.

5.1 – Hip and Gable Roofs

The classic hip and gable roofing styles are strongly encouraged within Birling for their enduring appeal, helping to create an aesthetic that will stand the test of time.

- Where roofs are pitched, the minimum roof pitch is to be 22.5 degrees for double-storeys and 25 degrees for single-storeys.

Hip roof



Gable roof



5.2 – Skillion Roofs

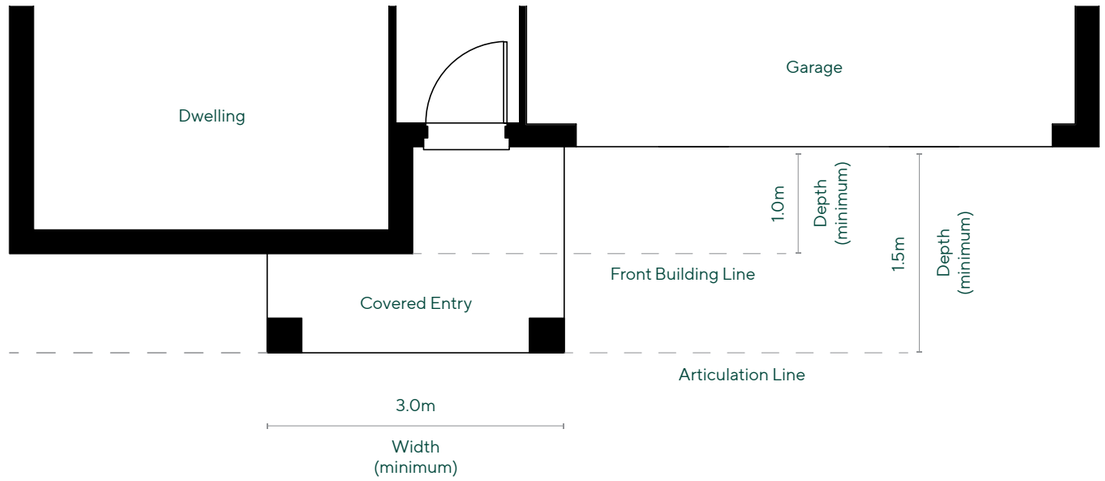
A strong architectural design feature in its own right, a skillion roof can add a bold contemporary look and clean, modern lines to your home.

- Skillion roofs are permitted on double-storey dwellings only and must have a minimum 15 degree pitch.

Skillion roof



Covered Entry minimum facade requirement



5.3 – Other Roofs

Other roof forms may be considered and assessed based on design merit, provided they complement the streetscape and the surrounding architectural styles.

- No flat or low-pitched roofs are to be visible from the street. They are only permitted behind parapet wall elements.
- Minimum 450mm eave width is required on the front façade and secondary street frontage where classic roof forms are used. (ie: hip, gable or Skillion) With the exception for homes built along zero lot lines.

Example of other roof forms may be considered



5.4 – Single Story Homes

ENTRY FEATURE

The front facade of your home must include either:

A Classic roof form entry verandah element (min.3m wide and 1.5m deep)



B Gable element contemporary facade entry



All images are artist impressions.

06

Materials & Colour Palette

The intention behind our materials and colour palette guidelines is to create a visually appealing and cohesive neighbourhood style. This enhances the aesthetic appeal, fosters a sense of community and helps maintain property values, ensuring our neighbourhood remains beautiful, welcoming and valued by all residents.

Colours and materials must be selected from and complement the Birling Colour Palette.

The facade of your home must incorporate a minimum of two complementary finishes, such as a blend of feature brick, masonry, bagged or smooth renders, stack stone, paint or lightweight cladding.

- **Main body paint and render colours** should compliment the brick and roof materials and must be in line with or based on the Birling colour palette.
- **Trim, accent and main body colours** are provided in the colour palette as a guide and similar colours can be selected. The colours are to be used for large surface areas of the house such as wall materials, cladding or painted brick. The accent colours are used to provide contrast on smaller elements. Strong contrast in wall colours from light to dark is not permitted.
- **Face bricks** must be selected in colours that complement the exterior colour palette and architectural style of the home. Mid to dark bricks are preferred for the main wall material.
- **Feature materials** like crazy pavers and reclaimed brickwork can be selectively used on facades to add unique texture and character to a facade without overwhelming the house design.
- **Roof colours**. Dark colours with a solar absorption rating above 0.7> are not permitted. Lighter colours are preferred.
- **Roof tile and Colorbond metal roof colours** are provided in the Birling colour palette as per powdercoated finishes.
- **Garage door colours** must be selected from the Birling Colour Palette or be a colour that matches the quality and finish of the exterior of your home, assessed on merit.
- **Fencing and gates** must be Colorbond Woodland Grey, with the exception of corner lots which may be a different colour and style that matches the quality and finish of the front facade.
- **Driveways** and separate pedestrian access within the lot can be coloured concrete and must be selected from the Birling Colour Palette or be a colour that complements the dwelling colours.



Colour Palette

Main Body

Note: Colour codes reference Dulux colour range. Colours from alternative suppliers are also permissible.

- WHITE DUCK S16B1
- PARAMOUNT DESIGN SN4E2
- NATURAL WOOL SN3B1
- ABBEY WHITE SW1D9
- EVENING HAZE (COLORBOND)
- BRETZ SN4E6
- GREY BARON SN3B4
- CLASSIC CREAM (COLORBOND)
- PEBBLES S16B4
- PANDA PAD SGGC7
- HARVEST TOWN SN3A7
- SAVANNAH S14E3
- SPANISH OLIVE SG5E1
- HOG BRISTLE QUARTER S14D1Q
- DIESKAU SN4H1
- PALE GREEN TEA SG5F1
- SEPAL SG5E3
- PAPERBARK (COLORBOND)
- FLOODED GUM SN4H5
- POZIERES SG5F3
- WINDSPRAY (COLORBOND)
- STONECROP S14D5
- TRISTAN SN4H5
- KNAVE SG5F5

Trim & Accent Colours

- BRONZE FIG S16B7
- AGELESS GREY SN4F8
- WILDWOOD SN3B9
- JUVENILE SG5E7
- CHARLIE HORSE S14D6
- JASPER (CLORBOND)

Accent Materials – Garage Door Feature Only

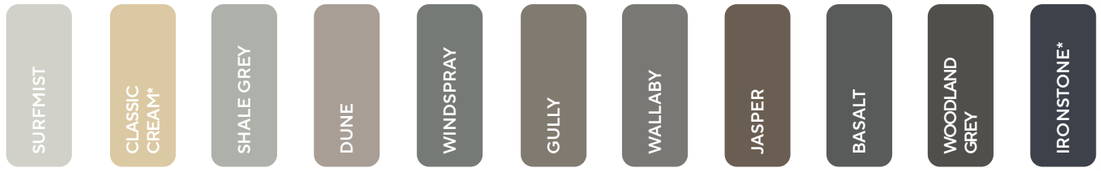


Feature Material Only

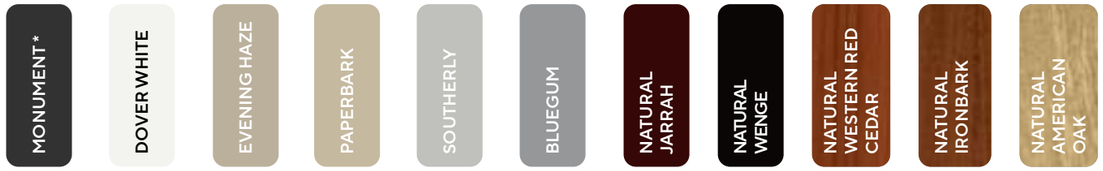


LIGHT | DARK | BEIGE | GREY | EARTHY TONES | CHARCOAL & GREY | LIGHT BRICK

Powder Coated Finishes – Roof, Windows & Garage Doors



Timbers

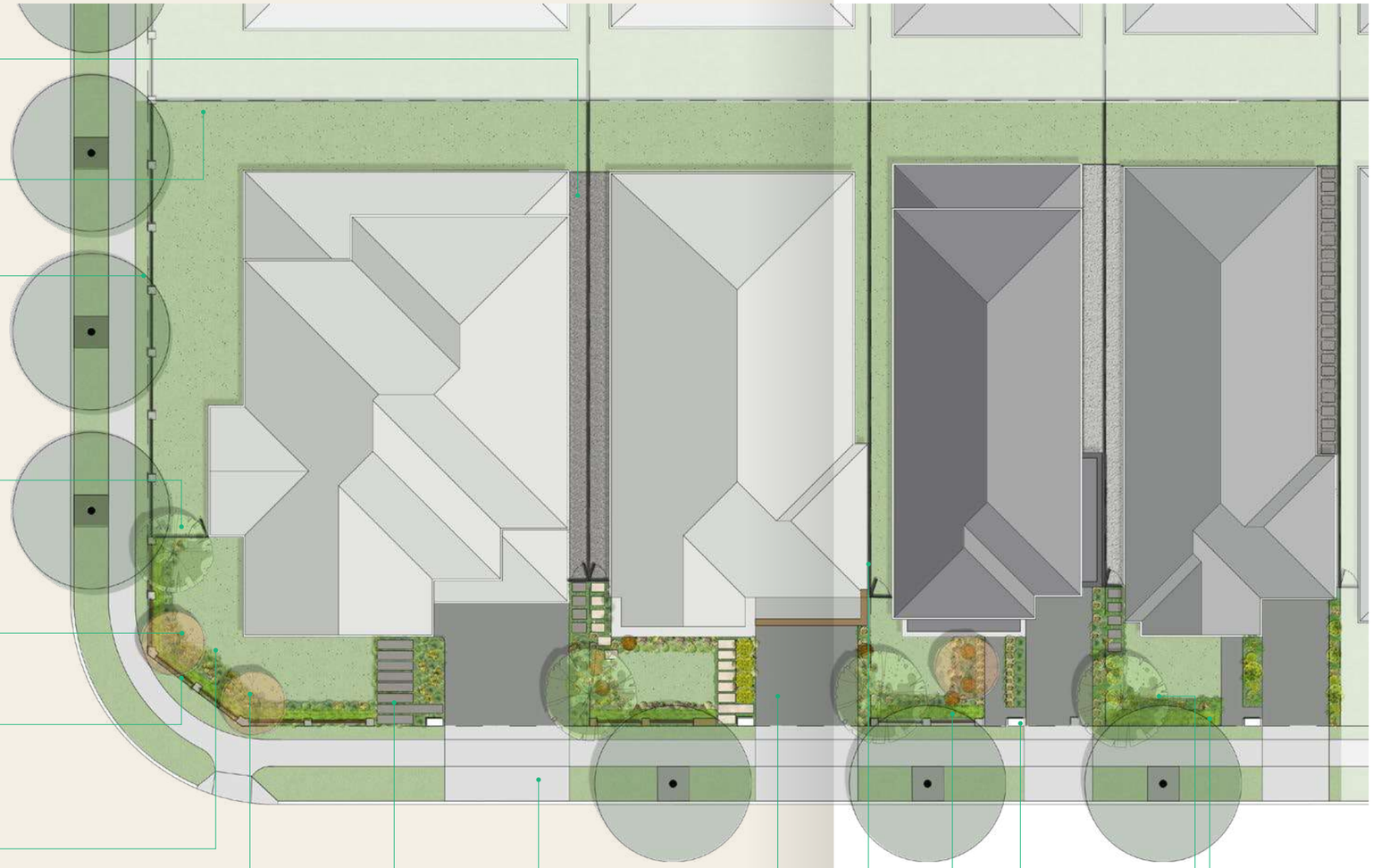


*Prohibited as roof colour

07

Landscaping, Fences, Paths, Letterboxes & Driveways

Landscaping creates a welcoming and visually appealing environment, increasing street appeal and providing outdoor recreational space. Fences offer privacy, security and define property boundaries while letterboxes serve as both a practical and decorative element. Well-designed pedestrian paths ensure safe and easy navigation around the community and driveways provide convenient and secure parking. Together, these elements contribute to the overall harmony, usability and attractiveness of a home and neighbourhood, making them more inviting and enjoyable for residents and visitors alike.

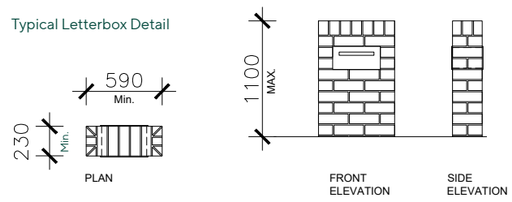


All images are artist impressions.

7.1 – Primary Street Front Yard

- Private driveways and pedestrian access on the lot within the property boundary can be coloured concrete (colour must be selected from the Birling Colour Palette). All driveways and pedestrian paths in the front yard (private land) must be plain, patterned, stencilled or stamped concrete in one colour only.
- A separate pedestrian access path must be provided from the front boundary to the front of the home, independent from the driveway. Can be coloured to match the driveway or landscape steppers to compliment the design of the home. Minimum width 0.9m.
- Driveways, cross-overs and footpaths in the public road reserve (verge areas between the kerb and the front boundary) must be plain, off-white concrete with a broom finish.
- Retaining walls visible from the street must be masonry, face brick/block retaining wall, either rendered or painted to match the house. Acceptable masonry blocks include concrete blocks with smooth or rock faces in charcoal or light natural earth colours and tones, with matching capping blocks.
- No timber retaining walls or concrete sleeper retaining walls are permitted to be visible from street.
- All letterboxes must be constructed in either face brick or bagged/rendered and painted in a colour that complements the house. Height 0.9m to 1.1m measured from finished ground level with a minimum width of 0.59m.
- Where a front fence is constructed, the height of the letterbox should align with the height of the front fence.
- A planted hedge in a garden bed is required along the front boundary. Hedging to be planted every 0.5m maximum to ensure minimal visibility of mulch within two years (minimum 300mm pot size).
- Front yard landscaping must include a minimum of one small tree (minimum 75 litre pot size with minimum mature height of 3m) and natural turf to be laid.
- Synthetic turf is not permitted.
- Side and rear fences must be 1.8m high Colorbond in Woodland Grey and not extend forward beyond a point 1m back (minimum) from the front building line or the neighbouring dwelling front building line.
- Coloured pebbles and coloured wood mulch are not allowed as garden mulch. Only natural wood, bark and leaf mulch are permitted.
- Pebbles may be used in side setback areas if not visible from the street (i.e. behind a fence) and between paving slabs for entry pathways, provided they are not the dominant element.
- Where street trees are provided on the road verge they must be maintained and protected during construction. If damaged during construction, it is the purchaser's responsibility to replace the tree of the same size/species.

Typical Letterbox Detail



7.2 – Secondary Street Frontage (Corner Lots)

- Front side yard landscaping to the secondary street must include a minimum of one additional small tree (minimum 75 litre pot size with minimum mature height of 3m), hedge plants to the front part of the secondary street boundary (minimum 300mm pot size) and natural turf to be laid.
- The section of fence abutting the secondary street enclosing the rear or side yard is to be 1.8m high Colorbond Woodland Grey fence panel between masonry piers (minimum 0.35m x 0.35m) in a face brick or bagged and painted in a colour that complements the house colour palette. Maximum distance between secondary street masonry piers is 4.8m.
- The secondary street frontage side gate must be located a minimum distance of 4m behind the front building line.
- Retaining walls visible from the street must be either rendered and painted masonry to match the house, or masonry blocks including concrete block, smooth or rock face in charcoal or light natural earth colours and tones with matching capping blocks.
- No timber retaining walls or concrete sleeper retaining walls are permitted to be visible from the street.
- All fencing and walls must be constructed horizontally, stepping to suit any landform slope and maintain minimum/maximum height.

7.3 – Front Fencing (Optional)

- Where front fencing is proposed, it must be constructed from masonry and vertical aluminium powdercoated infill fencing in a colour that complements the style of the home.
  - Front fence piers:
    - Minimum size: 0.35m x 0.35m
    - Maximum width: 0.72m x 0.35m
    - Maximum distance between piers: 3m
    - Must terminate with a pier
    - Not necessary to return down the side boundary
    - Maximum height 1.1m
  - Base: No minimum requirement, however if proposed, must be constructed integral with the piers and of the same finish. The maximum base height is to be no greater than 0.35m.
  - No horizontal slats or timber infill panels permitted in front fence detail.
  - Vertical fence panels shall include suitable separation to ensure visibility through the fence.
- All fencing and walls must be constructed horizontally, stepping to suit any landform slope and maintain minimum/maximum height.



Vertical aluminium powdercoated infill fencing

7.4 – Acceptable Front Fence Types



FENCE TYPE 1
Masonry pier with vertical infill

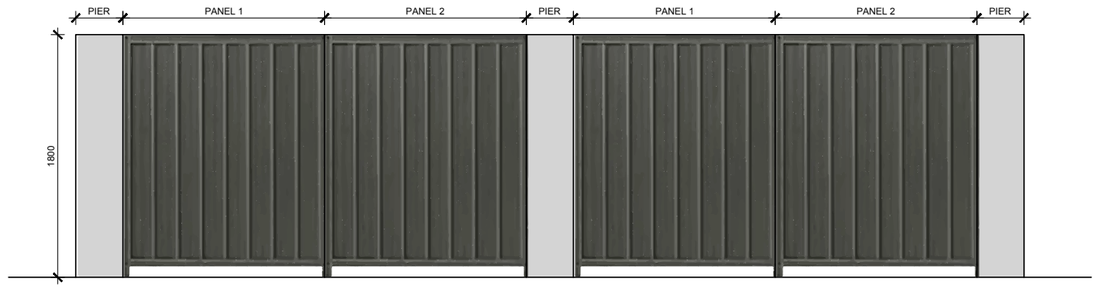
FENCE TYPE 2
Masonry pier with flagstone feature and vertical infill

FENCE TYPE 3
Masonry pier and base with vertical infill

HEDGING ONLY

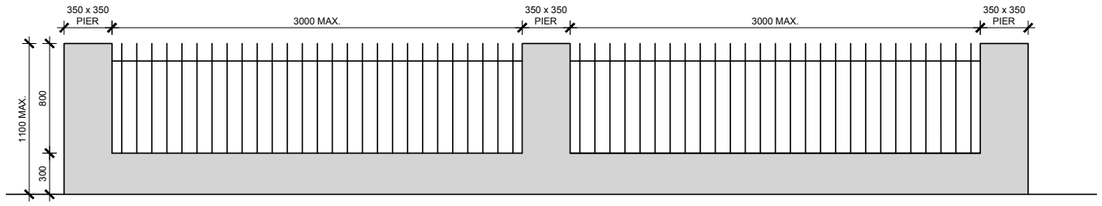
For illustrative purposes only.

Typical fence detail for secondary street frontage



Note: Masonry base constructed and finished in the same material as the piers, accepted where level difference occurs between lot and road.

Typical detail front fence (optional)



Secondary Street Frontage Fence



FENCE TYPE 4
Secondary street frontage fencing to be 1.8m high in Colorbond Woodland Grey between masonry piers. Refer to detail.

Front fencing optional: Refer to detail for acceptable front fence types

7.4 – Planting – Trees & Shrubs

Landscaping is an important element of any dwelling design. Done well, it enhances kerb appeal, can add value to the property, creating a welcoming atmosphere and a consistency to the overall streetscape.

The area between the front building line of the dwelling and the front property boundary must contain a minimum of 50% soft landscape, via a mix of natural turf and gardens beds. A minimum of one 75 litre tree should be planted in the front garden, with the use of deciduous species for sun-control into the dwelling recommended.

The careful selection of drought resistant planting in your landscaping can help to reduce water consumption and also ensure that the natural beauty of your home is maintained in times of low rainfall.

The tables below provide a list of suitable suggestions for front landscaping and should be used as a guide to assist in your landscape planning.

TREES	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
Coral Bark Maple	6m	E
Kurrajong	12m	N
Ivory Curl Flower	7m	N
Dwarf Flowering Gum	5m	N
Tuckeroo	8m	N
Poached Egg Camellia	6m	E
Crepe Myrtle	7m	E
Dwarf Evergreen Magnolia	4m	E
Crab Apple	6m	E
White Cloud Tree	6m	N
Flowering Pear	7m	E
Lilly Pilly	5m	N



Coral Bark Maple



Ivory Curl Flower



Crepe Myrtle



White Cloud Tree

SHRUBS	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
Lilly Pilly Species	200mm	N
Banksia Species	200mm	N
Bottle Brush Species	200mm	N
White Correa	200mm	N
Native Fuchsia	200mm	N
Emu Bush	200mm	N
Gardenia	200mm	E
Revolution Gold	200mm	N
Western Boobialla	200mm	N
Coastal Rosemary	200mm	N



Flower Gum



White Correa



Gardenia



Coastal Rosemary

7.5 – Planting – Understory

GROUNDCOVERS	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
River Wattle	140mm	N
Kangaroo Paw	140mm	N
Birthday Candles	140mm	N
Cut Leaf Daisy	140mm	N
Cousin it 140mm	140mm	N
Kidney Weed	140mm	N
Honey Myrtle	140mm	N
Boobialla	140mm	N
Trailing Pratia	140mm	N
Everlasting Daisy	140mm	N
Creeping Rosemary	140mm	N
Fairy Fan-Flower	140mm	N
Native Viola	140mm	N



River Wattle



Kangaroo Paw



Everlasting Daisy



Birthday Candles

CLIMBERS	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
Purple Coral Pea	140mm	N
Guinea Flower	140mm	N
Rocktrumpet	140mm	E
Bower Plant	140mm	E
Star Jasmine	140mm	E



Bower Plant



Camellia

GRASSES	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
Tall Sedge	140mm	N
Flax Lily	140mm	N
Blue Fescue	140mm	N
Mat Rush	140mm	N
Swamp Fountain Grass	140mm	N
Purple Fountain Grass	140mm	E
Tussock Grass	140mm	N
Kangaroo Grass	140mm	N



Blue Fescue



Purple Fountain Grass



Mat Rush



Flax Lily

HEDGES	MATURE HEIGHT	NATIVE (N) / EXOTIC (E)
Japanese Box	300mm	E
Camellia varieties	300mm	E
Lilly Pilly	300mm	N
Sweet Viburnum	300mm	E



Buxus varieties



Hardenbergia violacea

08

General Items – Street Amenity & Privacy

To maintain our beautiful streetscapes and create a sense of unity and consistency throughout the community, we have guidelines in place to help you and your designer plan a home that meets the high standards we set at Birling. We've given a great deal of thought to privacy, security, comfort, functionality and aesthetics, coming up with a blueprint for you to follow in order to uphold the value of your home and make Birling a wonderful environment for all to enjoy.

GENERAL ITEMS

- Airconditioning units, hot water units, gas bottles, PV system batteries, electric car charging ports, water tanks, clotheslines and garbage bins must not be visible from the street
- Solar panels are not permitted on the roof of the front facade.
- External window roller shutters and security blinds are not permitted to be visible from the street.
- Electrical meter box colours must complement the wall colour.
- Garden sheds are not to be directly visible from the street or public domain and should have minimal visual impact on neighbouring dwellings.
- Carports are not permitted.
- Due to Council dwelling density limits, no further re-subdivision of any lots within Birling is permitted. Similarly, no dual occupancies, secondary dwellings, "granny flats" or the like are permitted.
- The telecommunications network within Birling has been developed to include the provision of internet services, free-to-air television, and subscription television through the NBN full fibre network. There is no need for individual homes to install traditional TV antennas or pay TV satellite dishes, and as such, these are prohibited. For connection requirements, please refer to your builder.
- Reticulated Gas is not available to the site. Gas bottles are permitted but must not be visible from the street



Online Resources

All online forms, checklists and frequently asked questions can be found at the 'Build at Birling' page on our website.

Please visit: birlingcommunity.com.au

Notes

Disclaimer: References to "Birling" includes Birling Estate Developments Pty Ltd ACN 668 807 663, Birling Estate Pty Ltd ACN 657 548 073, and their holding company Cameron Brae Pty Ltd ACN 000 637 525.

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Cameron Brae
GROUP

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ATTACHMENT 6 – SALINITY PLAN

Douglas Partners
Geotechnics / Environment / Groundwater

Integrated Practical Solutions

Report on
Salinity Investigation and Salinity Management Plan

Stage 1 Birling Property
Proposed Residential Subdivision
975 The Northern Road, Bringelly, NSW

Prepared for
Cameron Brae Pty Ltd

Project 204684.01
June 2022

Douglas Partners
Geotechnics / Environment / Groundwater

Document History

Document details

Project No.	204684.01	Document No.	R.001.Rev1
Document title	Report on Salinity Investigation and Salinity Management Plan Stage 1 Birling Property, Proposed Residential Subdivision		
Site address	975 The Northern Road, Bringelly, NSW		
Report prepared for	Cameron Brae Pty Ltd		
File name	204684.01.R.001.Rev1		

Document status and review

Status	Prepared by	Reviewed by	Date issued
Revision 0	Emily Eden	Chris Kline	10 May 2022
Revision 1	Emily Eden/Bradley Harris	Chris Kline	6 June 2022

Distribution of copies

Status	Electronic	Paper	Issued to
Revision 0	1	0	James Dunbar, Cameron Brae Pty Ltd
Revision 1	1	0	James Dunbar, Cameron Brae Pty Ltd

The undersigned, on behalf of Douglas Partners Pty Ltd, confirm that this document and all attached drawings, logs and test results have been checked and reviewed for errors, omissions and inaccuracies.

	Signature		Date
Author			6 June 2022
Reviewer		p.p.	6 June 2022

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Report on Salinity Investigation and Salinity Management Plan Stage 1 Birling Property, Proposed Residential Subdivision 975 The Northern Road, Bringelly, NSW

1. Introduction

Douglas Partners Pty Ltd (DP) has been engaged by Cameron Brae Pty Ltd (Cameron Brae) to carry out a Salinity Investigation and prepare a Salinity Management Plan (SMP) to inform the proposed residential subdivision of Stage 1 Birling Property at 975 The Northern Road, Bringelly (hereinafter known as 'the site'). The site is shown on Drawing 1, Appendix A and covers an approximate area of 51 ha, being a subsection of Lot 20 Deposited Plan 1227094. The investigation was undertaken in accordance with DP's proposal reference 204684.00.P.001, dated 24 June 2021.

Saline soils affect much of the Western Sydney Region. Buildings and infrastructure located on shales of the Wianamatta Group are particularly at risk. Salinity can affect urban structures in a number of ways, including corrosion of concrete, break-down of bricks and mortar, corrosion of steel (including reinforcement), break-up of roads, attach on buried infrastructure, reduced ability to grow vegetation and increased erosion potential.

It is understood that a residential subdivision is proposed and that an assessment of soil salinity is required for submission to Camden Council with the subdivision application and to assist in conceptual planning of the development.

The investigation comprised a review of available results from previous investigations, excavation of test pits (TP), followed by laboratory testing of selected samples, engineering analysis and reporting. Details of the work undertaken and the results obtained are given within this report, together with comments relating to design and construction practice for bulk earthworks and service installations. Detailed investigation for the purpose of providing recommendations for housing (individual lots) will be required prior to subdivision certification, after bulk earthworks has been undertaken.

The field work for the salinity investigation was undertaken to inform both this SMP and a contamination investigation, the findings of which are reported under separate cover (reference 204684.00).

2. Proposed Development

The proposed development comprises a mixture of residential, commercial facilities and drainage basins. The development will require bulk earthworks including up to 6 m of cut in the northern portion, and up to 4 m of fill in the southern portion and will require an additional 204,000 m^3 of soil is placed at the site.

3. Scope of Work

The following scope of work was undertaken for this SMP:

- Using an excavator, 55 test pits (ie. one test pit per hectare) were undertaken at the site to a range of depths up to 3 m bgl or prior refusal;
- Soil samples for salinity and related testing were collected generally at depths of 0.5 m and thence 0.5 m intervals to the maximum of the above pits;
- Classification of selected soil samples for soil texture, electrical conductivity (EC 1:5), pH, chloride, and sulphate, sodicity and Emerson crumb dispersibility tests at a NATA accredited analytical laboratory; and
- Preparation of a Salinity Assessment and Salinity Management Plan Report (SMP) discussing the methodology and findings of the assessment, and recommended management strategies.

4. Site Information

Site Address	975 The Northern Road, Bringelly, NSW
Legal Description	Part Lot 20 Deposited Plan 1227094
Area	506,372 m^2
Zoning (see Figure 1, following page)	Zone B5 Business Development
	Zone C2 Environmental Conservation
	Zone RE1 Public Recreation
	Zone RE1 Private Recreation
	Zone R2 Low Density Residential
	Zone R3 Medium Density Residential
	Zone SP2 Infrastructure
Local Council Area	Camden Council
Current Use	Vacant Rural
Surrounding Uses	North – Residential, Rural East – Open space South – Open space, Residential West – Commercial

The site boundary is shown in Figure 1



Figure 1: Site Location

5. Environmental Setting

5.1 Topography

Regional topographic data indicates that the site is sloping from the north west to the south east of the site with an overall difference in level of approximately 24 m from the highest part of the site (92 m relative to AHD) in the north western corner, to the lowest part of the site (68 m relative to AHD) in the south eastern corner of the site.

The surrounding regional topography also generally slopes from the north west to the south east.

5.2 Site Geology and Soil Landscapes

Reference to the Geological Survey of NSW, Sydney (1991) *Penrith,* 1:100,000 Geological Sheet 9030 1st Edition indicates that majority of the site (approximately two thirds of the site, in the northern portion of the site) is underlain by Bringelly Shale (geological code 'Rwb') of the Wianamatta Group of Middle

Triassic age. Bringelly shale comprises of shale, carbonaceous claystone, laminite, lithic sandstone and rare coal. The remainder of the site on the southern portion next to and below Lowes Creek is underlain by Alluvial floodplain deposits of the Quaternary (base) (Qal) to Now (top) age. Alluvial floodplain deposits typically comprise of silt, very fine-to medium-grained lithic to quartz-rich sand and clay. The site geology based on regional mapping is presented in Figure 2 below.

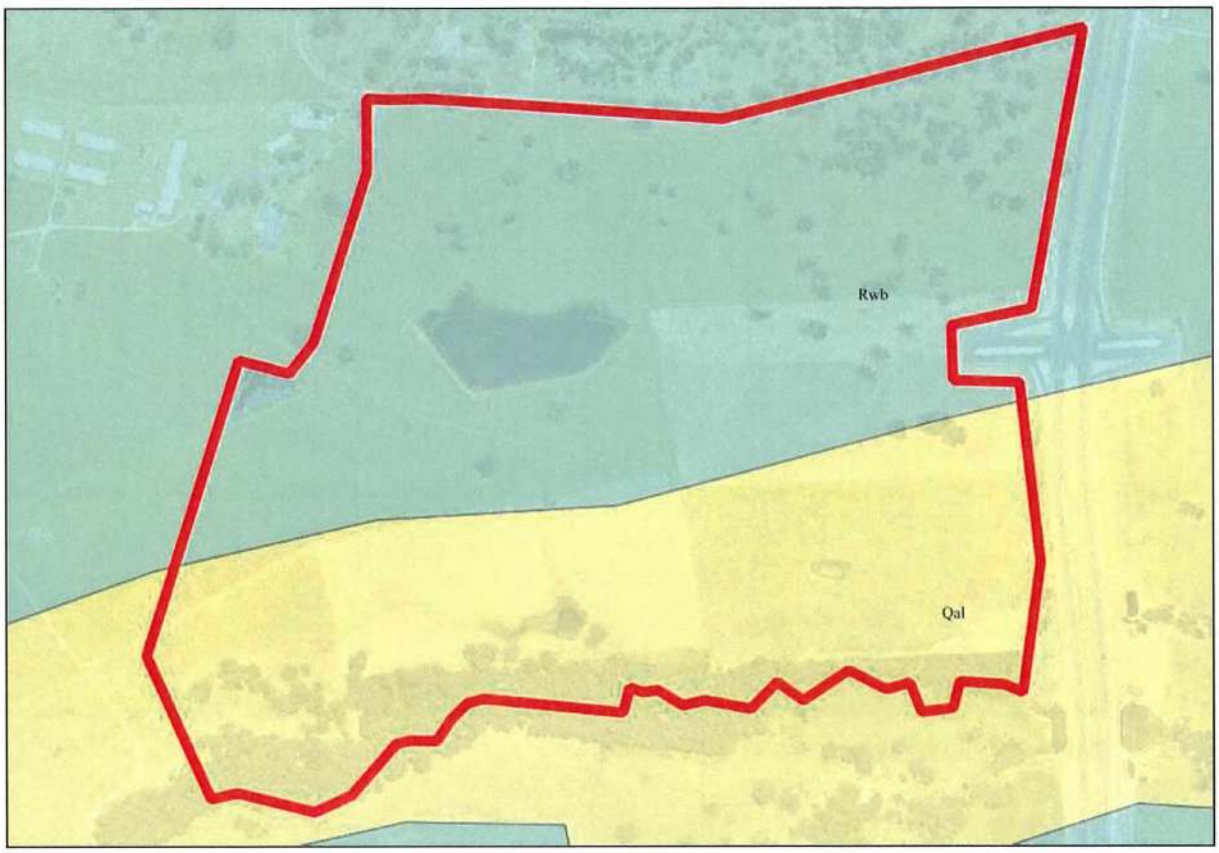


Figure 2: Site geology based on regional mapping

Reference to the *Penrith 1: 100, 000 Soils Landscape Sheet 9030*, 1989, indicates that approximately two-thirds of the northern portion of the site is underlain by Blacktown soils (mapping unit bt), which is a residual soils group associated with gently undulating rises, broad rounded crests, and ridges with gently inclined slopes. The unit comprises of shallow to moderately deep (<100 cm) red and brown podzolic soils on crests, upper slopes and in well-drained areas. In areas of greater depth (150-300 cm), there are yellow podzolic soils and soloths on lower slopes and in areas of poor drainage (Sydney). Local relief is to 30 m, slopes are usually <5%. These soils are typically of low fertility, are moderately reactive, with high plasticity in the subsoil, and generally have poor soil drainage.

The remaining one-third of the site on the southern portion is underlain by South Creek soils (mapping unit sc), which is an alluvial soils group associated with floodplains, valley flats and drainage depressions of the channels on the Cumberland Plain, usually flat with incised channels. The unit comprises of red and yellow podzolic soils on terraces with small areas of structured grey clays, leached clay and yellow solodic soils. It also comprises of often very deep layered sediments over bedrock or relict soils. Where pedogenesis has occurred, there are structured plastic clays or structured loams in and adjacent to drainage lines. These soils typically present an erosion hazard with frequent flooding. Regional mapping of soil landscapes for the site are presented in Figure 3 on the following page.

