

#### **ACTIVITY DETERMINATION**

Project No. BGYQW

Conflict of Interest <sup>1</sup>	Conflict of Interest <sup>1</sup>					
In this matter:						
Chief Executive, Land & Housing Corporation	s that would affect my professional judgement.					
Signed. Signed.						
NameEmma Nicholson	Dated24 August 2023					

Having regard to the Determination Recommendation Report, the Statement of Compliance and the Review of Environmental Factors for this project addressing matters under Part 5 of the *Environmental Planning and Assessment Act 1979*, I determine that the activity proceed as described below and subject to the identified requirements set out in **Schedule 1**.

SITE IDENTIFICATION					
STREET ADDRESS					
Unit/Street No	Street or property name				
44	Cadaga Road				
Suburb, town or locality		Postcode			
Gateshead		2290			
Local Government Area(s)	Real property description (Lot and	d DP)			
Lake Macquarie	Lot 499 in DP224374				
ACTIVITY DESCRIPTION					
Provide a description of the activity					
Construction of a dual occupancy development comprising 2x4 bedroom dwellings with attached single garages, associated tree removal, landscaping and fencing, and the creation of an easement to drain water over Lot 498 in Deposited Plan 224374.					

Conflict of interest includes actual and potential. A conflict of interest includes pecuniary i.e. financial interests to you or a related party or non-pecuniary i.e. benefits to relatives, friends, business associates and personal causes, etc. This includes "related persons" as defined in the Property, Stock and Business Agency Act 2002.

Dated....24 August 2023

Emma Nicholson
A/Head of Policy and Innovation
Land and Housing Corporation
Department of Planning & Environment

#### SCHEDULE 1

#### **IDENTIFIED REQUIREMENTS**

#### PART A - Standard Identified Requirements

#### THE DEVELOPMENT

The following identified requirements are to ensure that the residential activity is carried out in accordance with the plans / documents and any amendments arising from the Review of Environmental Factors under Part 5 of the Environmental Planning & Assessment Act 1979, Section 171 of the Environmental Planning and Assessment Regulation 2021 and the requirements of State Environmental Planning Policy (Housing) 2021.

1. The development shall be carried out substantially in accordance with the following plans / documents as modified below and by any of the undermentioned identified requirements:

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
Architectural				
Cover Page	DA 01	Α	05.04.2023	ZMP Architects & Heritage Consultants
Site Analysis & Demolition Plan, Streetscape, Block Analysis	DA02	A	05.04.2023	ZMP Architects & Heritage Consultants
Site/Ground Floor Plan & Fence Details	DA03	А	05.04.2023	ZMP Architects & Heritage Consultants
First Floor Plan & Roof Plan	DA04	А	05.04.2023	ZMP Architects & Heritage Consultants
Elevations	DA05	А	05.04.2023	ZMP Architects & Heritage Consultants
Sections	DA06	Α	05.04.2023	ZMP Architects & Heritage Consultants
Finishes Schedule	DA07	Α	05.04.2023	ZMP Architects & Heritage Consultants
Cut/Fill and Retaining Walls Site Plan	DA08	A	05.04.2023	ZMP Architects & Heritage Consultants
Shadowing June 21st 9.00am	A100	-	03.04.2023	Cad Draft P/L

			1	
Shadowing June 21st	A101	-	03.04.2023	Cad Draft P/L
10.00am				
Shadowing June 21st	A102	-	03.04.2023	Cad Draft P/L
11.00am	1100		0001000	
Shadowing June 21st	A103	-	03.04.2023	Cad Draft P/L
12.00pm	440.4		00040000	0.15.6.5#
Shadowing June 21st	A104	-	03.04.2023	Cad Draft P/L
1.00pm	1105	-	00.04.0000	0 15 (15)
Shadowing June 21st	A105	-	03.04.2023	Cad Draft P/L
2.00pm	A100		00.04.0000	0 10 (10)
Shadowing June 21st	A106	-	03.04.2023	Cad Draft P/L
3.00pm 3D Sun Views June	A107		03.04.2023	Cad Draft P/L
21st 9.00am	AIU/	-	03.04.2023	Cad Draft P/L
3D Sun Views June	A108	_	03.04.2023	Cad Draft P/L
21st 10.00am	AIUO	-	03.04.2023	Cau Diait P/L
3D Sun Views June	A109	_	03.04.2023	Cad Draft P/L
21st 11.00am	Alue	-	03.04.2023	Cau Diait P/L
3D Sun Views June	A110	_	03.04.2023	Cad Draft P/L
21st 12.00pm	ATIO	-	03.04.2023	Cau Diait F/L
3D Sun Views June	A111	_	03.04.2023	Cad Draft P/L
21st 1.00pm	AIII	-	03.04.2023	Cau Diait F/L
3D Sun Views June	A112	_	03.04.2023	Cad Draft P/L
21st 2.00pm	AIIZ	_	03.04.2023	Cad Diait F/L
3D Sun Views June	A113	_	03.04.2023	Cad Draft P/L
21st 3.00pm	ATIO	-	03.04.2023	Cad Diait F/L
Civil/ Stormwater				
Notes & Legend	C001	1	05.04.2023	JN Responsive Engineering
Typical Details	C050	1	05.04.2023	
		1		JN Responsive Engineering
Ground Stormwater	C200	'	05.04.2023	JN Responsive Engineering
Plan Roof Stormwater	C300	1	05.04.2023	IN Decreasive Engineering
Plan	C300	'	05.04.2023	JN Responsive Engineering
Driveway Layout	C400	1	05.04.2023	JN Responsive Engineering
Plan	C400	1	05.04.2023	In Responsive Engineering
	ESM1	1	05.04.2023	IN Deepensive Engineering
Notes Legend & Details	ESMI	1	05.04.2023	JN Responsive Engineering
ESM Plan	ESM2	1	05.04.2023	IN Deepensive Engineering
	ESIVIZ	<u> </u>	05.04.2025	JN Responsive Engineering
Landscape	1 4 1 - 4 2		02.04.2022	Creanland Design Dtylltd
Landscape Plan	LA 1 of 2 LA 2 of 2	C	03.04.2023	Greenland Design Pty Ltd Greenland Design Pty Ltd
Landscape Details	LA 2 OT 2	C	03.04.2023	Greenland Design Pty Ltd
and Specification				
Survey	C1 of 1	1	22.02.2022	DDC Australia Fast Dt 11-1
Detail Survey	S1 of 1	1	23.02.2022	RPS Australia East Pty Ltd
BASIX Cortificate	120112514.02		05.04.0000	Duilding Custoinshility
BASIX Certificate	1381125M-02	-	05.04.2023	Building Sustainability
NatHERS	0008544120	-	05.04.2023	Building Sustainability
Certificate				
Reports	054014	1	04.04.0000	DEDOUMANT
Arboricultural	8548.1 A	1	04.04.2023	REDGUM Horticultural
Impact Assessment				
and Tree				
Management Plan	00004	<u> </u>	00.04.0000	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Access Report	22334	В	06.04.2023	Vista Access Architects
Subsidence	TBA23-00624	-	20.03.2023	
Advisory NSW				
Notice of				
Determination Geotechnical				
	22/0631	-	March 2022	STS Geotechnics Pty Ltd

Investigation				
Traffic and Parking	22-160	-	April 2023	Stanbury Traffic Planning
Impact Assessment				
Waste Management	-	-	03.03.2023	ZMP Architects & Heritage
Plan				Consultants
Flood Advice	N0221035-	-	27.02.2023	JN Responsive Engineering
	CLTR.02A			

- 2. All building work is to be undertaken in accordance with the National Construction Code and referenced Australian Standards.
- **3.** All commitments listed in the BASIX certificate and stamped plans shall be implemented.
- **4.** All construction documentation and building work is to be certified in accordance with Section 6.28 of the Environmental Planning and Assessment Act 1979.

#### **OPERATIONAL MATTERS**

The following identified requirements relate to the use of the site and are to ensure that the activity and its operation do not interfere with the amenity of the surrounding area.

#### Stormwater Run-off

- 5. Stormwater shall be collected within the site and conveyed in a pipeline to the appropriate gutter or drain under the control of Lake Macquarie City Council substantially in accordance with the approved concept stormwater drainage plans.
- 6. Alterations to the natural surface contours or surface absorption characteristics of the site shall not impede, increase or divert natural surface water runoff so as to cause a nuisance to adjoining property owners.
- 7. All driveways shall be graded in such a manner as to provide continuous surface drainage flow paths to the appropriate points of discharge.
- **8.** To prevent water from entering buildings, surface waters shall be collected and diverted clear of the buildings by a sub-surface / surface drainage system.

#### Vehicular Access & Parking

- 9. Concrete vehicular crossings and laybacks shall be provided at the entrances/exits to the property. The crossings and laybacks shall be constructed in accordance with the Lake Macquarie City Council's standard requirements for residential crossings. Council shall be provided with plans for the crossings and laybacks together with the payment of any council inspection fees.
- 10. Particular care shall be taken in the location of vehicular crossings and/or laybacks to avoid poles, pits etc. The cost of any necessary adjustments to utility mains and services associated with the construction of the laybacks/driveways shall be borne by the Land & Housing Corporation. Obsolete gutter laybacks shall be constructed as kerb in accordance with the council's standards.

#### Note:

It is recommended that discussion be held with the relevant authorities before construction works commence.

11. Car parking spaces and driveways shall be constructed of concrete or other approved hard surfaced materials. The spaces must be clear of obstructions and columns, and provided with adequate manoeuvring facilities. The design of these spaces must comply with AS 2890.1.

#### Site Works

- 12. All soil erosion and sediment control measures required to be put in place prior to the commencement of demolition / construction works shall be maintained during the entire period of the works until all the disturbed areas are restored by turfing, paving or revegetation. Soil erosion and sediment control measures shall be designed in accordance with the guidelines set-out in the *Blue Book Managing Urban Stormwater:* Soils and Construction (4th edition, Landcom, 2004).
- 13. An appropriately qualified person shall design retaining walls or other methods necessary to prevent the movement of excavated or filled ground, including associated stormwater drainage measures.

#### **Building Siting**

14. All buildings shall be sited well clear of any easements affecting the site. The builder shall ascertain if any easements do exist and, if they do, obtain full details of such prior to construction commencing.

#### Smoke Detection System(s)

- 15. Smoke detection systems shall be installed throughout the building(s) in accordance with requirements of the National Construction Code. Detectors and alarms shall comply with AS 3786 and AS 1670 and must:
  - i. be connected to a permanent 240V power supply; and
  - ii. be provided with a battery backup to activate the alarm unit in the event of failure of the permanent power supply.

#### Site Soil Contamination

16. If the site is identified as being potentially affected by soil contamination, it shall be inspected by a suitably qualified person to identify any contaminated or hazardous material present. A proposal for remediation shall be prepared, which may include preparation of a Remedial Action Plan, and remediation shall be carried out in accordance with the proposal. A Validation Report, prepared in accordance with Environment Protection Authority requirements, shall be obtained from a qualified expert on completion of the remediation work to verify that the site is suitable for the intended residential use. A copy of the Validation Report shall be provided to the Land & Housing Corporation on completion of the remediation works.