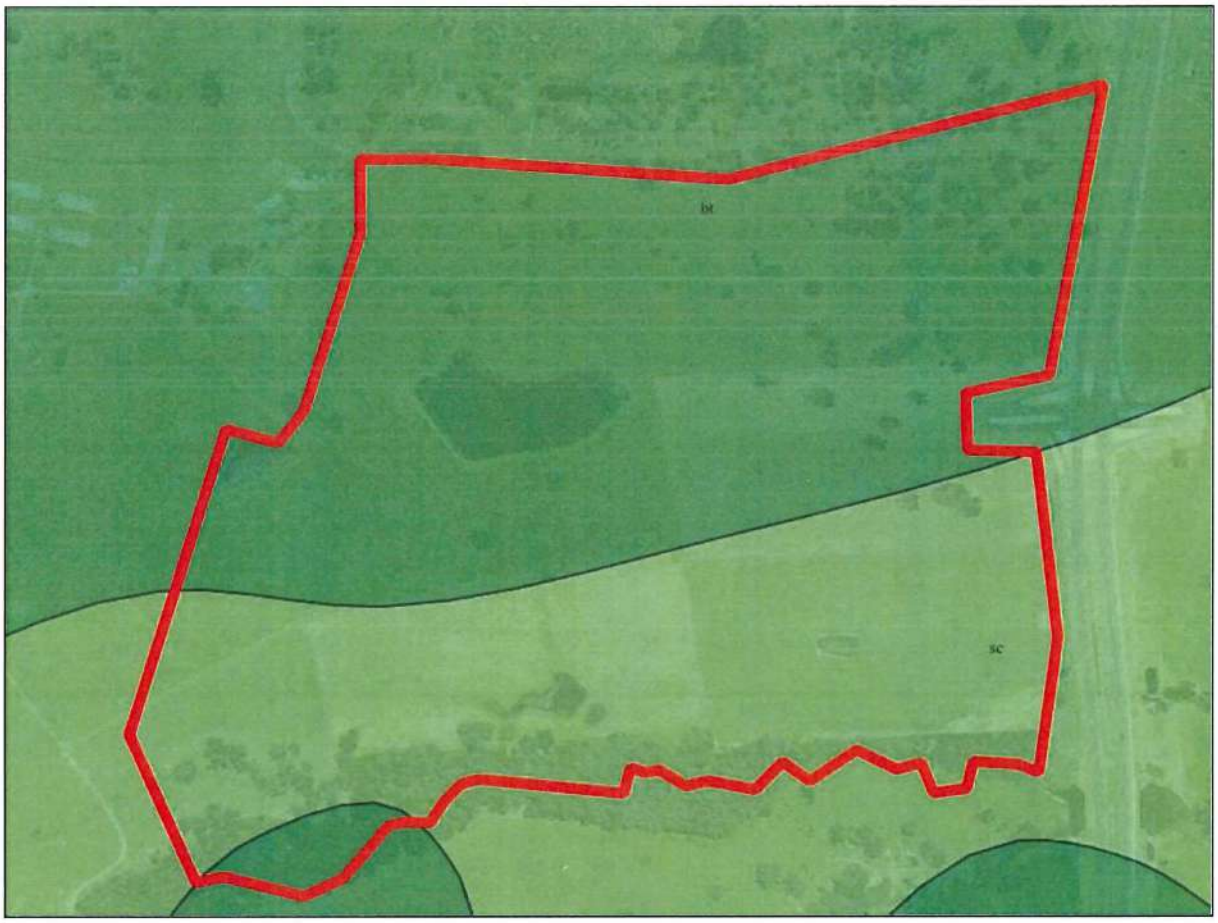


Figure 3: Soils based on regional mapping

5.3 Salinity

Reference to NSW Salinity Potential in Western Sydney mapping (2002) indicates that the site is primarily mapped as moderate salinity potential (pale yellow) except for adjacent to and below Lowes Creek, which is mapped as high salinity potential (pale orange). Refer to Figure 4 on the following page.

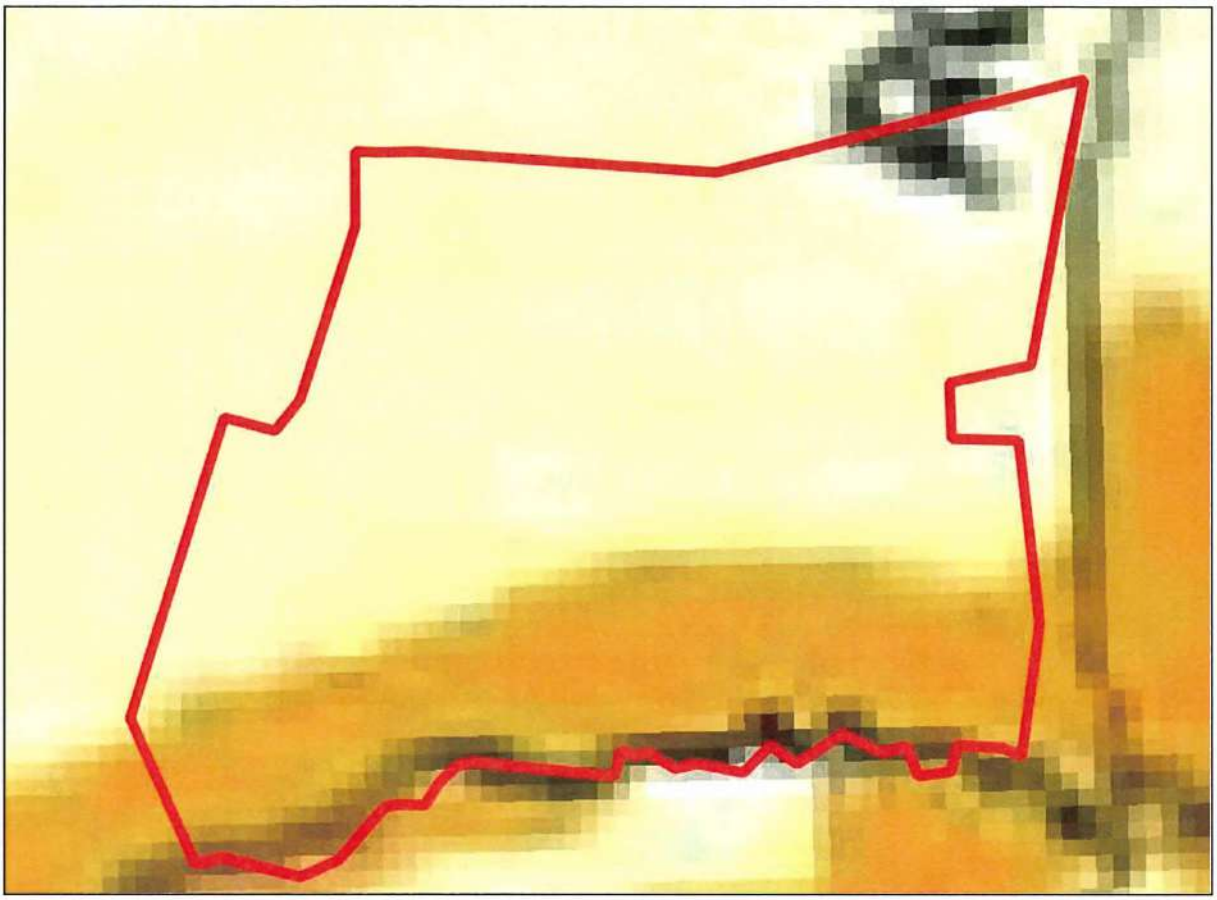


Figure 4: Salinity potential based on regional mapping

5.4 Acid Sulphate Soils

Published acid sulphate soils risk mapping indicates that the site is classified as Cq (p4), extremely low probability occurrence.

5.5 Surface Water and Groundwater

A large dam is present in the central portion of the site, where its overflow appears to drain into a smaller dam, situated directly south. Both dams are adjoined by an unnamed creek, acting as tributaries of Lowes Creek, which flows in a west to east direction and is situated along the southern boundary of the site.

Two unnamed dams are also present on site, one located on the western portion of the site, and one located on the eastern edge of the site boundary.

A tributary of South Creek, with subsequent dams is located directly north from the site, flowing in a west to east direction. Another tributary of South Creek is located north west from the site, flowing in a south west to north east direction. A large unnamed dam is present south from the site boundary, with

adjoining smaller dams and tributaries of Lowes Creek which are flowing in a south to north east direction.

A search of the publicly available registered groundwater bore database indicated that there is one registered groundwater bores within 500 m of the site. The groundwater bore from within 500 m the site is summarised in Table 1. No salinity data or standing water level data was available for the bore.

Table 1: Summary of Available Information from Nearby Registered Groundwater Bores

Bore ID Authorised Purpose Completion Year Status	Location Relative to Site	Final Depth (m)
GW111629 Monitoring bore	70 m east within the central road reserve for The Northern Road	10 Screened between 6 and 9 m

Based on the regional topography and the inferred flow direction of nearby water courses, the anticipated flow direction of groundwater beneath the site is north west to south east, towards South Creek, the likely receiving surface water body for the groundwater flow path. Given the local geology (i.e. Bringelly Shale), the groundwater in the fractured rock beneath the site is anticipated to be saline and very low yield. Accordingly, there would be no significant potential beneficial uses of the groundwater.

6. Previous Investigation Findings – DP, 2018

A previous investigation within the subject site and its immediate surrounds was undertaken by Douglas Partners Pty Ltd in 2018 as part of the land capability assessment of the wider Lowes Creek Maryland site. The results of the investigation were formalised in a report entitled *Report on Salinity Assessment and Salinity Management Plan, Land Capability Study, Lowes Creek Maryland Precinct, Bringelly*, reference 76742.00.R.001.Rev1 dated September 2018 (DP, 2018).

The scope of the investigation comprised a site inspection, non-intrusive and limited intrusive site investigation, laboratory testing of selected samples, engineering analysis and reporting. An electromagnetic (EM) survey was undertaken, and results were refined using salinity analyses on 61 samples from 20 test pits throughout wider Lowes Creek Maryland site. The Stage 1 site is located within the north eastern portion of the wider Lowes Creek Maryland site. Soils within the Stage 1 site were generally mapped as ranging from non-saline to very saline, mildly aggressive to concrete and mildly to moderately aggressive to steel.

Extracts of maps from the Land Capability Assessment (DP, 2018) showing previous sampling locations and findings (including for the current site) are included in Appendix B.

7. Field Work Methods

The field work for this salinity investigation was undertaken between 21 March and 5 April 2022 during La Niña record high rainfall conditions. Approximately 561 mm of total rainfall was recorded in March 2022 compared to an average of 112 mm for the same station[1]. The scope of the intrusive investigation comprised the excavation of 55 test pits (TP 25 to 79) to varying depths of between 1.5 and 3 m or prior refusal. The deeper (target 3 m) test pits were primarily undertaken in the northern portion of the site where more cut is proposed and the shallower (target 1.5 m) test pits were primarily undertaken where fill is proposed. The target depths are summarised below:

- 3 m target depth: 25, 27, 28, 30, 31, 32, 33, 40, 42, 43, 49 – 51, 57, 58, 61, 67, 71 and 74.
- 1.5 m target depth: 26, 29, 34 – 39, 41, 44 – 48, 52, 53 – 56, 59, 60, 62 – 66, 68 – 70, 72, 73 and 75 – 79.

The test pits were excavated with a Hyundai Robex 60CR-9 excavator with a 450 mm bucket. The test pits were logged on site by a DP environmental engineer and representative disturbed samples were collected to assist in strata identification and for laboratory testing.

The locations of the test pits are shown on Drawing 1, Appendix A. All field measurements and mapping for this project have been carried out using the Geodetic Datum of Australia 1994 (GDA94) and the Map Grid of Australia 1994 (MGA94), Zone 56. All reduced levels are given in relation to AHD.

8. Results

8.1 Field Work Results

The test pit logs for this assessment are included in Appendix C. All test pits terminated in natural material and the general sub-surface profile was as follows:

- Fill/Topsoil: Silty clay with rootlets encountered in the top 0.2 m of the soil profile in all test pits.
- Silty clay: Brown/orange/grey silty clay with rootlets and roots was observed below topsoil in all test pits to the base of the test pits, except for in test pits 33, 44, 46, 50 and 51 where shale was observed below silty clay. Ironstone and shale gravel was observed in silty clay in most test pits.
- Shale: Grey/brown variably weathered shale was observed below silty clay in test pits 33, 44, 46, 50 and 51.

No anthropogenic material was observed in any of the test pits undertaken at the site. There were no apparent records of visual or olfactory evidence (e.g. staining, odours, free phase product) to suggest the presence of contamination within the soils or groundwater observed in the investigation.

Free groundwater was observed in silty clay strata in test pits 25, 53, 56, 58 and 77. Noting that representative groundwater levels cannot be provided from the test pits because of the nature of the excavation methodology which disturbs soil strata and the short duration that each test pit is kept open.

[1] Badgerys Creek AWS station (nearest to site). See summary at http://www.bom.gov.au/climate/current/month/nsw/sydney.shtml last accessed 21 April 2022.

No signs of efflorescence or salt scalding were noted during the fieldwork. However, it is noted that after such high rainfall it was not expected that efflorescence would currently be present on site.

9. Laboratory Testing

The laboratory test results and assessments of aggressivity, salinity, sodicity and dispersibility are summarised in Table C1 in Appendix D. Aggressivity to concrete was determined using pH values and sulphate ion concentrations, and aggressivity to steel was determined using pH values, chloride ion concentrations and calculated resistivities. The salinity class was inferred from ECe values using the method of Richards (1954) and dispersion potentials were derived from Emerson Class Number Tests.

The detailed laboratory test reports and chain of custody documents are provided in Appendix E.

Table 2 below summarises the total test sample numbers and the range of test results obtained.

Table 2: Summary of Parameters Tested and Results Obtained

Parameter		Units	Samples	Minimum	Maximum
pH		pH units	213	4.2	9.3
Chlorides		(mg/kg)	46	10	2100
Sulphates		(mg/kg)	46	10	310
Aggressivity	to Concrete	[AS2159]	31	Non-Aggressive	Moderately Aggressive
	to Steel	[AS2159]	31	Non-Aggressive	Moderately Aggressive
Resistivity		Ω.cm	215	588	32,258
ECe [M x EC1:5] where M is textural factor		(dS/m)	215	0.3	14.4
Salinity Class		[after Richards 1954]	17	Non-Saline	Very Saline

9.1 Aggressivity

Figure 5 below, presents variations of aggressivity with depth at each test pit location, based on pH profiles, and the corresponding aggressivity class ranges as per the Australian Standard AS 2159 (2009). Due to the clay/silt composition of the soils, all samples were classed as Condition B as defined by AS 2159.

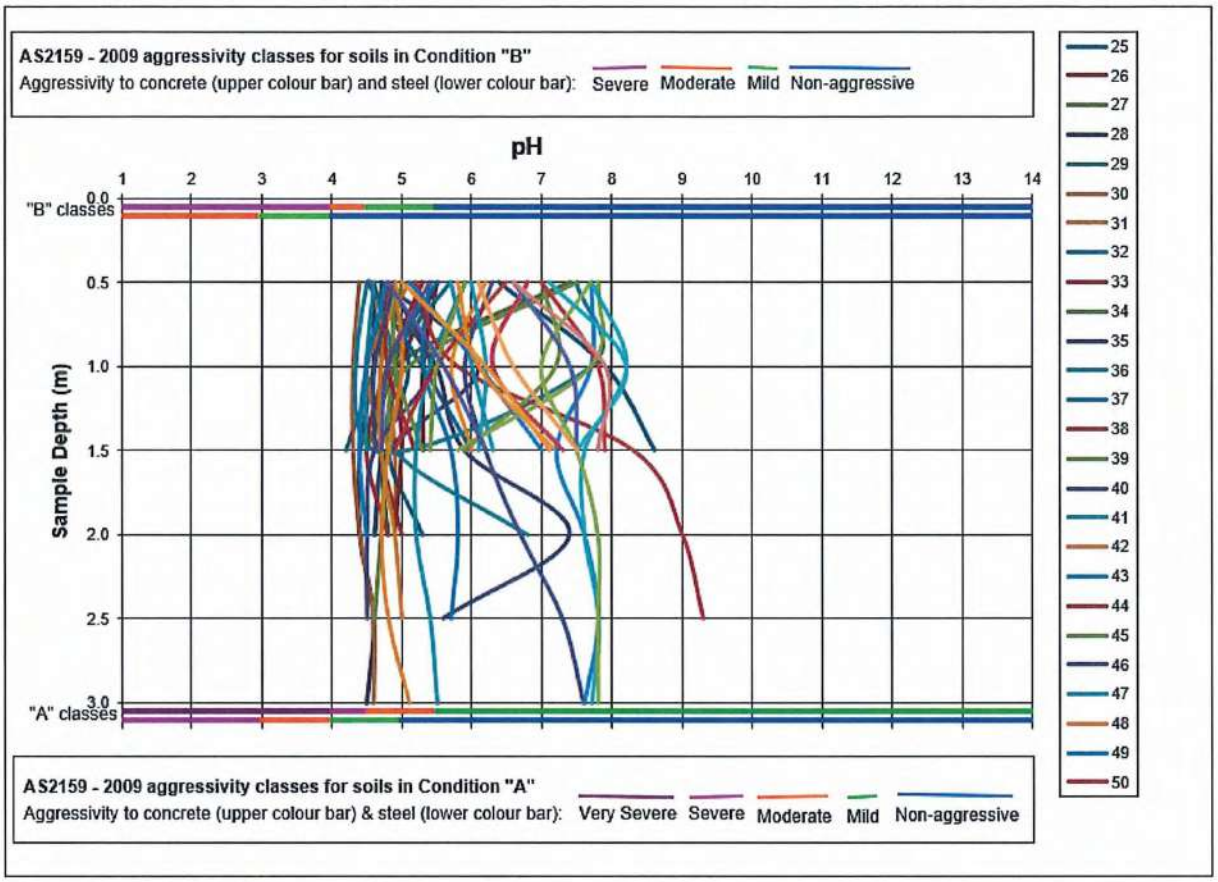


Figure 5. Vertical Soil pH Profiles and Aggressivity Classes

Figure 5 shows that the site was underlain by soils which are non-aggressive to moderately aggressive to concrete foundations and concrete piles based on pH values. The summary table (Appendix D) indicates that 44% of soil samples were non-aggressive to concrete, 53% were mildly aggressive and 4% were moderately aggressive. It is noted that 11 samples had a pH of 4.5 which is at the crossover for the classification of moderately aggressive and mildly aggressive soils.
The worst-case pH results for each test pit were used to define approximate areas of mild and moderate aggressivity to concrete foundations and piles within the site, as represented by colour zones on Drawing 2 (Appendix A). Based on a review of the results, test pits which reported samples with a pH of 4.5 and did not have any addition samples which had a pH result of <4.5 were considered mildly aggressive to concrete.

The pH profiles of Figure 5 indicate that the materials throughout the site, at all investigated depths, are non-aggressive to steel. The chloride concentration guidelines of AS2159 support this non-aggressive classification. However, based on resistivity criteria (Appendix D), approximately 61% of soil samples were non-aggressive to steel, 31% mildly aggressive and 8% were moderately aggressive. Based on the results, the worst-case resistivity results for each test pit were used to define approximate areas of mild and moderate aggressivity to steel within the site, as represented by colour zones on Drawing 3 (Appendix A).

9.2 Salinity

Figure 6 below presents variations of salinity with depth at each test pit location, based on ECe profiles, and the corresponding salinity classifications of Richards (1954).

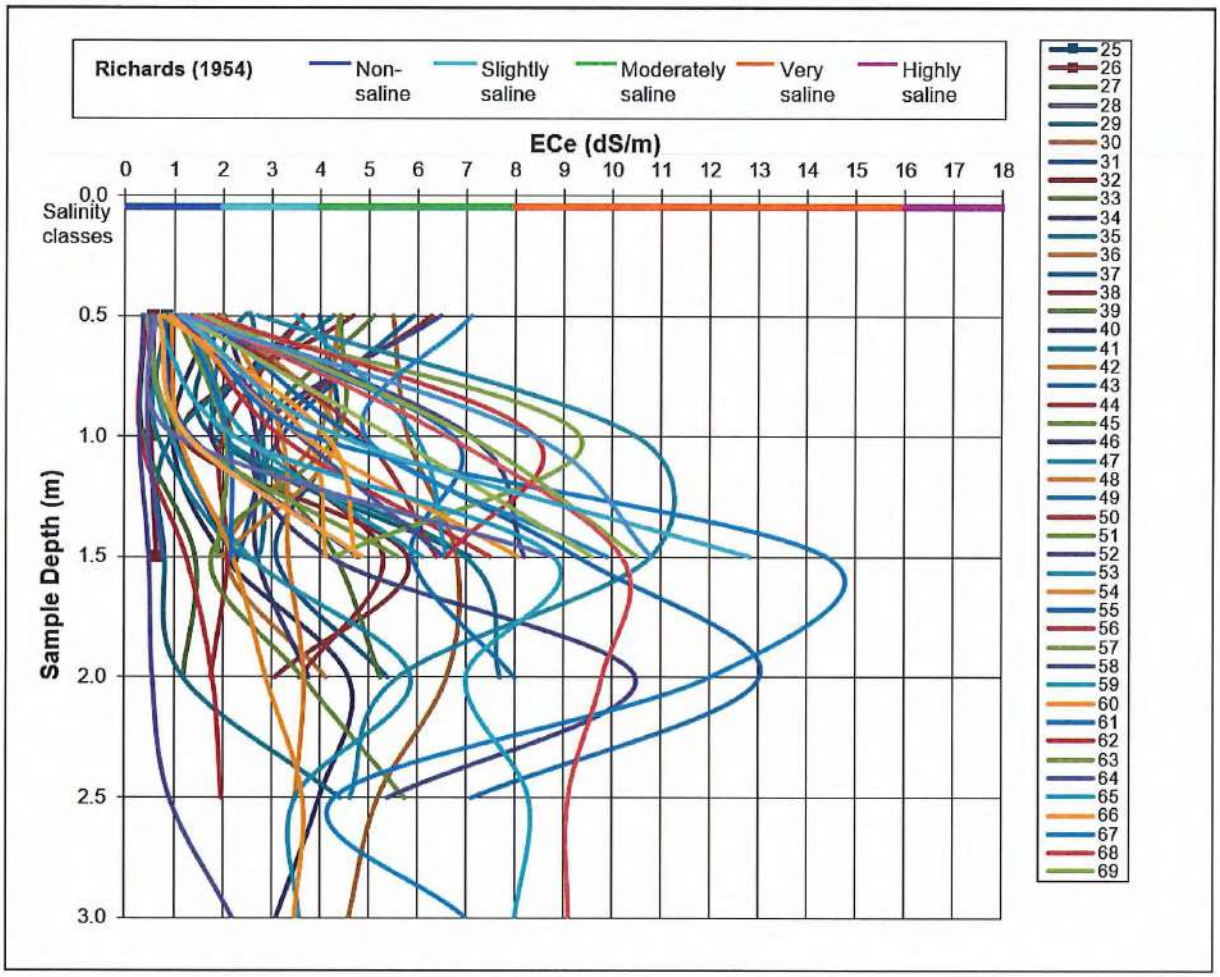


Figure 6: Vertical Soil Salinity Profiles and Salinity Classes

Table D1 (Appendix D) indicates that 33% of all samples were non-saline, 25% were slightly saline, 31% were moderately saline and 11% were very saline.

Similarly, to soil aggressivity, maximum ECe values from each test pit were interpolated and contoured to define areas of slightly saline (ECe 2 – 4 dS/m), moderately saline (ECe 4 – 8 dS/m) and very saline (ECe 8 – 16 ds/m) soil (see Drawing 4, Appendix A). The spatial distribution of soil salinity is generally consistent with the EM survey undertaken previously (see Section 6 and Appendix B), that is, salinities are higher towards the creek and lowest in the north west of the site.

10. Impacts on the Proposed Development

The mild and moderate aggressivity to concrete and steel, the presence of moderately saline and very saline soils and the highly sodic soils are naturally occurring features of the local landscape and are not considered significant impediments to the proposed development, provided appropriate remediation or management techniques are employed. We note some of the samples were at the upper limit of mildly aggressive to concrete and that after bulk earthworks some of the lots may be classified as moderately aggressive.

Salinity and aggressivity affects the durability of concrete and steel by causing premature breakdown of concrete and corrosion of steel. This has impacts on the longevity of structures in contact with these materials. As a result, management will be required (refer Section 11).

In addition, sodic soils are present in the region and have low permeability due to infilling of interstices with fine clay particles during the weathering process, restricting infiltration of surface water and potentially creating perched water tables, seepage in cut faces or ponding of water in flat open areas. In addition, sodic soils tend to erode when exposed. Management of sodic soils is therefore required to prevent these adverse effects.

11. Salinity Management Plan

11.1 Bulk Earthworks

The following management strategies are confined to the management of those factors with a potential to impact on the bulk earthworks aspects of the development.

A. Management should focus on capping of the upper surface of the sodic soils, both exposed by excavation and placed as filling, with a more permeable material to prevent ponding, to reduce capillary rise, to act as a drainage layer and to reduce the potential for erosion.

B. When possible, placement of excavated soils in fill areas with similar salinity characteristics (ie: to place material on to in-situ soils with a similar or higher aggressivity or salinity classification). Alternatively, materials of higher salinity and/or aggressivity classification can be placed on to in-situ soils with a lower aggressivity or salinity classification, provided the placement location is tracked at the time of bulk earthworks and the management protocols are upgraded for this area of the site to reflect the higher classification. Where this is not possible or not tracked, all fill areas will require to be treated as moderately aggressive to concrete and steel and very saline.

C. With respect to any imported fill material required, testing should be undertaken prior to importation, to determine the salinity characteristics of the material, which should be non-aggressive and non-saline to slightly saline where possible, but in any case, not more aggressive or more saline than the adopted site classifications.

D. Sodic soils can also be managed by maintaining vegetation where possible and planting new salt tolerant species. The addition of organic matter, gypsum and lime can also be considered where appropriate. After gypsum addition, reduction of sodicity levels may require some time for sufficient infiltration and leaching of sodium into the subsoils, however capping of exposed sodic material should remain the primary management method. Topsoil added at the completion of bulk

earthworks is, in effect, also adding organic matter which may help infiltration and leaching of sodium.

E. Avoiding water collecting in low lying areas, in depressions, or behind fill. This can lead to water logging of the soils, evaporative concentration of salts, and eventual breakdown in soil structure resulting in accelerated erosion.

F. Any pavements should be designed to be well drained of surface water. There should not be excessive concentrations of runoff or ponding that would lead to waterlogging of the pavement or additional recharge to the groundwater through any more permeable zones in the underlying filling material.

G. Surface drains should generally be provided along the top of batter slopes to reduce the potential for concentrated flows of water down slopes possibly causing scour.

H. Salt tolerant grasses and trees should be considered for landscaping, to reduce soil erosion as in Strategy A above and to maintain the existing evapo – transpiration and groundwater levels. Reference should be made to an experienced landscape planner or agronomist.

11.2 Civil Construction, Service Installation and Residential Construction

The following additional strategies are recommended for completion of service installation including but not limited to; roads, drainage and services. The following strategies are also anticipated to be required for construction of residential dwellings. A detailed salinity investigation will require to be completed after completion of bulk earthworks in order to confirm the below strategies and provide more detailed recommendations for individual lots.

The below strategies should be complementary to standard good building practices, including cover to reinforcement within concrete and correct installation of a brick damp course (where used), so that it cannot be bridged to allow moisture to move into brick work and up the wall.

I. Based on the results of the intrusive investigation, soils that are non-aggressive to moderately aggressive to concrete and steel and non-saline to moderately saline have been observed at the site. As such durability requirements provided in Tables 3 and 4 should be taken into account by the designer.

Table 3: Recommended Durability Requirements for Concrete Foundations and Piles

Site Salinity Classification (refer Drawing 4)	Site Soil Aggressivity to Concrete Classification (refer Drawing 2)	Recommended Durability Requirement (as per AS3600)		
		Minimum Concrete Strength (MPa)	Minimum Cover to Reinforcement (mm)	Minimum Cure Time (days)
Non-saline to Slightly Saline	Non-aggressive Soils	20	ND	3
	Mildly Aggressive Soils	25		
	Moderately Aggressive Soils	32		7
Moderately Saline	Non-aggressive Soils	25	45	3
	Mildly Aggressive Soils			
	Moderately Aggressive Soils	32		7
Very Saline	Non-aggressive Soils	32	50	7
	Mildly Aggressive Soils			
	Moderately Aggressive Soils			

Table 4: Recommended Durability Requirements for Concrete Piles

Concrete Aggressivity (refer Drawing 2)	Recommended Durability Requirement (as per AS2159)	
	Minimum Concrete Strength (MPa)	Minimum Cover to Reinforcement (mm)
Non Aggressive	32	45
Mildly aggressive	32	60
Moderately Aggressive	40	65

J. Wet cast concrete pipes and currently manufactured spun concrete pipes are understood to have estimated compressive strengths of 50 MPa and 60 – 70 MPa, respectively, in excess of the requirements for mass concrete in I above. Reference to the test results of Table 1 (Section 8 of this report) and to Tables E1 and 3.1 of AS 4058 – 2007 "Precast concrete pipes" indicates that:

- The majority of the site falls within the AS 4058 Clay/Stagnant (low sulphate) soil type (chlorides ≤20 000 ppm, pH≥4.5 and sulphates ≤1000 ppm) and (in the absence of tidal water flow) falls within the AS 4058 Normal durability environment. Under these conditions, AS 4058 – compliant reinforced concrete pipes of general purpose Portland cement, with a minimum cover to reinforcement of 10 mm, are expected to have a

design life in excess of 100 years. Any concrete pipes installed within the site should employ AS 4058 – compliant steel reinforced pipes of general purpose Portland cement, with minimum cover to reinforcement of 10 mm, or should be fibre reinforced.

- For areas mapped as moderately aggressive to concrete (refer Drawing 2, Appendix A), these areas fall marginally outside the AS 4058 Clay/Stagnant (low sulphate) soil type (chlorides <=20,000 ppm and sulphates <=1,000 ppm) and (in the absence of tidal water flow) falls within the AS 4058 "Other" durability environment. A review of the pH results within these areas of the site indicate a slightly more acidic environment than that within the Clay/Stagnant soil type definition (minimum pH 4.5) and reference to the Concrete Pipe Association of Australasia Engineering Guideline ("Designing Durable Concrete Pipelines") indicates an increase of cover to reinforcement (to 20 mm) or a protective (e.g. epoxy) coating or sleeve, or blended concrete, should be employed to maintain a design life in excess of 100 years. It is recommended that any concrete pipes installed within areas classified as moderately aggressive to concrete within the site should employ AS 4058-compliant steel reinforced pipes of general purpose Portland cement, with minimum cover to reinforcement of 20 mm, or with an alternative durability provision as indicated above, or should be fibre reinforced.

K. Resistivity results indicate soils within the site that are mildly and moderately aggressive to steel (refer Drawing 3, Appendix A). The following corrosion allowances (as per AS 2159 – 2009) should be taken into account by the designer:

- Mild: uniform corrosion allowance 0.01 – 0.02 mm/year;
- Moderate: uniform corrosion allowance 0.02 – 0.04 mm/year.

In instances where a coating is applied to the pile, if the design life of the pile is greater than the design life for the coating, consideration must be given to corrosion of the pile in accordance with the above list.

12. Additional Recommendations and Conclusion

This salinity investigation has been undertaken for the purpose of providing advice with regards to salinity relating to bulk earthworks and service installations only and indicative advice for residential construction. A detailed salinity investigation will be required prior to subdivision certification (after completion of bulk earthworks) in order to provide more detailed recommendations for individual lots. Such an investigation could be carried out as part of future lot classification investigations.

Additional investigation in development areas which are to be excavated deeper than 3 m below current ground level, are not considered necessary on the basis that there is already a broad range of salinity and aggressivity classifications at the site and that a final salinity investigation will appropriately classify the site after bulk earthworks.

It is considered that the management strategies described herein when incorporated into the design and construction works are appropriate to mitigate the levels of salinity, aggressivity and sodicity identified at the site.

13. Limitations

Douglas Partners Pty Ltd (DP) has prepared this report (or services) for this project at 975 The Northern Road, Bringelly in accordance with DP's proposal 204684.00.P.001 and acceptance received from James Dunbar on behalf of Cameron Brae. The work was carried out under DP's Conditions of Engagement. This report is provided for the exclusive use of Cameron Brae 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 subsurface 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. Subsurface 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.

The assessment of atypical safety hazards arising from this advice is restricted to the salinity components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

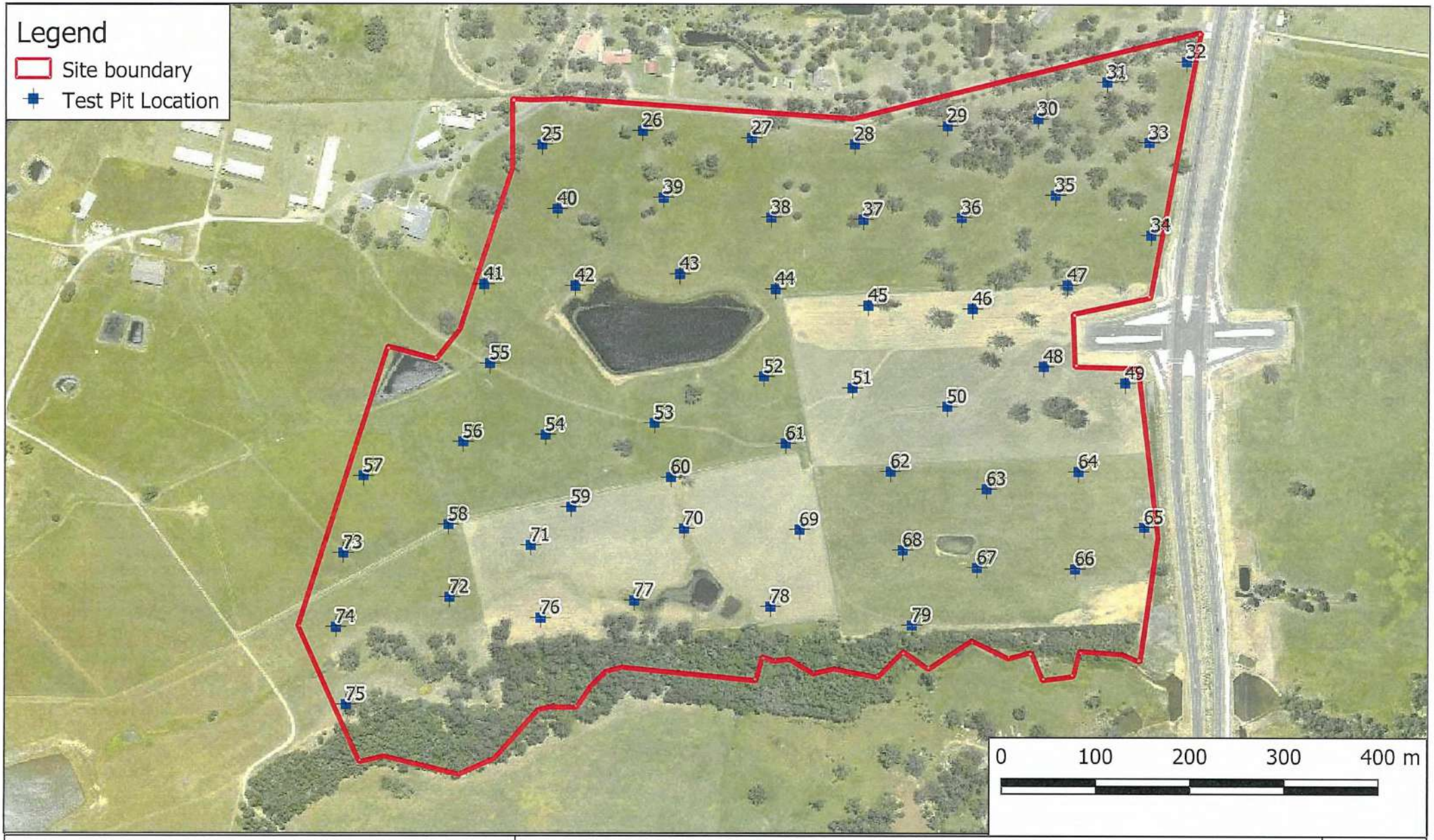
This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation,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

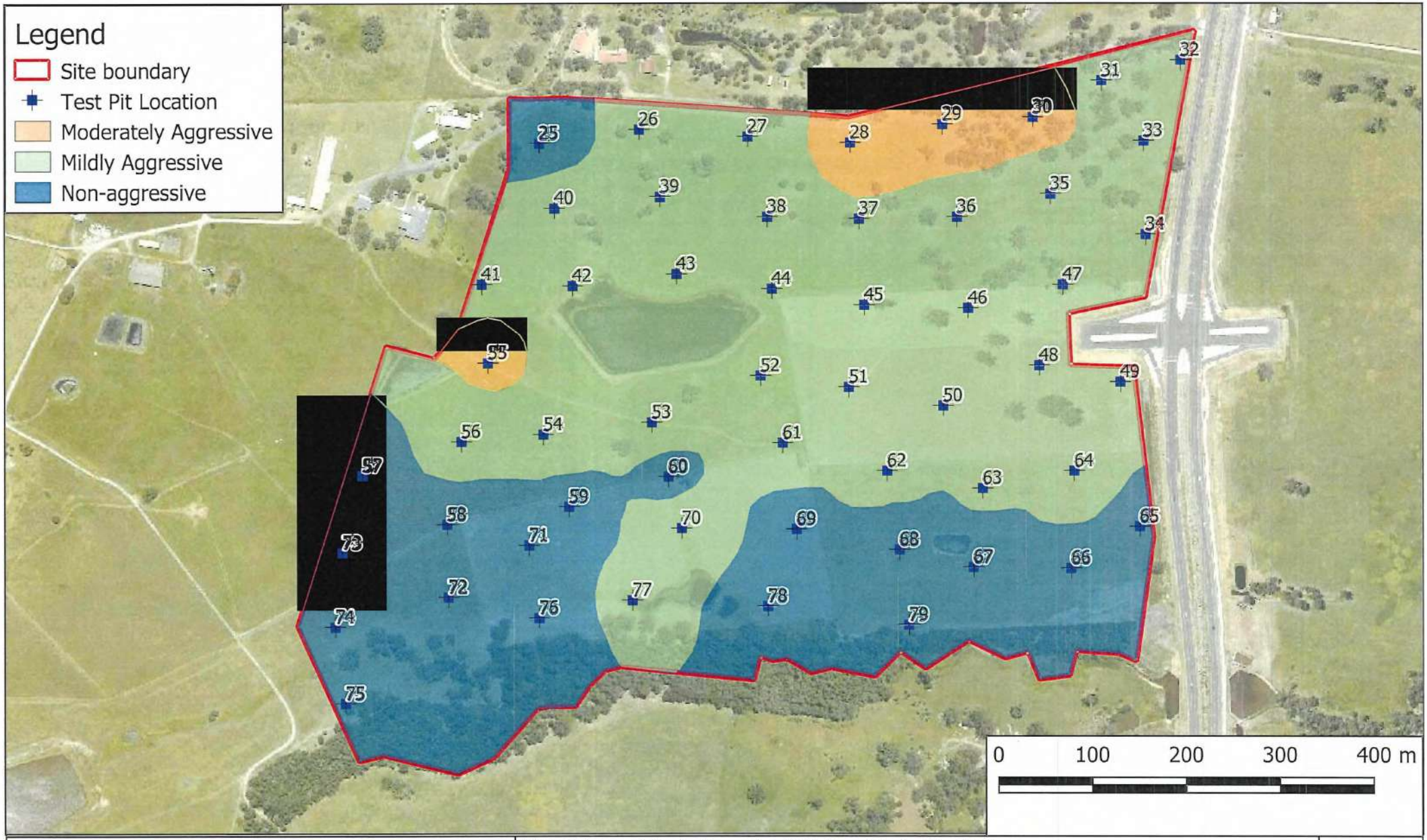
Douglas Partners Pty Ltd

Appendix A

Drawings
About this Report



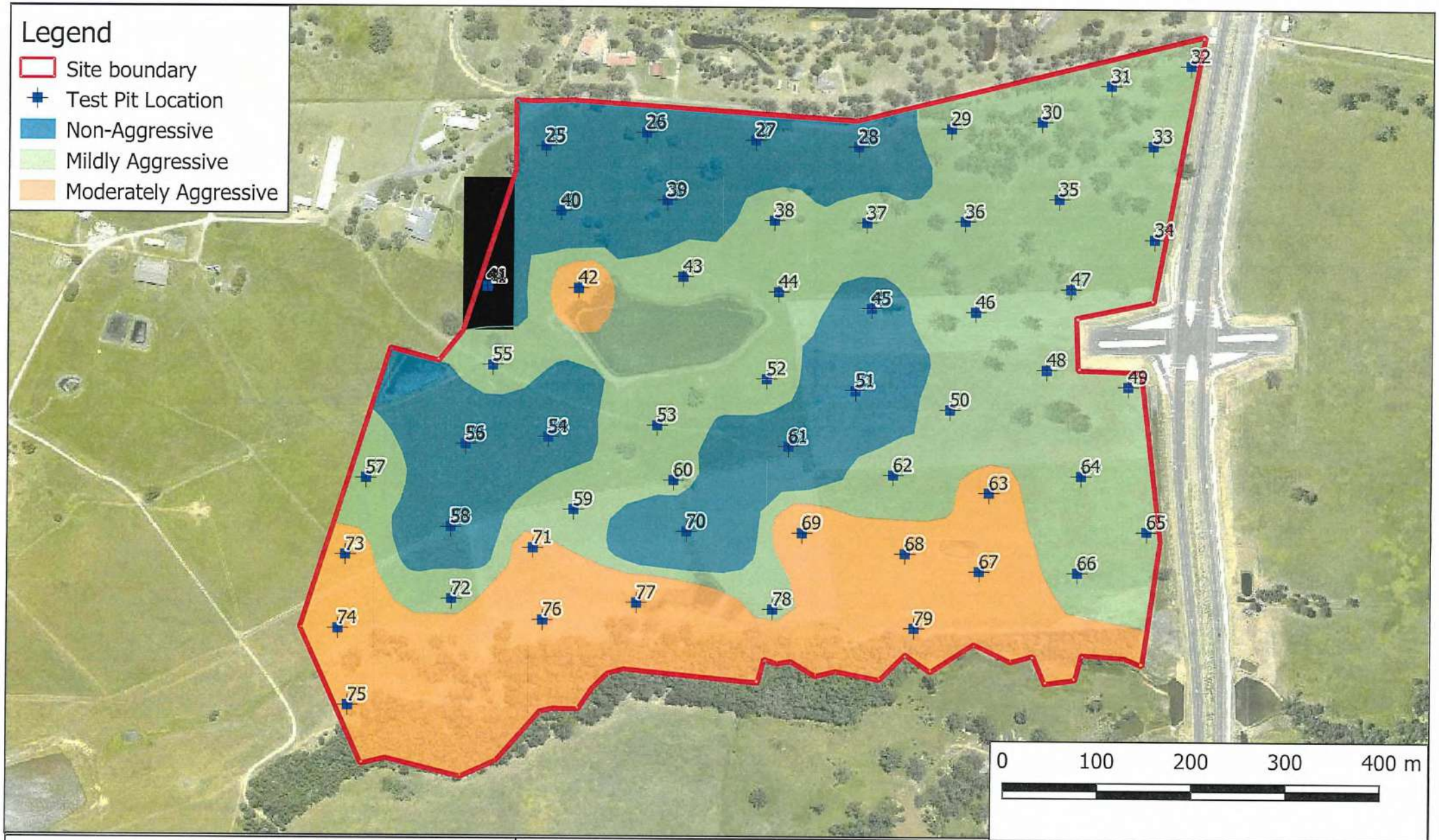
Douglas Partners *Geotechnics / Environment / Groundwater*	TITLE: Site Layout and Test Pit Locations Proposed Stage 1, Birling, Residential Subdivision 975 The Northern Road, Bringelly, NSW		N MGA
CLIENT: Cameron Brae Pty Ltd	PROJECT No.: 204684.01	SCALE: As shown	DRAWING No: 1
OFFICE: Macarthur	DRAWN BY: BAH	DATE: 3 June 2022	REVISION: A



Douglas Partners
Geotechnics | Environment | Groundwater

TITLE: Aggressivity to Concrete within Investigated Depth Zone
Proposed Stage 1, Birling, Residential Subdivision
975 The Northern Road, Bringelly, NSW

CLIENT: Cameron Brae Pty Ltd	PROJECT No.: 204684.01	SCALE: As shown	DRAWING No: 2
OFFICE: Macarthur	DRAWN BY: BAH	DATE: 3 June 2022	REVISION: A

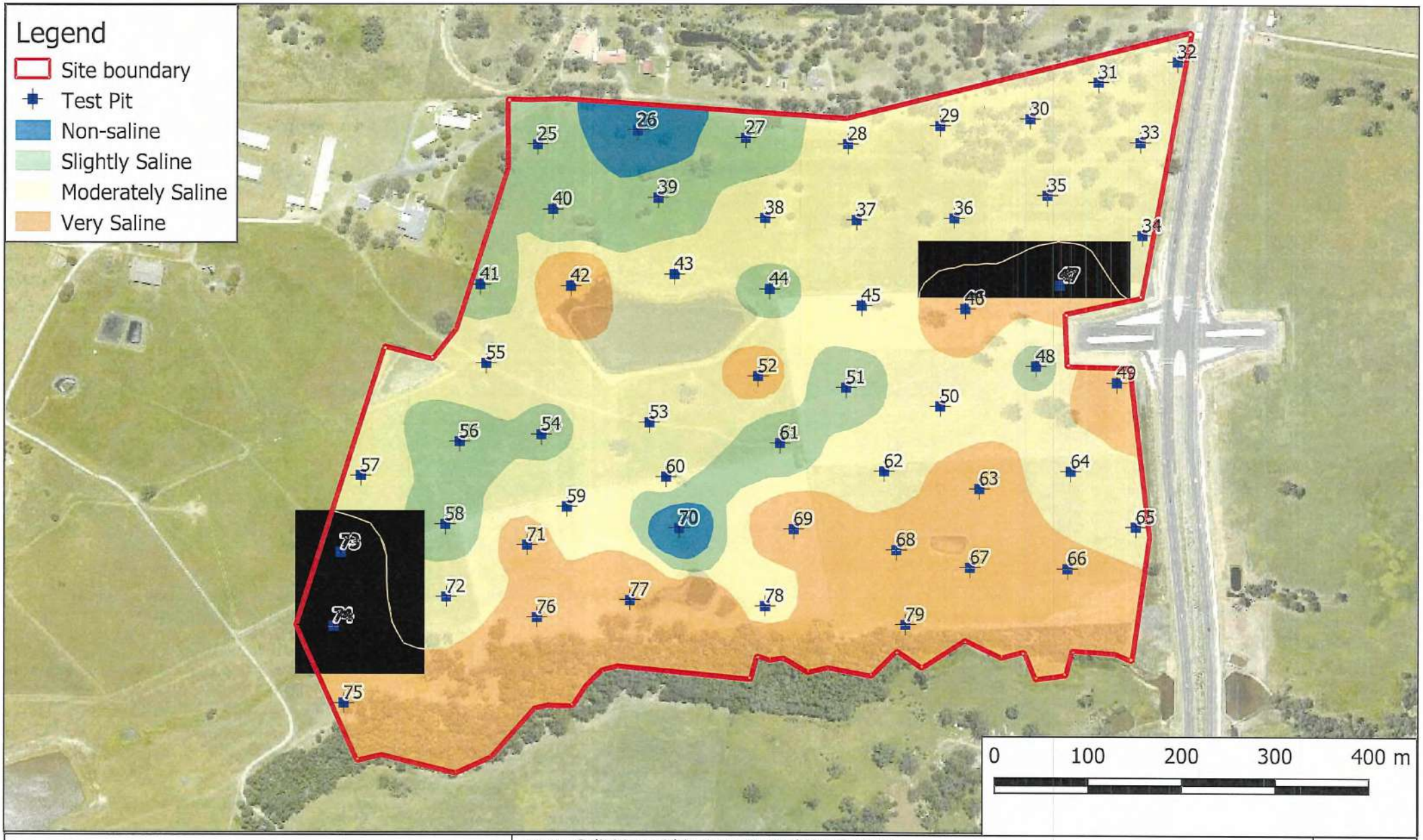


Douglas Partners
Geotechnics | Environment | Groundwater

TITLE: Aggressivity to Steel within Investigated Depth Zone
Proposed Stage 1 Birling - Residential Subdivision
975 The Northern Road, Bringelly, NSW

N
MGA

CLIENT: Cameron Brae Pty Ltd	PROJECT No.: 204684.01	SCALE: As shown	DRAWING No: 3
OFFICE: Macarthur	DRAWN BY: BAH	DATE: 3 June 2022	REVISION: 1



Douglas Partners
Geotechnics | Environment | Groundwater

TITLE: Salinities within Investigated Depth Zone
Proposed Stage 1 Birling - Residential Subdivision
975 The Northern Road, Bringelly, NSW

N
MGA

CLIENT: Cameron Brae Pty Ltd	PROJECT No.: 204684.01	SCALE: As shown	DRAWING No: 4
OFFICE: Macarthur	DRAWN BY: BAH	DATE: 3 June 2022	REVISION: 1

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.

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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

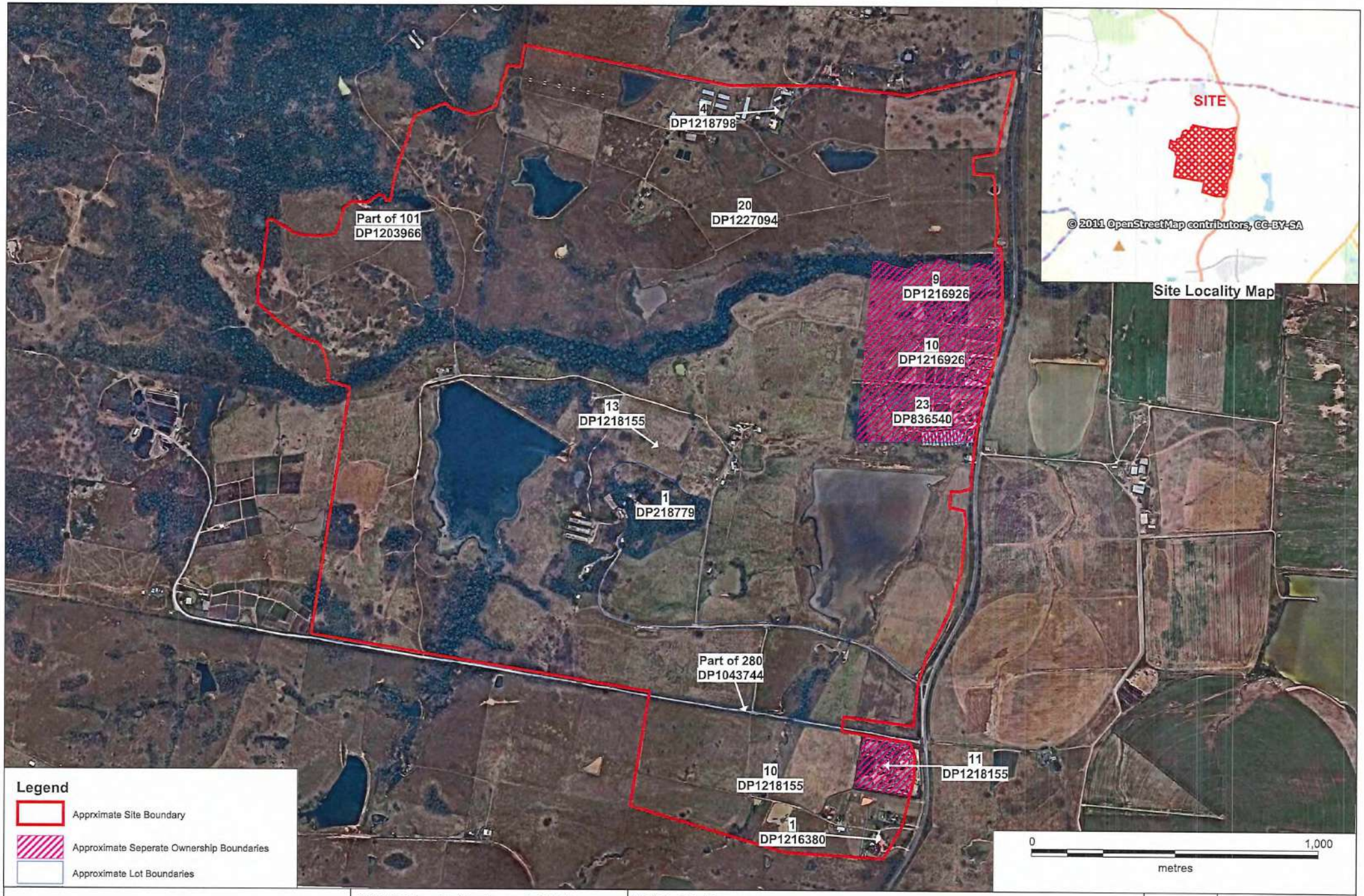
Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate 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.

Appendix B

Extracts from the Land Capability Study



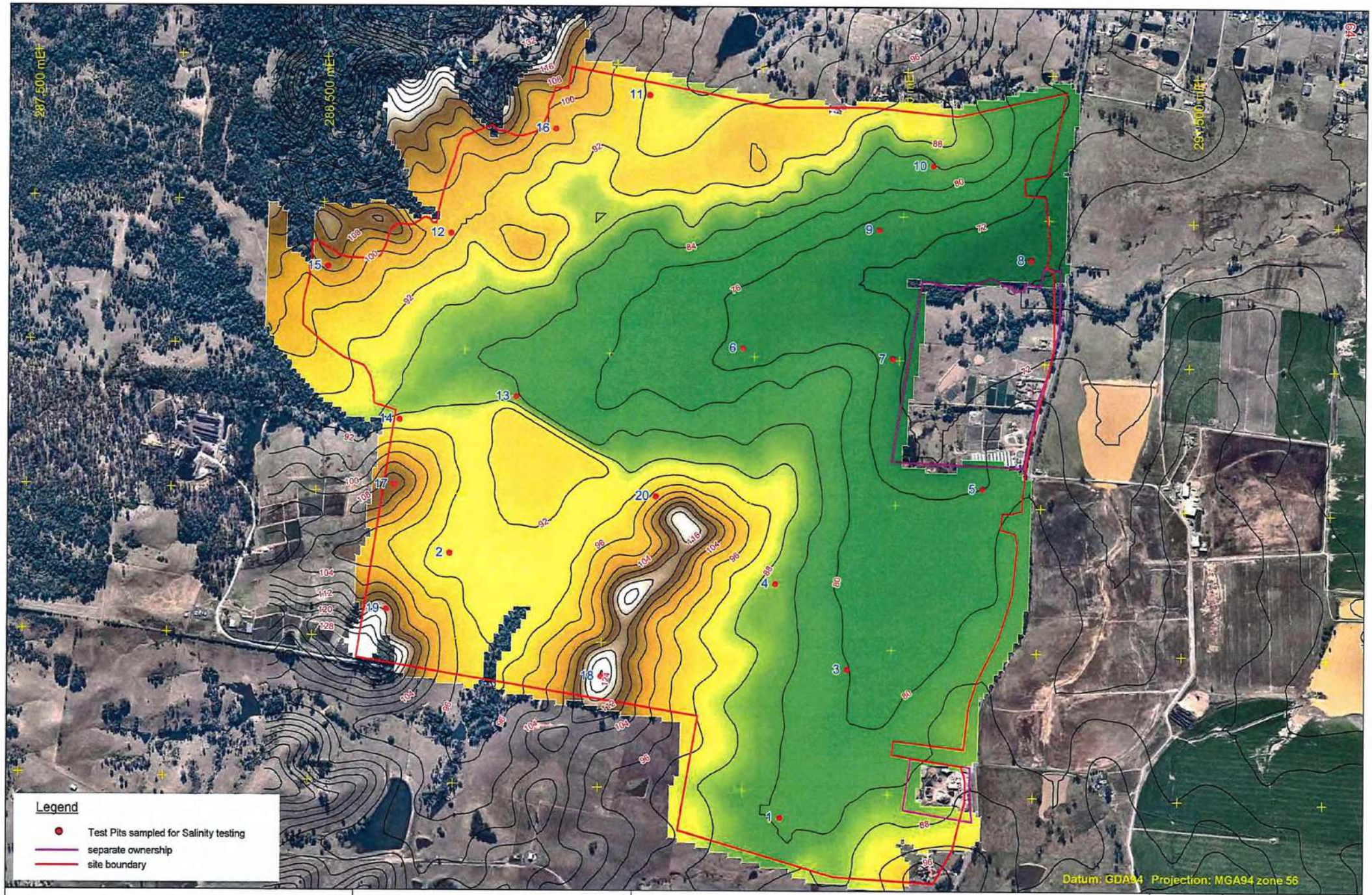
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Geotechnics / Environment / Groundwater

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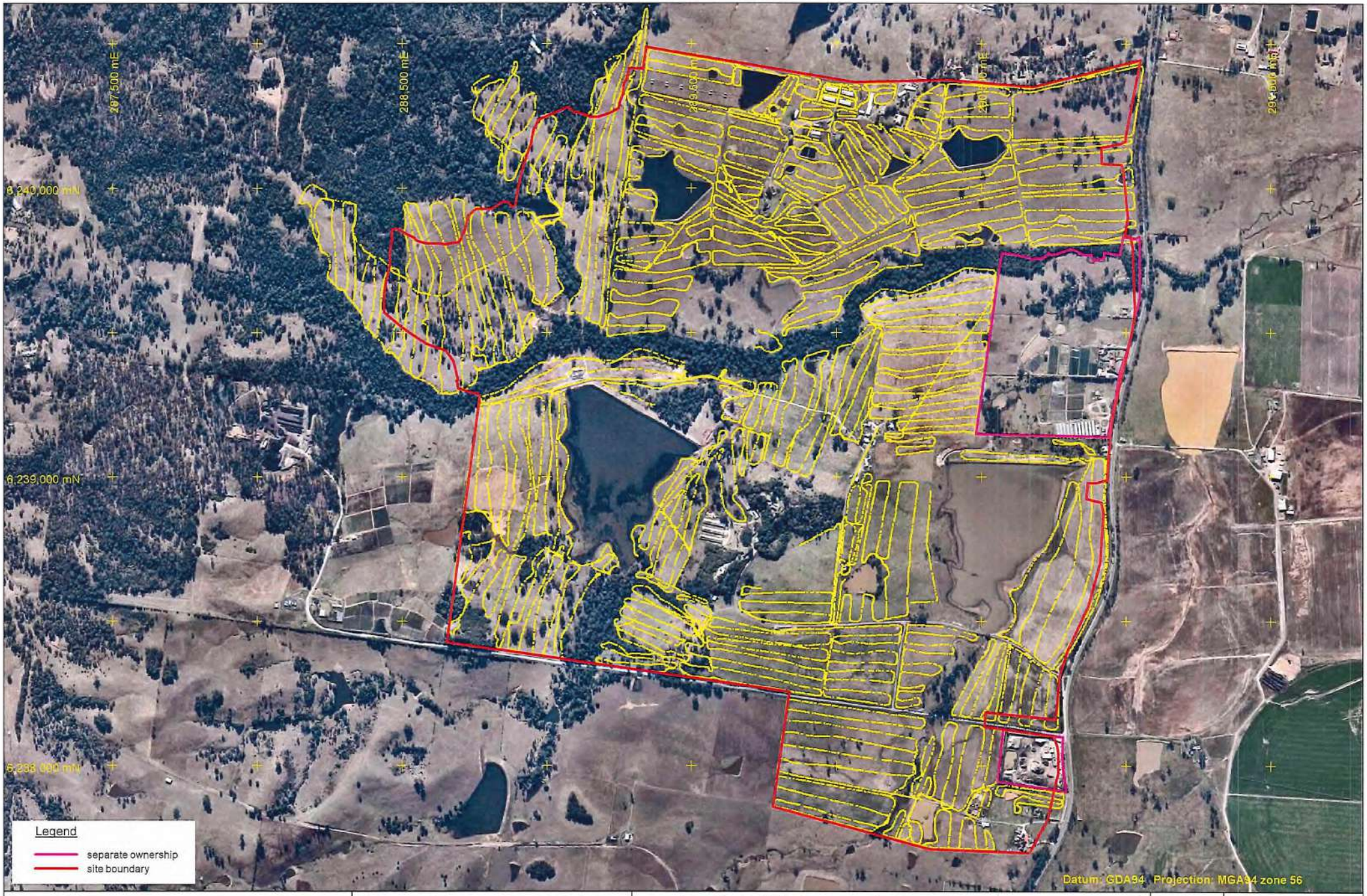
TITLE: **Site Layout**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

MGA

PROJECT No:	76742.00
DRAWING No:	B1
REVISION:	C



Douglas Partners Geotechnics / Environment / Groundwater	CLIENT: Macarthur Developments Pty Ltd	TITLE: Topography and Test Pit Locations Land Capability Study Lowes Creek Maryland Precinct	PROJECT No: 76742.00
	OFFICE: Macarthur DRAWN BY: AJK		DRAWING No: B2
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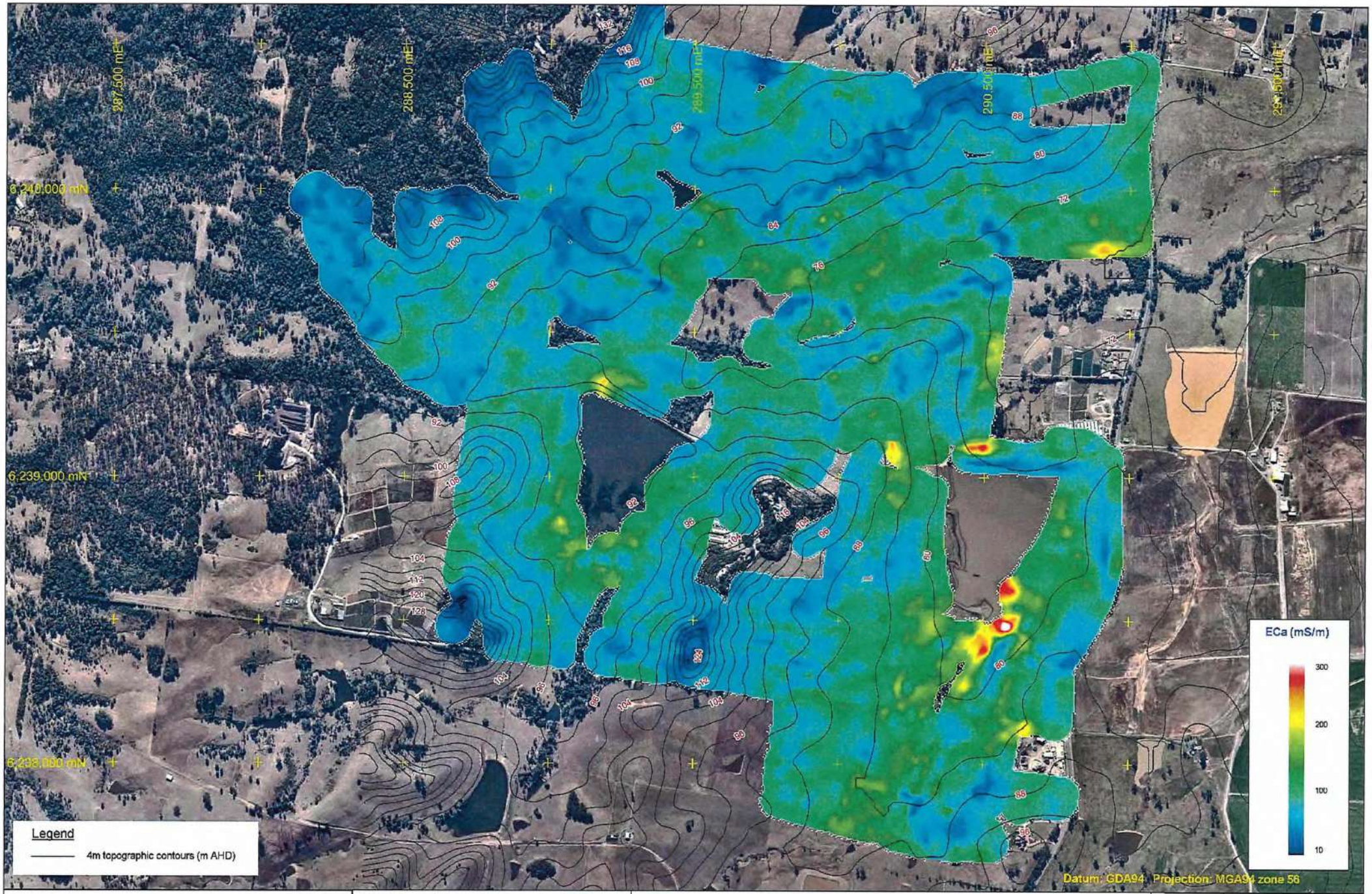


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CLIENT:	Macarthur Developments Pty Ltd		
OFFICE:	Macarthur	DRAWN BY:	AJK
SCALE:	as shown	DATE:	10 Sep 2018

TITLE: Locations of Electromagnetic Survey Lines
Land Capability Study
Lowes Creek Maryland Precinct

PROJECT No:	76742.00
DRAWING No:	B3
REVISION:	B

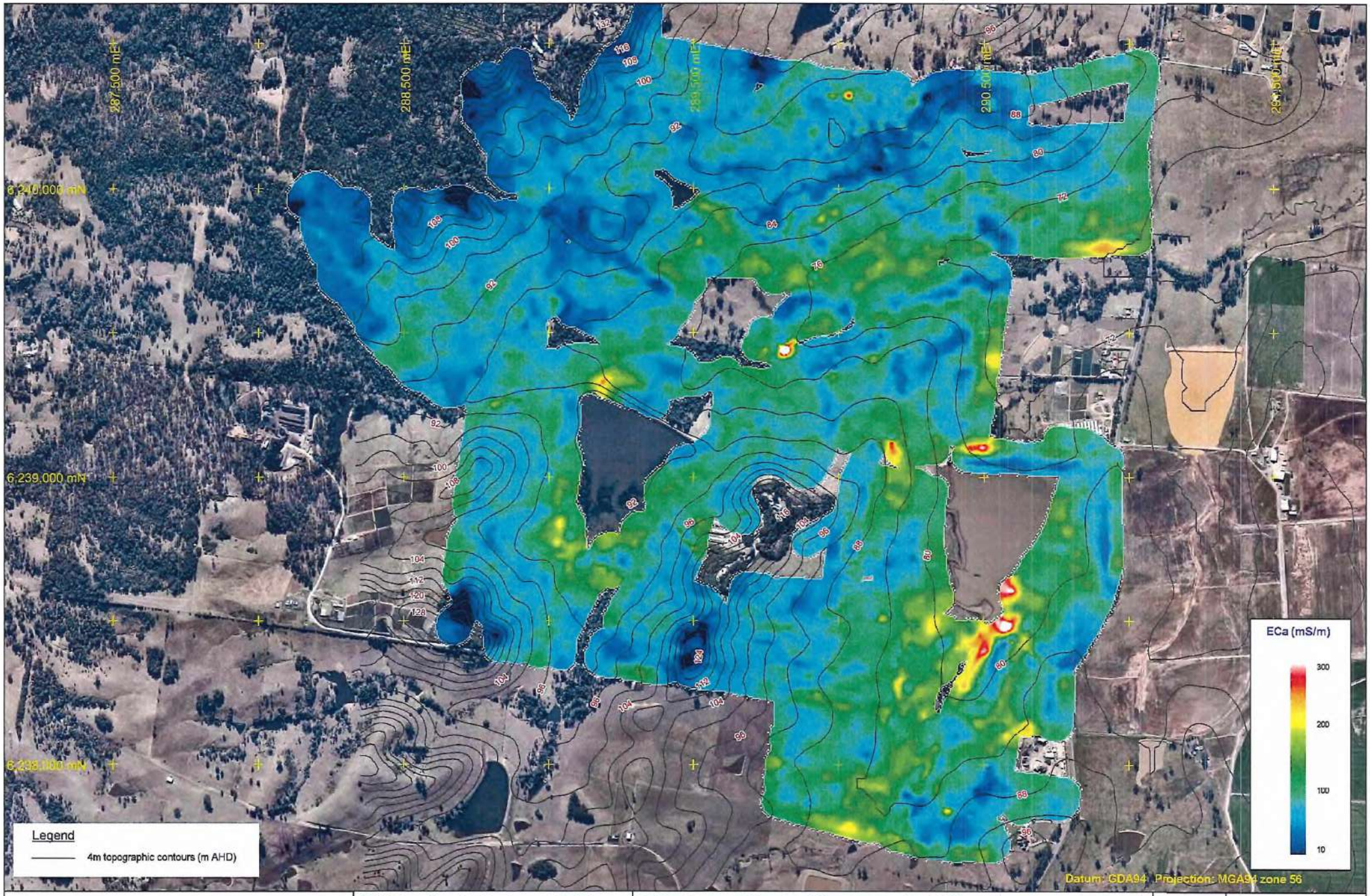


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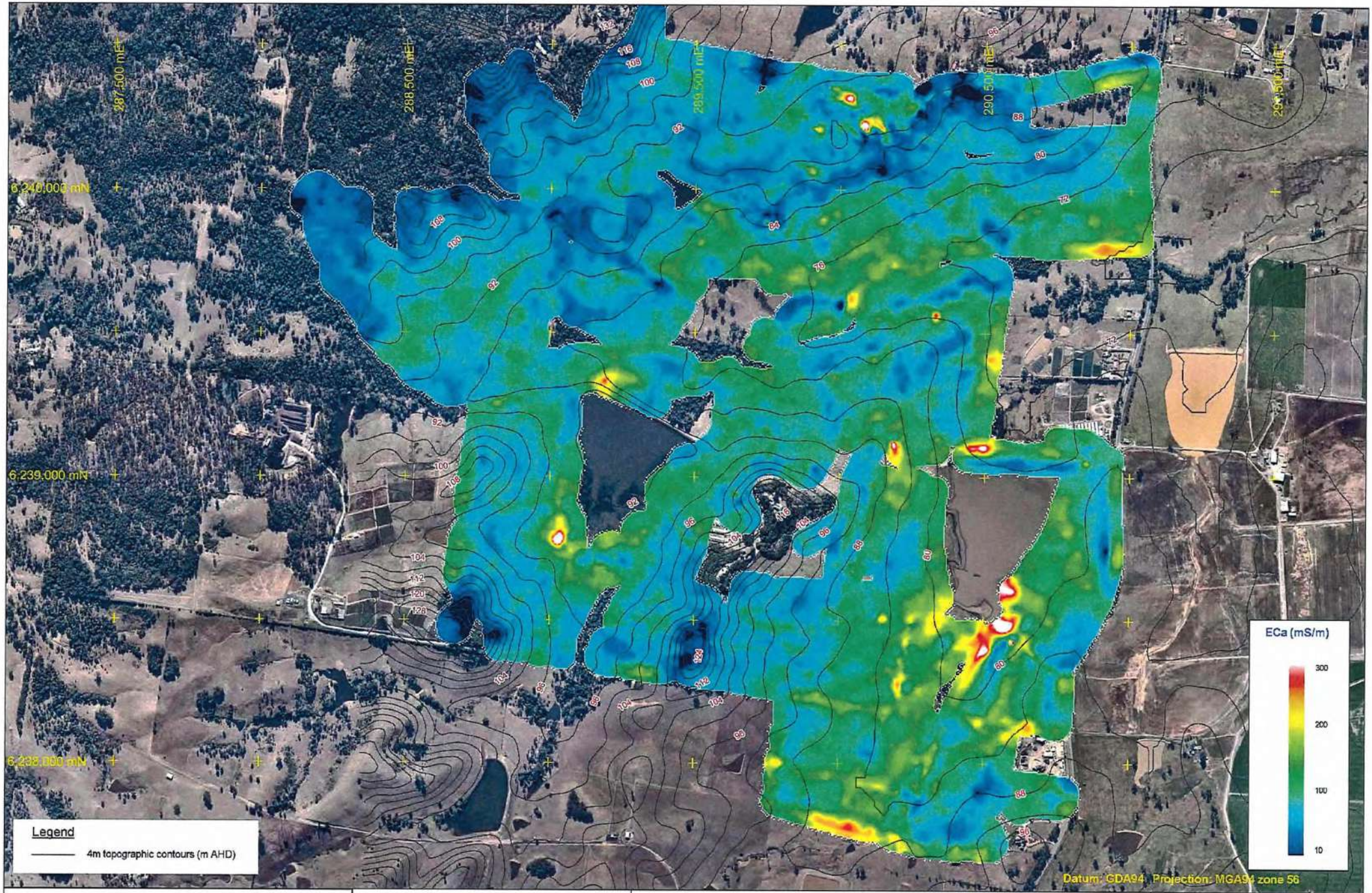
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OFFICE:	Macarthur	DRAWN BY:	AJK
SCALE:	as shown	DATE:	27 Nov 2016

TITLE: **Apparent Conductivity measured at 15 kHz**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