#### Landscaping

- 17. Landscaping shall be carried out substantially in accordance with the approved landscape Plan and maintained for a period of 12 months by the building contractor. Lake Macquarie City Council shall be consulted in relation to the planting of any street trees.
- **18.** All scheduled plant stock shall be pre-ordered, prior to commencement of construction or 3 months prior to the commencement of landscape construction works, whichever

occurs sooner, for the supply to the site on time for installation. The builder shall provide written confirmation of the order to Council and provide a copy to the Land & Housing Corporation.

#### Tree Removal

19. Removal of trees within the boundaries of the site is to be carried out in accordance with the trees shown for removal on the approved Landscape Plan and Arboricultural Impact Assessment and Tree Management Plan Report and no other trees shall be removed without further approval(s).

#### Fencing

**20.** All front fencing and gates shall be constructed wholly within the boundaries of the site. Any gates associated with the fencing shall swing inwards towards the site.

#### **Provision of Letterbox Facilities**

21. Suitable letterbox facilities are to be provided in accordance with Australia Post specifications.

#### **Public Liability Insurance**

**22.** A valid public liability insurance policy of at least \$10M shall be maintained throughout the demolition / construction works by the contractor.

#### PRIOR TO ANY WORK COMMENCING ON THE SITE

The following identified requirements are to be complied with prior to any work commencing on the site, including demolition.

#### Disconnection of Services

- 23. All services that are required to be disconnected shall be appropriately disconnected and made safe prior to commencement of the demolition / construction works. The various service authorities shall be consulted regarding their requirements for the disconnection of services.
- **24.** All existing services within the boundary to remain live shall be identified, pegged and made safe.

#### **Utilities Service Provider Notification**

25. The construction plans shall be submitted to the appropriate water utility's office (e.g. Hunter Water) to determine whether or not the development will affect the utility's sewer and water mains, stormwater drains and any easements.

#### Note:

If the development complies with water utility's requirements, the plans will be stamped indicating that no further requirements are necessary.

#### **Council Notification**

**26.** Lake Macquarie City Council shall be advised in writing, of the date it is intended to commence work, including demolition. A minimum period of **five (5)** working days notification shall be given.

#### Site Safety

- 27. A sign shall be erected in a prominent position on any site on which demolition or building work is being carried out:
  - (a) showing the name, address and telephone number of the responsible Land & Housing Corporation officer for the work, and
  - (b) showing the name of the principal contractor (if any) and a telephone number on which that person may be contacted outside working hours, and
  - (c) stating that unauthorised entry to the work site is prohibited.

The sign shall be maintained while the work is being carried out but shall be removed when the work has been completed.

#### Note:

This requirement does not apply in relation to building work that is carried out inside an existing building that does not affect the external walls of the building.

28. A minimum 1.8m high security fence or Class A / Class B (overhead) hoarding must be erected between the work site and any public place prior to demolition / construction. Access to the site shall be restricted to authorised persons only and the site shall be secured against unauthorised entry when demolition / construction work is not in progress or the site is otherwise unoccupied.

#### Note:

Approval from the relevant roads authority will be required under Section 138 of the Roads Act 1993 where a Class A or B hoarding encroaches onto the footpath of / or a public thoroughfare within a classified road.

29. No building or demolition materials are to be stored on the footpath or roadway.

#### Site Facilities

- **30.** The following facilities shall be installed on the site:
  - (a) Toilet facilities shall be provided at the rate of 1 toilet for every 20 persons or part thereof employed at the site. Each toilet provided shall be a standard flushing toilet and shall be connected to a public sewer or if connection to a public sewer is not practicable, to an accredited sewerage management facility provided by Lake Macquarie City Council or if this is not practicable to some other council approved management facility.
  - (b) Adequate refuse disposal methods and builders storage facilities. Builders' wastes, materials or sheds shall not to be placed on any property other than that which this approval relates to.
- **31.** Access to the site shall only be provided via an all weather driveway on the property and is not to be provided from any other site.

#### **Protection of Trees**

**32.** Trees and other vegetation that are to be retained on adjoining properties shall be protected prior to the commencement of works and for the duration of the construction period in accordance with the details provided in the Arboricultural Impact Assessment and Tree Management Plan Report.

#### Waste Management

**33.** A final Waste Management Plan shall be prepared and submitted to the Land & Housing Corporation by the building contractor prior to the commencement of demolition / construction. The plan shall detail the amount of waste material and the destination of all materials, recyclable and non-recyclable.

#### PRIOR TO ANY CONSTRUCTION WORK COMMENCING ON SITE

The following identified requirements are to be complied with prior to any construction works occurring on the site, excluding demolition.

#### **Service Authority Clearances**

**34.** A compliance certificate, or other evidence, shall be obtained from Hunter Water, confirming service availability prior to work commencing.

#### Note:

Payment of water and/or sewer service charges and/or a notice of requirements for works to be carried out during construction / prior to occupation may be applicable prior to issue of the compliance certificate.

- **35.** A written clearance from an electricity supply authority stating that electrical services are available to the site, or that arrangements have been entered into for the provision of services to the site, shall be obtained prior to work commencing.
- **36.** A certificate from an approved telecommunications carrier certifying that satisfactory arrangements have been made for the provision of underground telephone services, to the site and to each dwelling, shall be obtained prior to work commencing.
- **37.** Where the site is to be connected to reticulated gas, a certificate from an approved gas carrier to certify that satisfactory arrangements have been made to ensure the provision of underground gas services to each dwelling in the development shall be obtained prior to work commencing.

#### Stormwater Disposal

- 38. A detailed stormwater drainage plan(s), substantially in accordance with the approved concept stormwater drainage plan(s), shall be prepared and submitted to the Land & Housing Corporation. Any on-site detention system shall be designed in accordance with the relevant catchment authority's requirements (e.g. the Upper Parramatta River Catchment Trust On-site Detention Handbook) and/or Lake Macquarie City Council's drainage code.
- **39.** Where a drainage easement is required, proof of lodgement of the plan of the drainage easement at the NSW Land Registry Services shall be submitted to the Land & Housing Corporation prior to commencement of works. Registration of the plan of easement

shall be completed prior to occupation of the development and a copy of the registered plan shall be provided to the Land & Housing Corporation.

#### **DURING DEMOLITION AND CONSTRUCTION WORKS**

The following identified requirements are to be complied with whilst demolition and construction works are occurring on the site.

#### Landfill

- **40.** Where site filling is necessary, a minimum of 95% standard compacting shall be achieved and certified by a NATA registered Soils Lab.
- **41.** Land fill materials must satisfy the following requirements:
  - i. be Virgin Excavated Natural Matter (VENM);
  - ii. be free of slag, hazardous, contaminated, putrescible, toxic or radio-active matter; and
  - iii. be free of industrial waste and building debris.

#### Heritage

- **42.** Historic and indigenous archaeological sites and relics are protected under the *Heritage Act 1977* and *National Parks and Wildlife Act 1974*, respectively. Should any relics be uncovered during the course of the approved works, work must cease immediately in the affected area. Subsequently, in cases where historical items have been uncovered, the Department of Planning and Environment must be contacted.
- 43. All workers / contractors on the site shall be informed of their obligations, under the Heritage Act and *National Parks and Wildlife Act 1974*, that it is illegal to disturb, damage or destroy a relic without the prior approval of the Department of Planning and Environment.

#### **Survey Reports**

44. Survey reports shall be submitted by the building contractor to the Land & Housing Corporation prior to the placement of the footings/slab and on completion of the dwellings to verify the correct position of the structures in relation to the allotment boundaries.

#### Hours of Demolition / Construction / Civil Work

**45.** Demolition / construction / civil work shall only occur on the site between the hours of 7.00am to 5.00pm Monday to Saturday with no work permitted on Sundays or public holidays.

#### **Excavation & Backfilling**

**46.** All excavations and backfilling associated with the erection of building(s) shall be executed safely and in accordance with appropriate professional standards. All such work shall be guarded and protected to prevent it from being dangerous to life or property.

#### **Pollution Control**

- **47.** Any noise generated during the construction of the development shall not exceed the limits specified in the July 2009 Interim Construction Noise Guidelines, published by the former Department of Environment and Climate Change.
- **48.** No fires shall be lit or waste materials burnt on the site.
- **49.** No washing of concrete forms or trucks shall occur on the site.
- **50.** Any contamination / spills on the site during construction works shall be actively managed and reported immediately to appropriate regulatory authorities to minimise any potential damage to the environment.
- 51. Dust generation during demolition / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.
- **52.** All vehicles transporting loose materials and travelling on public roads shall be secured (i.e. closed tail gate and covered) to minimise dust generation.
- **53.** Non-recyclable waste and containers shall be regularly collected and disposed of at a licensed landfill or other disposal site in accordance with details set out in the final Waste Management Plan.

#### Impact of Construction Works

- **54.** The Land & Housing Corporation shall bear the cost of any necessary adjustments to utility mains and services.
- **55.** Care shall be taken to prevent any damage to adjoining properties. The building contractor shall be liable to pay compensation to any adjoining owner if, due to demolition/construction works, damage is caused to such adjoining property.

#### **Termite Protection**

**56.** To protect buildings from subterranean termite, termite barriers installed in accordance with AS 3660.1, shall be placed on the underside and in penetrations of the concrete slab floor.

In addition, a durable notice must be permanently fixed inside the meter box indicating:

- (a) the method of protection.
- (b) the date of installation of the system.
- (c) where a chemical barrier is used, its life expectancy as listed on the National Registration Authority label.
- (d) the need to maintain and inspect the system on a regular basis.

#### PRIOR TO OCCUPATION OF THE DEVELOPMENT

The following identified requirements are to be complied with prior to the occupation of the development.

#### General

**57.** The use or occupation of the development shall not commence until all the identified requirements of this determination have been complied with.

#### Council Infrastructure Damage

**58.** The cost of repairing any damage caused to the Lake Macquarie City Council's assets in the vicinity of the site as a result of demolition / construction works shall be met in full by the building contractor.

#### Stormwater Drainage

- **59.** Prior to occupation, a Work As Executed Plan shall be prepared by the building contractor clearly showing all aspects of the constructed stormwater drainage system, including any on-site detention system. The plan shall demonstrate general compliance with the approved concept stormwater drainage plan(s) and shall include:
  - sufficient levels and dimensions to verify the constructed storage volumes; and
  - location and surface levels of all pits; and
  - invert levels of the internal drainage lines, orifice plates fitted and levels within the outlet control pits; and
  - finished floor levels of all structures; and
  - verification that any required trash screens have been installed; and
  - locations and levels of any overland flow paths; and
  - verification that any drainage lines are located wholly within easements, where applicable.

The Work-As-Executed Plan information shall be shown on the final civil works drawings.