PROJECT No:	76742.00
DRAWING No:	B4
REVISION:	C



Douglas Partners Geotechnics I Environment I Groundwater	CLIENT: Macarthur Developments Pty Ltd	TITLE: **Apparent Conductivity measured at 3 kHz** **Land Capability Study** **Lowes Creek Maryland Precinct, Bringelly**	PROJECT No: 76742.00
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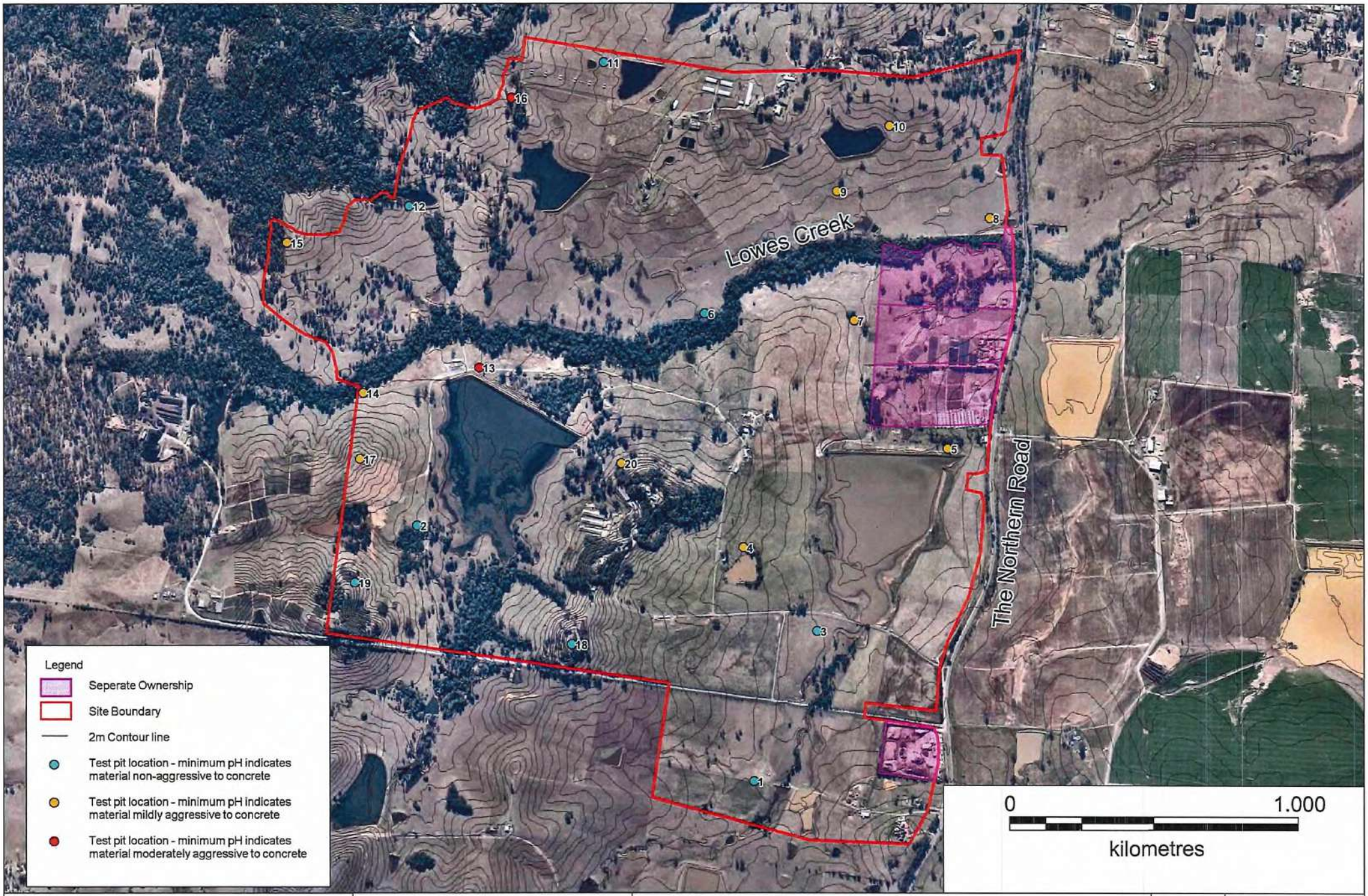


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CLIENT:	Macarthur Developments Pty Ltd		
OFFICE:	Macarthur	DRAWN BY:	AJK
SCALE:	as shown	DATE:	27 Nov 2016

TITLE: **Apparent Conductivity measured at 1 kHz**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

PROJECT No:	76742.00
DRAWING No:	B6
REVISION:	C



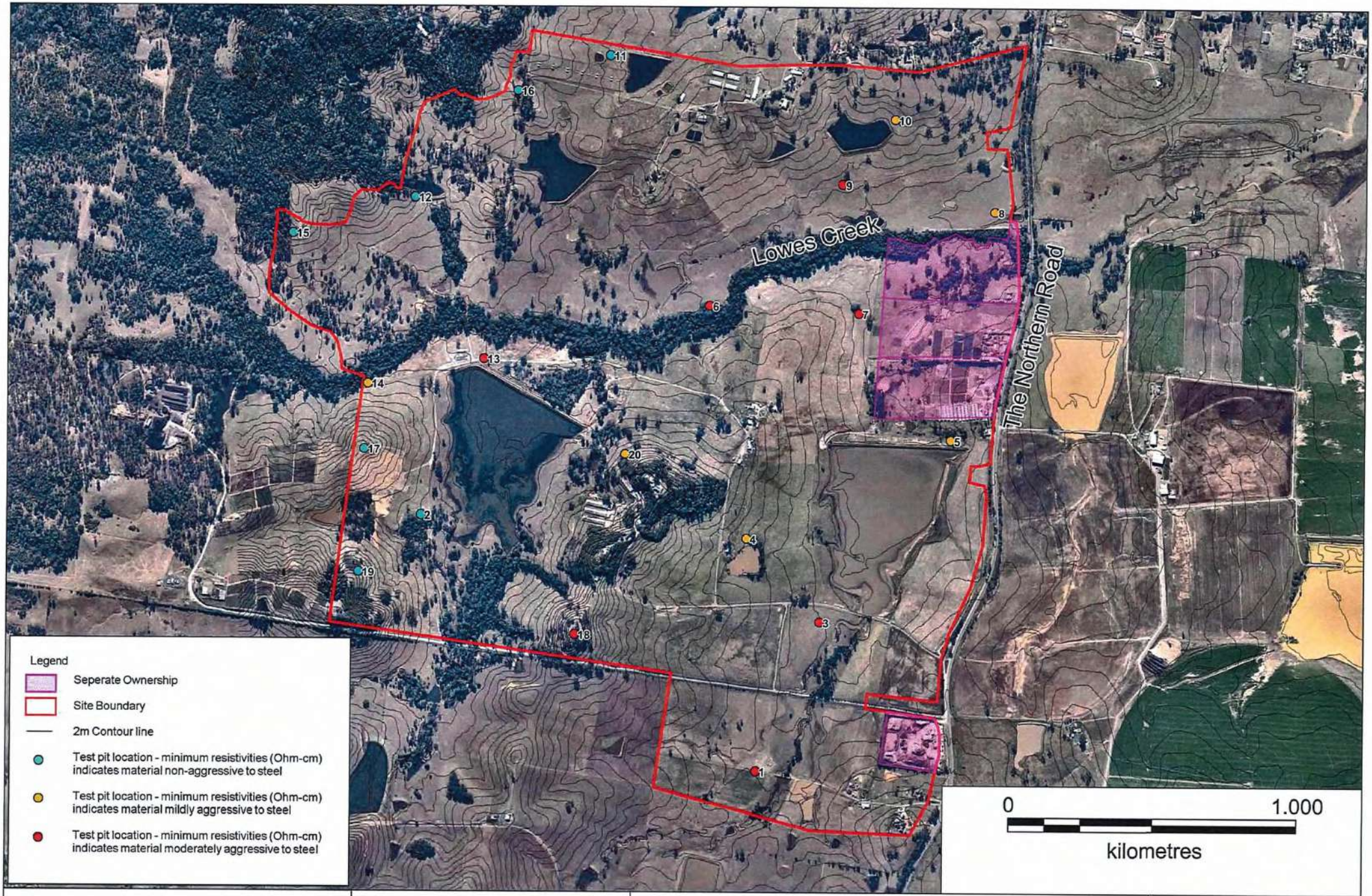
Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT: Maryland Development Partnership		
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SCALE: As shown	DATE: 17.08.2018	

TITLE: **Aggressivity to Concrete within Depths of 3m**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

MGA

PROJECT No:	76742.00
DRAWING No:	B7
REVISION:	B



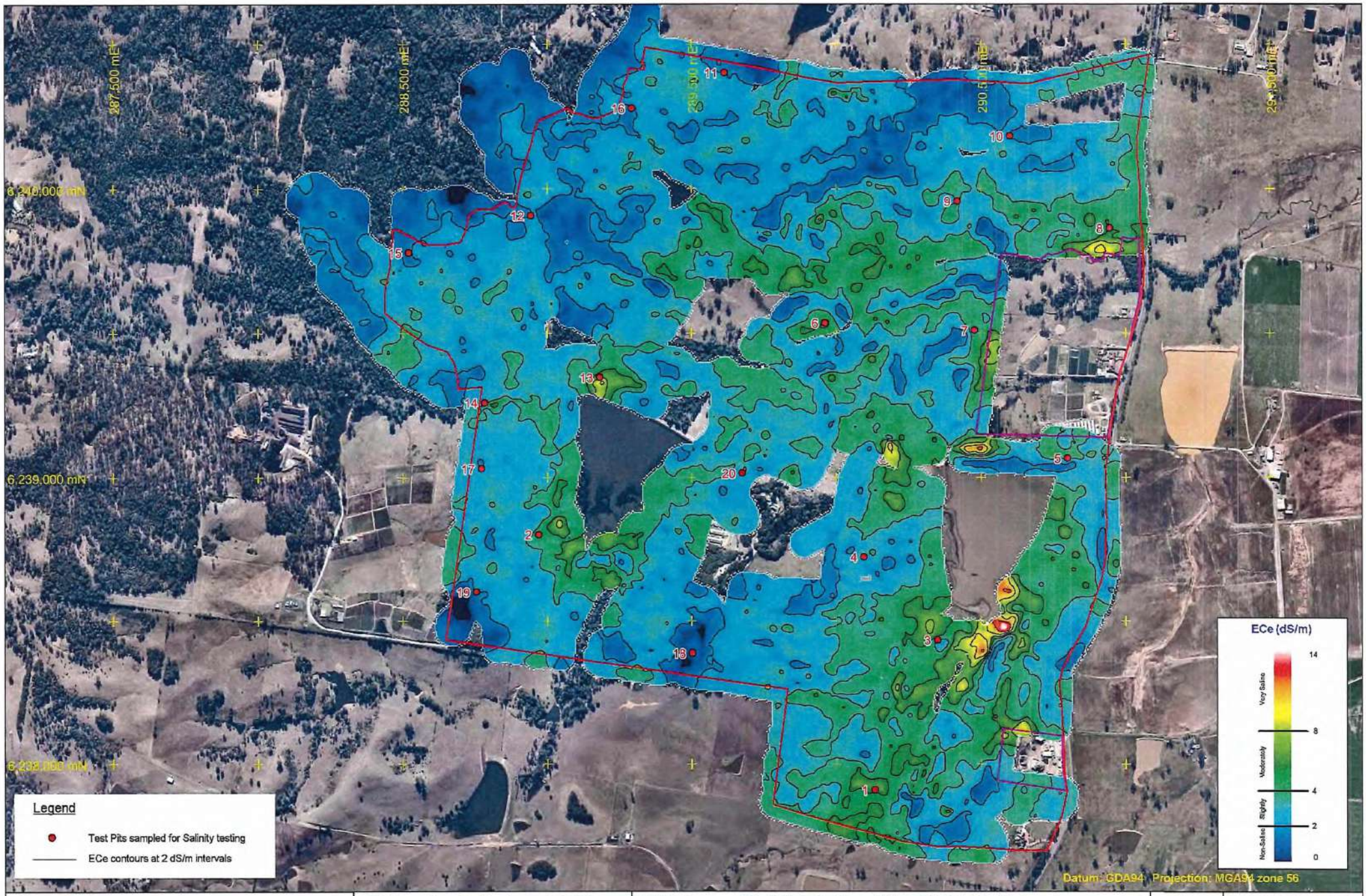
Douglas Partners
Geotechnics | Environment | Groundwater

CLIENT: Maryland Development Partnership		
OFFICE: Macarthur	DRAWN BY: IKA	
SCALE: As shown	DATE: 17.08.2018	

TITLE: **Aggressivity to Steel within Depths of 3m**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

MGA

PROJECT No:	76742.00
DRAWING No:	B8
REVISION:	B



Douglas Partners
Geotechnics / Environment / Groundwater

CLIENT:	Macarthur Developments Pty Ltd		
OFFICE:	Macarthur	DRAWN BY:	AJK
SCALE:	as shown	DATE:	27 Nov 2016

TITLE: **Apparent Salinity ECe from EM and Bulk ECe Data**
Land Capability Study
Lowes Creek Maryland Precinct, Bringelly

PROJECT No:	76742.00
DRAWING No:	B9
REVISION:	C

Appendix C

Logs

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290983
NORTHING: 6240027

PIT No: 1
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, trace ironstone gravel, reworked natural		E	0.2				
					0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD7/280322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290979
NORTHING: 6240020

PIT No: 2
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown, with decomposed wood, reworked natural		E	0.2				
					0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface water intrusion

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290971
NORTHING: 6239834

PIT No: 3
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown mottled orange, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
					0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290189
NORTHING: 6240045

PIT No: 4
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, grey mottled brown and orange		E	0.0				
	0.4	Silty CLAY CL: low plasticity, orange-brown, trace ironstone gravel		E	0.4				
					0.7				
1	1.0	Pit discontinued at 1.0m - limit of investigation							1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290233
NORTHING: 6240063

PIT No: 5
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown mottled orange, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
					0.5				
	0.8	Pit discontinued at 0.8m - limit of investigation							
	1								
	2								
	3								

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290393
NORTHING: 6240102

PIT No: 6
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown and orange mottled grey, with rootlets and gravel pebbles		E	0.0				
	0.3	Silty CLAY CL: low plasticity, brown and orange mottled grey, trace rootlets, reworked natural		E	0.3				
	0.8	Pit discontinued at 0.8m - limit of investigation			0.6				
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290488
NORTHING: 6240079

PIT No: 7
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown and red, with rootlets		E					
	0.3	Silty CLAY CL: low plasticity, brown and red mottled grey, with ironstone gravel, reworked natural		E	0.3				
	0.6				0.6				
1	1.0	Pit discontinued at 1.0m - limit of investigation							
2									
3									

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290559
NORTHING: 6240106

PIT No: 8
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.3	Silty CLAY CL: low plasticity, brown and orange mottled grey, reworked natural		E	0.3				
					0.6				
1	1.0	Pit discontinued at 1.0m - limit of investigation							1
2									2
3									3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290162
NORTHING: 6239740

PIT No: 9
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled orange		E	0.2				
					0.5				
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290194
NORTHING: 6239741

PIT No: 10
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
									5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled grey, with rootlets		E	0.2				
					0.5				
1	1.0	Pit discontinued at 1.0m - limit of investigation							1
2									2
3									3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290176
NORTHING: 6239723

PIT No: 11
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.1				0.1				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with rootlets			0.2				
				E					
	0.5				0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290189
NORTHING: 6239752

PIT No: 12
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown mottled grey, with rootlets		E	0.2				
					0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290212
NORTHING: 6239739

PIT No: 13
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, trace ironstone gravel		E	0.2				
					0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290211
NORTHING: 6239763

PIT No: 14
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown		E	0.2				
					0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290218
NORTHING: 6239753

PIT No: 15
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, orange-brown, with rootlets		E	0.0 0.1				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with rootlets		E	0.2 0.5				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290246
NORTHING: 6239753

PIT No: 16
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
					0.5				
1	1.0	Pit discontinued at 1.0m - limit of investigation							1
2									2
3									3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290243
NORTHING: 6239775

PIT No: 17
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.4	Silty CLAY CL: low plasticity, brown mottled grey, with decomposing wood		E	0.4				
					0.7				
	1.0	Pit discontinued at 1.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290270
NORTHING: 6239768

PIT No: 18
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
					0.5				
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▽	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290268
NORTHING: 6239788

PIT No: 19
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown		E	0.2				
	0.6	Pit discontinued at 0.6m - limit of investigation			0.5				
	1								
	2								
	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290290
NORTHING: 6239772

PIT No: 20
PROJECT No: 204684.00
DATE: 6/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown		E	0.2				
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								
	2								
	3								

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290385
NORTHING: 6240364

PIT No: 21
PROJECT No: 204684.00
DATE: 24/2/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		A	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange			0.2				
	0.5	Pit discontinued at 0.5m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hand tools

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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,	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290491
NORTHING: 6240341

PIT No: 22
PROJECT No: 204684.00
DATE: 24/2/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		A	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with rootlets			0.2				
	0.5	Pit discontinued at 0.5m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hand auger

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290774
NORTHING: 6240286

PIT No: 23
PROJECT No: 204684.00
DATE: 24/2/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets							
	0.2	Silty CLAY CL: low plasticity, brown and orange, with rootlets		A					
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hand auger

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290918
NORTHING: 6240252

PIT No: 24
PROJECT No: 204684.00
DATE: 24/2/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets			0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with rootlets		A					
	0.5	Pit discontinued at 0.5m - limit of investigation			0.5				
	1								1
	2								2
	3								3

5 10 15 20

RIG: Hand auger

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290349
NORTHING: 6240321

PIT No: 25
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CI: medium plasticity, red-brown mottled orange, trace rootlets and decomposing wood			0.2				
					0.3				
				E D	0.5				
	0.6	Silty CLAY CI: medium plasticity, orange-brown mottled red and grey, with shale gravel and cobbles			0.6				
					0.7				
	1			E					1
				D	1.0				
	1.2	Silty CLAY CL: low plasticity, brown, orange and grey, with shale gravel			1.3				
				E D	1.5				
					1.6				
	2							21-03-22	2
	2.0	Pit discontinued at 2.0m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 1.8m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290456
NORTHING: 6240336

PIT No: 26
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY: low plasticity, brown and red mottled orange, trace rootlets and decomposing wood		E	0.2				
				D	0.5				
	0.9	Silty CLAY CL: low plasticity, brown and grey mottled orange, with highly weathered shale		D	1.0				1
	1			D	1.5				
	2								2
	2.1	Pit discontinued at 2.1m - limit of investigation							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290572
NORTHING: 6240328

PIT No: 27
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled grey and red, trace rootlets		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, grey mottled brown, red and orange, with highly weathered shale		D	1.0				
				D	1.5				
	2.0	Pit discontinued at 2.0m - practical refusal		D	2.0				

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290681
NORTHING: 6240322

PIT No: 28
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and red, trace rootlets and decomposed wood		E	0.2				
				D	0.5				
1				D	1.0				1
				D	1.5				
2	2.0	Silty CLAY CL: low plasticity, brown, red and grey, with highly weathered shale gravel		D	2.0				2
				D	2.5				
	2.7	Silty CLAY CL: low plasticity, grey mottled orange, with shale cobbles							
3	3.0	Pit discontinued at 3.0m - limit of investigation		D	3.0				3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290780
NORTHING: 6240341

PIT No: 29
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown and red, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and red, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.8	Silty CLAY CL: low plasticity, grey mottled brown, with highly weathered shale gravel							
	2 2.0	Pit discontinued at 2.0m - limit of investigation							2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD1/210322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290876
NORTHING: 6240349

PIT No: 30
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled grey, with roots, trace ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	2			D	2.0				2
	2.2	Silty CLAY CL: low plasticity, grey mottled brown		D	2.5				
	3 3.0	Pit discontinued at 3.0m - limit of investigation		D	3.0				3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290949
NORTHING: 6240388

PIT No: 31
PROJECT No: 204684.00
DATE: 21/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with roots and weathered shale gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.8	Silty CLAY CL: low plasticity, grey mottled brown, with shale gravel		D	2.0				2
	2.2	Pit discontinued at 2.2m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 291034
NORTHING: 6240410

PIT No: 32
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brow and orange mottled grey, trace rootlets		E	0.2				
				D	0.5				
	1.0	Silty CLAY CL: low plasticity, grey mottled brown and orange, with highly weathered shale gravel		D	1.0				1
				D	1.5				
	1.8	SHALE: grey mottled brown, weathered		D	2.0				2
	2.4	Pit discontinued at 2.4m - practical refusal							3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290994
NORTHING: 6240324

PIT No: 33
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.6	SHALE: brown and grey, weathered							
	2			D	2.0				2
	2.3	Pit discontinued at 2.3m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290996
NORTHING: 6240224

PIT No: 34
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.6	Silty CLAY CL: low plasticity, grey mottled brown, with highly weathered shale gravel							
	2 2.0	Pit discontinued at 2.0m - limit of investigation							2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290896
NORTHING: 6240234

PIT No: 35
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown, trace ironstone gravel and rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.8	Silty CLAY CL: low plasticity, grey mottled brown, with highly weathered shale gravel							
	2			D	2.0				2
				D	2.5				
	2.6	Pit discontinued at 2.6m - practical refusal							
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD2/220322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290795
NORTHING: 6240243

PIT No: 36
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey and red, trace ironstone gravel and rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.8	Silty CLAY CL: low plasticity, grey and brown mottled red, with highly weathered shale gravel		D	2.0				
	2								2
	2.3	Pit discontinued at 2.3m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290696
NORTHING: 6240218

PIT No: 37
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone and shale gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.8	Pit discontinued at 1.8m - practical refusal							
	2								2
	3								3

5 10 15 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▽	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290593
NORTHING: 6240243

PIT No: 38
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, grey-brown mottled red, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.4	Silty CLAY CL: low plasticity, grey mottled brown, with weathered shale gravel		D	1.5				
	2			D	2.0				2
	2.2	Pit discontinued at 2.2m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290478
NORTHING: 6240264

PIT No: 39
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey and red, trace rootlets		E	0.2				
				D	0.5				
	0.6	Silty CLAY CL: low plasticity, grey brown, with slightly weathered shale gravel		D	1.0				1
	1								
	1.3	Pit discontinued at 1.3m - practical refusal							
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290366
NORTHING: 6240252

PIT No: 40
PROJECT No: 204684.00
DATE: 22/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey and red, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.4	Silty CLAY CL: low plasticity, grey mottled brown and orange, with slightly weathered shale gravel		D	1.5				
	2			D	2.0				2
	2.1	Pit discontinued at 2.1m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290288
NORTHING: 6240171

PIT No: 41
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown and orange, with rootlets and decomposed wood		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.2	Silty CLAY CL: low plasticity, grey mottled brown, with highly weathered shale gravel		D	1.5				
	2			D	2.0				2
	2.2	Pit discontinued at 2.2m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290385
NORTHING: 6240170

PIT No: 42
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown, trace rootlets		E	0.2				
				D	0.5				
	1.0	Silty CLAY CL: low plasticity, grey-brown, with highly weathered shale gravel		D	1.0				
				D	1.5				
	2.0	Pit discontinued at 2.0m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290496
NORTHING: 6240182

PIT No: 43
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown and orange, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, trace rootlets		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, grey, brown and orange, with highly weathered shale gravel		D	1.0				
				D	1.5				
	1.6	Pit discontinued at 1.6m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290612
NORTHING: 6240151

PIT No: 44
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, grey-brown mottled orange, with slightly weathered shale gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.2	SHALE: brown, slightly weathered		D	1.5				
	2			D	2.0				2
	2.0	Pit discontinued at 2.0m - practical refusal							
	3								3

5 10 15 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290693
NORTHING: 6240101

PIT No: 45
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown, orange and grey, with shale gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Silty CLAY CL: low plasticity, grey mottled brown, with slightly weathered shale gravel		D	1.5				
	2			D	2.0				2
				D	2.5				
	2.6	Pit discontinued at 2.6m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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$_x$	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290786
NORTHING: 6240146

PIT No: 46
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown mottled grey, trace ironstone gravel		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, grey mottled orange and red		D	1.0				1
				D	1.5				
	1.6	SHALE: brown, highly weathered		D	2.0				2
	2.5	Pit discontinued at 2.5m - practical refusal		D	2.5				3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290890
NORTHING: 6240126

PIT No: 47
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, trace ironstone gravel and rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Silty CLAY CL: low plasticity, grey mottled orange, with slightly weathered shale gravel		D	1.5				
	2			D	2.0				2
				D	2.5				
	2.8	Pit discontinued at 2.8m - practical refusal							
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290972
NORTHING: 6240063

PIT No: 48
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey and red, trace ironstone gravel and decomposed wood		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.4	Silty CLAY CL: low plasticity, grey-brown mottled red, with slightly weathered shale gravel		D	1.5				
	2			D	2.0				2
	2.6	Pit discontinued at 2.6m - practical refusal		D	2.5				
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290886
NORTHING: 6240025

PIT No: 49
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and red mottled grey, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.9	Silty CLAY CL: low plasticity, yellow brown mottled grey		D	2.0				2
	2.5	Pit discontinued at 2.5m - limit of investigation		D	2.5				
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290780
NORTHING: 6240041

PIT No: 50
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown mottled red and orange		E	0.0				
	0.2	Silty CLAY CL: low plasticity, red-brown mottled grey, with ironstone gravel		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, grey mottled brown and orange, with ironstone gravel		D	1.0				
	1.2	SHALE: grey-brown, slightly weathered							
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								
	3								

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290701
NORTHING: 6239997

PIT No: 51
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.3	SHALE: grey-brown, slightly weathered							
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD3/230322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290585
NORTHING: 6240049

PIT No: 52
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, grey mottled brown and orange, with grey slightly weathered shale gravel		D	1.0				1
				D	1.5				
	1.7	Pit discontinued at 1.7m - limit of investigation							2
									3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290473
NORTHING: 6240014

PIT No: 53
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.2	Silty CLAY CL: low plasticity, brown mottled grey and orange, with ironstone gravel		D	1.5				
	2			D	2.0				2
	2.3	Silty CLAY CL: low plasticity, brown and red mottled grey, with ironstone gravel		D	2.5				
	3			D	3.0			▼ 23-03-22	3
	3.1	Pit discontinued at 3.1m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 3.0m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290354
NORTHING: 6240011

PIT No: 54
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets and decomposed wood		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.7	Silty CLAY CI: medium plasticity, grey mottled red-brown, with ironstone gravel							
	2 2.0	Pit discontinued at 2.0m - practical refusal		D	2.0				2
				D	2.5				
	3			D	3.0				3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290295
NORTHING: 6240087

PIT No: 55
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled red, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.6	Silty CLAY CL: low plasticity, grey-brown mottled red							
	2			D	2.0				2
	2.3	Pit discontinued at 2.3m - practical refusal							
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD4/250322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290266
NORTHING: 6240003

PIT No: 56
PROJECT No: 204684.00
DATE: 23/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and red, trace rootlets		E	0.2				
				D	0.5				
	0.8	Silty CLAY CL: low plasticity, brown and orange mottled red and grey, with ironstone gravel and large sandstone boulders		D	1.0				
				D	1.5				
	1.6	Silty CLAY CL: low plasticity, grey mottled brown and orange, with slightly weathered shale gravel		D	2.0				
	2.5	Pit discontinued at 2.5m - practical refusal		D	2.5			23-03-22	

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 2.5m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290161
NORTHING: 6239966

PIT No: 57
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290255
NORTHING: 6239924

PIT No: 58
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
		FILL/Silty CLAY: low plasticity, brown and grey, with sand and gravel		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
				D	0.5				
	1			D	1.0			▼ 28-03-22	1
				D	1.5				
	2			D	2.0				2
				D	2.5				
		- becoming red-brown below 2.8m							
	3 3.0	Pit discontinued at 3.0m - limit of investigation		D	3.0				3

5 10 15 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 1.0m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290381
NORTHING: 6239933

PIT No: 59
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
					0.2				
	0.3	Silty CLAY CL: low plasticity, brown and orange mottled grey		E					
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.6	Pit discontinued at 1.6m - limit of investigation							
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface water intrusion

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290503
NORTHING: 6239897

PIT No: 60
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, medium plasticity, brown and grey, with decomposed wood		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290598
NORTHING: 6239949

PIT No: 61
PROJECT No: 204684.00
DATE: 25/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.3	Silty CLAY CL: low plasticity, brown, with slightly weathered shale gravel		D	1.5				
	1.6	Pit discontinued at 1.6m - limit of investigation							
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD5/250322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290730
NORTHING: 6239913

PIT No: 62
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD8/280322 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290825
NORTHING: 6239935

PIT No: 63
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290910
NORTHING: 6239915

PIT No: 64
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with decomposing wood		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290990
NORTHING: 6239912

PIT No: 65
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with fine grained sand		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290913
NORTHING: 6239817

PIT No: 66
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown and orange, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290797
NORTHING: 6239842

PIT No: 67
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, yellow-brown mottled grey, trace ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	2			D	2.0				2
				D	2.5				
	3.0	Pit discontinued at 3.0m - limit of investigation		D	3.0				3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD8/050422 collected

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290681
NORTHING: 6239799

PIT No: 68
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled orange, with ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290618
NORTHING: 6239851

PIT No: 69
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, with decomposed wood, trace ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290517
NORTHING: 6239801

PIT No: 70
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.3	Silty CLAY CL: low plasticity, brown and orange, trace rootlets		E	0.3				
				D	0.5				
					0.6				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290387
NORTHING: 6239841

PIT No: 71
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown, trace ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	2			D	2.0				2
				D	2.5				
	3			D	3.0				3
	3.0	Pit discontinued at 3.0m - limit of investigation							

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290288
NORTHING: 6239842

PIT No: 72
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange, with ironstone gravel		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290150
NORTHING: 6239851

PIT No: 73
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E*	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and red mottled grey, with ironstone gravel, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	1.7	Pit discontinued at 1.7m - limit of investigation							
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: * Replicate sample BD6/280322 collected; Surface water intrusion

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290134
NORTHING: 6239742

PIT No: 74
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey		E	0.2				
				D	0.5				
	1			D	1.0				1
				D	1.5				
	2			D	2.0				2
	2.5	Silty CLAY CL: low plasticity, grey-brown		D	2.5				
	3 3.0	Pit discontinued at 3.0m - limit of investigation		D	3.0				3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290299
NORTHING: 6239738

PIT No: 75
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, orange-brown, trace rootlets		E	0.2				
				D	0.5				
	1	- becoming dark brown below 1.0m		D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290349
NORTHING: 6239814

PIT No: 76
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290449
NORTHING: 6239833

PIT No: 77
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown mottled grey, with rootlets		E	0.2				
				D	0.5				
	1.0	Silty CLAY CL: low plasticity, grey mottled brown		D	1.0				
				D	1.5			05-04-22 ▼	
	2.0	Pit discontinued at 2.0m - limit of investigation							

Dynamic Penetrometer Test (blows per mm): 5, 10, 15, 20; 1, 2, 3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 1.5m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290593
NORTHING: 6239827

PIT No: 78
PROJECT No: 204684.00
DATE: 5/4/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, trace rootlets		E	0.2				
				D	0.5				
	1			D	1.0				1
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: Free groundwater observed at 1.5m

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290743
NORTHING: 6239807

PIT No: 79
PROJECT No: 204684.00
DATE: 28/3/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm)
	0.0	FILL/TOPSOIL: Silty CLAY, low plasticity, brown, with rootlets		E	0.0				
	0.2	Silty CLAY CL: low plasticity, brown and orange		E	0.2				
				D	0.5				
	0.9	Silty CLAY CL: low plasticity, brown		D	1.0				
	1.5	Pit discontinued at 1.5m - limit of investigation		D	1.5				

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290311
NORTHING: 6239746

PIT No: ST1
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.4	Silty CLAY CL: low plasticity, brown and orange, w<PL							
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 10m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290287
NORTHING: 6239730

PIT No: ST2
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, trace roots, w<PL							
	0.3	Silty CLAY CL: low plasticity, brown and orange, trace roots							
	0.6	Pit discontinued at 0.6m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 8m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290241
NORTHING: 6239727

PIT No: ST3
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.4	Silty CLAY CL: low plasticity, yellow-brown, with roots							
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 9m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290247
NORTHING: 6239701

PIT No: ST4
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets							
	0.4	Silty CLAY CL: low plasticity, yellow-brown, with rootlets							
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 12m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290201
NORTHING: 6239780

PIT No: ST5
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.3	TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.6	Silty CLAY CL: low plasticity, brown and yellow, trace rootlets							
	1	Pit discontinued at 0.6m - limit of investigation							1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 10m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290501
NORTHING: 6239931

PIT No: ST6
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.4	Silty CLAY CL: low plasticity, brown and yellow, w<PL							
	0.9	Pit discontinued at 0.9m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Surface water observed; Strip trench 15m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290951
NORTHING: 6239830

PIT No: ST7
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.2	Silty CLAY CL: low plasticity, yellow-brown, trace rootlets, w<PL							
	0.6	Pit discontinued at 0.6m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 6m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290311
NORTHING: 6240145

PIT No: ST8
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.3	TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.6	Silty CLAY CL: low plasticity, red-brown, trace ironstone gravel							
	1	Pit discontinued at 0.6m - limit of investigation							
	2								
	3								

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 10m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290424
NORTHING: 6240196

PIT No: ST9
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.3	Silty CLAY CL: low plasticity, brown and orange, trace rootlets							
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 12m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

Douglas Partners
Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290339
NORTHING: 6240284

PIT No: ST10
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
	0.3	TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets							
	0.5	Silty CLAY CL: low plasticity, orange-brown, with grey shale gravel							
	1	Pit discontinued at 0.5m - limit of investigation							
	2								
	3								

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 12m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Geotechnics / Environment / Groundwater

TEST PIT LOG

CLIENT: Cameron Brae Pty Ltd
PROJECT: Proposed Residential Subdivision
LOCATION: 975 The Northern Road, Bringelly

SURFACE LEVEL: --
EASTING: 290981
NORTHING: 6240028

PIT No: ST11
PROJECT No: 204684.00
DATE: 3/5/2022
SHEET 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing: Type	Depth	Sample	Results & Comments	Water	Dynamic Penetrometer Test (blows per mm) 5 10 15 20
		TOPSOIL/Silty CLAY: low plasticity, brown, with rootlets, w<PL							
	0.2	Silty CLAY CL: low plasticity, brown and orange mottled grey, w<PL							
	0.7	Pit discontinued at 0.7m - limit of investigation							
	1								1
	2								2
	3								3

RIG: Hyundai Robex 60CR-9 excavator

LOGGED: JH

SURVEY DATUM: MGA94 Zone 56

WATER OBSERVATIONS: No free groundwater observed

REMARKS: Strip trench 9m

☐ 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_x	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	▷	Water seep	S	Standard penetration test
E	Environmental sample	▼	Water level	V	Shear vane (kPa)