A positive covenant and restriction-as-to-user shall be placed over the onsite detention system in accordance with the Lake Macquarie City Council's on-site detention policy to ensure that the system will be adequately maintained. The positive covenant and restriction-as-to-user shall be registered at NSW Land Registry Services prior to occupation. A copy of the registered restriction-as-to-user shall be provided to the Land & Housing Corporation and the Lake Macquarie City Council.

#### PART B - Additional Identified Requirements

#### Site Specific Requirements

60. The portion of the existing northern boundary fence that encroaches on the sight distance triangle required for the proposed northern driveway be removed or replaced in order to provide visibility in accordance with Clause 3.2.4(b) of AS2890.1:2004 to assist in the accommodation of the subject development in a safe and efficient manner.

#### Requirements Resulting from Council Comments

#### **61.** Development Street Addressing

Application shall be made to Lake Macquarie City Council to obtain addressing for the development in accordance with the guidelines in the NSW Address Policy and User Manual. Application is made by emailing an approved site plan, floor plan(s) and contact details to Data and Knowledge Management at enar@lakemac.nsw.gov.au.

#### **62.** Interallotment Drainage Easement

An interallotment drainage easement 1 metre wide over the adjoining downstream property, Lot 498 DP 224374 shall be created for the benefit of the subject property at no cost to Lake Macquarie City Council.

The easement shall be registered on the title of the lots benefited and burdened by the easement under Section 88B of the Conveyancing Act 1919 as amended, and a copy of the registered Section 88B Instrument shall be provided to Lake Macquarie City Council.

#### **63.** Concrete Footpath

A design plan for concrete footpaths 1.2 metres wide along the full length of the street frontage shall be submitted. Concrete foot paving shall be constructed in accordance with Lake Macquarie City Council's standard drawing EGSD-301 which is available from Councils website.

#### **64.** Removal, Management and Transportation of Fill

All excavated fill material that shall be removed from the site shall only be distributed to:

- a) A NSW Environment Protection Authority licensed waste disposal facility. A copy of the receipts from the waste disposal facility shall be kept and shall be provided to the NSW Land and Housing Corporation , or authorised officer of Council upon request; or
- b) A site which has a current development consent for the importation of fill material. A copy of the current development consent for the site to which the material is proposed to be distributed shall be provided to the NSW Land and Housing Corporation, or authorised officer upon request.

All removed excavated material shall be transported and disposed of in accordance with the NSW Department of Planning and Environment guidelines applicable at the time of removal.

#### **65.** Landscape works (in the public domain)

The turf species used on all roadway landscapes and any other approved locations on public land shall be couch. This turf species shall be specified on all landscape concept and construction documentation.

#### **66.** Street Trees

All street trees shall be grown to AS 2303:2015 with the landscape consultant sighting documentation from the nursery supplier confirming this and all street trees shall be maintained once planted by the proponent for 52 weeks.

Street trees are to be planted as per Lake Macquarie City Council's standard drawing LSD-PLA-02 and LSD-SPEC-01. Prior to installation, Council's Asset Management – Natural Areas section shall be contacted to inspect the trees and installation detail. Phone 4921 0333.

The Landscape contractor shall remove all pot stakes, labels and wire/rubber/plastic tags from every street tree with only tree stakes as detailed.

#### **67.** Excavation and Retaining

Only retaining walls indicated on the approved plans shall be constructed.

No additional excavation/fill shall occur outside the area as shown on the approved plans.

No fill or retaining walls shall be located within any drainage easement located upon the subject property.

Retaining walls, footings and associated drainage works shall be located wholly within the subject property boundaries and shall be connected to the existing stormwater system or other approved stormwater system on the subject property.

#### **68.** Erosion and Sediment Controls

Should any sediment from the site be deposited outside the site, such as, from vehicle tyres or a broken bag, it shall be removed from the road or gutter immediately.

#### **69.** Landscape Works

At the completion of landscape works, the consulting landscape architect who prepared the documentation shall submit to the NSW Land and Housing Corporation a Landscape Compliance Report. This report shall certify shrub and tree species, pot size, and planting densities and landscape area set out comply with approved documentation and practical completion of the landscaping works has occurred. This report shall certify any required street trees are planted specifically as per the nominated locations on the approved documentation and these identified requirements, and have edging constructed as per the Lake Macquarie City Council Landscape Standard Drawings March 2019.

#### Requirements as Requested by Subsidence Advisory NSW

#### General

**70.** The development being undertaken strictly in accordance with the details set out on the application form, any information submitted with the application and the plans submitted, as amended or as modified by the conditions of the Subsidence Advisory NSW approval.

Note: Any proposal to modify the terms or conditions of the Subsidence Advisory NSW approval, whilst still maintaining substantially the same development to that approved, will require the submission of a formal application for consideration by Subsidence Advisory NSW. If amendments to the design result in the development not remaining substantially the same as that approved by this approval, a new application must be submitted to Subsidence Advisory NSW.

71. The Subsidence Advisory NSW approval expires 5 years after the date the approval was granted if construction work has not physically commenced.

#### Prior to Commencement of Construction

#### 72. Prescribed Design Parameters

The proposed structure(s) is to be designed to be "safe, serviceable and any damage from mine subsidence shall be limited to 'slight' in accordance with AS2870 (Damage Classification) and readily repairable" using the subsidence parameters outlined below:

- a) Maximum Horizontal Strains (+/-): 3 mm/m
- b) Maximum Tilt: 4 mm/m
- c) Minimum Radius of Curvature: 5 km

#### 73. Prescribed Design Parameters

The proposed structure(s) is to be designed to be "safe" using the subsidence parameters outlined below:

- a) Maximum Tilt: 6 mm/m
- b) Minimum Radius of Curvature 3 km
- **74.** Submit a final design for acceptance by Subsidence Advisory NSW prior to commencement of construction. It shall include certification by a qualified Structural Engineer including a statement to the effect that the:
  - Improvements will remain "safe, serviceable and any damage from mine subsidence shall be limited to 'slight' damage in accordance with AS2870 (Damage Classification), and readily repairable" taking into consideration the mine subsidence parameters outlined in condition 72 above.
  - Improvements will remain "safe" taking into consideration the mine subsidence parameters outlined in condition 73 above.

#### Post Construction

**75.** Upon completion of construction, works-as-executed certification by a qualified Engineer is to be forwarded to Subsidence Advisory NSW confirming that construction was in accordance with the plans approved by Subsidence Advisory NSW.

#### **ADVISORY NOTES**

- i. Approval of this development activity does not imply or infer compliance with Section 23 of the *Disability Discrimination Act 1992*. Refer to AS 1428.1 and the Building Code of Australia for detailed guidance.
- ii. Information regarding the location of underground services may be obtained from Dial Before You Dig at <a href="https://www.1100.com.au">www.1100.com.au</a> or by dialing 1100.



#### **Decision Statement**

**Project No. BGYQW** 

SITE IDENTIFICATION					
STREET ADDRESS					
Unit/Street No	Street or property name				
44	Cadaga Road				
Suburb, town or locality	Postcode				
Gateshead, NSW	2290				
Local Government Area(s)	Real property description (Lot and DP)				
Lake Macquarie	Lot 499 in DP 224374				
ACTIVITY DESCRIPTION					
Provide a description of the activity					
	development comprising 2 x 4 bedroom dwellings with atta moval, landscaping and fencing, and the creation of an ease posited Plan 224374.				

The Land & Housing Corporation (LAHC) has proposed the above activity under the provisions of *State Environmental Planning Policy (Housing)* 2021 (Housing SEPP) which requires determination under Part 5 of the *Environmental Planning & Assessment Act* 1979 (EP&A Act). This Decision Statement relates to the Review of Environmental Factors (REF) for the above activity prepared under Part 5 of the EP&A Act and the *Environmental Planning and Assessment Regulation* 2021.

Based on the REF document and supporting documentation, including advice from Lake Macquarie City Council, a decision to proceed with the proposed activity has been made. This decision included consideration of the following:

#### Significant Impact on the Environment

- The proposed activity is not likely to have a significant impact on the environment and therefore an Environmental Impact Statement (EIS) is not required.
- The proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a SIS and/or BDAR is not required.

#### Reasons for the Decision

 Following an assessment of the proposed activity and associated environmental impacts within the REF document it was decided that the proposed dual occupancy will have economic and social benefits and any minor short-term impacts on the environment or surrounding properties can be appropriately mitigated. • The proposed dual occupancy will assist LAHC in providing new, fit for purpose housing in the Lake Macquarie LGA which will assist in addressing the existing and growing demand for accommodation in this local government area.

#### Mitigation Measures

 Mitigation measures are required to minimise or manage environmental impacts and are detailed throughout the REF and specifically within Section 8. All mitigation measures are detailed as Identified Requirements within the Activity Determination. Additional mitigation measures, detailed in the Activity Determination have been imposed to minimise the impact on the surrounding environment, ensure appropriate site safety and ensure legislative compliance.

Signed

Dated .. 24 August 2023

Emma Nicholson
Acting Head of Policy and Innovation
Land and Housing Corporation
Department of Planning & Environment

# PART 5 ACTIVITY SUBMISSION

at

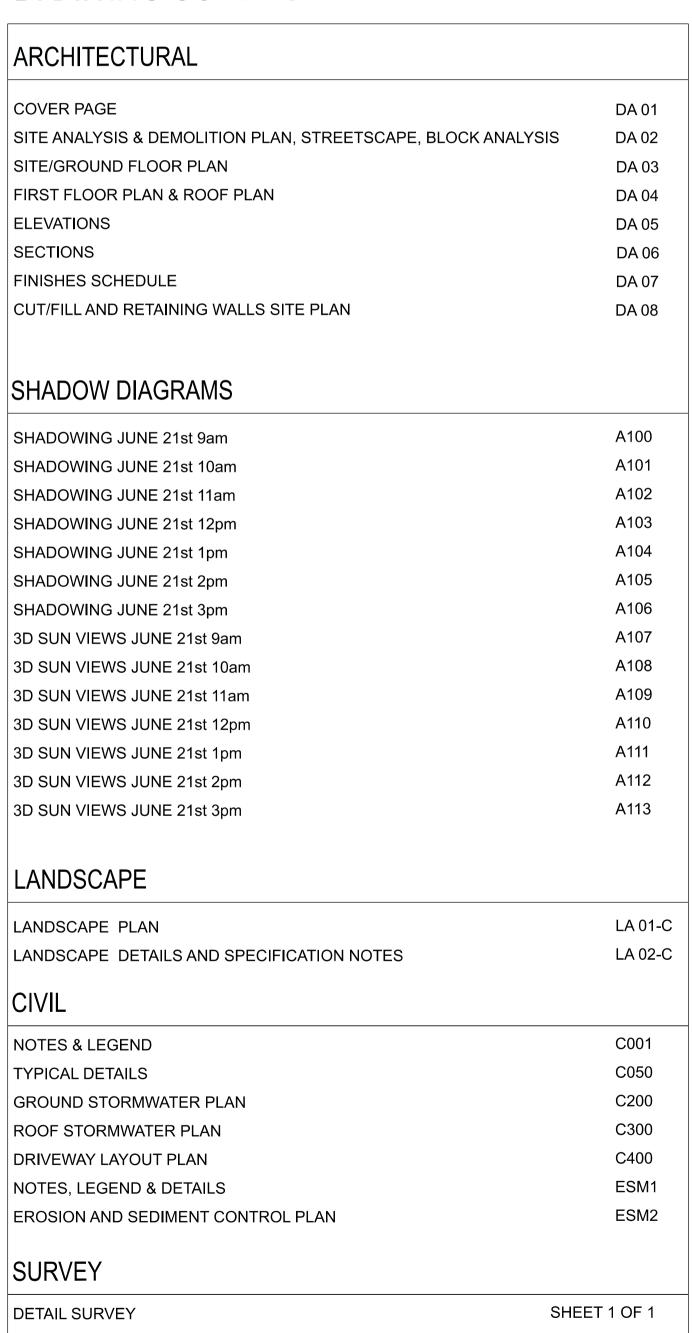
44 Cadaga Road, GATESHEAD

Lot 499 DP224374

## **DUAL OCCUPANCY - GENERAL HOUSING**

2x 4 BEDROOM

## DRAWING SCHEDULE:





## STREET ELEVATION

### DEVELOPMENT DATA:

Blue Text – Must be complied with – any non-compliance with these matters would automatically prevent a Part 5