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Appendix D

Summary Table

Test Bore or Pit	Sample Depth	pH	Chloride Concentration	Sulphate Concentration	Resistivity	Soil Condition	Sample Aggressivity Class					Exchangeable Sodium (Na) Concentration	Cation Exchange Capacity	Sodicity	Sodicity Class	Emerson Crumb Class Number	Dispersion	Soil Texture Group	Textural Factor (M)	$EC_{1:5}$	EC_e	Sample Salinity Class
							Aggr. to Concrete - from sample pH	Aggr. to Concrete - from Sulphate conc.	Aggr. to Steel - from sample pH	Aggr. to Steel - from Chloride conc.	Aggr. to Steel - from sample Resistivity											
	(m bgl)	(pH units	(mg/kg)	(mg/kg)	Ω.cm	[AS2159-2009]	[AS2159-2009]					(meq/100g)	(meq/100g)	(%)	[after DLWC]		[AS1289.3.8.1]	[after DLWC]	after DLWC	(microS/cm)	(deciS/m)	[Richards 1954]
25	0.5	6.4	<10	28	11494	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	1	29	4	Non-Sodic			Loam	10	87	0.9	Non-Saline
	1.0	7.9	<10	10	16667	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Sand	17	60	1.0	Non-Saline
.	1.5	8.6	<10	10	7692	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	0	35	1	Non-Sodic			Sand	17	130	2.2	Slightly Saline
26	0.5	5.5			11765	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	85	0.6	Non-Saline
	1.0	5.3			16129	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	62	0.5	Non-Saline
	1.5	5.3			15152	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	66	0.7	Non-Saline
.	2.0	7.4			20408	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	49	0.3	Non-Saline
27	0.5	4.9			18868	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	53	0.5	Non-Saline
	1.0	4.7			4167	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	240	1.7	Non-Saline
	1.5	4.8			5882	B	Mild		Non-Aggressive		Non-Aggressive							Heavy clay	6	170	1.0	Non-Saline
.	2.0	4.6			3333	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	300	2.1	Slightly Saline
28	0.5	4.6	27	80	6250	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Heavy clay	6	160	1.0	Non-Saline
	1.0	4.4			3448	B	Moderate		Non-Aggressive		Non-Aggressive							Heavy clay	6	290	1.7	Non-Saline
	1.5	4.4	10	29	2174	B	Moderate	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	460	3.2	Slightly Saline
	2.0	4.6			2500	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	400	4.0	Slightly Saline
	2.5	4.5	210	120	3226	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	310	3.1	Slightly Saline
.	3.0	4.7			3125	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	320	3.2	Slightly Saline
29	0.5	4.6			3333	B	Mild		Non-Aggressive		Non-Aggressive							Heavy clay	6	300	1.8	Non-Saline
	1.0	4.2			1408	B	Moderate		Non-Aggressive		Mild							Heavy clay	6	710	4.3	Moderately Saline
.	1.5	4.4			1818	B	Moderate		Non-Aggressive		Mild							Loam	10	550	5.5	Moderately Saline
30	0.5	4.3			1724	B	Moderate		Non-Aggressive		Mild							Loam	10	580	5.8	Moderately Saline
	1.0	4.3			1471	B	Moderate		Non-Aggressive		Mild							Loam	10	680	6.8	Moderately Saline
	1.5	4.4			1515	B	Moderate		Non-Aggressive	Non-Aggressive	Mild							Loam	10	660	6.6	Moderately Saline
	2.0	4.6			1923	B	Mild		Non-Aggressive		Mild							Loam	10	520	5.2	Moderately Saline
	2.5	4.6			2174	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	460	4.6	Moderately Saline
.	3.0	4.6			2128	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	470	4.7	Moderately Saline
31	0.5	4.8	750	260	1613	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Light clay	9	620	5.3	Moderately Saline
	1.0	4.9	260	150	3226	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	1	4	16	Highly Sodic			Medium clay	7	310	2.2	Slightly Saline
	1.5	4.9			1667	B	Mild		Non-Aggressive		Mild							Loam	10	600	6.0	Moderately Saline
.	2.0	4.8	850	200	1493	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild	1	3	26	Highly Sodic			Clay loam	9	670	6.0	Moderately Saline
32	0.5	5.1			7143	B	Mild		Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	140	1.0	Non-Saline
	1.0	4.8			1205	B	Mild		Non-Aggressive	Non-Aggressive	Mild							Light clay	9	830	7.1	Moderately Saline
	1.5	5.3			2273	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	440	3.1	Slightly Saline
.	2.0	5.5			1370	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	730	5.1	Moderately Saline
33	0.5	5			2500	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	400	2.8	Slightly Saline
	1.0	5			1613	B	Mild		Non-Aggressive		Mild							Medium clay	7	620	4.3	Moderately Saline
	1.5	4.9			1333	B	Mild		Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	750	5.3	Moderately Saline
.	2.0	5.3			1923	B	Mild		Non-Aggressive		Mild							Medium clay	7	520	3.6	Slightly Saline
34	0.5	4.9			4000	B	Mild	Non-Aggressive	Non-Aggressive		Non-Aggressive							Medium clay	7	250	1.8	Non-Saline
	1.0	4.5			1887	B	Mild	Non-Aggressive	Non-Aggressive		Mild							Medium clay	7	530	3.7	Slightly Saline
.	1.5	4.8			1639	B	Mild		Non-Aggressive		Mild							Clay loam	9	610	5.5	Moderately Saline
35	0.5	5.5	24	170	7143	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	140	1.0	Non-Saline
	1.0	5.9			10417	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	96	0.7	Non-Saline
	1.5	7.4	36	39	5882	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light clay	9	170	1.4	Non-Saline
	2.0	5.6			1587	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	630	4.4	Moderately Saline
.	2.5	5.7	670	180	1818	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	550	3.9	Slightly Saline
36	0.5	4.8			2273	B	Mild		Non-Aggressive		Non-Aggressive							Light medium clay	8	440	3.5	Slightly Saline
	1.0	4.7			3846	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	260	2.3	Slightly Saline
	1.5	4.6			1695	B	Mild		Non-Aggressive		Mild							Light medium clay	8	590	4.7	Moderately Saline
.	2.0	4.5			1351	B	Mild		Non-Aggressive		Mild							Medium clay	7	740	5.2	Moderately Saline
37	0.5	5.3	390	190	2500	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light medium clay	8	400	3.2	Slightly Saline
	1.0	6.0	320	130	3030	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light medium clay	8	330	2.6	Slightly Saline
.	1.5	4.8	1200	120	1111	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	900	6.3	Moderately Saline

Test Bore or Pit	Sample Depth	pH	Chloride Concentration	Sulphate Concentration	Resistivity	Soil Condition	Sample Aggressivity Class					Exchangeable Sodium (Na) Concentration	Cation Exchange Capacity	Sodicity	Sodicity Class	Emerson Crumb Class Number	Dispersion	Soil Texture Group	Textural Factor (M)	$EC_{1:5}$	EC_e	Sample Salinity Class
					By inversion of EC1:5		Aggr. to Concrete - from sample pH	Aggr. to Concrete - from Sulphate conc.	Aggr. to Steel - from sample pH	Aggr. to Steel - from Chloride conc.	Aggr. to Steel - from sample Resistivity						(from Emerson Class)	(for detailed soil logs see Report Appendix)		[Lab.]	[M x $EC_{1:5}$]	(Based on sample ECe)
	(m bgl)	(pH units)	(mg/kg)	(mg/kg)	Ω.cm	[AS2159-2009]	[AS2159-2009]					(meq/100g)	(meq/100g)	(%)	[after DLWC]		[AS1289.3.8.1]	[after DLWC]	after DLWC	(microS/cm)	(deciS/m)	[Richards 1954]
38	0.5	4.7			2564	B	Mild		Non-Aggressive		Non-Aggressive					2	Some	Medium clay	7	390	2.7	Slightly Saline
	1.5	4.7			1695	B	Mild		Non-Aggressive		Mild							Clay loam	9	590	5.3	Moderately Saline
.	2.0	5.0			2500	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	400	3.6	Slightly Saline
39	0.5	5.0	65	83	7143	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	140	1.4	Non-Saline
.	1.0	4.8	190	92	4545	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	220	2.2	Slightly Saline
40	0.5	4.7			3448	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	290	2.0	Slightly Saline
	1.0	6.1			3704	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Loam	10	270	2.7	Slightly Saline
	1.5	4.8			2941	B	Mild		Non-Aggressive		Non-Aggressive							Light medium clay	8	340	2.7	Slightly Saline
.	2.0	4.6			2381	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	420	3.8	Slightly Saline
41	0.5	7.5	64	37	8333	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	120	0.8	Non-Saline
	1.0	7.7	48	40	10526	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	95	1.0	Non-Saline
	1.5	4.6			2564	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	390	2.7	Slightly Saline
.	2.0	4.5	440	98	2703	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	370	2.6	Slightly Saline
42	0.5	4.9			5000	B	Mild		Non-Aggressive		Non-Aggressive					2	Some	Medium clay	7	200	1.4	Non-Saline
	1.0	4.9			1000	B	Mild		Non-Aggressive		Mild							Medium clay	7	1000	7.0	Moderately Saline
.	1.5	6.8			909	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1100	8.8	Very Saline
43	0.5	5.1			3571	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	280	2.0	Non-Saline
	1.0	4.5			1613	B	Mild		Non-Aggressive		Mild							Medium clay	7	620	4.3	Moderately Saline
.	1.5	4.8			4000	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	250	1.8	Non-Saline
44	0.5	5.5	<10	32	10000	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	<0.1	7	1	Non-Sodic			Sandy loam	14	100	1.4	Non-Saline
	1.0	4.8	160	100	5263	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	1	3	18	Highly Sodic			Loam	10	190	1.9	Non-Saline
	1.5	4.7			1449	B	Mild		Non-Aggressive		Mild							Medium clay	7	690	4.8	Moderately Saline
.	2.0	5.3	310	82	3846	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	260	1.8	Non-Saline
45	0.5	4.8			5000	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	200	1.8	Non-Saline
	1.0	4.5			3333	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	300	2.7	Slightly Saline
	1.5	4.8			4000	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	250	1.8	Non-Saline
	2.0	7.5			2041	B	Non-Aggressive		Non-Aggressive		Non-Aggressive					2	Some	Sandy loam	14	490	6.9	Moderately Saline
.	2.5	5.1			2083	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	480	3.4	Slightly Saline
46	0.5	4.8	240	140	4000	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Clay loam	9	250	2.3	Slightly Saline
	1.0	4.7	230	140	3846	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Clay loam	9	260	2.3	Slightly Saline
	1.5	4.6	1000	310	1220	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Sandy loam	14	820	11.5	Very Saline
	2.0	4.5			1389	B	Mild		Non-Aggressive		Mild							Sandy loam	14	720	10.1	Very Saline
.	2.5	5.4	340	88	3333	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	300	2.1	Slightly Saline
47	0.5	4.6			3333	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	300	2.7	Slightly Saline
	1.0	4.5			1333	B	Mild		Non-Aggressive		Mild							Sandy loam	14	750	10.5	Very Saline
.	1.5	4.5			1299	B	Mild		Non-Aggressive		Mild							Sandy loam	14	770	10.8	Very Saline
48	0.5	4.9	170	210	4000	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	1	4	14	Sodic			Light medium clay	8	250	2.0	Slightly Saline
	1.0	4.7			2174	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	460	3.2	Slightly Saline
	1.5	4.7	410	130	2083	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	2	8	27	Highly Sodic			Medium clay	7	480	3.4	Slightly Saline
	2.0	4.9			2174	B	Mild		Non-Aggressive		Non-Aggressive							Light medium clay	8	460	3.7	Slightly Saline
.	2.5	5.0	480	120	2000	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	500	3.5	Slightly Saline
49	0.5	5.4			4762	B	Mild		Non-Aggressive		Non-Aggressive							Light medium clay	8	210	1.7	Non-Saline
	1.0	5.3			1923	B	Mild		Non-Aggressive		Mild							Clay loam	9	520	4.7	Moderately Saline
	1.5	5.7			1075	B	Non-Aggressive		Non-Aggressive		Mild							Loam	10	930	9.3	Very Saline
	2.0	5.8			1075	B	Non-Aggressive		Non-Aggressive		Mild							Sandy loam	14	930	13.0	Very Saline
.	2.5	5.7			1266	B	Non-Aggressive		Non-Aggressive		Mild							Clay loam	9	790	7.1	Moderately Saline
50	0.5	4.8			5263	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	190	1.6	Non-Saline
	1.0	4.8			1639	B	Mild		Non-Aggressive		Mild							Light medium clay	8	610	4.9	Moderately Saline
.	1.5	5.2			1563	B	Mild		Non-Aggressive		Mild							Loam	10	640	6.4	Moderately Saline
51	0.5	4.9			6667	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	150	1.1	Non-Saline
	1.0	4.9			4348	B	Mild		Non-Aggressive		Non-Aggressive							Clay loam	9	230	2.1	Slightly Saline
.	1.5	5.3			3704	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	270	1.9	Non-Saline
52	0.5	4.9			6667	B	Mild		Non-Aggressive		Non-Aggressive							Loam	10	150	1.5	Non-Saline
	1.0	4.6			1408	B	Mild		Non-Aggressive		Mild							Loam	10	710	7.1	Moderately Saline
.	1.5	4.6			1220	B	Mild		Non-Aggressive		Mild							Loam	10	820	8.2	Very Saline

Test Bore or Pit	Sample Depth	pH	Chloride Concentration	Sulphate Concentration	Resistivity	Soil Condition	Sample Aggressivity Class					Exchangeable Sodium (Na) Concentration	Cation Exchange Capacity	Sodicity	Sodicity Class	Emerson Crumb Class Number	Dispersion	Soil Texture Group	Textural Factor (M)	$EC_{1:5}$	EC_e	Sample Salinity Class
							Aggr. to Concrete - from sample pH	Aggr. to Concrete - from Sulphate conc.	Aggr. to Steel - from sample pH	Aggr. to Steel - from Chloride conc.	Aggr. to Steel - from sample Resistivity											
	(m bgl)	(pH units	(mg/kg)	(mg/kg)	Ω.cm	[AS2159-2009]	[AS2159-2009]					(meq/100g)	(meq/100g)	(%)	[after DLWC]		[AS1289.3.8.1]	[after DLWC]	after DLWC	(microS/cm)	(deciS/m)	[Richards 1954]
53	0.5	5.9	<10	37	24390	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light clay	9	41	0.3	Non-Saline
	1.0	5.4			9091	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	110	0.9	Non-Saline
	1.5	5.2	370	88	3333	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light clay	9	300	2.6	Slightly Saline
	2.0	5.2			1449	B	Mild		Non-Aggressive		Mild							Light clay	9	690	5.9	Moderately Saline
	2.5	5.4	540	270	2000	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	500	3.5	Slightly Saline
.	3.0	5.5			1961	B	Mild		Non-Aggressive		Mild							Medium clay	7	510	3.6	Slightly Saline
54	0.5	4.9	27	110	9091	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	2	9	17	Highly Sodic			Light clay	9	110	0.9	Non-Saline
	1.0	5.0			7692	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	130	1.1	Non-Saline
	1.5	4.8	290	97	3846	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	3	9	29	Highly Sodic			Light clay	9	260	2.2	Slightly Saline
	2.0	4.7			2941	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	340	2.9	Slightly Saline
	2.5	4.8	510	130	2326	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light clay	9	430	3.7	Slightly Saline
.	3.0	5.1			2439	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	410	3.5	Slightly Saline
55	0.5	4.8			6250	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	160	1.1	Non-Saline
	1.0	4.5			2083	B	Mild		Non-Aggressive		Non-Aggressive							Sandy loam	14	480	6.7	Moderately Saline
	1.5	4.4			2381	B	Moderate		Non-Aggressive		Non-Aggressive							Sandy loam	14	420	5.9	Moderately Saline
.	2.0	4.5			1754	B	Mild		Non-Aggressive		Mild							Sandy loam	14	570	8.0	Moderately Saline
56	0.5	5.2			19231	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	52	0.4	Non-Saline
	1.0	5.8			32258	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Loam	10	31	0.3	Non-Saline
	1.5	8.3			7143	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	140	1.3	Non-Saline
	2.0	9.0			5000	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	200	1.8	Non-Saline
.	2.5	9.3			4545	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	220	2.0	Non-Saline
57	0.5	7.0			17241	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	58	0.4	Non-Saline
	1.0	7.2			4762	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Heavy clay	6	210	1.3	Non-Saline
.	1.5	5.9			1250	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	800	5.6	Moderately Saline
58	0.5	6.3	<10	20	26316	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	38	0.4	Non-Saline
	1.0	5.9			23256	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	43	0.3	Non-Saline
	1.5	6.2	10	39	20000	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	50	0.5	Non-Saline
	2.0	6.7			17544	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Loam	10	57	0.6	Non-Saline
	2.5	7.3	66	30	10989	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Loam	10	91	0.9	Non-Saline
.	3.0	7.6			4545	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Loam	10	220	2.2	Slightly Saline
59	0.5	5.7			7143	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	140	1.3	Non-Saline
	1.0	6.0			4000	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Loam	10	250	2.5	Slightly Saline
.	1.5	6.3			1639	B	Non-Aggressive		Non-Aggressive		Mild							Loam	10	610	6.1	Moderately Saline
60	0.5	6.2			6667	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	150	1.1	Non-Saline
	1.0	5.7			1887	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	530	3.7	Slightly Saline
.	1.5	6.0			1695	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	590	4.1	Moderately Saline
61	0.5	5.1	110	130	5882	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	170	1.2	Non-Saline
	1.0	6.1	330	140	3333	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	300	2.1	Slightly Saline
.	1.5	7.0	390	45	3226	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	310	2.2	Slightly Saline
62	0.5	6.5	98	61	7143	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light clay	9	140	1.2	Non-Saline
	1.0	5.5	560	290	1887	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Heavy clay	6	530	3.2	Slightly Saline
.	1.5	4.9	940	230	1333	B	Mild	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Loam	10	750	7.5	Moderately Saline
63	0.5	5.9			6250	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light clay	9	160	1.4	Non-Saline
	1.0	5.5			909	B	Mild		Non-Aggressive		Moderate							Light clay	9	1100	9.4	Very Saline
.	1.5	5.4			1961	B	Mild		Non-Aggressive		Mild							Light clay	9	510	4.3	Moderately Saline
64	0.5	5.4			8333	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	120	1.0	Non-Saline
	1.0	4.8			2381	B	Mild		Non-Aggressive		Non-Aggressive							Light clay	9	420	3.6	Slightly Saline
.	1.5	4.7			1299	B	Mild		Non-Aggressive		Mild							Light clay	9	770	6.5	Moderately Saline
65	0.5	6.0	700	30	2000	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Medium clay	7	500	3.5	Slightly Saline
	1.0	6.2	1300	40	1176	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	850	6.0	Moderately Saline
.	1.5	6.1	1400	41	1064	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	940	6.6	Moderately Saline
66	0.5	5.8			9091	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light clay	9	110	0.9	Non-Saline
	1.0	6.1			2326	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light clay	9	430	3.7	Slightly Saline
.	1.5	7.2			1053	B	Non-Aggressive		Non-Aggressive		Mild							Light clay	9	950	8.1	Very Saline

Test Bore or Pit	Sample Depth	pH	Chloride Concentration	Sulphate Concentration	Resistivity	Soil Condition	Sample Aggressivity Class					Exchangeable Sodium (Na) Concentration	Cation Exchange Capacity	Sodicity	Sodicity Class	Emerson Crumb Class Number	Dispersion	Soil Texture Group	Textural Factor (M)	$EC_{1:5}$	EC_e	Sample Salinity Class
							Aggr. to Concrete - from sample pH	Aggr. to Concrete - from Sulphate conc.	Aggr. to Steel - from sample pH	Aggr. to Steel - from Chloride conc.	Aggr. to Steel - from sample Resistivity											
	(m bgl)	(pH units)	(mg/kg)	(mg/kg)	Ω.cm	[AS2159-2009]	[AS2159-2009]					(meq/100g)	(meq/100g)	(%)	[after DLWC]		[AS1289.3.8.1]	[after DLWC]	[after DLWC]	(microS/cm)	(deciS/m)	[Richards 1954]
67	0.5	7.7	170	31	5882	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive							Light medium clay	8	170	1.4	Non-Saline
	1.0	7.7			2083	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light medium clay	8	480	3.8	Slightly Saline
	1.5	7.2	2000	250	625	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Moderate							Clay loam	9	1600	14.4	Very Saline
	2.0	7.6			667	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1500	12.0	Very Saline
	2.5	7.8	630	69	1852	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Medium clay	7	540	3.8	Slightly Saline
.	3.0	7.6			1000	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	1000	7.0	Moderately Saline
68	0.5	7.0			3448	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Heavy clay	6	290	1.7	Non-Saline
	1.0	7.8			833	B	Non-Aggressive		Non-Aggressive		Moderate							Medium clay	7	1200	8.4	Very Saline
.	1.5	7.9			909	B	Non-Aggressive		Non-Aggressive		Moderate							Heavy clay	6	1100	6.6	Moderately Saline
69	0.5	7.8			5000	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light medium clay	8	200	1.6	Non-Saline
	1.0	7.7			1136	B	Non-Aggressive		Non-Aggressive		Mild							Light medium clay	8	880	7.0	Moderately Saline
.	1.5	5.8			667	B	Non-Aggressive		Non-Aggressive		Moderate							Medium clay	7	1500	10.5	Very Saline
70	0.5	4.8			13333	B	Mild		Non-Aggressive		Non-Aggressive							Medium clay	7	75	0.5	Non-Saline
	1.0	5.6			12658	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Heavy clay	6	79	0.5	Non-Saline
.	1.5	6.2			9091	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	110	0.8	Non-Saline
71	0.5	7.7			10417	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Heavy clay	6	96	0.6	Non-Saline
	1.0	8.2			3125	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Medium clay	7	320	2.2	Slightly Saline
	1.5	7.6			909	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1100	8.8	Very Saline
	2.0	7.6			1000	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	1000	7.0	Moderately Saline
	2.5	7.8			1087	B	Non-Aggressive		Non-Aggressive		Mild							Clay loam	9	920	8.3	Very Saline
.	3.0	7.7			1000	B	Non-Aggressive		Non-Aggressive		Mild							Light medium clay	8	1000	8.0	Moderately Saline
72	0.5	6.8			10309	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light medium clay	8	97	0.8	Non-Saline
	1.0	6.3			2174	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	460	4.1	Moderately Saline
.	1.5	7.3			1266	B	Non-Aggressive		Non-Aggressive		Mild							Heavy clay	6	790	4.7	Moderately Saline
73	0.5	7.3			7143	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	140	1.3	Non-Saline
	1.0	6.2			1724	B	Non-Aggressive		Non-Aggressive		Mild							Light clay	9	580	4.9	Moderately Saline
.	1.5	6.8			909	B	Non-Aggressive		Non-Aggressive		Moderate							Clay loam	9	1100	9.9	Very Saline
74	0.5	7.7	170	34	5000	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	3	18	17	Highly Sodic			Medium clay	7	200	1.4	Non-Saline
	1.0	7.0			909	B	Non-Aggressive		Non-Aggressive		Moderate							Heavy clay	6	1100	6.6	Moderately Saline
	1.5	7.5	2100	290	588	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Moderate	4	17	25	Highly Sodic			Heavy clay	6	1700	10.2	Very Saline
	2.0	7.8			714	B	Non-Aggressive		Non-Aggressive		Moderate							Medium clay	7	1400	9.8	Very Saline
	2.5	7.8	1600	230	769	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Moderate							Medium clay	7	1300	9.1	Very Saline
.	3.0	7.8			769	B	Non-Aggressive		Non-Aggressive		Moderate							Medium clay	7	1300	9.1	Very Saline
75	0.5	6.6			5263	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Heavy clay	6	190	1.1	Non-Saline
	1.0	7.4			1282	B	Non-Aggressive		Non-Aggressive		Mild							Medium clay	7	780	5.5	Moderately Saline
.	1.5	7.5			833	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1200	9.6	Very Saline
76	0.5	7.1			14925	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light clay	9	67	0.6	Non-Saline
	1.0	8.2			7692	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light medium clay	8	130	1.0	Non-Saline
.	1.5	7.5			909	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1100	8.8	Very Saline
77	0.5	5.0			7143	B	Mild		Non-Aggressive		Non-Aggressive							Light medium clay	8	140	1.1	Non-Saline
	1.0	6.2			1818	B	Non-Aggressive		Non-Aggressive		Mild							Light medium clay	8	550	4.4	Moderately Saline
.	1.5	7.1			625	B	Non-Aggressive		Non-Aggressive		Moderate							Light medium clay	8	1600	12.8	Very Saline
78	0.5	6.1	34	49	11765	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	1	12	12	Sodic			Light medium clay	8	85	0.7	Non-Saline
	1.0	6.6			7143	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Clay loam	9	140	1.3	Non-Saline
.	1.5	7.5	640	120	1852	B	Non-Aggressive	Non-Aggressive	Non-Aggressive	Non-Aggressive	Mild							Clay loam	9	540	4.9	Moderately Saline
79	0.5	6.6			7692	B	Non-Aggressive		Non-Aggressive		Non-Aggressive							Light clay	9	130	1.1	Non-Saline
	1.0	7.9			1075	B	Non-Aggressive		Non-Aggressive		Mild							Clay loam	9	930	8.4	Very Saline
.	1.5	7.8			833	B	Non-Aggressive		Non-Aggressive		Moderate							Clay loam	9	1200	10.8	Very Saline

Appendix E

Laboratory Analytical Reports

Envirolab Services Pty Ltd
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CERTIFICATE OF ANALYSIS 292223

Client Details

Client	Douglas Partners Pty Ltd Smeaton Grange
Attention	Emily Eden
Address	18 Waler Crescent, Smeaton Grange, NSW, 2567

Sample Details

Your Reference	**204684.00, Bringelly, Birling Property, Contam**
Number of Samples	173 Soil
Date samples received	01/04/2022
Date completed instructions received	01/04/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	08/04/2022
Date of Issue	08/04/2022

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Results Approved By
Diego Bigolin, Inorganics Supervisor
Hannah Nguyen, Metals Supervisor

Authorised By



Nancy Zhang, Laboratory Manager

Misc Inorg - Soil						
Our Reference		292223-1	292223-2	292223-3	292223-4	292223-5
Your Reference	UNITS	25/0.5	25/1.0	25/1.5	26/0.5	26/1.0
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.4	7.9	8.6	5.5	5.3
Electrical Conductivity 1:5 soil:water	µS/cm	87	60	130	85	62
Chloride, Cl 1:5 soil:water	mg/kg	<10	<10	<10		
Sulphate, SO4 1:5 soil:water	mg/kg	28	10	10		

Misc Inorg - Soil						
Our Reference		292223-6	292223-7	292223-8	292223-9	292223-10
Your Reference	UNITS	26/1.5	26/2.0	27/0.5	27/1.0	27/1.5
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.3	7.4	4.9	4.7	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	66	49	53	240	170

Misc Inorg - Soil						
Our Reference		292223-11	292223-12	292223-13	292223-14	292223-15
Your Reference	UNITS	27/2.0	28/0.5	28/1.0	28/1.5	28/2.0
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.6	4.6	4.4	4.4	4.6
Electrical Conductivity 1:5 soil:water	µS/cm	300	160	290	460	400
Chloride, Cl 1:5 soil:water	mg/kg		27		10	
Sulphate, SO4 1:5 soil:water	mg/kg		80		29	

Misc Inorg - Soil						
Our Reference		292223-16	292223-17	292223-18	292223-19	292223-20
Your Reference	UNITS	28/2.5	28/3.0	29/0.5	29/1.0	29/1.5
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.5	4.7	4.6	4.2	4.4
Electrical Conductivity 1:5 soil:water	µS/cm	310	320	300	710	550
Chloride, Cl 1:5 soil:water	mg/kg	210				
Sulphate, SO4 1:5 soil:water	mg/kg	120				

Misc Inorg - Soil						
Our Reference		292223-21	292223-22	292223-23	292223-24	292223-25
Your Reference	UNITS	30/0.5	30/1.0	30/1.5	30/2.0	30/2.5
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.3	4.3	4.4	4.6	4.6
Electrical Conductivity 1:5 soil:water	µS/cm	580	680	660	520	460

Misc Inorg - Soil						
Our Reference		292223-26	292223-27	292223-28	292223-29	292223-30
Your Reference	UNITS	30/3.0	31/0.5	31/1.0	31/1.5	31/2.0
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	21/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.6	4.8	4.9	4.9	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	470	620	310	600	670
Chloride, Cl 1:5 soil:water	mg/kg		750	260		850
Sulphate, SO4 1:5 soil:water	mg/kg		260	150		200

Misc Inorg - Soil						
Our Reference		292223-31	292223-32	292223-33	292223-34	292223-35
Your Reference	UNITS	32/0.5	32/1.0	32/1.5	32/2.0	33/0.5
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.1	4.8	5.3	5.5	5.0
Electrical Conductivity 1:5 soil:water	µS/cm	140	830	440	730	400

Misc Inorg - Soil						
Our Reference		292223-36	292223-37	292223-38	292223-39	292223-40
Your Reference	UNITS	33/1.0	33/1.5	33/2.0	34/0.5	34/1.0
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.0	4.9	5.3	4.9	4.5
Electrical Conductivity 1:5 soil:water	µS/cm	620	750	520	250	530

Misc Inorg - Soil						
Our Reference		292223-41	292223-42	292223-43	292223-44	292223-45
Your Reference	UNITS	34/1.5	35/0.5	35/1.0	35/1.5	35/2.0
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.8	5.5	5.9	7.4	5.6
Electrical Conductivity 1:5 soil:water	µS/cm	610	140	96	170	630
Chloride, Cl 1:5 soil:water	mg/kg		24		36	
Sulphate, SO4 1:5 soil:water	mg/kg		170		39	

Misc Inorg - Soil						
Our Reference		292223-46	292223-47	292223-48	292223-49	292223-50
Your Reference	UNITS	35/2.5	36/0.5	36/1.0	36/1.5	36/2.0
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.7	4.8	4.7	4.6	4.5
Electrical Conductivity 1:5 soil:water	µS/cm	550	440	260	590	740
Chloride, Cl 1:5 soil:water	mg/kg	670				
Sulphate, SO4 1:5 soil:water	mg/kg	180				

Misc Inorg - Soil						
Our Reference		292223-51	292223-52	292223-53	292223-54	292223-55
Your Reference	UNITS	37/0.5	37/1.0	37/1.5	38/0.5	38/1.5
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.3	6.0	4.8	4.7	4.7
Electrical Conductivity 1:5 soil:water	µS/cm	400	330	900	390	590
Chloride, Cl 1:5 soil:water	mg/kg	390	320	1,200	[illegible]	[illegible]
Sulphate, SO4 1:5 soil:water	mg/kg	190	130	120	[illegible]	[illegible]

Misc Inorg - Soil						
Our Reference		292223-56	292223-57	292223-58	292223-59	292223-60
Your Reference	UNITS	38/2.0	39/0.5	39/1.0	40/0.5	40/1.0
Date Sampled		22/03/22	22/03/22	22/03/22	22/03/22	22/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.0	5.0	4.8	4.7	6.1
Electrical Conductivity 1:5 soil:water	µS/cm	400	140	220	290	270
Chloride, Cl 1:5 soil:water	mg/kg	[illegible]	65	190	[illegible]	[illegible]
Sulphate, SO4 1:5 soil:water	mg/kg	[illegible]	83	92	[illegible]	[illegible]

Misc Inorg - Soil						
Our Reference		292223-61	292223-62	292223-63	292223-64	292223-65
Your Reference	UNITS	40/1.5	40/2.0	48/0.5	48/1.0	48/1.5
Date Sampled		22/03/22	22/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.8	4.6	4.9	4.7	4.7
Electrical Conductivity 1:5 soil:water	µS/cm	340	420	250	460	480
Chloride, Cl 1:5 soil:water	mg/kg	[illegible]	[illegible]	170	[illegible]	410
Sulphate, SO4 1:5 soil:water	mg/kg	[illegible]	[illegible]	210	[illegible]	130

Misc Inorg - Soil						
Our Reference		292223-66	292223-67	292223-68	292223-69	292223-70
Your Reference	UNITS	48/2.0	48/2.5	49/0.5	49/1.0	49/1.5
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.9	5.0	5.4	5.3	5.7
Electrical Conductivity 1:5 soil:water	µS/cm	460	500	210	520	930
Chloride, Cl 1:5 soil:water	mg/kg		480			
Sulphate, SO4 1:5 soil:water	mg/kg		120			

Misc Inorg - Soil						
Our Reference		292223-71	292223-72	292223-73	292223-74	292223-75
Your Reference	UNITS	49/2.0	49/2.5	50/0.5	50/1.0	50/1.5
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.8	5.7	4.8	4.8	5.2
Electrical Conductivity 1:5 soil:water	µS/cm	930	790	190	610	640

Misc Inorg - Soil						
Our Reference		292223-76	292223-77	292223-78	292223-79	292223-80
Your Reference	UNITS	51/0.5	51/1.0	51/1.5	52/0.5	52/1.0
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.9	4.9	5.3	4.9	4.6
Electrical Conductivity 1:5 soil:water	µS/cm	150	230	270	150	710

Misc Inorg - Soil						
Our Reference		292223-81	292223-82	292223-83	292223-84	292223-85
Your Reference	UNITS	52/1.5	53/0.5	53/1.0	53/1.5	53/2.0
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.6	5.9	5.4	5.2	5.2
Electrical Conductivity 1:5 soil:water	µS/cm	820	41	110	300	690
Chloride, Cl 1:5 soil:water	mg/kg		<10		370	
Sulphate, SO4 1:5 soil:water	mg/kg		37		88	

Misc Inorg - Soil						
Our Reference		292223-86	292223-87	292223-88	292223-89	292223-90
Your Reference	UNITS	53/2.5	53/3.0	54/0.5	54/1.0	54/1.5
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.4	5.5	4.9	5.0	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	500	510	110	130	260
Chloride, Cl 1:5 soil:water	mg/kg	540		27		290
Sulphate, SO4 1:5 soil:water	mg/kg	270		110		97

Misc Inorg - Soil						
Our Reference		292223-91	292223-92	292223-93	292223-94	292223-95
Your Reference	UNITS	54/2.0	54/2.5	54/3.0	56/0.5	56/1.0
Date Sampled		23/03/22	23/03/22	23/03/22	23/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.7	4.8	5.1	5.2	5.8
Electrical Conductivity 1:5 soil:water	µS/cm	340	430	410	52	31
Chloride, Cl 1:5 soil:water	mg/kg		510			
Sulphate, SO4 1:5 soil:water	mg/kg		130			

Misc Inorg - Soil						
Our Reference		292223-96	292223-97	292223-98	292223-99	292223-100
Your Reference	UNITS	56/1.5	56/2.0	56/2.5	60/0.5	60/1.0
Date Sampled		23/03/22	23/03/22	23/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	8.3	9.0	9.3	6.2	5.7
Electrical Conductivity 1:5 soil:water	µS/cm	140	200	220	150	530

Misc Inorg - Soil						
Our Reference		292223-101	292223-102	292223-103	292223-104	292223-105
Your Reference	UNITS	60/1.5	61/0.5	61/1.0	61/1.5	55/0.5
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.0	5.1	6.1	7.0	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	590	170	300	310	160
Chloride, Cl 1:5 soil:water	mg/kg		110	330	390	
Sulphate, SO4 1:5 soil:water	mg/kg		130	140	45	

Misc Inorg - Soil						
Our Reference		292223-106	292223-107	292223-108	292223-109	292223-110
Your Reference	UNITS	55/1.0	55/1.5	55/2.0	41/0.5	41/1.0
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.5	4.4	4.5	7.5	7.7
Electrical Conductivity 1:5 soil:water	µS/cm	480	420	570	120	95
Chloride, Cl 1:5 soil:water	mg/kg				64	48
Sulphate, SO4 1:5 soil:water	mg/kg				37	40

Misc Inorg - Soil						
Our Reference		292223-111	292223-112	292223-113	292223-114	292223-115
Your Reference	UNITS	41/1.5	41/2.0	42/0.5	42/1.0	42/1.5
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.6	4.5	4.9	4.9	6.8
Electrical Conductivity 1:5 soil:water	µS/cm	390	370	200	1,000	1,100
Chloride, Cl 1:5 soil:water	mg/kg		440			
Sulphate, SO4 1:5 soil:water	mg/kg		98			

Misc Inorg - Soil						
Our Reference		292223-116	292223-117	292223-118	292223-119	292223-120
Your Reference	UNITS	43/0.5	43/1.0	43/1.5	44/0.5	44/1.0
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.1	4.5	4.8	5.5	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	280	620	250	100	190
Chloride, Cl 1:5 soil:water	mg/kg				<10	160
Sulphate, SO4 1:5 soil:water	mg/kg				32	100

Misc Inorg - Soil						
Our Reference		292223-121	292223-122	292223-123	292223-124	292223-125
Your Reference	UNITS	44/1.5	44/2.0	45/0.5	45/1.0	45/1.5
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.7	5.3	4.8	4.5	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	690	260	200	300	250
Chloride, Cl 1:5 soil:water	mg/kg		310			
Sulphate, SO4 1:5 soil:water	mg/kg		82			

Misc Inorg - Soil						
Our Reference		292223-126	292223-127	292223-128	292223-129	292223-130
Your Reference	UNITS	45/2.0	45/2.5	46/0.5	46/1.0	46/1.5
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	7.5	5.1	4.8	4.7	4.6
Electrical Conductivity 1:5 soil:water	µS/cm	490	480	250	260	820
Chloride, Cl 1:5 soil:water	mg/kg			240	230	1,000
Sulphate, SO4 1:5 soil:water	mg/kg			140	140	310

Misc Inorg - Soil						
Our Reference		292223-131	292223-132	292223-133	292223-134	292223-135
Your Reference	UNITS	46/2.0	46/2.5	47/0.5	47/1.0	47/1.5
Date Sampled		25/03/22	25/03/22	25/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.5	5.4	4.6	4.5	4.5
Electrical Conductivity 1:5 soil:water	µS/cm	720	300	300	750	770
Chloride, Cl 1:5 soil:water	mg/kg		340			
Sulphate, SO4 1:5 soil:water	mg/kg		88			

Misc Inorg - Soil						
Our Reference		292223-136	292223-137	292223-138	292223-139	292223-140
Your Reference	UNITS	57/0.5	57/1.0	57/1.5	58/0.5	58/1.0
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	7.0	7.2	5.9	6.3	5.9
Electrical Conductivity 1:5 soil:water	µS/cm	58	210	800	38	43
Chloride, Cl 1:5 soil:water	mg/kg				<10	
Sulphate, SO4 1:5 soil:water	mg/kg				20	

Misc Inorg - Soil						
Our Reference		292223-141	292223-142	292223-143	292223-144	292223-145
Your Reference	UNITS	58/1.5	58/2.0	58/2.5	58/3.0	59/0.5
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.2	6.7	7.3	7.6	5.7
Electrical Conductivity 1:5 soil:water	µS/cm	50	57	91	220	140
Chloride, Cl 1:5 soil:water	mg/kg	10		66		
Sulphate, SO4 1:5 soil:water	mg/kg	39		30		

Misc Inorg - Soil						
Our Reference		292223-146	292223-147	292223-148	292223-149	292223-150
Your Reference	UNITS	59/1.0	59/1.5	62/0.5	62/1.0	62/1.5
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.0	6.3	6.5	5.5	4.9
Electrical Conductivity 1:5 soil:water	µS/cm	250	610	140	530	750
Chloride, Cl 1:5 soil:water	mg/kg			98	560	940
Sulphate, SO4 1:5 soil:water	mg/kg			61	290	230

Misc Inorg - Soil						
Our Reference		292223-151	292223-152	292223-153	292223-154	292223-155
Your Reference	UNITS	63/0.5	63/1.0	63/1.5	64/0.5	64/1.0
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	5.9	5.5	5.4	5.4	4.8
Electrical Conductivity 1:5 soil:water	µS/cm	160	1,100	510	120	420

Misc Inorg - Soil						
Our Reference		292223-156	292223-157	292223-158	292223-159	292223-160
Your Reference	UNITS	64/1.5	65/0.5	65/1.0	65/1.5	66/0.5
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	4.7	6.0	6.2	6.1	5.8
Electrical Conductivity 1:5 soil:water	µS/cm	770	500	850	940	110
Chloride, Cl 1:5 soil:water	mg/kg		700	1,300	1,400	
Sulphate, SO4 1:5 soil:water	mg/kg		30	40	41	

Misc Inorg - Soil						
Our Reference		292223-161	292223-162	292223-163	292223-164	292223-165
Your Reference	UNITS	66/1.0	66/1.5	73/0.5	73/1.0	73/1.5
Date Sampled		28/03/22	28/03/22	28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.1	7.2	7.3	6.2	6.8
Electrical Conductivity 1:5 soil:water	µS/cm	430	950	140	580	1,100

Misc Inorg - Soil				
Our Reference		292223-166	292223-167	292223-168
Your Reference	UNITS	79/0.5	79/1.0	79/1.5
Date Sampled		28/03/22	28/03/22	28/03/22
Type of sample		Soil	Soil	Soil
Date prepared	-	04/04/2022	04/04/2022	04/04/2022
Date analysed	-	04/04/2022	04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units	6.6	7.9	7.8
Electrical Conductivity 1:5 soil:water	µS/cm	130	930	1,200

ESP/CEC						
Our Reference		292223-1	292223-3	292223-28	292223-30	292223-63
Your Reference	UNITS	25/0.5	25/1.5	31/1.0	31/2.0	48/0.5
Date Sampled		21/03/22	21/03/22	21/03/22	21/03/22	23/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Date analysed	-	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Exchangeable Ca	meq/100g	21	32	0.3	<0.1	0.2
Exchangeable K	meq/100g	0.1	<0.1	<0.1	0.1	<0.1
Exchangeable Mg	meq/100g	6.4	2.1	3.2	1.9	3.2
Exchangeable Na	meq/100g	1.3	0.4	0.7	0.7	0.6
Cation Exchange Capacity	meq/100g	29	35	4.3	2.7	4.2
ESP	%	5	1	15	27	15

ESP/CEC						
Our Reference		292223-65	292223-88	292223-90	292223-119	292223-120
Your Reference	UNITS	48/1.5	54/0.5	54/1.5	44/0.5	44/1.0
Date Sampled		23/03/22	23/03/22	23/03/22	25/03/22	25/03/22
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Date analysed	-	08/04/2022	08/04/2022	08/04/2022	08/04/2022	08/04/2022
Exchangeable Ca	meq/100g	<0.1	0.4	<0.1	3.0	0.1
Exchangeable K	meq/100g	0.2	0.2	0.2	0.6	0.1
Exchangeable Mg	meq/100g	5.9	6.8	6.3	3.8	2.5
Exchangeable Na	meq/100g	2.3	1.5	2.7	<0.1	0.6
Cation Exchange Capacity	meq/100g	8.4	8.9	9.3	7.4	3.3
ESP	%	27	17	29	[NT]	18

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	292223-2
Date prepared	-			04/04/2022	1	04/04/2022	04/04/2022		04/04/2022	04/04/2022
Date analysed	-			04/04/2022	1	04/04/2022	04/04/2022		04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units		Inorg-001		1	6.4	6.4	0	101	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	1	87	83	5	101	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	<10	<10	0	103	100
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	28	28	0	106	100

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	292223-82
Date prepared	-				11	04/04/2022	04/04/2022		04/04/2022	04/04/2022
Date analysed	-				11	04/04/2022	04/04/2022		04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units		Inorg-001		11	4.6	4.6	0	101	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		11	300	320	6	102	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		44	36	36	0	106	92
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		44	39	38	3	108	86

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	292223-122
Date prepared	-				21	04/04/2022	04/04/2022		04/04/2022	04/04/2022
Date analysed	-				21	04/04/2022	04/04/2022		04/04/2022	04/04/2022
pH 1:5 soil:water	pH Units		Inorg-001		21	4.3	4.2	2	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		21	580	590	2	102	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		51	390			106	#
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		51	190			108	#

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-4	[NT]
Date prepared	-				31	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				31	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		31	5.1	5.1	0	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		31	140	140	0	102	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		84	370	360	3		
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		84	88	88	0		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-5	[NT]
Date prepared	-				41	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				41	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		41	4.8	4.7	2	99	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		41	610	650	6	101	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		109	64	65	2		
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		109	37	37	0		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-6	[NT]
Date prepared	-				44	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				44	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		44	7.4			99	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		44	170			100	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		112	440	440	0		
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		112	98	100	2		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-7	[NT]
Date prepared	-				51	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				51	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		51	5.3	5.3	0	99	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		51	400	360	11	99	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		141	10	10	0		
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		141	39	41	5		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-8	[NT]
Date prepared	-				61	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				61	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		61	4.8	4.8	0	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		61	340	340	0	100	

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-9	[NT]
Date prepared	-				71	04/04/2022	04/04/2022		04/04/2022	
Date analysed	-				71	04/04/2022	04/04/2022		04/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		71	5.8	5.8	0	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		71	930	880	6	100	

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				81	04/04/2022	04/04/2022			
Date analysed	-				81	04/04/2022	04/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		81	4.6	4.5	2		
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		81	820	850	4		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				84	04/04/2022	04/04/2022			
Date analysed	-				84	04/04/2022	04/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		84	5.2				
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		84	300				

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				91	04/04/2022	04/04/2022			
Date analysed	-				91	04/04/2022	04/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		91	4.7	4.7	0		
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		91	340	340	0		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				101	04/04/2022	04/04/2022			
Date analysed	-				101	04/04/2022	04/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		101	6.0	6.0	0		
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		101	590	590	0		

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				109	04/04/2022	04/04/2022			
Date analysed	-				109	04/04/2022	04/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		109	7.5				
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		109	120				

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	112	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	112	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	112	4.5	4.5	0	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	112	370	370	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	121	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	121	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	121	4.7	4.7	0	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	121	690	670	3	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	131	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	131	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	131	4.5	4.6	2	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	131	720	760	5	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	141	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	141	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	141	6.2	6.4	3	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	141	50	51	2	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	151	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	151	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	151	5.9	5.9	0	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	151	160	160	0	[NT]	[NT]

QUALITY CONTROL: Misc Inorg - Soil					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	161	04/04/2022	04/04/2022		[NT]	[NT]
Date analysed	-			[NT]	161	04/04/2022	04/04/2022		[NT]	[NT]
pH 1:5 soil:water	pH Units		Inorg-001	[NT]	161	6.1	6.2	2	[NT]	[NT]
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	[NT]	161	430	420	2	[NT]	[NT]

QUALITY CONTROL: ESP/CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			08/04/2022					08/04/2022	
Date analysed	-			08/04/2022					08/04/2022	
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1					115	
Exchangeable K	meq/100g	0.1	Metals-020	<0.1					113	
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1					119	
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1					130	

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments

MISC_INORG_DRY:# Percent recovery is not applicable due to the high concentration of the analyte/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Samples were out of the recommended holding time for this analysis pH/EC in soil.

ESP: Where the exchangeable Sodium is less than the PQL and CEC is less than 10meq/100g, the ESP cannot be calculated.

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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Date Sampled	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
25/0.5	1	21/03/22	S	G			x	x	x	x				~~PFD~~
25/1.0	2	21/03/22	S	G			x	x	x					PFD
25/1.5	3	21/03/22	S	G			x	x	x	x				
26/0.5	4	21/03/22	S	G			x	x						
26/1.0	5	21/03/22	S	G			x	x						
26/1.5	6	21/03/22	S	G			x	x						
26/2.0	7	21/03/22	S	G			x	x						
27/0.5	8	21/03/22	S	G			x	x						
27/1.0	9	21/03/22	S	G			x	x						
27/1.5	10	21/03/22	S	G			x	x						
27/2.0	11	21/03/22	S	G			x	x						
28/0.5	12	21/03/22	S	G			x	x	x					
28/1.0	13	21/03/22	S	G			x	x						

ENVIROLAB
Envirolab Services
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 292223
Date Received: 30/3/22
Time Received: 1345
Received by:
Temp: Cool/Ambient 13°C
Cooling: Ice/Icepack
Security: Intact/Broken/None

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:	Jimmy Huynh	**Transported to laboratory by:**	
Signed:		**Date & Time:** 30/3/22, 10:00am	**Received by:**

Phay 30/3/22

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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
28/1.5	14	21/03/22	S	G			x	x	x					
28/2.0	15	21/03/22	S	G			x	x						
28/2.5	16	21/03/22	S	G			x	x	x					
28/3.0	17	21/03/22	S	G			x	x						
29/0.5	18	21/03/22	S	G			x	x						
29/1.0	19	21/03/22	S	G			x	x						
29/1.5	20	21/03/22	S	G			x	x						
30/0.5	21	21/03/22	S	G			x	x						
30/1.0	22	21/03/22	S	G			x	x						
30/1.5	23	21/03/22	S	G			x	x						
30/2.0	24	21/03/22	S	G			x	x						
30/2.5	25	21/03/22	S	G			x	x						
30/3.0	26	21/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:**	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

Ray 30/3/2022 292223

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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type	Container Type	Analytes									Notes/preservation
			S - soil W - water	G - glass P - plastic	Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				
31/0.5	27	21/03/22	S	G			x	x	x					
31/1.0	28	21/03/22	S	G			x	x	x	x				
31/1.5	29	21/03/22	S	G			x	x						
31/2.0	30	21/03/22	S	G			x	x	x	x				
32/0.5	31	22/03/22	S	G			x	x						
32/1.0	32	22/03/22	S	G			x	x						
32/1.5	33	22/03/22	S	G			x	x						
32/2.0	34	22/03/22	S	G			x	x						
33/0.5	35	22/03/22	S	G			x	x						
33/1.0	36	22/03/22	S	G			x	x						
33/1.5	37	22/03/22	S	G			x	x						
33/2.0	38	22/03/22	S	G			x	x						
34/0.5	39	22/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:** ~~19/11/2021~~	**Received by:**	

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30/3/2022

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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
34/1.0	40	22/03/22	S	G			x	x						
34/1.5	41	22/03/22	S	G			x	x						
35/0.5	42	22/03/22	S	G			x	x	x					
35/1.0	43	22/03/22	S	G			x	x						
35/1.5	44	22/03/22	S	G			x	x	x					
35/2.0	45	22/03/22	S	G			x	x						
35/2.5	46	22/03/22	S	G			x	x	x					
36/0.5	47	22/03/22	S	G			x	x						
36/1.0	48	22/03/22	S	G			x	x						
36/1.5	49	22/03/22	S	G			x	x						
36/2.0 ✓	50	22/03/22	S	G			x	x						
37/0.5	51	22/03/22	S	G			x	x	x					
37/1.0	52	22/03/22	S	G			x	x	x					

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

Ang 30/3/2022
292223

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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil W - water)	Container Type (G - glass P - plastic)	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
37/1.5	53	22/03/22	S	G			x	x	x					
38/0.5	54	22/03/22	S	G			x	x						
38/1.5	55	22/03/22	S	G			x	x						
38/2.0	56	22/03/22	S	G			x	x						
39/0.5	57	22/03/22	S	G			x	x	x					
39/1.0	58	22/03/22	S	G			x	x	x					
40/0.5	59	22/03/22	S	G			x	x						
40/1.0	60	22/03/22	S	G			x	x						
40/1.5	61	22/03/22	S	G			x	x						
40/2.0	62	22/03/22	S	G			x	x						
48/0.5	63	23/03/22	S	G			x	x	x	x				
48/1.0	64	23/03/22	S	G			x	x						
48/1.5	65	23/03/22	S	G			x	x	x	x				

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

Ang 30/3/2022
292223

Douglas Partners
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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily.Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
48/2.0	166	23/03/22	S	G			x	x						
48/2.5	67	23/03/22	S	G			x	x	x					
49/0.5	68	23/03/22	S	G			x	x						
49/1.0	69	23/03/22	S	G			x	x						
49/1.5	70	23/03/22	S	G			x	x						
49/2.0	71	23/03/22	S	G			x	x						
49/2.5	72	23/03/22	S	G			x	x						
50/0.5	73	23/03/22	S	G			x	x						
50/1.0	74	23/03/22	S	G			x	x						
50/1.5	75	23/03/22	S	G			x	x						
51/0.5	76	23/03/22	S	G			x	x						
51/1.0	77	23/03/22	S	G			x	x						
51/1.5	78	23/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Water Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

Ray 30/3/2022
292223

Douglas Partners
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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
52/0.5	79	23/03/22	S	G			x	x						
52/1.0	80	23/03/22	S	G			x	x						
52/1.5	81	23/03/22	S	G			x	x						
53/0.5	82	23/03/22	S	G			x	x	x					
53/1.0	83	23/03/22	S	G			x	x						
53/1.5	84	23/03/22	S	G			x	x	x					
53/2.0	85	23/03/22	S	G			x	x						
53/2.5	86	23/03/22	S	G			x	x	x					
53/3.0	87	23/03/22	S	G			x	x						
54/0.5	88	23/03/22	S	G			x	x	x	x				
54/1.0	89	23/03/22	S	G			x	x						
54/1.5	90	23/03/22	S	G			x	x	x	x				
54/2.0	91	23/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

May 30/3/22 292223

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
54/2.5	92	23/03/22	S	G			x	x	x					
54/3.0	93	23/03/22	S	G			x	x						
56/0.5	94	23/03/22	S	G			x	x						
56/1.0	95	23/03/22	S	G			x	x						
56/1.5	96	23/03/22	S	G			x	x						
56/2.0	97	23/03/22	S	G			x	x						
56/2.5	98	23/03/22	S	G			x	x						
60/0.5	99	25/03/22	S	G			x	x						
60/1.0	100	25/03/22	S	G			x	x						
60/1.5	101	25/03/22	S	G			x	x						
61/0.5	102	25/03/22	S	G			x	x	x					
61/1.0	103	25/03/22	S	G			x	x	x					
61/1.5	104	25/03/22	S	G			x	x	x					

Lab Report No:					
Send Results to:	Douglas Partners Pty Ltd	**Address:**	Unit 5, 50 Topham Road, Smeaton Grange 2567	**Phone:**	(02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:				**Transported to laboratory by:**	
Signed:		**Date & Time:**		**Received by:**	

Thu 30/3/22
292223

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type	Container Type	Analytes									Notes/preservation
			S - soil W - water	G - glass P - plastic	Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				
55/0.5	105	25/03/22	S	G			x	x						
55/1.0	106	25/03/22	S	G			x	x						
55/1.5	107	25/03/22	S	G			x	x						
55/2.0	108	25/03/22	S	G			x	x						
41/0.5	109	25/03/22	S	G			x	x	x					
41/1.0	110	25/03/22	S	G			x	x	x					
41/1.5	111	25/03/22	S	G			x	x						
41/2.0	112	25/03/22	S	G			x	x	x					
42/0.5	113	25/03/22	S	G			x	x						
42/1.0	114	25/03/22	S	G			x	x						
42/1.5	115	25/03/22	S	G			x	x						
43/0.5	116	25/03/22	S	G			x	x						
43/1.0	117	25/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

May 30/3/2022
292223

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	N/A	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos(500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
43/1.5	118	25/03/22	S	G			x	x						
44/0.5	119	25/03/22	S	G			x	x	x	x				
44/1.0	120	25/03/22	S	G			x	x	x	x				
44/1.5	121	25/03/22	S	G			x	x						
44/2.0	122	25/03/22	S	G			x	x	x					
45/0.5	123	25/03/22	S	G			x	x						
45/1.0	124	25/03/22	S	G			x	x						
45/1.5	125	25/03/22	S	G			x	x						
45/2.0	126	25/03/22	S	G			x	x						
45/2.5	127	25/03/22	S	G			x	x						
46/0.5	128	25/03/22	S	G			x	x	x					
46/1.0	129	25/03/22	S	G			x	x	x					
46/1.5	130	25/03/22	S	G			x	x	x					

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567	Phone: (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

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297223

Douglas Partners

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam	To:	Envirolab Services
Project No:	204684.00	Sampler:	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	Mob. Phone:	N/A	Attn:	
Email:	emily.eden@douglaspartners.com.au;jimmy.huynh@douglaspartners.com.au	Phone:	(02) 9910 6200	Fax:	(02) 9910 6201
Date Required:	STANDARD	Email:			

Sample ID	Lab ID	Date Sampled	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
46/2.0	131	25/03/22	S	G			x	x						
46/2.5	132	25/03/22	S	G			x	x	x					
47/0.5	133	25/03/22	S	G			x	x						
47/1.0	134	25/03/22	S	G			x	x						
47/1.5	135	25/03/22	S	G			x	x						
57/0.5	136	28/03/22	S	G			x	x						
57/1.0	137	28/03/22	S	G			x	x						
57/1.5	138	28/03/22	S	G			x	x						
59/0.5	139	28/03/22	S	G			x	x	x					
58/1.0	140	28/03/22	S	G			x	x						
58/1.5	141	28/03/22	S	G			x	x	x					
58/2.0	142	28/03/22	S	G			x	x						
58/2.5	143	28/03/22	S	G			x	x	x					

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	Address: 18 Water Crescent Smeaton Grange 2567	Phone: (02) 4647 0075 Fax: (02) 4646 1886
Relinquished by:		Transported to laboratory by:	
Signed:	Date & Time:	Received by:	

May 292223
30/3/2022

Douglas Partners

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam	To:	Envirolab Services
Project No:	204884.00	Sampler:	JR		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	Mob. Phone:	N/A	Attn:	
Email:	emily.eden@douglaspartners.com.au; jimmy.hlynh@douglaspartners.com.au	Phone:	(02) 9910 6200	Fax:	(02) 9910 6201
Date Required:	STANDARD	Email:			

Sample ID	Lab ID	Sampling Date	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity				Notes/preservation
58/3.0	144	28/03/22	S	G			x	x						
59/0.5	145	28/03/22	S	G			x	x						
59/1.0	146	28/03/22	S	G			x	x						
59/1.5	147	28/03/22	S	G			x	x						
62/0.5	148	28/03/22	S	G			x	x	x					
62/1.0	149	28/03/22	S	G			x	x	x					
62/1.5	150	28/03/22	S	G			x	x	x					
63/0.5	151	28/03/22	S	G			x	x						
63/1.0	152	28/03/22	S	G			x	x						
63/1.5	153	28/03/22	S	G			x	x						
64/0.5	154	28/03/22	S	G			x	x						
64/1.0	155	28/03/22	S	G			x	x						
64/1.5	156	28/03/22	S	G			x	x						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	Address: 18 Water Crescent Smeaton Grange 2567	Phone: (02) 4647 0075 Fax: (02) 4646 1886
Relinquished by:		Transported to laboratory by:	
Signed:	Date & Time:	Received by:	

Ploy 292223
30/3/2022

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			To:	Envirolab Services
Project No:	204884.00	Sampler:	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	Mob. Phone:	N/A	Attn:	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			Phone:	(02) 9910 6200 Fax: (02) 9910 6201
Date Required:	STANDARD			Email:	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos (500ml WA09H)	pH	EC,	Chloride Sulfates	Solicity				Notes/preservation
65/0.5	157	28/03/22	S	G			x	x	x					
65/1.0	158	28/03/22	S	G			x	x	x					
65/1.5	159	28/03/22	S	G			x	x	x					
66/0.5	160	28/03/22	S	G			x	x						
66/1.0	161	28/03/22	S	G			x	x						
66/1.5	162	28/03/22	S	G			x	x						
73/0.5	163	28/03/22	S	G			x	x						
73/1.0	164	28/03/22	S	G			x	x						
73/1.5	165	28/03/22	S	G			x	x						
79/0.5	166	28/03/22	S	G			x	x						
79/1.0	167	28/03/22	S	G			x	x						
79/1.5	168	28/03/22	S	G			x	x						

Lab Report No:					
Send Results to:	Douglas Partners Pty Ltd	Address: 18 Water Crescent Smeaton Grange 2567		Phone: (02) 4647 0075	Fax: (02) 4646 1886
Relinquished by:			Transported to laboratory by:		
Signed:		Date & Time: ~~28/4/2022~~	Received by:		

169 TP 38/1.0
170 TP 47/2.0
171 TP 47/2.5
172 TP 52/0-0.2
173 TP 52/0.2-0.5

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Envirolab Services Pty Ltd
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12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	Douglas Partners Pty Ltd Smeaton Grange
Attention	Emily Eden

Sample Login Details	
Your reference	204684.00, Bringelly, Birling Property, Contam
Envirolab Reference	292223
Date Sample Received	01/04/2022
Date Instructions Received	01/04/2022
Date Results Expected to be Reported	08/04/2022

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	173 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	13
Cooling Method	Ice Pack
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

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customerservice@envirolab.com.au
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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
25/0.5	✓	✓	
25/1.0	✓		
25/1.5	✓	✓	
26/0.5	✓		
26/1.0	✓		
26/1.5	✓		
26/2.0	✓		
27/0.5	✓		
27/1.0	✓		
27/1.5	✓		
27/2.0	✓		
28/0.5	✓		
28/1.0	✓		
28/1.5	✓		
28/2.0	✓		
28/2.5	✓		
28/3.0	✓		
29/0.5	✓		
29/1.0	✓		
29/1.5	✓		
30/0.5	✓		
30/1.0	✓		
30/1.5	✓		
30/2.0	✓		
30/2.5	✓		
30/3.0	✓		
31/0.5	✓		
31/1.0	✓	✓	
31/1.5	✓		
31/2.0	✓	✓	
32/0.5	✓		
32/1.0	✓		

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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
32/1.5	✓		
32/2.0	✓		
33/0.5	✓		
33/1.0	✓		
33/1.5	✓		
33/2.0	✓		
34/0.5	✓		
34/1.0	✓		
34/1.5	✓		
35/0.5	✓		
35/1.0	✓		
35/1.5	✓		
35/2.0	✓		
35/2.5	✓		
36/0.5	✓		
36/1.0	✓		
36/1.5	✓		
36/2.0	✓		
37/0.5	✓		
37/1.0	✓		
37/1.5	✓		
38/0.5	✓		
38/1.5	✓		
38/2.0	✓		
39/0.5	✓		
39/1.0	✓		
40/0.5	✓		
40/1.0	✓		
40/1.5	✓		
40/2.0	✓		
48/0.5	✓	✓	
48/1.0	✓		

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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
48/1.5	✓	✓	
48/2.0	✓		
48/2.5	✓		
49/0.5	✓		
49/1.0	✓		
49/1.5	✓		
49/2.0	✓		
49/2.5	✓		
50/0.5	✓		
50/1.0	✓		
50/1.5	✓		
51/0.5	✓		
51/1.0	✓		
51/1.5	✓		
52/0.5	✓		
52/1.0	✓		
52/1.5	✓		
53/0.5	✓		
53/1.0	✓		
53/1.5	✓		
53/2.0	✓		
53/2.5	✓		
53/3.0	✓		
54/0.5	✓	✓	
54/1.0	✓		
54/1.5	✓	✓	
54/2.0	✓		
54/2.5	✓		
54/3.0	✓		
56/0.5	✓		
56/1.0	✓		
56/1.5	✓		

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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
56/2.0	✓		
56/2.5	✓		
60/0.5	✓		
60/1.0	✓		
60/1.5	✓		
61/0.5	✓		
61/1.0	✓		
61/1.5	✓		
55/0.5	✓		
55/1.0	✓		
55/1.5	✓		
55/2.0	✓		
41/0.5	✓		
41/1.0	✓		
41/1.5	✓		
41/2.0	✓		
42/0.5	✓		
42/1.0	✓		
42/1.5	✓		
43/0.5	✓		
43/1.0	✓		
43/1.5	✓		
44/0.5	✓	✓	
44/1.0	✓	✓	
44/1.5	✓		
44/2.0	✓		
45/0.5	✓		
45/1.0	✓		
45/1.5	✓		
45/2.0	✓		
45/2.5	✓		
46/0.5	✓		

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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
46/1.0	✓		
46/1.5	✓		
46/2.0	✓		
46/2.5	✓		
47/0.5	✓		
47/1.0	✓		
47/1.5	✓		
57/0.5	✓		
57/1.0	✓		
57/1.5	✓		
58/0.5	✓		
58/1.0	✓		
58/1.5	✓		
58/2.0	✓		
58/2.5	✓		
58/3.0	✓		
59/0.5	✓		
59/1.0	✓		
59/1.5	✓		
62/0.5	✓		
62/1.0	✓		
62/1.5	✓		
63/0.5	✓		
63/1.0	✓		
63/1.5	✓		
64/0.5	✓		
64/1.0	✓		
64/1.5	✓		
65/0.5	✓		
65/1.0	✓		
65/1.5	✓		
66/0.5	✓		

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Sample ID	Misc Inorg - Soil	ESP/CEC	On Hold
66/1.0	✓		
66/1.5	✓		
73/0.5	✓		
73/1.0	✓		
73/1.5	✓		
79/0.5	✓		
79/1.0	✓		
79/1.5	✓		
TP38/1.0			✓
TP47/2.0			✓
TP47/2.5			✓
TP52/0-0.20			✓
TP52/0.2-0.5			✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info

Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

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CERTIFICATE OF ANALYSIS 292963

Client Details

Client	Douglas Partners Pty Ltd Smeaton Grange
Attention	Emily Eden, Jimmy Huynh
Address	18 Waler Crescent, Smeaton Grange, NSW, 2567

Sample Details

Your Reference	**204684.00, Birling Property Contam, Bringelly**
Number of Samples	42 Soil
Date samples received	07/04/2022
Date completed instructions received	07/04/2022

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	14/04/2022
Date of Issue	14/04/2022

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Results Approved By
Hannah Nguyen, Metals Supervisor
Jenny He, Chemist

Authorised By

Nancy Zhang, Laboratory Manager

Misc Inorg - Soil						
Our Reference		292963-1	292963-2	292963-3	292963-4	292963-5
Your Reference	UNITS	67	67	67	67	67
Depth		0.5	1.0	1.5	2.0	2.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.7	7.7	7.2	7.6	7.8
Electrical Conductivity 1:5 soil:water	µS/cm	170	480	1,600	1,500	540
Chloride, Cl 1:5 soil:water	mg/kg	170		2,000		630
Sulphate, SO4 1:5 soil:water	mg/kg	31		250		69

Misc Inorg - Soil						
Our Reference		292963-6	292963-7	292963-8	292963-9	292963-10
Your Reference	UNITS	67	68	68	68	69
Depth		3.0	0.5	1.0	1.5	0.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.6	7.0	7.8	7.9	7.8
Electrical Conductivity 1:5 soil:water	µS/cm	1,000	290	1,200	1,100	200

Misc Inorg - Soil						
Our Reference		292963-11	292963-12	292963-13	292963-14	292963-15
Your Reference	UNITS	69	69	70	70	70
Depth		1.0	1.5	0.5	1.0	1.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.7	5.8	4.8	5.6	6.2
Electrical Conductivity 1:5 soil:water	µS/cm	880	1,500	75	79	110

Misc Inorg - Soil						
Our Reference		292963-16	292963-17	292963-18	292963-19	292963-20
Your Reference	UNITS	71	71	71	71	71
Depth		0.5	1.0	1.5	2.0	2.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.7	8.2	7.6	7.6	7.8
Electrical Conductivity 1:5 soil:water	µS/cm	96	320	1,100	1,000	920

Misc Inorg - Soil						
Our Reference		292963-21	292963-22	292963-23	292963-24	292963-25
Your Reference	UNITS	71	72	72	72	74
Depth		3.0	0.5	1.0	1.5	0.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.7	6.8	6.3	7.3	7.7
Electrical Conductivity 1:5 soil:water	µS/cm	1,000	97	460	790	200
Chloride, Cl 1:5 soil:water	mg/kg					170
Sulphate, SO4 1:5 soil:water	mg/kg					34

Misc Inorg - Soil						
Our Reference		292963-26	292963-27	292963-28	292963-29	292963-30
Your Reference	UNITS	74	74	74	74	74
Depth		1.0	1.5	2.0	2.5	3.0
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.0	7.5	7.8	7.8	7.8
Electrical Conductivity 1:5 soil:water	µS/cm	1,100	1,700	1,400	1,300	1,300
Chloride, Cl 1:5 soil:water	mg/kg		2,100		1,600	
Sulphate, SO4 1:5 soil:water	mg/kg		290		230	

Misc Inorg - Soil						
Our Reference		292963-31	292963-32	292963-33	292963-34	292963-35
Your Reference	UNITS	75	75	75	76	76
Depth		0.5	1.0	1.5	0.5	1.0
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	6.6	7.4	7.5	7.1	8.2
Electrical Conductivity 1:5 soil:water	µS/cm	190	780	1,200	67	130

Misc Inorg - Soil						
Our Reference		292963-36	292963-37	292963-38	292963-39	292963-40
Your Reference	UNITS	76	77	77	77	78
Depth		1.5	0.5	1.0	1.5	0.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil	Soil	Soil
Date prepared	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022	12/04/2022	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	7.5	5.0	6.2	7.1	6.1
Electrical Conductivity 1:5 soil:water	µS/cm	1,100	140	550	1,600	85
Chloride, Cl 1:5 soil:water	mg/kg					34
Sulphate, SO4 1:5 soil:water	mg/kg					49

Misc Inorg - Soil			
Our Reference		292963-41	292963-42
Your Reference	UNITS	78	78
Depth		1.	1.5
Date Sampled		5/04/2022	5/04/2022
Type of sample		Soil	Soil
Date prepared	-	12/04/2022	12/04/2022
Date analysed	-	12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units	6.6	7.5
Electrical Conductivity 1:5 soil:water	µS/cm	140	540
Chloride, Cl 1:5 soil:water	mg/kg		640
Sulphate, SO4 1:5 soil:water	mg/kg		120

ESP/CEC				
Our Reference		292963-25	292963-27	292963-40
Your Reference	UNITS	74	74	78
Depth		0.5	1.5	0.5
Date Sampled		5/04/2022	5/04/2022	5/04/2022
Type of sample		Soil	Soil	Soil
Date prepared	-	14/04/2022	14/04/2022	14/04/2022
Date analysed	-	14/04/2022	14/04/2022	14/04/2022
Exchangeable Ca	meq/100g	3.0	1.2	3.5
Exchangeable K	meq/100g	0.2	0.2	0.2
Exchangeable Mg	meq/100g	12	11	6.6
Exchangeable Na	meq/100g	3.1	4.2	1.4
Cation Exchange Capacity	meq/100g	18	17	12
ESP	%	17	25	12

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode in accordance with APHA latest edition, 4500-H+. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell at 25°C in accordance with APHA latest edition 2510 and Rayment & Lyons.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Metals-020	Determination of exchangeable cations and cation exchange capacity in soils using 1M Ammonium Chloride exchange and ICP-OES analytical finish.

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	292963-3
Date prepared	-			12/04/2022	1	12/04/2022	12/04/2022		12/04/2022	12/04/2022
Date analysed	-			12/04/2022	1	12/04/2022	12/04/2022		12/04/2022	12/04/2022
pH 1:5 soil:water	pH Units		Inorg-001		1	7.7	7.5	3	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002	<1	1	170	160	6	106	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	170	150	12	104	#
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081	<10	1	31	25	21	94	#

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-2	[NT]
Date prepared	-				11	12/04/2022	12/04/2022		12/04/2022	
Date analysed	-				11	12/04/2022	12/04/2022		12/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		11	7.7	7.7	0	101	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		11	880	880	0	106	
Chloride, Cl 1:5 soil:water	mg/kg	10	Inorg-081		40	34				
Sulphate, SO4 1:5 soil:water	mg/kg	10	Inorg-081		40	49				

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-3	[NT]
Date prepared	-				21	12/04/2022	12/04/2022		12/04/2022	
Date analysed	-				21	12/04/2022	12/04/2022		12/04/2022	
pH 1:5 soil:water	pH Units		Inorg-001		21	7.7	7.7	0	100	
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		21	1000	930	7	106	

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				31	12/04/2022	12/04/2022			
Date analysed	-				31	12/04/2022	12/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		31	6.6	6.5	2		
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		31	190	190	0		

QUALITY CONTROL: Misc Inorg - Soil						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-				40	12/04/2022	12/04/2022			
Date analysed	-				40	12/04/2022	12/04/2022			
pH 1:5 soil:water	pH Units		Inorg-001		40	6.1	6.0	2		
Electrical Conductivity 1:5 soil:water	µS/cm	1	Inorg-002		40	85	85	0		

QUALITY CONTROL: ESP/CEC						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-1	[NT]
Date prepared	-			14/04/2022					14/04/2022	
Date analysed	-			14/04/2022					14/04/2022	
Exchangeable Ca	meq/100g	0.1	Metals-020	<0.1					105	
Exchangeable K	meq/100g	0.1	Metals-020	<0.1					110	
Exchangeable Mg	meq/100g	0.1	Metals-020	<0.1					101	
Exchangeable Na	meq/100g	0.1	Metals-020	<0.1					113	

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from "2018 TLVs and BEIs", as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Report Comments
MISC_INORG_DRY:# Percent recovery is not applicable due to the high concentration of the analyte/s in the sample/s. However an acceptable recovery was obtained for the LCS.