ipproval pathway bei		=\/=!	NT DATA	5 10	A11 (A11 - 1/12)			
	D		NT DATA · ng SEPP Part	– Dual Occup 2 Division 6	oancy			
Job Reference				BGYQW				
Locality / Suburb		Gateshead						
Street Address		44 Cadaga Road, Gateshead*						
Lot & DP		Lot 499 in DP 224374						
ZONE (Housing SEPP cl. 42(1)(a))		R2 – Low Density Residential 'Dual Occupancies' are permitted with consent						
SITE AREA			543.8	3 m <sup>2</sup> (Based on DF	<b>'</b> )			
PROPOSED GFA		310.6 m <sup>2</sup> (excluding garages, balconies and stairs on first floor)						
ACCESSIBILITY	The site is considered accessible under the Housing SEPP**  The site is within 26m & 334m respectively of two bus stops along Cadaga Rd. Cadaga Rd at Carbeen S (2290187) & Cadaga Rd at Coral Cres (ID 2290192) are serviced by route 28, providing connections between Mount Hutton and Newcastle West via Broadmeadow and Newcastle Interchange. The services a bus stop Cadaga Rd at Carbeen St satisfy the frequency requirements of Housing SEPP				nections e services at			
DWELLING #	2 x 4-bed							
DWELLINGS				Area (r	m²)	POS		
	Number	Туре	No. of Bedrooms	Housing SEPP Part 2 Div.6 cl.43(1)(f)(ii): LAHC dwelling requirements	Proposed	Lake Macquarie DCP 2014 Part 9.6, 6.6	Proposed	
	1	Ground & 1st	4	110m <sup>2</sup>	156.9m²	16m²	56.1m²	
	2	Ground & 1st	4	110m <sup>2</sup>	153.7m²	16m <sup>2</sup>	50.3m <sup>2</sup>	
	Cor	ntrol		Requirement		Propose	d	
MIN POS	LAHC Design	Requirements	min 15m²  min depth 3m including weather protected paved area of:  14m² for 4-bedroom dwelling  min dimension 2m		aved	Unit 1 – 56. Unit 2 – 50.  min depth Unit 1 – 9.3 Unit 2 – 10.3	3m² 3m m² 5 m²	
HEIGHT	Lake Macqua	arie LEP 2014		8.5m		8.2m		
		P Part 2 Div.6 (1)(b)		9m		8.2m		
MIN LOT AREA		rie DCP 2014 0.6, 6.1		500m <sup>2</sup>		543.8 sq	m	

### ake Macquarie DCP 2014 12m measured at the building line building envelope of 200m<sup>2</sup> located above 2m AHD without the need for filling, and must have flood free 270.2 sqm (including covered POS and balconies on first floor)

0.995m for ground floor

6m rear setback is to the face of

over paved POS areas encroaci

126 sqm (including all

98.8 sqm (including only

landscaping that meets the 1.5

52.27 sqm (including all

30.6 sqm (including only

landscaping that meets the 1.5n

Two street trees are proposed

Refer to Landscape plans

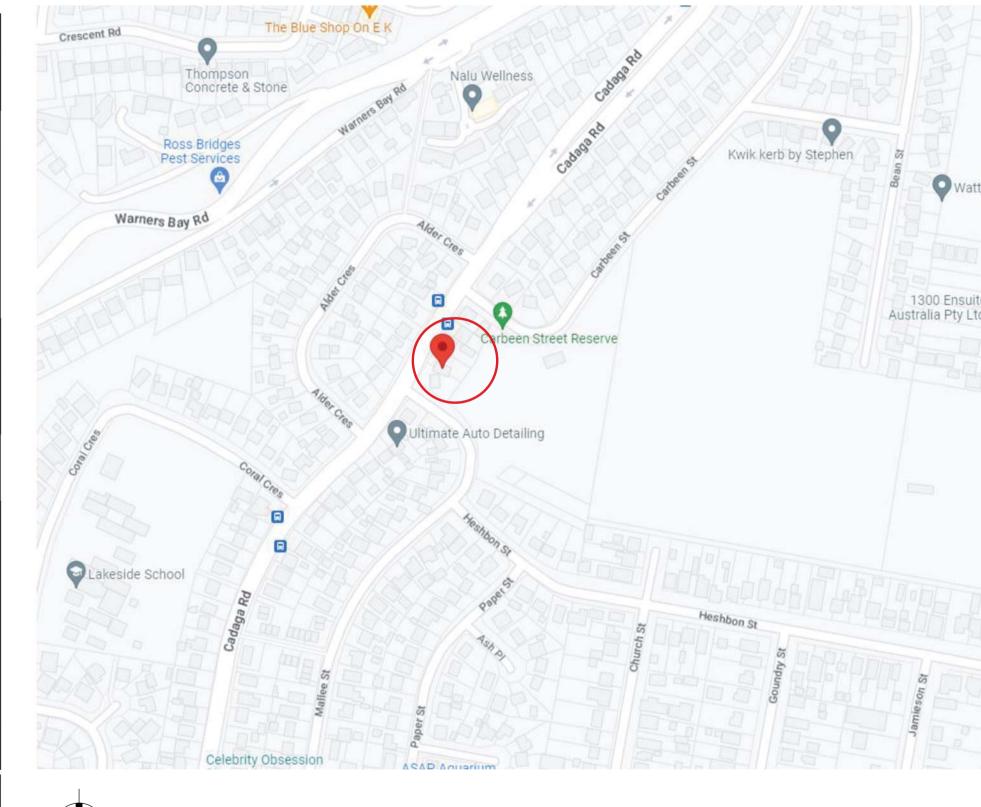
landscaping provided)

					access.
		MAX SITE COVERAGE		rie DCP 2014 0.6, 6.2	Site coverage must not exceed 55% (299.09 sqm)
		SETBACKS	Lake Macquarie DCP 2014 Part 9.6, 6.4		Front  Must be consistent with established setbacks; Or Minimum 4m.  Side  900mm for 1 <sup>st</sup> storey, 1.5m for 2 <sup>nd</sup> storey.  Rear  6m for 2 storey developments.
n St is es at			Housing SEPP (s42(1)(d))	Accessible Area	1 space per dwelling containing at least 3 bedrooms 2 x 3 or 4-bed @ 1 = 2 spaces
		PARKING	Lake Macquarie DCP 2014 Part 3, 4.11		One undercover space and 1 space as single file parking per dwelling of the dual occupancy.  4 spaces
osed		SOLAR ACCESS	LAHC Design Requirements  Lake Macquarie DCP 2014  Part 3, 3.10		70% of dwellings to receive a minimum 3 hours solar access to their living rooms and private open space.
m²	LANDSCAPING	Lake Macquarie DCP 2014 Part 9.6, 6.5		Min. 50% of the total lot area minus 100m <sup>2</sup> (171.9m <sup>2</sup> )	
					building line must be landscaped. Front area = 152.8 sqm 25% = 38.2 sqm  A street tree is to be provided along each street frontage.
		DRIVEWAY DESIGN		rie DCP 2014 0.6, 6.7	Driveways to be located so at least one on-street parking space remains

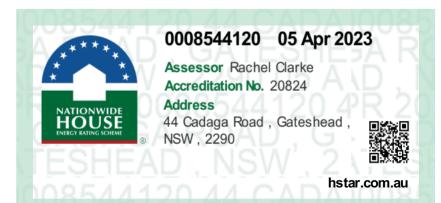
#### be located so at least driveways provided (min. requires for parking space is 6.2m) arking space remains Must be set back a minimum of 1m Unit 1 garage setback - 1.35m from the front building line. Unit 2 garage setback - 1.2m Lake Macquarie DCP 2014 **GARAGES** Openings must not exceed 6m or Building width = 14m 50% of the building width, whicheve is lesser. Openings = 2x 2.4m = 4.8m Lake Macquarie DCP 2014 ROOFS Roof must not exceed 3m in height 0.97m roof height

DEEP SOIL ZONE	Seniors Living Policy Urban Design Guidelines	Preferably at least 10% of site area at rear (54.38 sqm)	56.5 sqm	
WASTE MANAGEMENT	Lake Macquarie DCP 2014 Part 9.6, 6.8	Development must comply with the Lake Macquarie Waste Management Guidelines	Complies Refer to Waste Management Plan	
LAHC DESIGN REQUIREMENTS	LAHC Design Requirements	To be silver liveable	Complies Refer to Access report	

## LOCATION DIAGRAM:













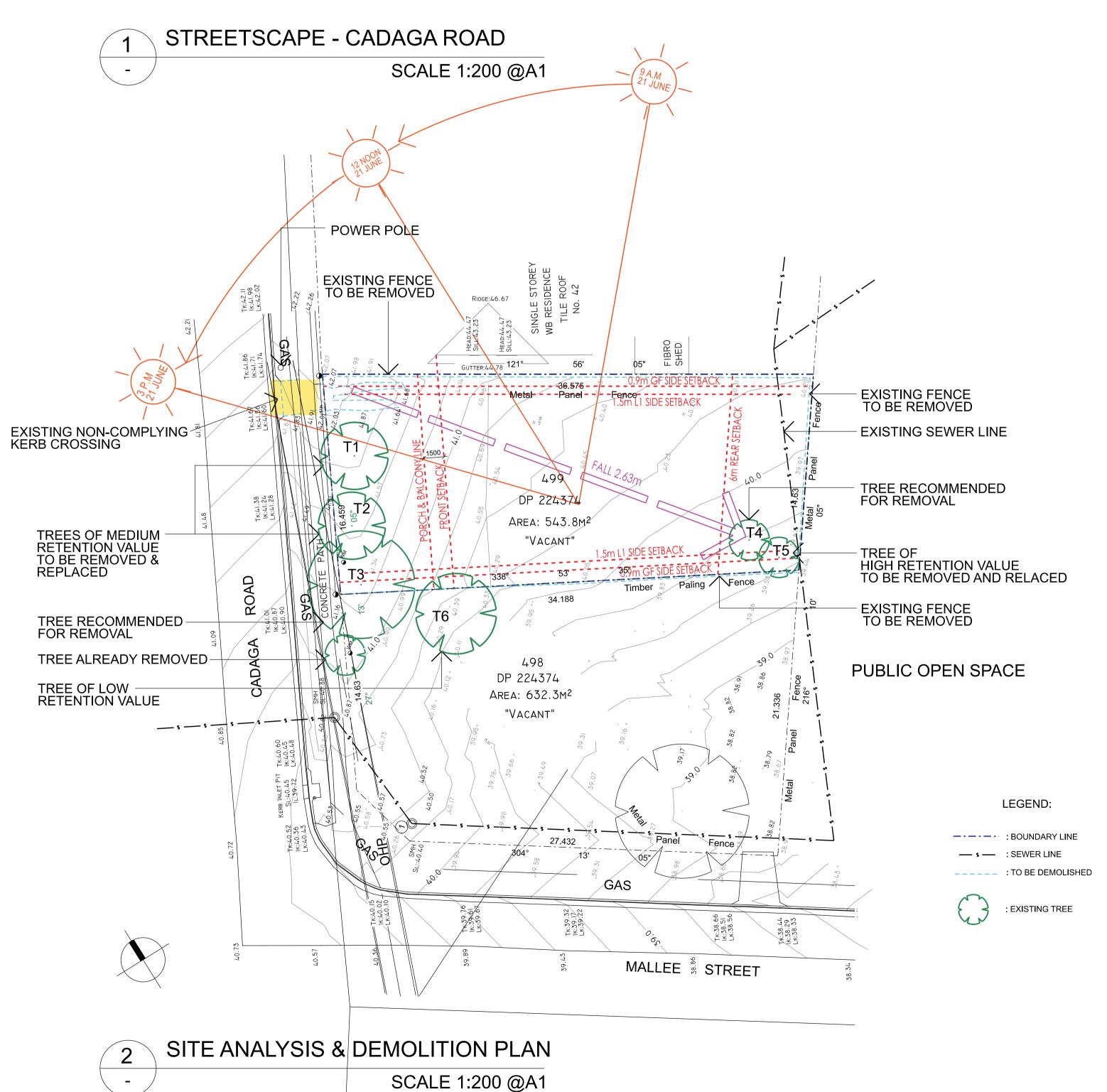


				PROJECT MANAGER  NSW LAND and HOUSING CORPORATION	STORMWATER/CIVIL ENGINEER  JONES NICHOLSON PTY LTD  9521 3088
	Α	05/04/23	for da submission	LANDSCAPE ARCHITECT	BASIX CONSULTANT
R	REV	DATE	NOTATION/AMENDMENT	GREENLAND DESIGN	BUILDING SUSTAINABILITY
	DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.		SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.	0403 164 198	0418 811 858

I:	<b>DUAL OCCUPANCY DEVELOPMENT</b>
	at
	44 Cadaga Road, GATESHEAD

Lot 499 DP224374

		- contidenant date date.	
STAGE: <b>DEVI</b>	ELOPMEN <sup>-</sup>	Γ APPLICAT	ION
FEB 23	SCALE: NTS		PROJECT No.
DRWG NO:	MP		BGYQW
SHEET:			TYPE:



GENERAL DEMOLITION NOTES:

- ALL DEMOLITION WORKS TO BE DONE IN ACCORDANCE WITH AS2601.2001.
 - SITE DEMOLITION CONDUCTED TO BE AS PER DEMOLITION CONTRACTORS DETAILS.
 - DEMOLISHED MATERIALS (BOTH HAZARDOUS AND NON-HAZARDOUS) TO BE REMOVED OFF SITE AND DISPOSED TO AN APPROVED WASTE CENTRE.
 - PROPOSED HOARDINGS AND FENCING BARRIERS TO BE ERECTED WHERE REQUIRED BY DEMOLITION CONTRACTOR.

- DISCONNECT ALL SERVICES AS REQUIRED AS PER DEMOLITION CONTRACTORS DETAILS. ENSURE A 'DIAL BEFORE YOU DIG' IS PERFORMED PRIOR TO ANY EXCAVATION WORKS.

-ALL TREE REMOVALS SHALL BE PERFORMED BY A QUALIFIED TREE SURGEON.

-SOFT LANDSCAPING MATERIALS TO BE RECYCLED ON SITE WHERE POSSIBLE.

- ENSURE EXISTING NEIGHBOUR'S STRUCTURES AND PROPERTIES TO BE RETAINED INCLUDING BUT NOT LIMITED TO PAVING, KERBING, FENCING AND VEGETATION ARE PROTECTED DURING DEMOLITION. RE-INSTATE AS REQUIRED IF DAMAGED.

#### DEMOLITION WORK:

EXISTING DRIVEWAY AND KERB CROSSING TO BE DEMOLISHED AND REMOVED FROM SITE.
 EXISTING BOUNDARY FENCING TO BE DEMOLISHED AND REMOVED FROM SITE AND REPLACED WITH NEW FENCING AS NOTED ON THE NEW WORKS DRAWINGS.
 ALL TREES MARKED AS DOTTED TO BE REMOVED FROM SITE AS PER ARBORIST REPORT (TREES 1, 2, 3, 4 AND 5).



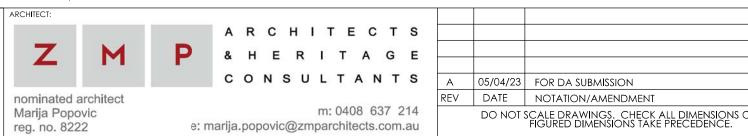
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BLOCK ANALYSIS

NTS

SCALE BAR





PROJECT MANAGER
NSW LAND and HOUSING
CORPORATION

A 05/04/23 FOR DA SUBMISSION
REV DATE NOTATION/AMENDMENT
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.
FIGURED DIMENSIONS TAKE PRECEDENCE.

PROJECT MANAGER
NSW LAND and HOUSING
JONES NICHOLSON PTY LTD
9521 3088

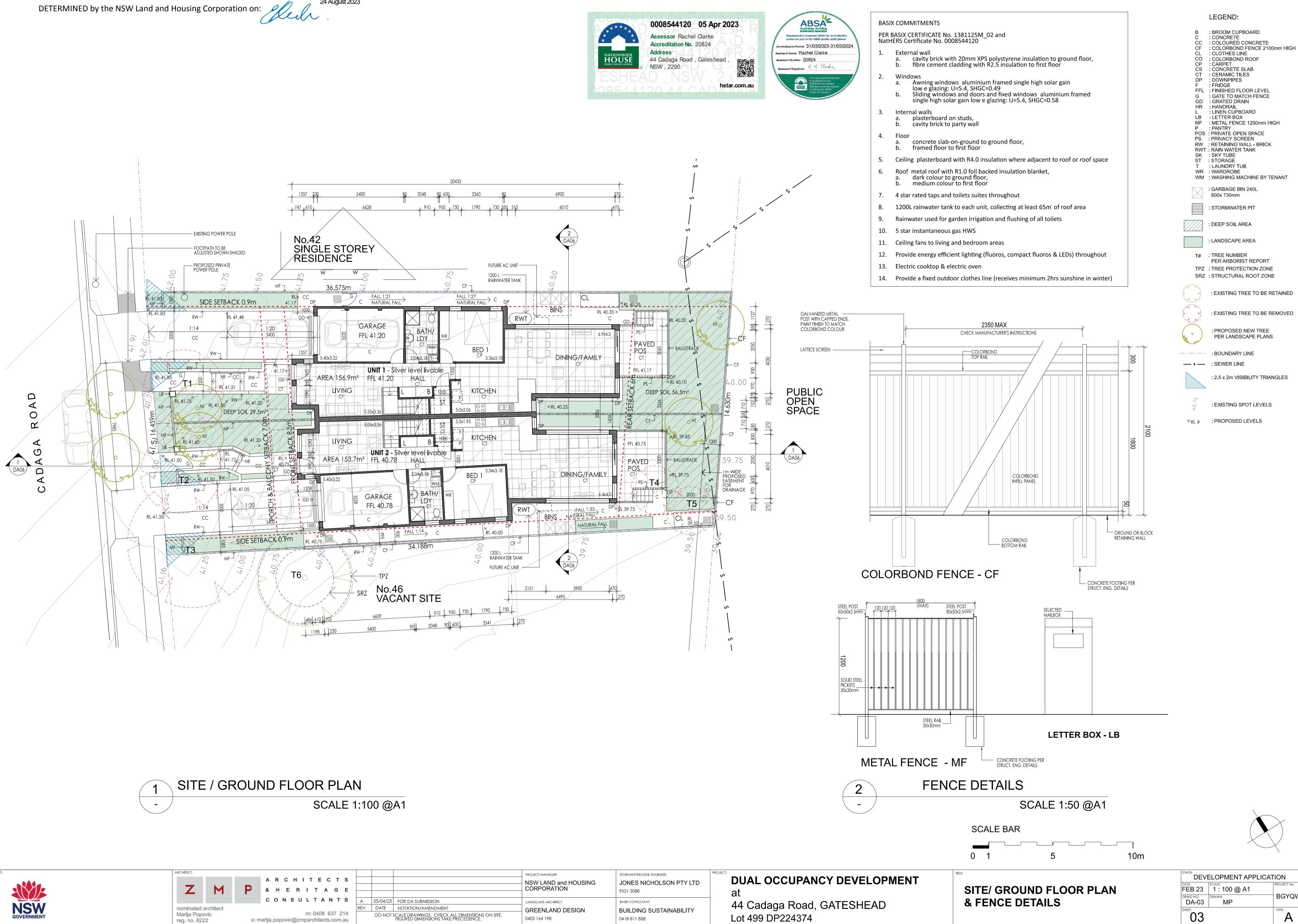
LANDSCAPE ARCHITECT
GREENLAND DESIGN
0403 164 198

BASIX CONSULTANT
BUILDING SUSTAINABILITY
0418 811 858

## DUAL OCCUPANCY DEVELOPMENT

44 Cadaga Road, GATESHEAD Lot 499 DP224374 SITE ANALYSIS & DEMOLITION PLAN, STREETSCAPE, BLOCK ANALYSIS

DEVELOPMENT APPLICATION				
FEB 23	SCALE: 1:200 @ A1	PROJECT No.		
DRWG NO: DA-02	DRAWN:	BGYQV		
\$HEET:		TYPE:		