292963

Douglas Partners
Geotechnics / Environment / Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	0418 651 227	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Date Sampled	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity	Cation Exchange capacity	TRH, metals	Hold	Notes/preservation
67/0.5	1	05/04/22	S	G			X	X	X					
67/1.0	2	05/04/22	S	G			X	X						
67/1.5	3	05/04/22	S	G			X	X	x					
67/2.0	4	05/04/22	S	G			X	X						
67/2.5	5	05/04/22	S	G			X	X	x					
67/3.0	6	05/04/22	S	G			X	X						
68/0.5	7	05/04/22	S	G			X	X						
68/1.0	8	05/04/22	S	G			X	X						
68/1.5	9	05/04/22	S	G			X	X						
69/0.5	10	05/04/22	S	G			X	X						
69/1.0	11	05/04/22	S	G			X	X						
69/1.5	12	05/04/22	S	G			X	X						
70/0.5	13	05/04/22	S	G			X	X						

Lab Report No:					
Send Results to:	Douglas Partners Pty Ltd	**Address:**	18 Waler Crescent Smeaton Grange 2567	**Phone:** (02) 4647 0075	**Fax:** (02) 4646 1886
Relinquished by:	JH		**Transported to laboratory by:**		
Signed:		**Date & Time:**	**Received by:** Services Wayne @ ELS		

ENVIROLAB
12 Ashley St
Chatswood NSW 2067
Ph: (02) 9910 6200

Job No: 292963
Date Received: 7/4/22
Time Received: 1830
Received By: KW
Temp: Cool/Ambient 8°C
Cooling: Ice/Pack
Security: Intact/Broken

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	0418 651 227	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Date Sampled	Sample Type (S - soil W - water)	Container Type (G - glass P - plastic)	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity	Cation Exchange capacity	TRH, metals	Hold	Notes/preservation
67/0.5	1	05/04/22	S	G			X	X	x					
67/1.0	2	05/04/22	S	G			X	X						
67/1.5	3	05/04/22	S	G			X	X	x					
67/2.0	4	05/04/22	S	G			X	X						
67/2.5	5	05/04/22	S	G			X	X	x					
67/3.0	6	05/04/22	S	G			X	X						
68/0.5	7	05/04/22	S	G			X	X						
68/1.0	8	05/04/22	S	G			X	X						
68/1.5	9	05/04/22	S	G			X	X						
69/0.5	10	05/04/22	S	G			X	X						
69/1.0	11	05/04/22	S	G			X	X						
69/1.5	12	05/04/22	S	G			X	X						
70/0.5	13	05/04/22	S	G			X	X						

Lab Report No:					
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange 2567		**Phone:** (02) 4647 0075	**Fax:** (02) 4646 1886
Relinquished by:	JH		**Transported to laboratory by:**		
Signed:		**Date & Time:**	**Received by:**		

292963

Douglas Partners
Geotechnics | Environment | Groundwater

CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	0418 651 227	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil W - water)	Container Type (G - glass P - plastic)	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity	Cation Exchange capacity	TRH, metals	Hold	Notes/preservation
70/1.0	14	05/04/22	S	G			X	X						
70/1.5	15	05/04/22	S	G			X	X						
71/0.5	16	05/04/22	S	G			X	X						
71/1.0	17	05/04/22	S	G			X	X						
71/1.5	18	05/04/22	S	G			X	X						
71/2.0	19	05/04/22	S	G			X	X						
71/2.5	20	05/04/22	S	G			X	X						
71/3.0	21	05/04/22	S	G			X	X						
72/0.5	22	05/04/22	S	G			X	X						
72/1.0	23	05/04/22	S	G			X	X						
72/1.5	24	05/04/22	S	G			X	X						
74/0.5	25	05/04/22	S	G			X	X	x	x				
74/1.0	26	05/04/22	S	G			X	X						

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Waler Crescent Smeaton Grange	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

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Geotechnics / Environment / Groundwater

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Project Mgr:	Emily Eden	**Mob. Phone:**	0418 651 227	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type (S - soil, W - water)	Container Type (G - glass, P - plastic)	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity	Cation Exchange capacity	TRH, metals	Hold	Notes/preservation
74/1.5	27	05/04/22	S	G			X	X	x	x				
74/2.0	28	05/04/22	S	G			X	X						
74/2.5	29	05/04/22	S	G			X	X	x					
74/3.0	30	05/04/22	S	G			X	X						
75/0.5	31	05/04/22	S	G			X	X						
75/1.0	32	05/04/22	S	G			X	X						
75/1.5	33	05/04/22	S	G			X	X						
76/0.5	34	05/04/22	S	G			X	X						
76/1.0	35	05/04/22	S	G			X	X						
76/1.5	36	05/04/22	S	G			X	X						
77/0.5	37	05/04/22	S	G			X	X						
77/1.0	38	05/04/22	S	G			X	X						
77/1.5	39	05/04/22	S	G			X	X						

Lab Report No:					
Send Results to:	Douglas Partners Pty Ltd	**Address:**	18 Waler Crescent Smeaton Grange	**Phone:** (02) 4647 0075	**Fax:** (02) 4646 1886
Relinquished by:			**Transported to laboratory by:**		
Signed:	**Date & Time:**		**Received by:**		

292963

Douglas Partners
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CHAIN OF CUSTODY

Project Name:	BRINGELLY, Birling Property, Contam			**To:**	Envirolab Services
Project No:	204684.00	**Sampler:**	JH		12 Ashley Street, Chatswood NSW 2067
Project Mgr:	Emily Eden	**Mob. Phone:**	0418 651 227	**Attn:**	
Email:	emily.eden@douglaspartners.com.au,jimmy.huynh@douglaspartners.com.au			**Phone:**	(02) 9910 6200 **Fax:** (02) 9910 6201
Date Required:	STANDARD			**Email:**	

Sample ID	Lab ID	Sampling Date	Sample Type: S - soil, W - water	Container Type: G - glass, P - plastic	Analytes: Combo 8	Asbestos (500ml WADOH)	pH	EC	Chloride Sulfates	Sodicity	Cation Exchange cpacity	TRH, metals	Hold	Notes/preservation
78/0.5	40	05/04/22	S	G			X	X	x	x				
78/1.0	41	05/04/22	S	G			X	X						
78/1.5	42	05/04/22	S	G			X	X	x					

Lab Report No:			
Send Results to:	Douglas Partners Pty Ltd	**Address:** 18 Water Crescent Smeaton Grange	**Phone:** (02) 4647 0075 **Fax:** (02) 4646 1886
Relinquished by:		**Transported to laboratory by:**	
Signed:	**Date & Time:**	**Received by:**	

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details

Client	Douglas Partners Pty Ltd Smeaton Grange
Attention	Emily Eden, Jimmy Huynh

Sample Login Details

Your reference	204684.00, Birling Property Contam, Bringelly
Envirolab Reference	292963
Date Sample Received	07/04/2022
Date Instructions Received	07/04/2022
Date Results Expected to be Reported	14/04/2022

Sample Condition

Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	42 Soil
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	8
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Nil

Please direct any queries to:

Aileen Hie	Jacinta Hurst
Phone: 02 9910 6200	**Phone: 02 9910 6200**
Fax: 02 9910 6201	**Fax: 02 9910 6201**
Email: ahie@envirolab.com.au	**Email: jhurst@envirolab.com.au**

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	Misc Inorg - Soil	ESP/CEC
67-0.5	✓	
67-1.0	✓	
67-1.5	✓	
67-2.0	✓	
67-2.5	✓	
67-3.0	✓	
68-0.5	✓	
68-1.0	✓	
68-1.5	✓	
69-0.5	✓	
69-1.0	✓	
69-1.5	✓	
70-0.5	✓	
70-1.0	✓	
70-1.5	✓	
71-0.5	✓	
71-1.0	✓	
71-1.5	✓	
71-2.0	✓	
71-2.5	✓	
71-3.0	✓	
72-0.5	✓	
72-1.0	✓	
72-1.5	✓	
74-0.5	✓	✓
74-1.0	✓	
74-1.5	✓	✓
74-2.0	✓	
74-2.5	✓	
74-3.0	✓	
75-0.5	✓	
75-1.0	✓	

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Sample ID	Misc Inorg - Soil	ESP/CEC
75-1.5	✓	
76-0.5	✓	
76-1.0	✓	
76-1.5	✓	
77-0.5	✓	
77-1.0	✓	
77-1.5	✓	
78-0.5	✓	✓
78-1.	✓	
78-1.5	✓	

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

ATTACHMENT 7 – TRAFFIC ASSESSMENT ACOUSTIC REPORT

RENZO TONIN & ASSOCIATES
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Acoustics
Vibration
Structural Dynamics

BIRLING

Desktop Traffic Noise Assessment for Stage 1 & 2

30 August 2023

Cameron Brae Group

TM564-01F02 Desktop Traffic Noise Assessment for Stage 1 (r4).docx

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Document details

Detail	Reference
Doc reference:	TM564-01F02 Desktop Traffic Noise Assessment for Stage 1 (r4).docx
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Document control

Date	Revision history	Non-issued revision	Issued revision	Prepared	Instructed	Reviewed / Authorised
30.05.2022	Generate draft	0	1	W. Chan	M. Chung	M. Chung
21.06.2023	Update	-	3	W. Chan	M. Chung	M. Chung
29.08.2023	Update	-	4	W. Chan	M. Chung	M. Chung

File Path: R:\AssocSydProjects\TM551-TM600\TM564 mch Birling Lowes Creek Maryland\1 Docs\TM564-01F02 Desktop Traffic Noise Assessment for Stage 1 (r4).docx

Important Disclaimers:

The work presented in this document was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian/New Zealand Standard AS/NZS ISO 9001.

This document is issued subject to review and authorisation by the suitably qualified and experienced person named in the last column above. If no name appears, this document shall be considered as preliminary or draft only and no reliance shall be placed upon it other than for information to be verified later.

This document is prepared for the particular requirements of our Client referred to above in the 'Document details' which are based on a specific brief with limitations as agreed to with the Client. It is not intended for and should not be relied upon by a third party and no responsibility is undertaken to any third party without prior consent provided by Renzo Tonin & Associates. The information herein should not be reproduced, presented or reviewed except in full. Prior to passing on to a third party, the Client is to fully inform the third party of the specific brief and limitations associated with the commission.

In preparing this report, we have relied upon, and presumed accurate, any information (or confirmation of the absence thereof) provided by the Client and/or from other sources. Except as otherwise stated in the report, we have not attempted to verify the accuracy or completeness of any such information. If the information is subsequently determined to be false, inaccurate or incomplete then it is possible that our observations and conclusions as expressed in this report may change.

We have derived data in this report from information sourced from the Client (if any) and/or available in the public domain at the time or times outlined in this report. The passage of time, manifestation of latent conditions or impacts of future events may require further examination and re-evaluation of the data, findings, observations and conclusions expressed in this report.

We have prepared this report in accordance with the usual care and thoroughness of the consulting profession, for the sole purpose described above and by reference to applicable standards, guidelines, procedures and practices at the date of issue of this report. For the reasons outlined above, however, no other warranty or guarantee, whether expressed or implied, is made as to the data, observations and findings expressed in this report, to the extent permitted by law.

The information contained herein is for the purpose of acoustics only. No claims are made and no liability is accepted in respect of design and construction issues falling outside of the specialist field of acoustics engineering including and not limited to structural integrity, fire rating, architectural buildability and fit-for-purpose, waterproofing and the like. Supplementary professional advice should be sought in respect of these issues.

External cladding disclaimer: No claims are made and no liability is accepted in respect of any external wall and/or roof systems (eg facade / cladding materials, insulation etc) that are: (a) not compliant with or do not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes; or (b) installed, applied, specified or utilised in such a manner that is not compliant with or does not conform to any relevant non-acoustic legislation, regulation, standard, instructions or Building Codes.

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1 Introduction

Renzo Tonin & Associates was engaged to undertake a desktop traffic noise assessment for the Stages 1 & 2 subdivision of the Lowes Creek Maryland Precinct on The Northern Road at Bringelly, also known as the Birling Development. The desktop traffic noise assessment assesses potential traffic noise from The Northern Road and the future sub-arterial road, which would run through the proposed subdivision, impacting future residential properties. The assessment is in accordance with the relevant noise criteria set out in the NSW 'Road Noise Policy' (RNP), the NSW 'State Environmental Planning Policy (Infrastructure)' 2007 (ISEPP) and the Camden Council Environmental Noise Policy 2018.

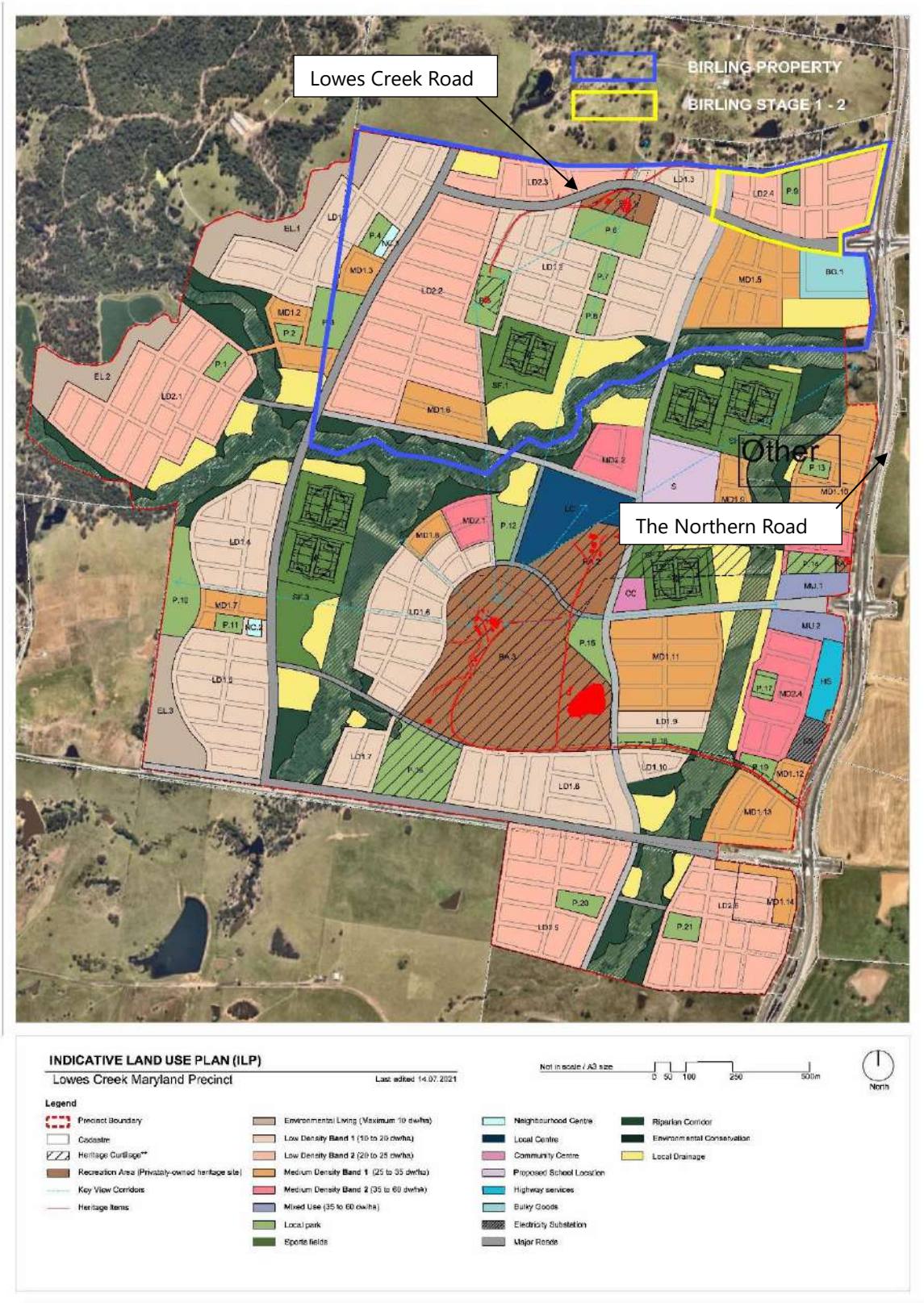
The work documented in this report was carried out in accordance with the Renzo Tonin & Associates Quality Assurance System, which is based on Australian Standard / NZS ISO 9001. Appendix A contains a glossary of acoustic terms used in this report.

2 Project Description

The Lowes Creek Maryland Precinct is located on The Northern Road at Bringelly. The Lowes Creek Maryland Precinct will provide approximately 7,000 new dwellings, as well as retail, commercial and recreational land uses. The Birling development occupies the northern portion of the Precinct and will will provide approximately 2,100 new dwellings. Birling Stages 1 & 2 subdivision will provide a total of 175 final residential lots plus superlots for future further subdivision.

Potential traffic noise impacting future residential properties within the Stages 1 & 2 subdivision includes The Northern Road and the future sub-arterial road, Lowes Creek Road, which would run through the proposed subdivision. Figure 1 shows the location of the Birling development and the Birling Stages 1 & 2 subdivision.

Figure 1 – Site Location



3 Road Traffic Noise Assessment

3.1 Road Traffic Noise Criteria

3.1.1 Camden Growth Centre Precincts Development Control Plan

The Camden Growth Centre Precincts Development Control Plan contains the following objectives and controls.

"**2.3.9 Noise**

Objectives

a. *To minimise the impacts of noise from major transport infrastructure, industrial and employment areas on residential amenity.*

b. *To achieve an acceptable residential noise environment whilst maintaining well designed and attractive residential streetscapes.*

Controls

1. **Figure 2-1** *provides guidance to applicants on measures to mitigate the impacts of rail and traffic noise within the Precinct.*

2. *Development Applications must be accompanied by an acoustic report where the development is in a location, shown on the Potential noise attenuation measures figure in the Precinct Schedule, such as:*

   - *Adjacent to a railway line, arterial road, sub-arterial road, transit boulevard or other road with traffic volumes predicted to exceed (or currently exceeding) 6,000 vehicles per day;*
   - *Potentially impacted upon by a nearby industrial/ employment area; or*
   - *Potentially impacting upon sensitive receivers such as residences within the precinct and outside the precinct.*

3. *The acoustic report shall demonstrate that the noise criteria in Development Near Rail Corridors and Busy Roads - Interim Guideline (Department of Planning 2008), and Council's Environmental Noise Policy have been considered.*

4. *Subdivision on land adjacent to significant noise sources is to consider and implement measures to attenuate noise within dwellings and in external areas that are classified as Principle Private Open Space (refer to clause 4.2.7)*

5. *Physical noise barriers (i.e. Noise walls or solid fencing) are not generally supported, and measures to attenuate noise through subdivision layout, such as setbacks, building orientation, and building design and materials selection should be implemented to achieve appropriate internal noise standards.*

4.2.9 Visual and Acoustic Privacy

Objectives

a. *To site and design dwellings to meet user requirements for visual and acoustic privacy, while minimising the visual and acoustic impacts of development on adjoining properties.*

b. *To minimise the impact of noise of other non-residential uses such as parking and sport areas, restaurants and cafes and waste collection and goods deliveries*

Controls

1. *Direct overlooking of main habitable areas and the private open spaces of adjoining dwellings should be minimised through building layout, window and balcony location and design, and the use of screening, including landscaping.*

2. *Living area windows on upper floors with a direct sightline within 9 metres to the Principal Private Open Space of an existing adjacent dwelling are to:*
   - *be obscured by fencing, screens or landscaping, or*
   - *be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent window; or*
   - *have sill height of 1.7 metres above floor level; or*
   - *have fixed obscure glazing in any part of the window below 1.7 metres above floor level.*

3. *Balconies are not permitted on the first floor of the side and / or rear portion of the dwelling except where the balcony faces a public road, or land zoned for public recreation or drainage.*

4. *The design of dwellings must minimize the opportunity for sound transmission through the building structure, with particular attention given to protecting bedrooms and living areas.*

5. *In attached and semi-detached dwellings, bedrooms of one dwelling are not to share walls with living spaces or garages of adjoining dwellings, unless it is demonstrated that the shared walls and floors meet the noise transmission and insulation requirements of the National Construction Code.*

6. *No electrical, mechanical or hydraulic equipment or plant shall generate a noise level greater than 5dBA above background noise level measured at the property boundary during the hours 7.00am to 10.00pm and noise is not to exceed background levels during the hours 10.00pm to 7.00am.*

7. *Dwellings along sub-arterial or arterial roads, or transit boulevards, or any other noise source, should be designed to minimize the impact of traffic noise, and where possible comply with the criteria in Table 4-7.*

8. *The internal layout of residential buildings, window openings, the location of outdoor living areas (i.e. courtyards and balconies), and building plant should be designed to minimise noise impact and transmission.*

9. *Noise walls are not permitted.*

10. *Development affected by rail or traffic noise is to comply with Development Near Rail Corridors and Busy Roads – Interim Guideline (Department of Planning 2008). The design of development is also to consider ways to mitigate noise in Principal Private Open Space areas with reference to Council's Environmental Noise Policy.*

11. *Architectural treatments are to be designed in accordance with AS3671 - Traffic Noise Intrusion Building Siting and Construction, the indoor sound criteria of AS2107 - Recommended Design Sound Levels and Reverberation Times for Building Interiors.*

Table 4-7 Noise criteria for residential premises impacted by traffic noise

	Sleeping areas	***Living areas***
Naturally ventilated/ windows open to 5% of the floor area (Mechanical ventilation or air conditioning systems not operating)	*LAeq 15 hours (day): 40dBA* *LAeq 9 hour (night): 35dBA*	*LAeq 15 hours (day): 45dBA* *LAeq 9 hour (night): 40dBA*
Doors and windows shut (Mechanical ventilation or air conditioning systems are operating)	*LAeq 15 hours (day): 43dBA* *LAeq 9 hour (night): 38dBA*	*LAeq 15 hours (day): 46dBA* *LAeq 9 hour (night): 43dBA*

Schedule 6 – Lowes Creek Maryland Precinct – 2.8 Noise

Objectives

a. *Provide an acceptable residential noise environment, whilst maintaining well-designed and attractive residential streetscapes*

b. *Minimise noise impacts on residential properties that are located in the vicinity of artieral, sub arterial collector , bus capable or heavy vehicle access roads and other significant noise sources within the Precinct*

c. *Minimise the impacts of noise on sensitive receivers through subdivision layout and building design*

Controls

1. *Development must be designed to comply with Camden Council's Environmental Noise Policy (2018).*

2. *An acoustic report is required to be submitted with any subdivision development applications that will result in residential dwelling adjoining principal arterial (i.e. The Northern Road), sub arterial, collector roads, and /or bus capable and heavy vehicle*

access roads. Acoustic reports must be prepared by a suitably qualified consultant. As a minimum, an acoustic report must:

a. identify receivers;

b. determine background noise levels (where required)

c. establish noise criteria;

d. provide predicted noise levels (including relevant assumptions)

e. assess potential impacts; and

f. consider reasonable and feasible mitigation measures

3. Council may determine whether an acoustic report is not required following consideration of a preliminary assessment from a suitably qualified acoustic consultant, justifying why an acoustic report is not required..

3.1.2 Camden Growth Centre Environmental Noise Policy 2018

The Camden Growth Centre Environmental Noise Policy 2018 contains the following objectives and controls for outdoor privates spaces impacted by road traffic noise.

3. The principle private open space of an equivalent area of useable open space of a dwelling within a new release area is not to exceed 57dBA LAeq (15hr) from 7am to 10pm.

Note: For clarification purposes, a new release area, includes land mapped as Urban Release Area within the Camden LEP 2010 and includes Growth Area Precincts that have been rezoned.

For dwellings in areas outside of the new release areas, the principle private open space area is to be attenuated to 55dBA LAeq (15hr) from 7am to 10pm.

Council may consider an increased decibel level where it can be demonstrated that the objectives of this policy are met and the above criteria is not able to be reasonably or feasibly achieved.

Note: The residential noise level criterion includes + 2.5 dBA allowance for noise reflected from the façade ('facade correction').

3.1.3 State Environmental Planning Policy (Transport and Infrastructure) 2021

The NSW 'State Environmental Planning Policy (Transport and Infrastructure)' 2021 (SEPP) is used to facilitate the effective delivery of infrastructure across the State. The aim of the policy includes identifying the environmental assessment category into which different types of infrastructure and service developments fall under and identifying matters to be considered in the assessment of development adjacent to particular types of infrastructure.

Pertinent to noise assessments, the SEPP includes the following section:

"**2.120 Impact of road noise or vibration on non-road development**

(1) This section applies to development for any of the following purposes that is on land in or adjacent to the road corridor for a freeway, a tollway or a transitway or any other road with an annual average daily traffic volume of more than 20,000 vehicles (based on the traffic volume data published on the website of TfNSW) and that the consent authority considers is likely to be adversely affected by road noise or vibration –

(a) residential accommodation,

(b) a place of public worship,

(c) a hospital,

(d) an educational establishment or centre-based child care facility.

(2) Before determining a development application for development to which this section applies, the consent authority must take into consideration any guidelines that are issued by the Planning Secretary for the purposes of this section and published in the Gazette.

(3) If the development is for the purposes of residential accommodation, the consent authority must not grant consent to the development unless it is satisfied that appropriate measures will be taken to ensure that the following LAeq levels are not exceeded –

(a) in any bedroom in the residential accommodation – 35 dB(A) at any time between 10pm and 7am,

(b) anywhere else in the residential accommodation (other than a garage, kitchen, bathroom or hallway) – 40 dB(A) at any time.

(3A) Subsection (3) does not apply t0 a building to which State Environmental Planning Policy (Housing) 2021, Chapter 3, Part 7 applies.

*(4) In this section, **freeway**, **tollway** and **transitway** have the same meanings as they have in the Roads Act 1993."*

The NSW Department of Planning '*Development Near Rail Corridors and Busy Roads – Interim Guideline*' (December 2008) (Guideline) is supplementary to the SEPP and assists in the planning, design and assessment of developments in, or adjacent to, major transport corridors in terms of noise, vibration and air quality. While the SEPP applies only to roads with an Annual Average Daily Traffic (AADT) greater than 20,000 vehicles, the guideline is also recommended for other road traffic noise affected sites.

The Guideline clarifies the time period of measurement and assessment. Section 3.4 '*What Noise and Vibration Concepts are Relevant*' and Table 3.1 of Section 3.6.1 confirms that the noise assessment is based over the following time periods:

- **Daytime:** 7am – 10pm $L_{Aeq,15\ hour}$

- **Night-time:** 10pm – 7am $L_{Aeq,9\ hour}$

The noise criteria nominated in the SEPP apply to internal noise levels with windows and doors closed. However, as the preliminary noise assessment is based on predictions at external locations, equivalent external noise criteria have been established. The equivalent external noise criteria are used to determine which areas of the development may require acoustic treatment in order to meet the internal noise requirements of the SEPP. The equivalent external criteria have been determined on the following basis:

- The Guideline states:

  "*If internal noise levels with windows or doors open exceed the criteria by more than 10 dBA, the design of the ventilation for these rooms should be such that occupants can leave windows closed, if they so desire, and also to meet the ventilation requirements of the Building Code of Australia*."

  The internal criteria with windows open are therefore 10 dB(A) above the criteria and should be applied when using the SEPP.

- The generally accepted noise reduction through an open window from a free-field external position is 10 dB(A). Windows / doors are assumed to be open no more than 5 % of the room's floor area, in accordance with the Building Code of Australia (BCA) ventilation requirements.

Based on the above, Table 3.1 presents the SEPP internal noise criteria along with the equivalent external noise criteria for residential premises.

Table 3.1 – SEPP Noise Criteria for New Residential Developments

Room	Location	$L_{Aeq,15\ hour}$ Day 7am – 10pm	$L_{Aeq,9\ hour}$ Night 10pm – 7am
Living rooms	Internal, windows closed	40	40
	Internal, windows open	50	50
	External free-field (allowing windows to remain open)[1]	60	60
Bedrooms	Internal, windows closed	40	35
	Internal, windows open	50	45
	External free-field (allowing windows to remain open)[1]	60	55

Notes: 1. SEPP Guideline states that where internal noise criteria are exceeded by more than 10 dB(A) with windows open mechanical ventilation is required.

2. External goals have been calculated on the basis of nominal 10 dB(A) reduction through an open window to a free-field position. Windows open to 5 % of floor area in accordance with the BCA 2011 requirements.

Based on the above table, the most stringent criteria for the day and night time periods will be used for the assessment of road traffic noise impacting the subject site. That is, for the day period the external free-field noise criterion will be **$L_{Aeq,15\ hour}$ 60 dB(A)** and for the night period the external free-field noise criterion will be **$L_{Aeq,9\ hour}$ 55 dB(A).** It is noted that Camden Growth Centre Environmental Noise Policy

2018 (refer to Section 3.1.2) day time criterion of 57 dB(A) is more stringent and will be used for private open spaces.

3.2 Road Traffic Noise Sources

The proposed development will potentially be affected by traffic noise along The Northern Road and the proposed Lowes Creek Road. Forecast AM/PM peak hour traffic volumes for the year 2031 have been provided by GHD (ref. 12573453, dated 17 February 2023).

As road traffic noise is assessed based on the daytime (7am – 10pm) and night time (10pm – 7am) traffic flows, these volumes have been calculated based on the following assumptions, commonly used for such assessments:

- Peak hour traffic volumes are 10% of the 24hr volume;
- The 15hr daytime volume is 85% of the 24hr volume; and
- Percentage of heavy vehicles in traffic mix based on peak hour traffic mix.

The traffic volumes used for the assessment are set out in Table 3.2. It is noted that variations in the actual traffic volumes will affect the noise level impact at receiver locations, in particular heavy vehicle percentages.

Table 3.2 – Year 2031 Future Traffic Volumes and Composition Data (Two-Way)

Road	Section	AADT	Day 15 hour (7am-10pm)	Night 9 hour (10pm-7am)	% Heavy Vehicle	Posted Speed, km/h
The Northern Road	North of Lowes Creek Road	33,090	28,126	4,964	10.1	80
	South of Lowes Creek Road	29,645	25,198	4,447	9.4	80
Lowes Creek Road	Between The Northern Road and first roundabout west of The Northern Road	10,895	9,261	1,634	10	60
	West of first roundabout west of The Northern Road	8,840	7,514	1,326	10	60

Notes: 1. Data provided in GHD traffic report (ref. 12573453, dated 17 February 2023)

3.3 Road Traffic Noise Modelling

The noise prediction model used to predict traffic noise levels for the project are contained within the calculation algorithms of the noise model developed by the United Kingdom Department of Environment entitled "Calculation of Road Traffic Noise (1988)" known as the CoRTN88 method. This method has been adapted to Australian conditions and extensively tested by the Australian Road Research Board.

The model predicts noise levels for free flowing traffic and a modified method has been developed which enables an accurate prediction of noise from high truck exhausts to be taken into account. The

method predicts the $L_{10(1hour)}$ noise levels within the daytime 15 hour (7am to 10pm) and night-time 9 hour (10pm to 7am) periods and a correction of -3 dB(A) is applied to obtain the $L_{eq,1\ hour}$ noise levels for each period. The $L_{eq,1\ hour}$ noise level for the time period 7am to 10pm is then equated to the daily $L_{eq,15\ hour}$ noise level. Similarly, the $L_{eq,1\ hour}$ noise level for the time period 10pm to 7am is then equated to the night time $L_{eq,9\ hour}$ noise level.

The noise prediction model takes into account the following modelling inputs.

Table 3.3 – Summary of Modelling Inputs

Input Parameters	Data Acquired From
Traffic volumes and mix	As described in Section 3.2
Vehicle speed	As described in Section 3.2
Gradient of roadway	Land contours provided by client
Source height	0.5 m for car exhaust, 1.5 m for car and truck engines and 3.6 m for truck exhaust and detailed within CoRTN88
Ground topography at receiver and road	Land contours provided by client
Angles of view from receiver	160 degrees for all receivers
Reflections from existing barriers, structures and cuttings on opposite side of road	Determined from Google Streetview and review of concept design. No structures or cuttings identified.
Proposed noise barrier	A 2.1m high noise barrier will be installed east of Local Road No.04 in order to provide shielding of traffic noise from The Northern Road 1.8m high fencing included as presented in Section 3.5.3. Refer to Section 3.5.3 for Specifications and Appendix B for locations.
Air and ground absorption	Detailed within CoRTN88, ground absorption varied along route. Numeric values varied between 0 (hard surface) to 1 (100% absorptive). A value of 0.75 was used in the model
Receiver Heights	• 1.5 m above local ground for Ground Floor • 4.5 m above local ground for First Floor
Future Dwellings	Each lot within the Stage 1 subdivision is assumed to have one double storey dwelling. Future dwellings are included in the modelling to allow for potential noise shielding from the first row of future dwellings fronting onto the modelled roads.
Free Field Noise Levels	Free field noise levels were used in this assessment as it is directly relevant to the assessment against the ISEPP criteria
Australian conditions correction	-0.7 dB(A) free field
Acoustic properties of road surfaces	Assumed dense graded asphalt
Roadside barriers	Assumes no existing noise barriers

3.4 Road Traffic Noise Assessment

3.4.1 Predicted Traffic Noise Levels

The noise prediction results are set out in a graphical format in APPENDIX B of this report. The results displayed in Figures 3 & 5 in APPENDIX B indicate that at ground floor level, facades of residential premises exposed to The Northern Road do not comply with the nominated criteria; however, the

private open spaces for majority of the lots are compliant with the DCP requirement due to acoustic shielding provided by the residential building envelopes.

Second storey facades of the dwellings facing The Northern Road are also exposed to noise levels above the ISEPP criteria. The results for the first floor level are displayed in Figures 4 & 6 in APPENDIX B

For facades that are exposed to noise levels above the nominated criteria, internal noise level criteria are required to be satisfied through appropriate design of the building envelope (e.g. glazing, doors and walls). Indicative acoustic design advice for affected building envelopes is set out in Section 3.5.

3.4.2 List of Affected Lots

Table 3.4 set out the identified noise affected lots. The lots were identified in accordance with the noise modelling presented in APPENDIX B.

Table 3.4 – Affected Final Residential Lots

1101	1102	1103	1104	1105	1106	1107	1108	1109	1110
1111	1112	1113	1114	1115	1116	1117	1118	1119	1120
1121	1122	1123	1143	1163	1164	1165	1166	1175	1189
1190	2116	2117	2118	2119	2120	2142	2156	2157	2158
2159	2160	2161	2162	2163	2164	2165	2166	2167	2168
2169	2170	2171	2172	2173	2174	2175	2176		

3.5 Noise Control Treatment Recommendations

The noise modelling shows areas where the external noise goals have not been met. Therefore the recommended internal noise criteria should be achieved through proper building design and glazing selection.

The following recommendations provide in-principle noise control solutions to reduce noise impacts inside residential premises and are based on a number of assumptions relating to the built form. Furthermore the advice provided here is in respect of acoustics only. Supplementary professional advice should be sought in respect of fire ratings, structural design, buildability, fitness for purpose and the like.

3.5.1 Building Layout

Dwellings constructed in traffic noise affected areas can be designed so that their layouts minimise noise in living and sleeping areas. Best practice elements for good acoustic design of development around road transport corridors include:

- designing the layout of residential buildings to have bedrooms on the opposite side of the building to the road transport corridor. Non-habitable rooms (such as the bathroom, hallway, laundry, kitchen) can be placed on the road side of the building;

- provide adequate acoustic windows and doors with good quality acoustic seals (where applicable) on the residential building facades exposed to traffic noise.

3.5.2 Indicative Building Construction Requirements

On the basis of our noise modelling and in accordance with the internal noise goals set out in Section 4.1, recommendations for building element constructions are presented in Table 3.6 for the following room types. It is assumed that non-habitable rooms are separated from habitable spaces by doors (i.e. doors to studies, laundries and ensuites/bathrooms, etc.).

Table 3.5 – Assumed Room Parameters for a Conservative Assessment

Room	Item	Description
Bedroom	Dimensions (L x W x H)	4m x 4m x 2.7
	Surface Finishes	Carpeted floors with underlay, plasterboard walls, plasterboard ceiling, and bed
Living Room	Dimensions (L x W x H)	7m x 5m x 2.7
	Surface Finishes	Timber or tiled floors, plasterboard walls, plasterboard ceiling
Lounge	Dimensions (L x W x H)	6m x 4m x 2.7
	Surface Finishes	Carpeted floors with underlay, plasterboard walls, plasterboard ceiling

It is assumed that dwellings will be generally of typical construction equivalent to weatherboard, 100mm timber stud, minimum 50mm clearance between weatherboard and stud frame, R2.0 insulation batts in wall cavity and 10mm standard plasterboard internal lining. The roof has been assumed to be pitched concrete or terracotta tile or sheet metal roof with sarking, 1 layer of 13mm plasterboard fixed to ceiling joists, R2.0 insulation batts in roof cavity.