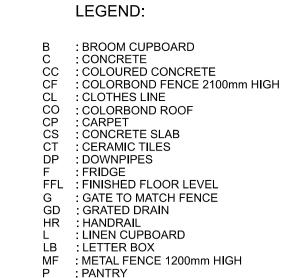
0403 164 198

e: marija.popovic@zmparchitects.com.au

0418 811 858

**BGYQW** Α

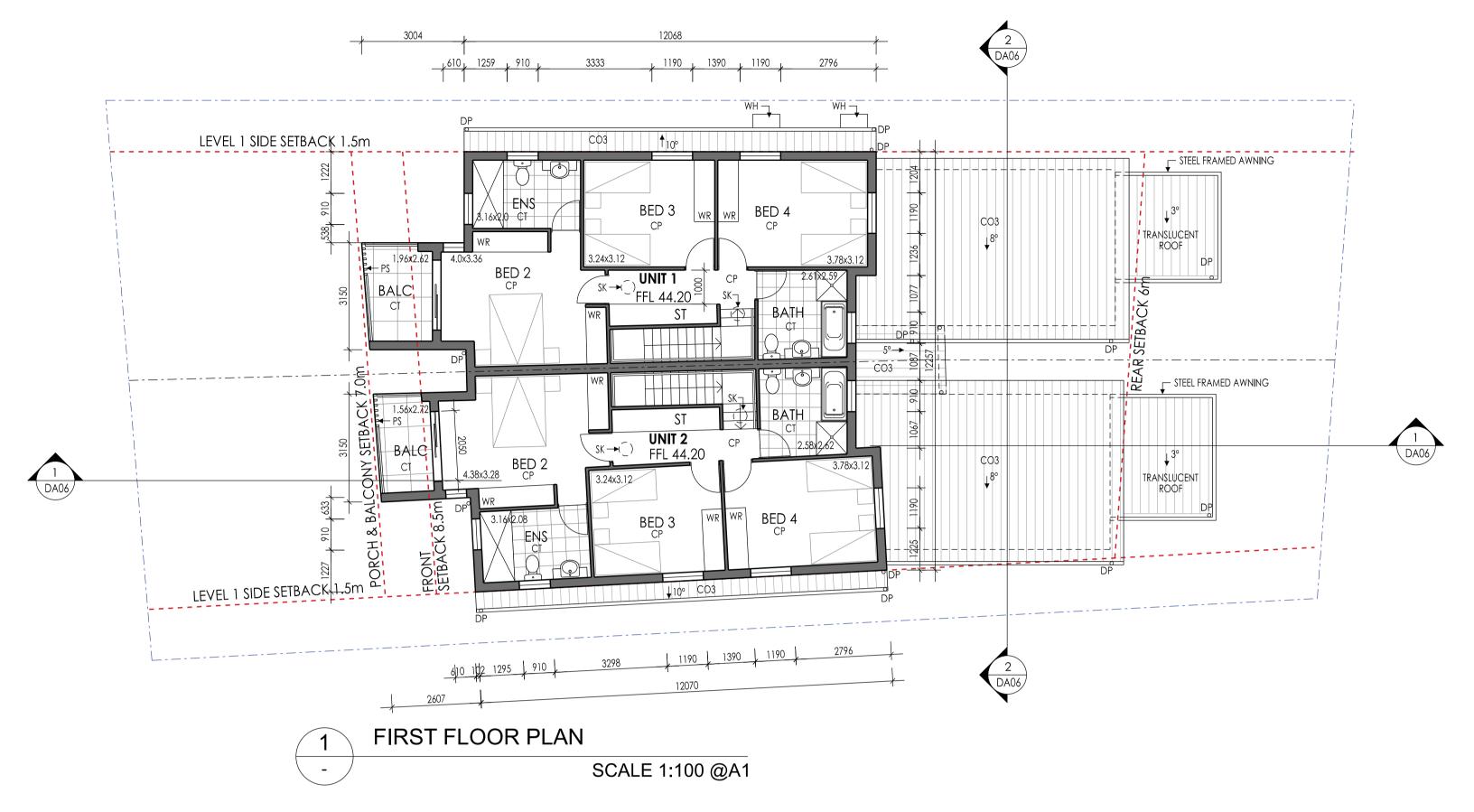


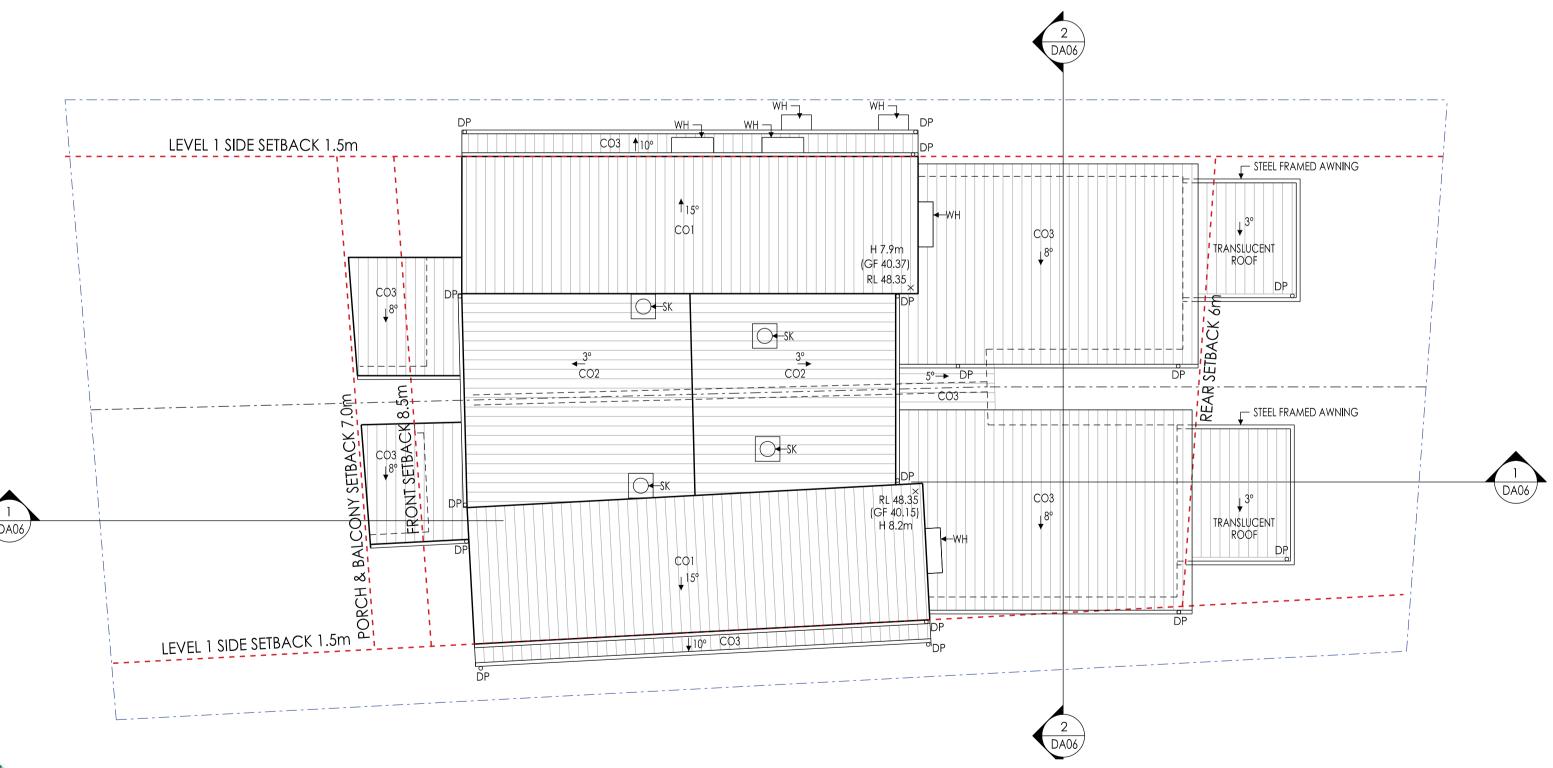


P : PANTRY

POS: PANTRY
POS: PRIVATE OPEN SPACE
PS: PRIVACY SCREEN
RW: RETAINING WALL - BRICK
RWT: RAIN WATER TANK SK : SKY TUBE ST : STORAGE

T : LAUNDRY TUB WR : WARDROBE WM: WASHING MACHINE BY TENANT



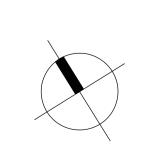






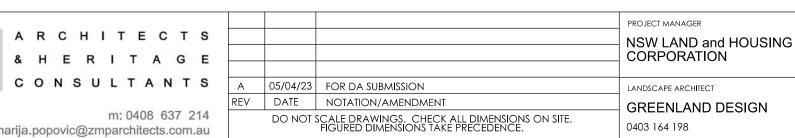
**ROOF PLAN** SCALE 1:100 @A1

SCALE BAR 0 1









	DUAL OCCUPAN
	at
TAINIADILITY	44 Cadaga Road
TAINABILITY	Lot 499 DP224374
	NEER LSON PTY LTD STAINABILITY

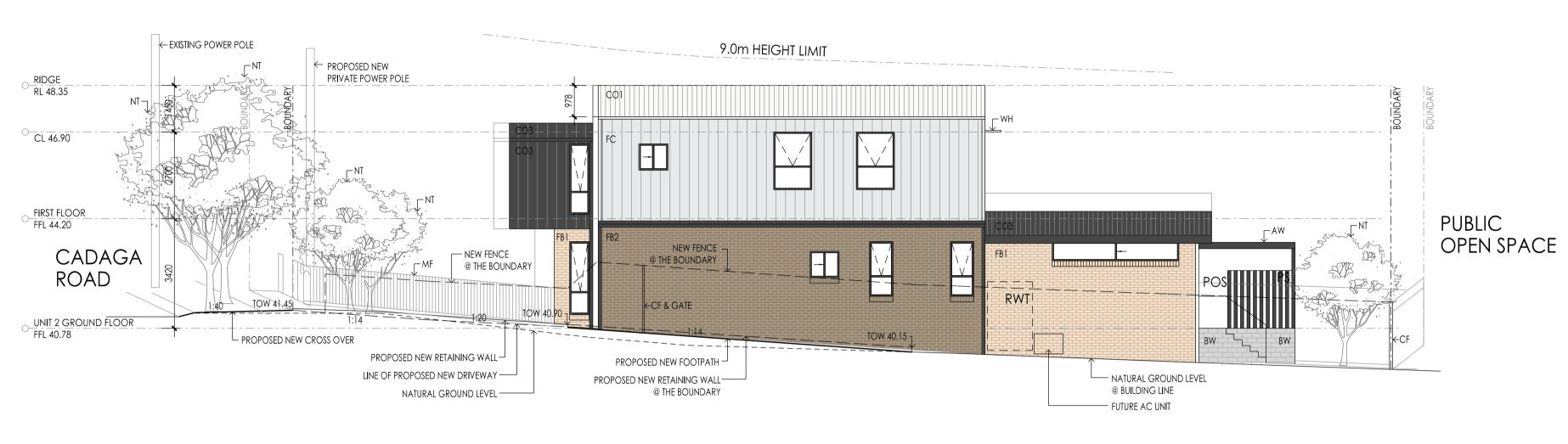
**DUAL OCCUPANCY DEVELOPMENT** 44 Cadaga Road, GATESHEAD