Table 3.6 – Indicative Window Requirements for Habitable Rooms

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
1101, 1102, 1103	Eastern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1104, 1105, 1106	Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1107, 1108	Eastern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
1109, 1110, 1111	Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1112, 1113, 1114, 1115, 1116, 1117, 1118, 1119, 1120	Eastern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1121, 1122, 1123	Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern, Western	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1143	Northern	Bedrooms	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
		(First Floor)	Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern	Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1163, 1164, 1165, 1166	Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1175	Southern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern, Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
1189	Southern, Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
			Walls/roof/ceiling	Standard constructions	
1190	Southern, Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2116	Southern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern, Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2117, 2118, 2119, 2120	Southern	Bedrooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2142	Southern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
	Eastern, Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2156	Southern, Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern	Bedrooms First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166	Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Eastern	Bedrooms	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals

Lots	Facade Orientation	Room	Construction Element	Indicative Construction	
2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175		(Ground and First Floor)	Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern, Southern	Bedrooms First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
2176	Southern, Eastern	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 33	6.38mm laminated glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Western	Bedrooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (Ground and First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	
	Northern	Bedrooms First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			Walls/roof/ceiling	Standard constructions	
		Lounge/living rooms (First Floor)	Windows/glazed doors*	R_W 26	4mm float glass with acoustic seals
			External Timber doors	30mm solid core timber - standard weather seals	
			Walls/roof/ceiling	Standard constructions	

The acoustic requirements for windows and doors have been provided on an RW basis so as to allow flexibility with the developer and variations in design due to other design requirements such as thermal performance.

3.5.3 Boundary Fences

1.8m high acoustically rated boundary fences are required, as shown in Figure 2:

- On the north-western and north western boundary of Lot 1101 including return on the eastern end;
- Partial fence on the southern boundary of Lot 1175 and Lot 1189, barrier to extend at least 5m beyond both side of the gap between dwellings;
- Partial fence on the southern boundary of Lot 1190 and Lot 2116, barrier to extend at least 5m beyond both side of the gap between dwellings;
- Partial fence on the southern boundary of Lot 2142 and Lot 2156, barrier to extend at least 5m beyond both side of the gap between dwellings, and a fence from the north-eastern corner of Lot 2156 building to the northern lot boundary;
- On the north boundary of Lot 2166 including return on the western end;
- On the north boundary of Lot 2167 including return on the eastern end;
- Partial fence on the southern boundary of Lot 2176, barrier to extend at least 5m beyond both side of the gap between dwellings, and a fence from the north-western corner of Lot 2176 building to the northern lot boundary;

Figure 2: Boundary Fence Locations



An acoustically rated fence can be constructed of common building materials but needs to be from a durable material with sufficient mass (min. 10 kg/m^2) to prevent direct noise transmission e.g. colorbond masonry, fibrous-cement, lapped and capped timber fence, polycarbonate, or any combination of such materials, provided they withstand the weather elements. A natural barrier of trees or shrubs is not an effective noise screen. The boundary fence should be continuous with no gaps between panels or underneath panels (other than that required for gates). It is recommended that rebates be incorporated into any gates.

For the remaining lots, the provision of solid boundary fences between residential lots can be beneficial to the ground floor of properties that are directly exposed to the roads. Acoustically rated fences are not specifically required along common boundaries between individual dwellings.

3.5.4 Mechanical Ventilation

Where glazing requirements are specified in Table 3.6 windows are to be kept closed to meet the internal noise goals. It is noted that windows are not required to be sealed shut/fixed and can be operable.

It is recommended that a mechanical engineer is consulted to ensure the ventilation requirements of the Building Code of Australia and Australian Standard 1668 "The use of ventilation and air-conditioning in buildings" are achieved. The internal noise goals are to be met with mechanical ventilation systems not operating.

Mechanical ventilation with air filtering is a good solution for adequately ventilating a building adjacent to a busy road in terms of both noise and air quality. The 'Aeropac' acoustic ventilator is one such system which has previously been installed in dwellings around Sydney.

If the internal criteria can only be achieved with windows closed, then mechanical ventilation or air conditioning that meets the requirements of the Building Code of Australia must also be provided to ensure fresh airflow inside the dwelling. It is important to ensure that mechanical ventilation does not provide a new noise leakage path into the dwelling and does not create a noise nuisance to neighbouring residential premises.

4 Conclusion

Renzo Tonin & Associates have completed an investigation of traffic noise impacts for the proposed Biring Stages 1 & 2 subdivision within the Lowes Creek Maryland Precinct. Traffic noise impacts have been quantified and compared to the relevant noise guidelines.

Any noise mitigation recommendations included in this report are in-principle only.

APPENDIX A Glossary of Terminology

The following is a brief description of the technical terms used to describe noise to assist in understanding the technical issues presented.

Adverse weather	Weather effects that enhance noise (that is, wind and temperature inversions) that occur at a site for a significant period of time (that is, wind occurring more than 30% of the time in any assessment period in any season and/or temperature inversions occurring more than 30% of the nights in winter).
Ambient noise	The all-encompassing noise associated within a given environment at a given time, usually composed of sound from all sources near and far.
Assessment period	The period in a day over which assessments are made.
Assessment point	A point at which noise measurements are taken or estimated. A point at which noise measurements are taken or estimated.
Background noise	Background noise is the term used to describe the underlying level of noise present in the ambient noise, measured in the absence of the noise under investigation, when extraneous noise is removed. It is described as the average of the minimum noise levels measured on a sound level meter and is measured statistically as the A-weighted noise level exceeded for ninety percent of a sample period. This is represented as the L90 noise level (see below).
Decibel [dB]	The units that sound is measured in. The following are examples of the decibel readings of every day sounds: 0dB The faintest sound we can hear 30dB A quiet library or in a quiet location in the country 45dB Typical office space. Ambience in the city at night 60dB CBD mall at lunch time 70dB The sound of a car passing on the street 80dB Loud music played at home 90dB The sound of a truck passing on the street 100dB The sound of a rock band 115dB Limit of sound permitted in industry 120dB Deafening
dB(A)	A-weighted decibels. The A- weighting noise filter simulates the response of the human ear at relatively low levels, where the ear is not as effective in hearing low frequency sounds as it is in hearing high frequency sounds. That is, low frequency sounds of the same dB level are not heard as loud as high frequency sounds. The sound level meter replicates the human response of the ear by using an electronic filter which is called the "A" filter. A sound level measured with this filter switched on is denoted as dB(A). Practically all noise is measured using the A filter.
dB(C)	C-weighted decibels. The C-weighting noise filter simulates the response of the human ear at relatively high levels, where the human ear is nearly equally effective at hearing from mid-low frequency (63Hz) to mid-high frequency (4kHz), but is less effective outside these frequencies.
Frequency	Frequency is synonymous to pitch. Sounds have a pitch which is peculiar to the nature of the sound generator. For example, the sound of a tiny bell has a high pitch and the sound of a bass drum has a low pitch. Frequency or pitch can be measured on a scale in units of Hertz or Hz.
Impulsive noise	Having a high peak of short duration or a sequence of such peaks. A sequence of impulses in rapid succession is termed repetitive impulsive noise.
Intermittent noise	The level suddenly drops to that of the background noise several times during the period of observation. The time during which the noise remains at levels different from that of the ambient is one second or more.
L_{Max}	The maximum sound pressure level measured over a given period.
L_{Min}	The minimum sound pressure level measured over a given period.

L_1	The sound pressure level that is exceeded for 1% of the time for which the given sound is measured.
L_{10}	The sound pressure level that is exceeded for 10% of the time for which the given sound is measured.
L_{90}	The level of noise exceeded for 90% of the time. The bottom 10% of the sample is the L90 noise level expressed in units of dB(A).
L_{eq}	The "equivalent noise level" is the summation of noise events and integrated over a selected period of time.
Reflection	Sound wave changed in direction of propagation due to a solid object obscuring its path.
SEL	Sound Exposure Level (SEL) is the constant sound level which, if maintained for a period of 1 second would have the same acoustic energy as the measured noise event. SEL noise measurements are useful as they can be converted to obtain Leq sound levels over any period of time and can be used for predicting noise at various locations.
Sound	A fluctuation of air pressure which is propagated as a wave through air.
Sound absorption	The ability of a material to absorb sound energy through its conversion into thermal energy.
Sound level meter	An instrument consisting of a microphone, amplifier and indicating device, having a declared performance and designed to measure sound pressure levels.
Sound pressure level	The level of noise, usually expressed in decibels, as measured by a standard sound level meter with a microphone.
Sound power level	Ten times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power.
Tonal noise	Containing a prominent frequency and characterised by a definite pitch.

APPENDIX B Noise Modelling Results - Barriers Included as Marked

Figure 3 – Design Year 2031 Day Time $L_{Aeq,15\ hour}$ Noise Contours (Ground Floor)

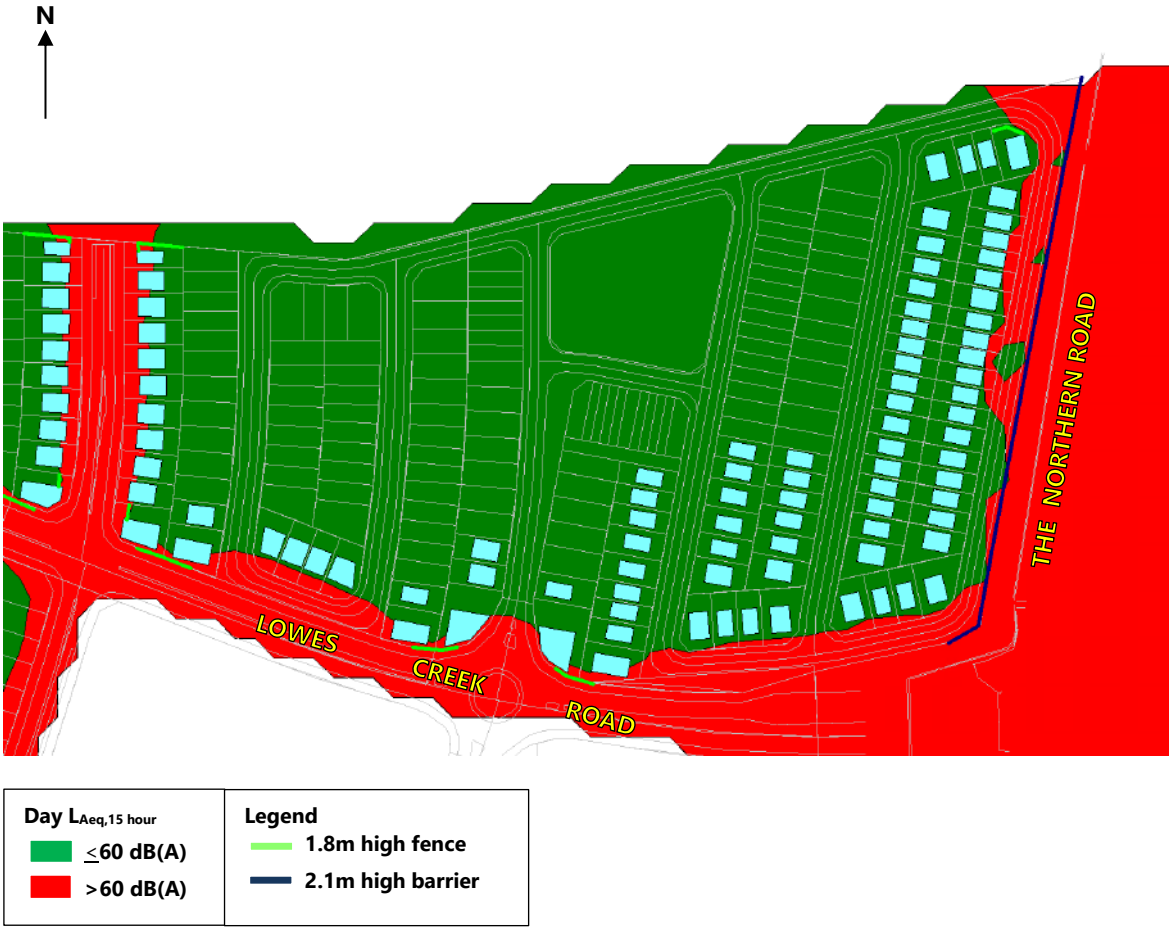


Figure 4 – Design Year 2031 Day Time $L_{Aeq,15\ hour}$ Noise Contours (First Floor)

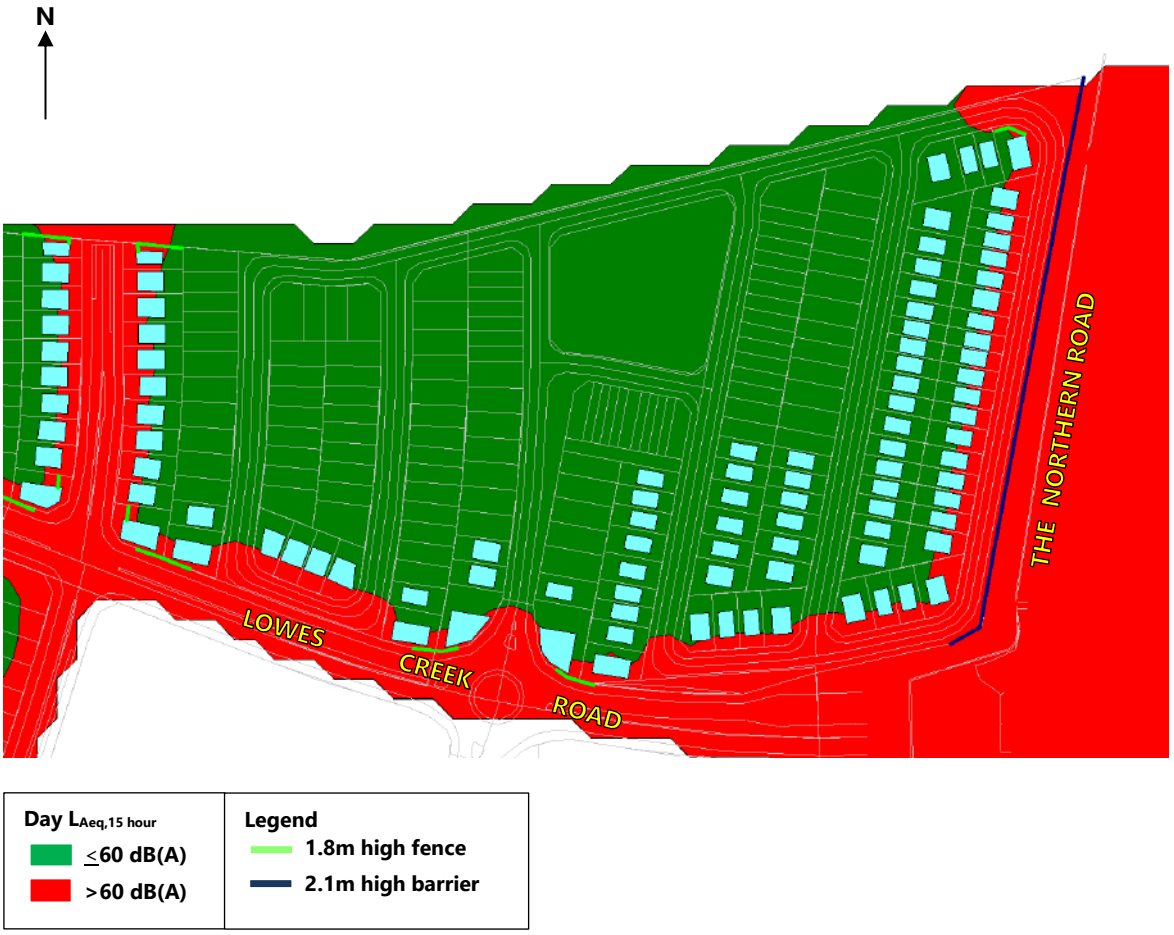


Figure 5 – Design Year 2031 Night Time $L_{Aeq,9\ hour}$ Noise Contours (Ground Floor)

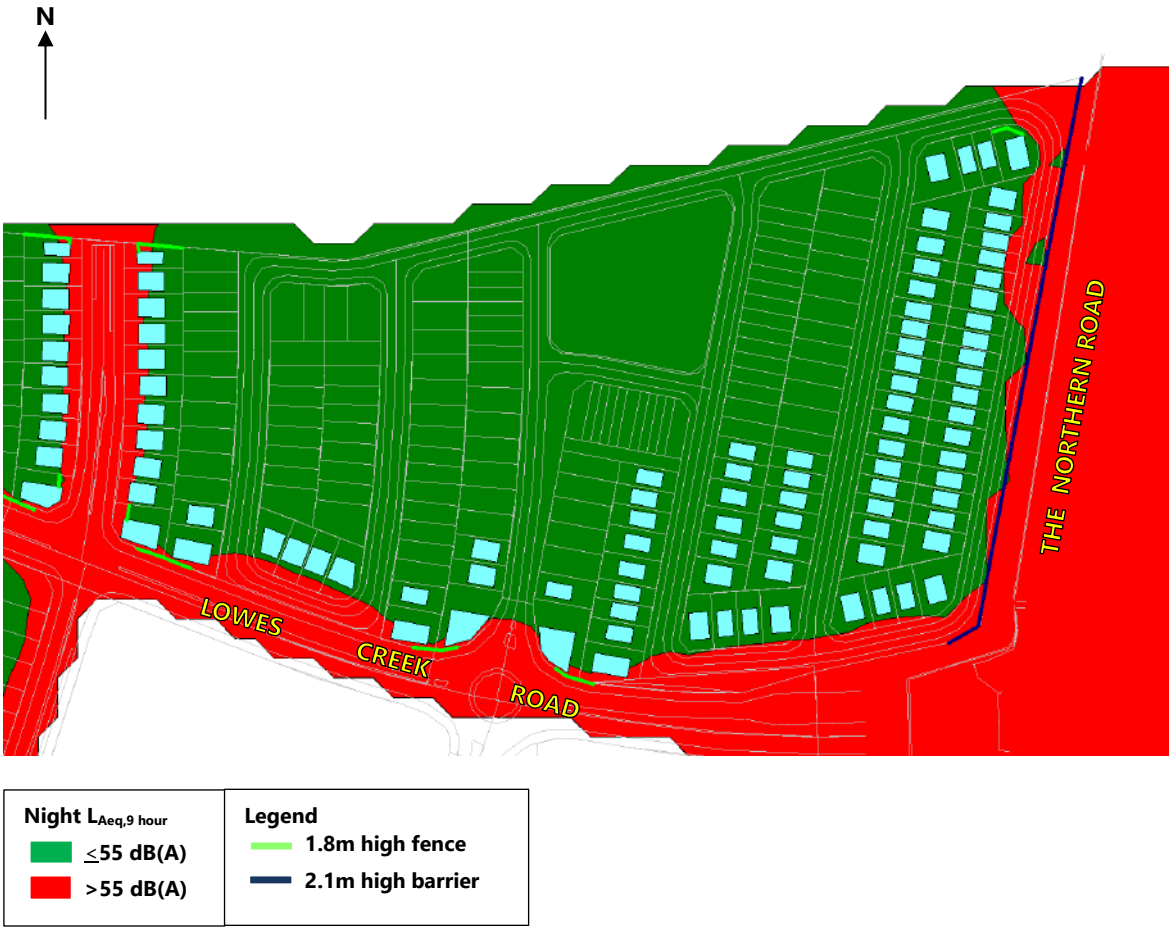


Figure 6 – Design Year 2031 Night Time $L_{Aeq,9\ hour}$ Noise Contours (First Floor)

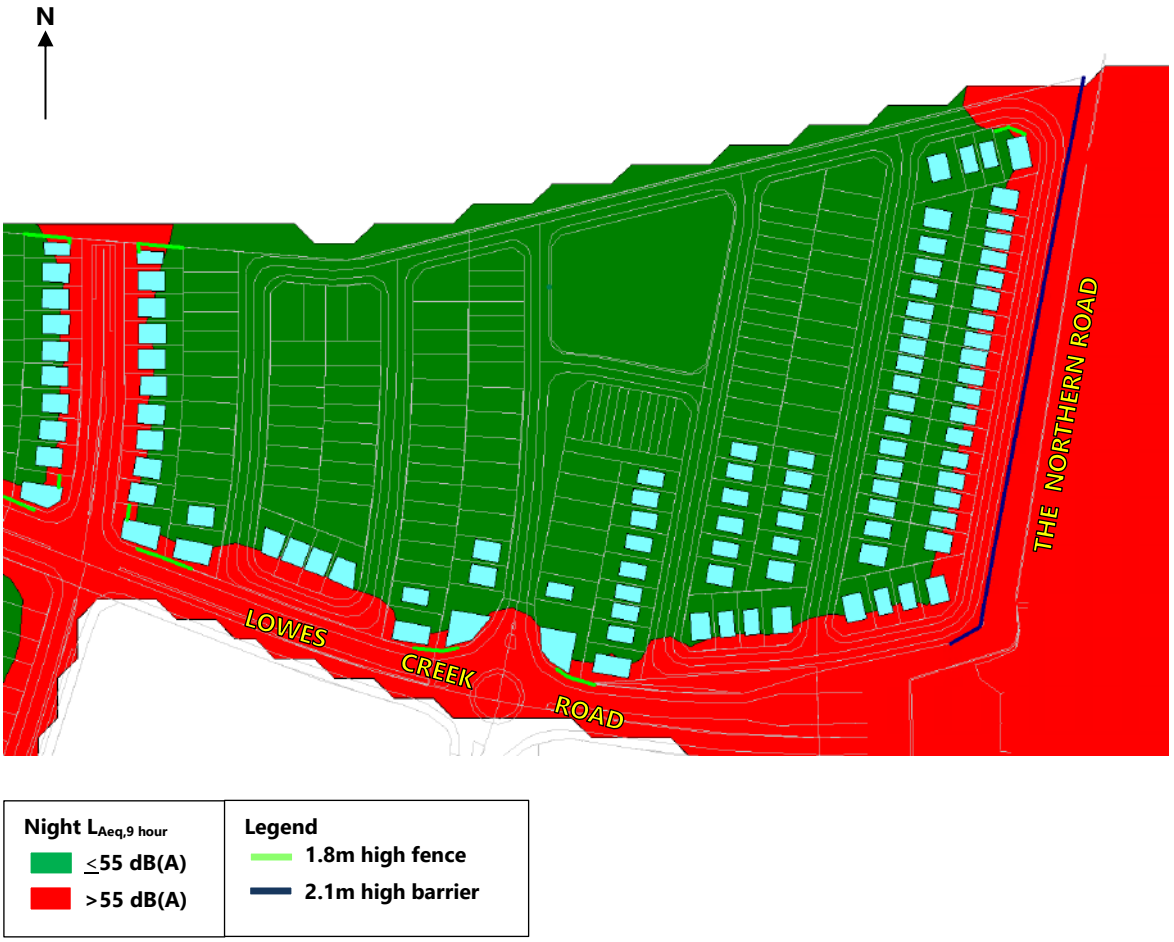
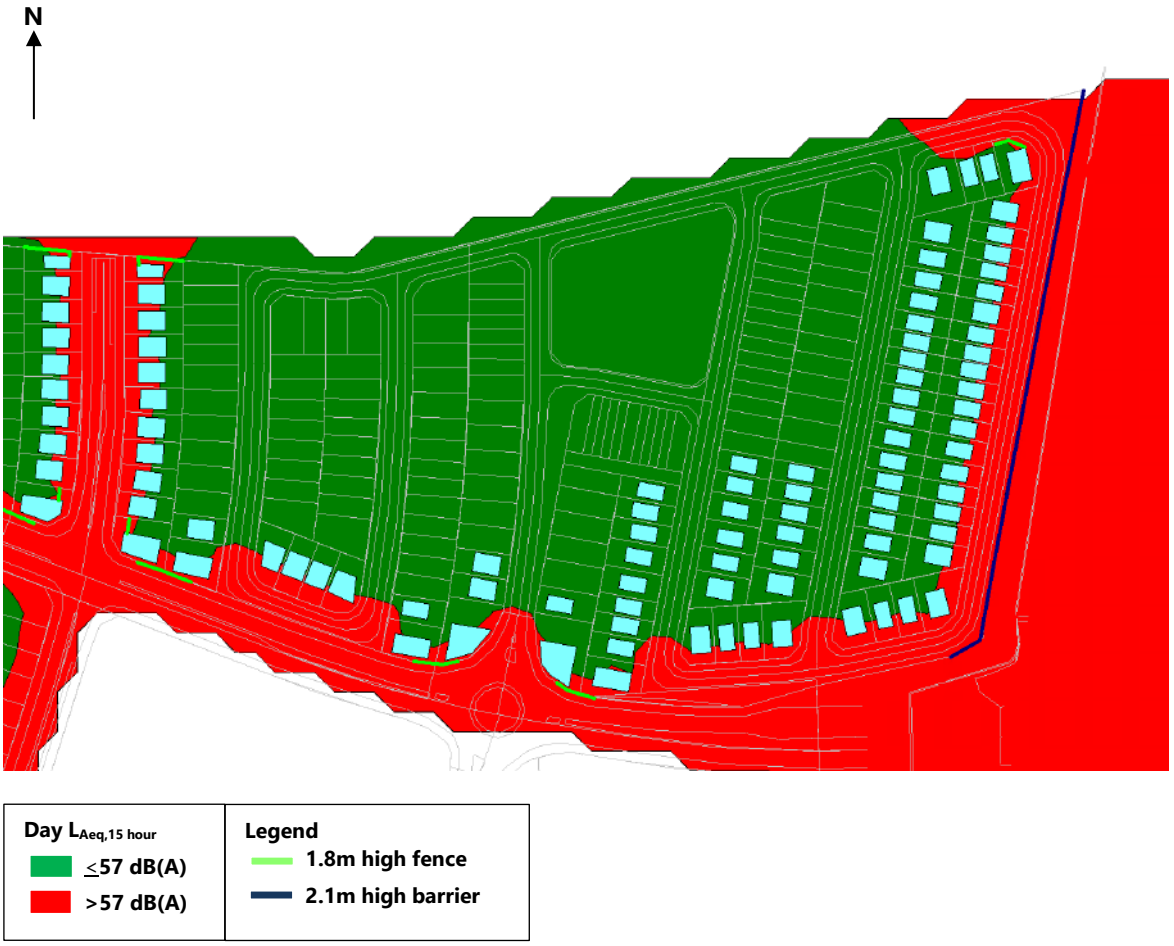


Figure 7 – Design Year 2031 Day Time $L_{Aeq,15\ hour}$ Noise Contours (Camden Council Open Space Criteria)



ATTACHMENT 8 – STANDARD REQUISITIONS

RESIDENTIAL PROPERTY REQUISITIONS ON TITLE

Vendor:
Purchaser:
Property:
Dated:

Possession and tenancies

1. Vacant possession of the Property must be given on completion unless the Contract provides otherwise.
2. Is anyone in adverse possession of the Property or any part of it?
3.
   (a) What are the nature and provisions of any tenancy or occupancy?
   (b) If they are in writing, all relevant documentation should be produced, found in order and handed over on completion with notices of attornment.
   (c) Please specify any existing breaches.
   (d) All rent should be paid up to or beyond the date of completion.
   (e) Please provide details of any bond together with the Rental Bond Board's reference number.
   (f) If any bond money is held by the Rental Bond Board, the appropriate transfer documentation duly signed should be handed over on completion.
   (g) Has the vendor or the tenant of the premises taken any steps to seek any benefit or protection under any law enacted in response to the COVID-19 pandemic? If so, please provide details of the steps taken and of the progress or outcome of any negotiations or hearing.
   (h) Has there been any application for land tax relief or residential tenancy support payment? If so, please provide details.
4. Is the Property affected by a protected tenancy (a tenancy affected by Schedule 2, Part 7 of the *Residential Tenancies Act 2010* (NSW))? If so, please provide details.
5. If the tenancy is subject to the *Residential Tenancies Act 2010* (NSW):
   (a) has either the vendor or any predecessor or the tenant applied to the NSW Civil and Administrative Tribunal for an order?
   (b) have any orders been made by the NSW Civil and Administrative Tribunal? If so, please provide details.

Title

6. Subject to the Contract, on completion the vendor should be registered as proprietor in fee simple of the Property free from all encumbrances and notations.
7. On or before completion, any mortgage, caveat, writ or priority notice must be discharged, withdrawn, cancelled or removed as the case may be or, in the case of a mortgage, caveat or priority notice, an executed discharge or withdrawal or removal handed over on completion.
8. Are there any proceedings pending or concluded that could result in the recording of any writ on the title to the Property or in the General Register of Deeds? If so, full details should be provided at least 14 days prior to completion.
9. Are any chattels or fixtures subject to any hiring or leasing agreement or charge or to any security interest under the *Personal Property Securities Act 2009* (Cth)? If so, details must be given and all indebtedness cleared and title transferred unencumbered to the vendor prior to completion.

Adjustments

10. All outgoings referred to in clause 14.1 and 23.5 to 23.7 (inclusive) of the Contract must be paid up to and including the date of completion.
11. Is the vendor liable to pay land tax or is the Property otherwise charged or liable to be charged with land tax? If so:
    (a) to what year has a return been made?
    (b) what is the taxable value of the Property for land tax purposes for the current year?
12. If any land tax certificate or property tax status certificate under the *Property Tax (First Home Buyer Choice) Act 2022* (NSW) shows a charge for land tax or property tax on the land, the vendor must produce evidence at completion that the charge is no longer effective against the land.

Survey and building

13. Subject to the Contract, the survey should be satisfactory and show that the whole of the Property is available and that there are no encroachments by or upon the Property and that all improvements comply with local government/planning legislation.
14. Is the vendor in possession of a survey report? If so, please produce a copy for inspection prior to completion. The original should be handed over on completion.
15.
    (a) Have the provisions of the *Local Government Act 1993* (NSW), the *Environmental Planning and Assessment Act 1979* (NSW) and their regulations been complied with?
    (b) Is there any matter that could justify the making of an upgrading or demolition order in respect of any building or structure?
    (c) Has the vendor a Building Information Certificate or a Building Certificate which relates to all current buildings or structures? If so, it should be handed over on completion. Please provide a copy in advance.
    (d) Has the vendor a Final Occupation Certificate (as referred to in the former Section 109C of the

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Environmental Planning and Assessment Act 1979 (NSW)) or an Occupation Certificate as referred to in Section 6.4 of the *Environmental Planning and Assessment Act 1979* (NSW) for all current buildings or structures? If so, it should be handed over on completion. Please provide a copy in advance.

(e) In respect of any residential building work carried out in the last 7 years:
  (i) please identify the building work carried out;
  (ii) when was the building work completed?
  (iii) please state the builder's name and licence number;
  (iv) please provide details of insurance or any alternative indemnity product under the *Home Building Act 1989* (NSW).

(f) Have any actions been taken, including the issuing of any notices or orders, relating to any building or building works under the *Residential Apartment Buildings (Compliance and Enforcement Powers) Act 2020* (NSW) or have any undertakings been given by any developer under that Act? Any outstanding obligations should be satisfied by the vendor prior to completion.

16.

(a) Has the vendor (or any predecessor) entered into any agreement with or granted any indemnity to the Council or any other authority concerning any development on the Property?

(b) Is there any planning agreement or other arrangement referred to in Section 7.4 of the *Environmental Planning and Assessment Act 1979* (NSW), (registered or unregistered) affecting the Property? If so please provide details and indicate if there are any proposals for amendment or revocation?

17. If a swimming pool is included in the sale:
(a) did its installation or construction commence before or after 1 August 1990?
(b) has the swimming pool been installed or constructed in accordance with approvals under the *Local Government Act 1919* (NSW) and *Local Government Act 1993* (NSW)?
(c) does it comply with the provisions of the *Swimming Pools Act 1992* (NSW) and regulations relating to access? If not, please provide details or the exemptions claimed;
(d) have any notices or orders issued or been threatened under the *Swimming Pools Act 1992* (NSW) or regulations?
(e) if a certificate of non-compliance has issued, please provide reasons for its issue if not disclosed in the contract;
(f) originals of certificate of compliance or non-compliance and occupation certificate should be handed over on settlement.

18.

(a) To whom do the boundary fences belong?
(b) Are there any party walls?
(c) If the answer to Requisition 18(b) is yes, specify what rights exist in relation to each party wall and produce any agreement. The benefit of any such agreement should be assigned to the purchaser on completion.
(d) Is the vendor aware of any dispute regarding boundary or dividing fences or party walls?
(e) Has the vendor received any notice, claim or proceedings under the *Dividing Fences Act 1991* (NSW) or the *Encroachment of Buildings Act 1922* (NSW)?

Affectations/Benefits

19.

(a) Is the vendor aware of any rights, licences, easements, covenants or restrictions as to use affecting or benefiting the Property other than those disclosed in the Contract? If a licence benefits the Property please provide a copy and indicate:
  (i) whether there are any existing breaches by any party to it;
  (ii) whether there are any matters in dispute; and
  (iii) whether the licensor holds any deposit, bond or guarantee.

(b) In relation to such licence:
  (i) All licence fees and other moneys payable should be paid up to and beyond the date of completion;
  (ii) The vendor must comply with all requirements to allow the benefit to pass to the purchaser.

20. Is the vendor aware of:
(a) any road, drain, sewer or storm water channel which intersects or runs through the land?
(b) any dedication to or use by the public of any right of way or other easement over any part of the land?
(c) any latent defects in the Property?

21. Has the vendor any notice or knowledge that the Property is affected by the following:
(a) any resumption or acquisition or proposed resumption or acquisition?
(b) any notice requiring work to be done or money to be spent on the Property or any footpath or road adjoining? If so, such notice must be complied with prior to completion.
(c) any work done or intended to be done on the Property or the adjacent street which may create a charge on the Property or the cost of which might be or become recoverable from the purchaser?
(d) any sum due to any local or public authority? If so, it must be paid prior to completion.
(e) any realignment or proposed realignment of any road adjoining the Property?
(f) the existence of any contamination including, but not limited to, materials or substances dangerous to health such as asbestos and fibreglass or polyethylene or other flammable or combustible material including cladding?

22. If the Property is a building or part of a building to which external combustible cladding has been applied, has the owner provided to the Planning Secretary details of the building and the external combustible cladding and is the building recorded in the Register maintained by the Secretary?

23.

(a) Does the Property have the benefit of water, sewerage, drainage, electricity, gas and telephone services?
(b) If so, do any of the connections for such services pass through any adjoining land?

(c) Do any service connections for any other property pass through the Property?

24. Has any claim been made by any person to close, obstruct or limit access to or from the Property or to prevent the enjoyment of any rights appurtenant to the Property?

Capacity

25. If the Contract discloses that the vendor is a trustee, evidence should be produced to establish the trustee's power of sale.

Requisitions and transfer

26. If not attached to the Contract and the transaction is not an excluded transaction, any *clearance certificate* under Section 14-220 of Schedule 1 of the *Taxation Administration Act 1953* (Cth) should be served on the purchaser at least 5 business days prior to completion.

27. The vendor should furnish completed details within the time specified in the contract, sufficient to enable the purchaser to make any *GSTRW* payment.

28. If any document created for completion is executed pursuant to a power of attorney, then at least 7 days prior to completion a copy of the registered power of attorney should be produced and found in order.

29. Searches, surveys and enquiries must prove satisfactory.

30. The purchaser reserves the right to make further requisitions prior to completion.

31. Unless we are advised by you to the contrary prior to completion, it will be assumed that your replies to these requisitions remain unchanged as at the completion date.

Off the plan contract

32. If the Contract is an off the plan contract:

(a) Is the vendor aware of any inaccuracy in the disclosure statement attached to the Contract? If so, please provide particulars.

(b) The vendor should before completion serve on the purchaser a copy of the registered plan and any document that was registered with the plan.

(c) Please provide details, if not already given, of the holding of the deposit or any instalment as trust or controlled monies by a real estate agent, licensed conveyancer or law practice.

(d) Has any developer provided to the Secretary of the Department of Customer Services an expected completion notice under the *Residential Apartment Buildings (Compliance and Enforcement Powers) Act 2020* (NSW) in relation to the Property? If so, when was it made?

(e) The vendor should provide an occupation certificate as referred to in Section 6.4 of the *Environmental Planning and Assessment Act 1979* (NSW) for all buildings or structures on the Property.