FIRST FLOOR & ROOF PLAN

DEVELOPMENT APPLICATION			
FEB 23	SCALE: 1:100 @ A1	PROJECT N	
DRWG NO:	DRAWN: MP	BGY	

04 Α





STREET (NORT-WEST) ELEVATION SCALE 1:100 @A1

SIDE (SOUTH-WEST) ELEVATION

SCALE 1:100 @A1





REAR (SOUTH-EAST) ELEVATION SCALE 1:100 @A1 SIDE (NORTH-EAST) ELEVATION SCALE 1:100 @A1





NSW GOVERNMENT



	ACCOUNTED TO A PERSON AND IN COLUMNIA PROPERTY OF PERSONS ASSESSMENT ASSESSMENT ASSESSME		
ARCHITECT:			
	2-0.1		ARCHITECTS
Z	M	P	& H E R I T A G E
			CONSULTANTS
nominated are Marija Popovi			m: 0408 637 214
reg. no. 8222		e: m	marija.popovic@zmparchitects.com.au

			PROJECT MANAGER	STORMWATER/CIVIL ENGINEER	PR
			NSW LAND and HOUSING	JONES NICHOLSON PTY LTD	
			CORPORATION	9521 3088	
А	05/04/23	for da submission	LANDSCAPE ARCHITECT	BASIX CONSULTANT	1
REV	DATE	NOTATION/AMENDMENT	GREENLAND DESIGN	BUILDING SUSTAINABILITY	
	DO NOT	SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.	0403 164 198	0418 811 858	

## **DUAL OCCUPANCY DEVELOPMENT**

44 Cadaga Road, GATESHEAD Lot 499 DP224374

**ELEVATIONS** 

SCALE BAR

0 1

STAGE:	'ELOPMENT APP	PLICATION
FEB 23	SCALE: 1:100 @ A1	PROJECT No.
DRWG NO:	DRAWN: MP	BGYQW

T# : TREE NUMBER PER ARBORIST REPORT

LEGEND:

BL : BALUSTRADE

BW: BLOCK WALL

FB : FACE BRICK

NT : NEW TREE

SK : SKY TUBE

P : PAINT FINISH

CL: CEILING LEVEL
CO: COLORBOND ROOF

FC : FIBRE CEMENT CLADDING FFL: FINISHED FLOOR LEVEL MF : METAL FENCE 1200mm HIGH

POS: PRIVATE OPEN SPACE

TOW: TOP OF RETAINING WALL

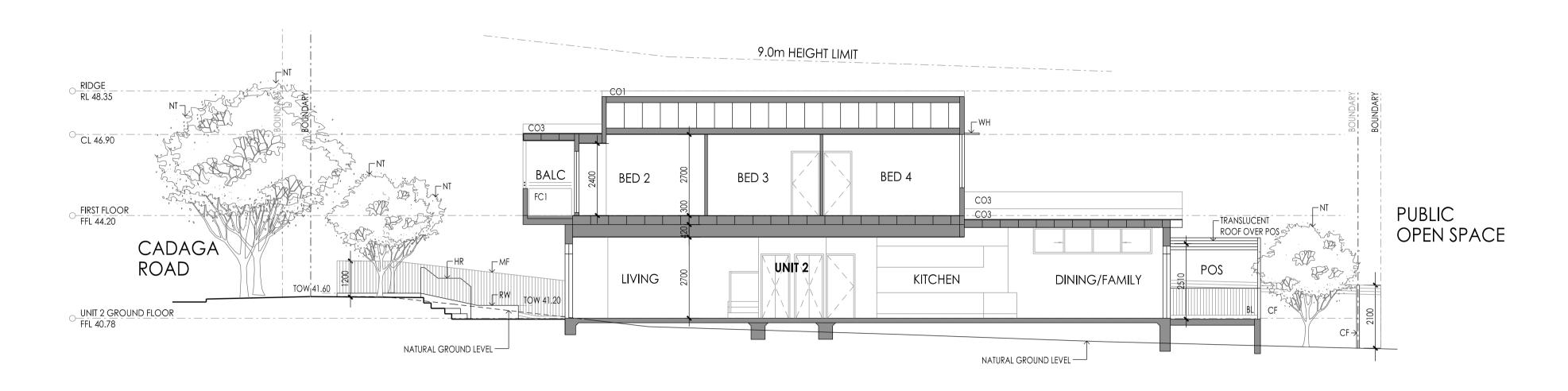
PS: PRIVACY SCREEN RD: ROLLER DOOR

RWT: RAIN WATER TANK

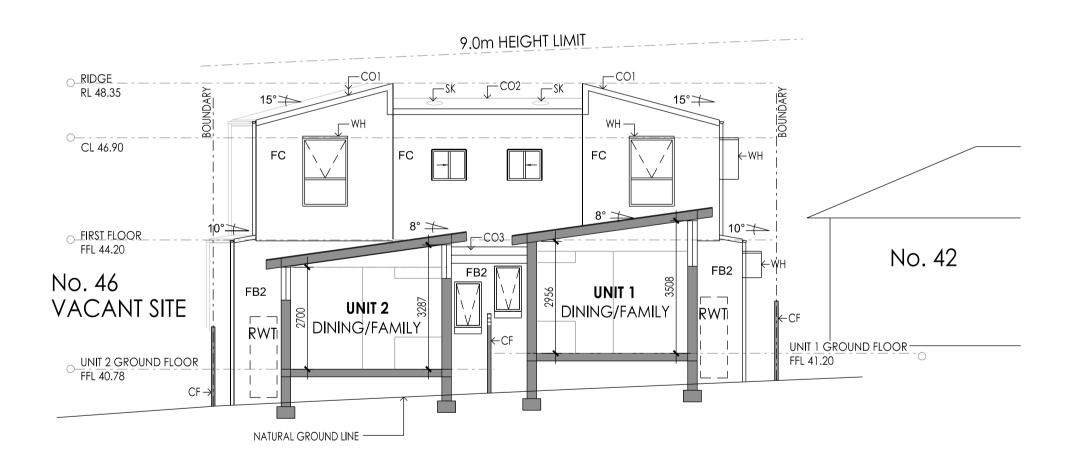
WH: WINDOW HOOD

CF : COLORBOND FENCE 2100mm HIGH

05 Α











NSW GOVERNMENT



nominated architect

Marija Popovic reg. no. 8222

Assessor Numb	per 20824 Bature R.H. Ud	whe	
Assessor Sign	This Accredite is qualified to NatHERS Acc Software and to follow the Accode of Pract	ed Assessor use redited has agreed BSA loe	
ARCHITECT:			
			ARCHITECTS
Z	M	P	& H E R I T A G E
			CONSULTANTS

Р	ARCHITECTS &HERITAGE				PROJECT MANAGER  NSW LAND and HOUSING CORPORATION	STORMWATER/CIVIL ENGINEER  JONES NICHOLSON PTY LTD  9521 3088
	CONSULTANTS	Α	05/04/23	for da submission	LANDSCAPE ARCHITECT	BASIX CONSULTANT
		REV	DATE	NOTATION/AMENDMENT	GREENLAND DESIGN	BUILDING SUSTAINABILITY
m: 0408 637 214 e: marija.popovic@zmparchitects.com.au			DO NOT	SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.	0403 164 198	0418 811 858

## **DUAL OCCUPANCY DEVELOPMENT** 44 Cadaga Road, GATESHEAD

Lot 499 DP224374

SCALE BAR

0 1

DEVELOPMENT APPLICATION DATE: SCALE: 1: 100 @ A1

DRWG NO: DA-06 MP

LEGEND:

BL: BALUSTRADE
BW: BLOCK WALL
CL: CEILING LEVEL
CO: COLORBOND ROOF
CF: COLORBOND FENCE 2100mm HIGH
FB: FACE BRICK

FC: FIBRE CEMENT CLADDING FFL: FINISHED FLOOR LEVEL

MF : METAL FENCE 1200mm HIGH NT : NEW TREE
P : PAINT FINISH POS: PRIVATE OPEN SPACE

PS : PRIVACY SCREEN RD: ROLLER DOOR RWT: RAIN WATER TANK SK : SKY TUBE

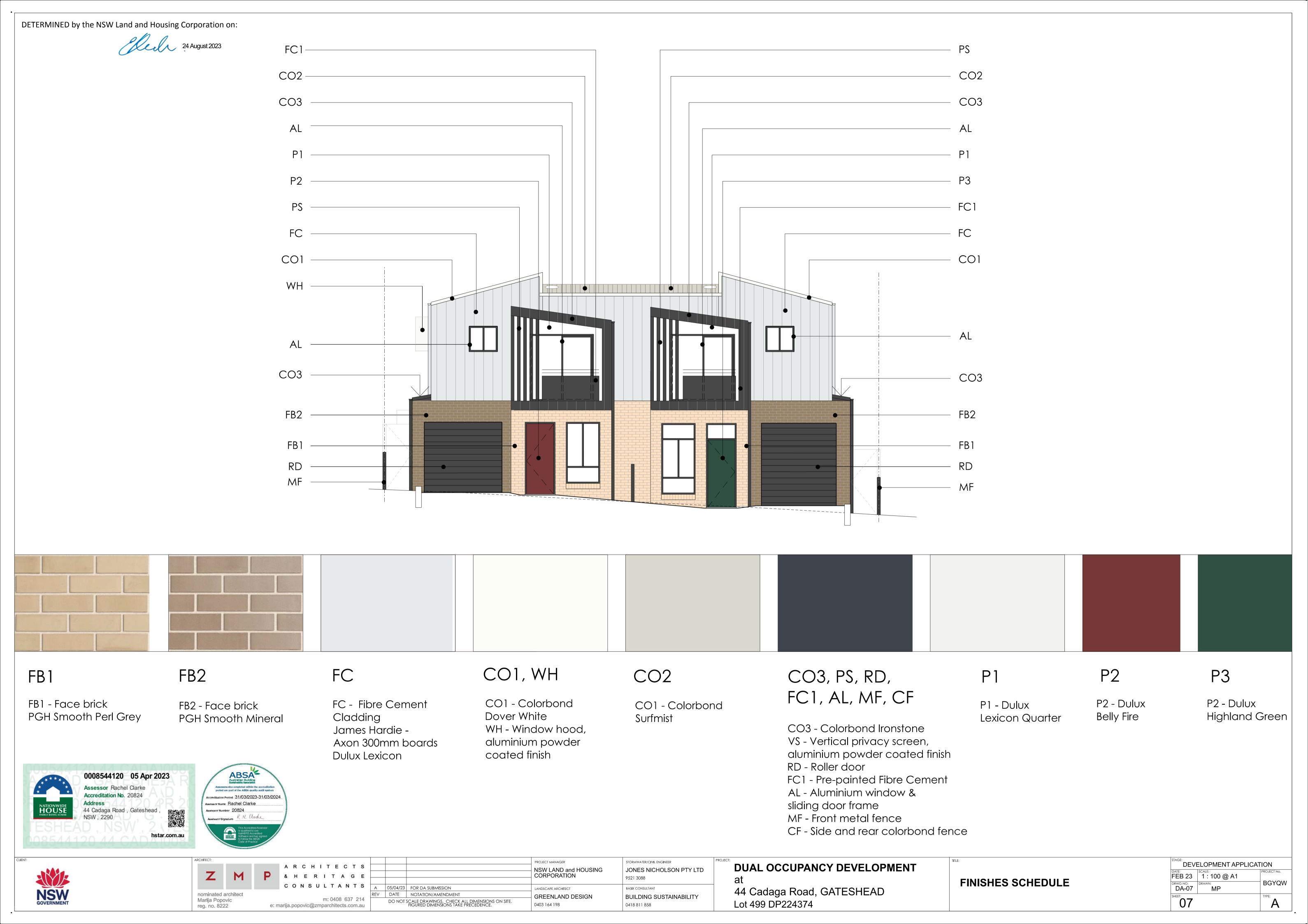
06

T#: TREE NUMBER PER ARBORIST REPORT TOW: TOP OF RETAINING WALL WH: WINDOW HOOD

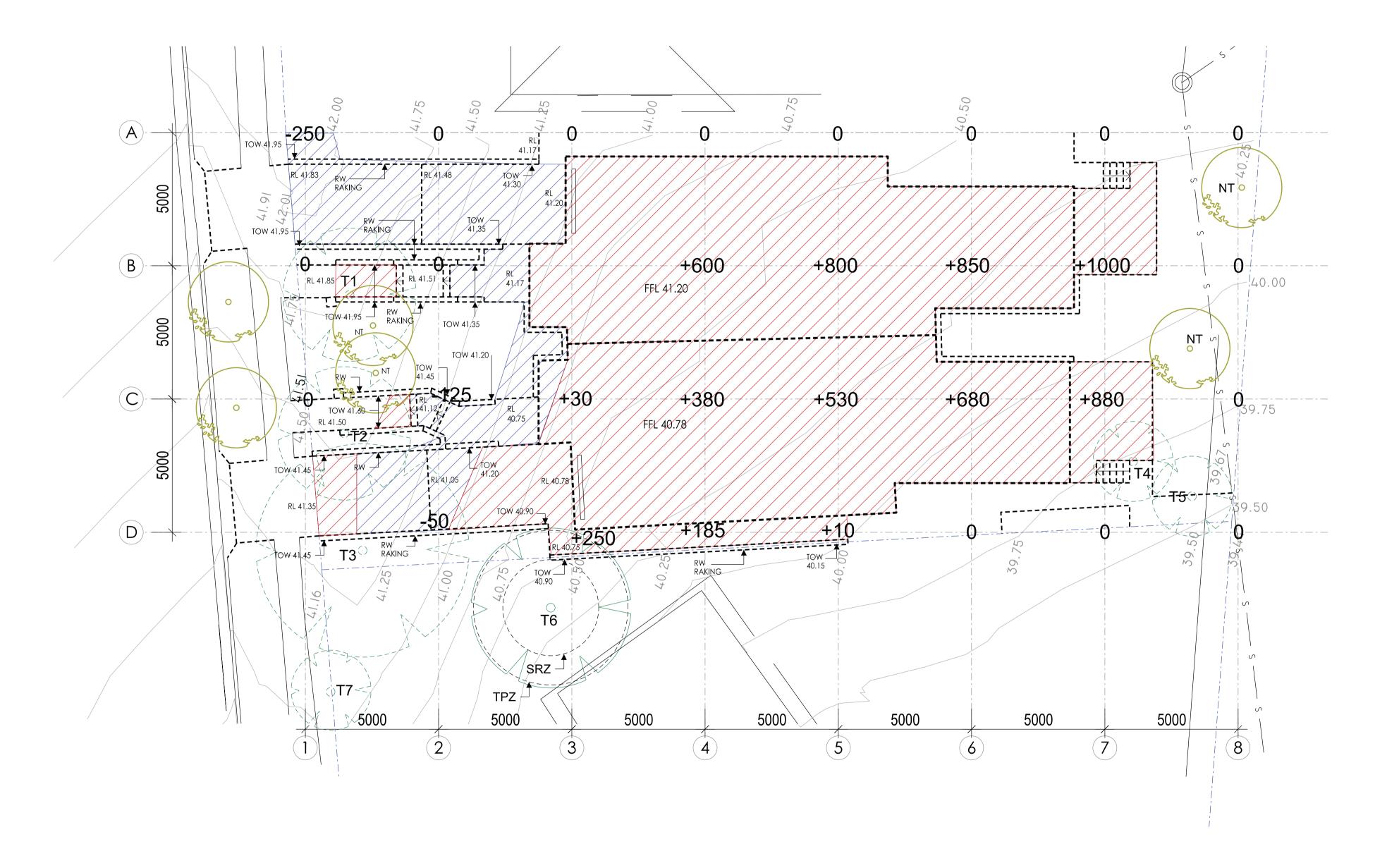
**BGYQW** 

A





24 August 2023



LEGEND:

----: BOUNDARY LINE

— s — : SEWER LINE

——— : OUTLINE OF NEW BUILDING AND PAVING

BLUE AREA INDICATED EXTENT OF CUT

RED AREA INDICATED EXTENT OF FILL

+50 : APPROX. DEPTH OF CUT AND FILL IN MILLIMETERS

: EXISTING SPOT LEVELS

: EXISTING TREE TO BE RETAINED



: EXISTING TREE TO BE REMOVED : PROPOSED NEW TREE



PER LANDSCAPE PLANS

RW: RETAINING WALL - BRICK

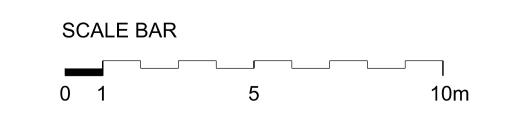
: TREE NUMBER PER ARBORIST REPORT

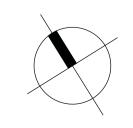
TPZ : TREE PROTECTION ZONE

SRZ : STRUCTURAL ROOT ZONE

CUT & FILL AND RETAINING WALLS SITE PLAN

SCALE 1:100 @A1



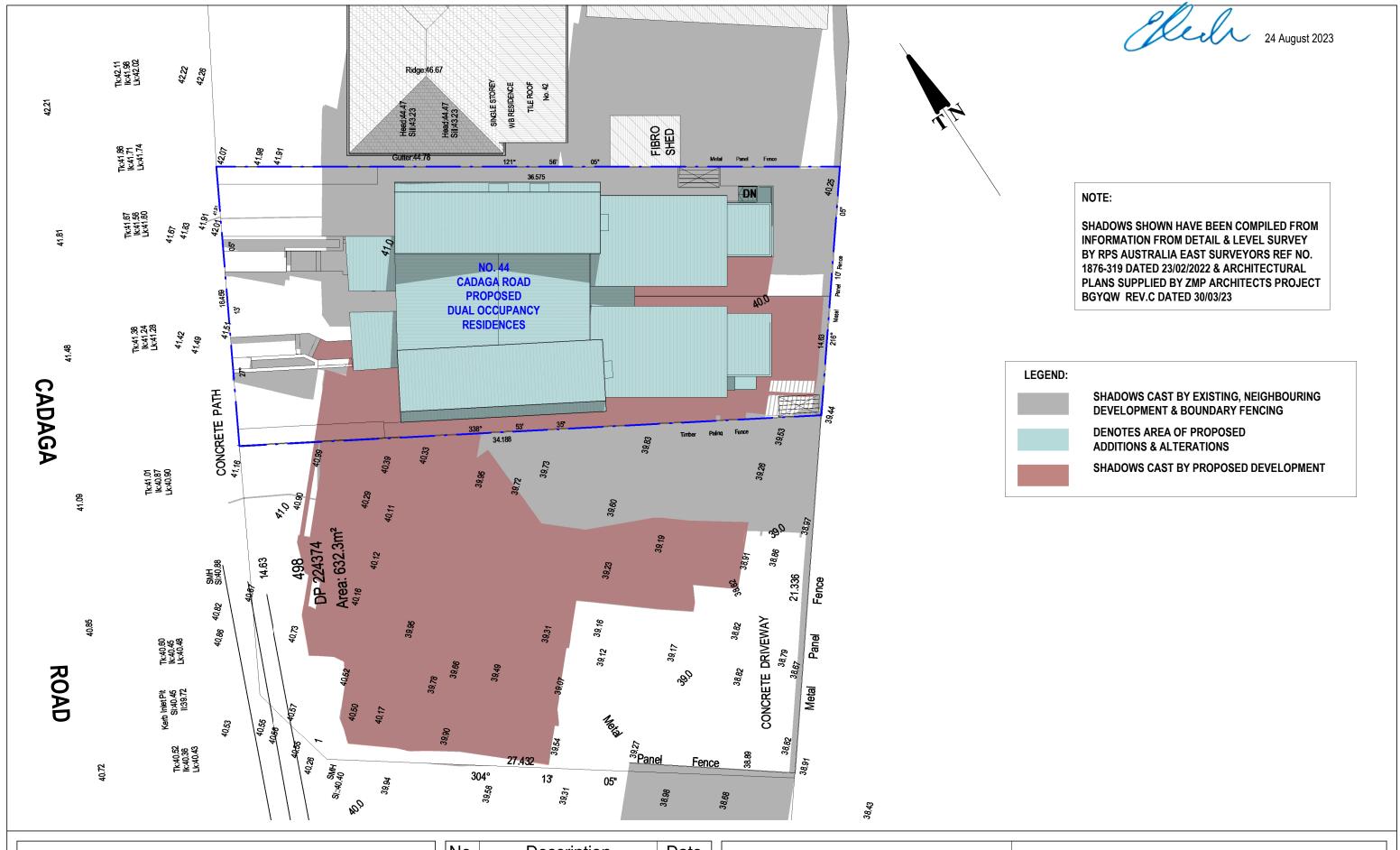






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408 637 214 itects.com.au		DO NOT	SCALE DRAWINGS. CHE FIGURED DIMENSIONS

	PROJECT MANAGER  NSW LAND and HOUSING  CORPORATION	STORMWATER/CIVIL ENGINEER  JONES NICHOLSON PTY LTD  9521 3088
for da submission	LANDSCAPE ARCHITECT	BASIX CONSULTANT
NOTATION/AMENDMENT	GREENLAND DESIGN	BUILDING SUSTAINABILITY
CALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.	0403 164 198	0418 811 858



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ABN 27 083 288 153
SUITE 1, 505 BALMAIN ROAD,

P.O.BOX 446 GLADESVILLE 2111

LILYFIELD, NSW

SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

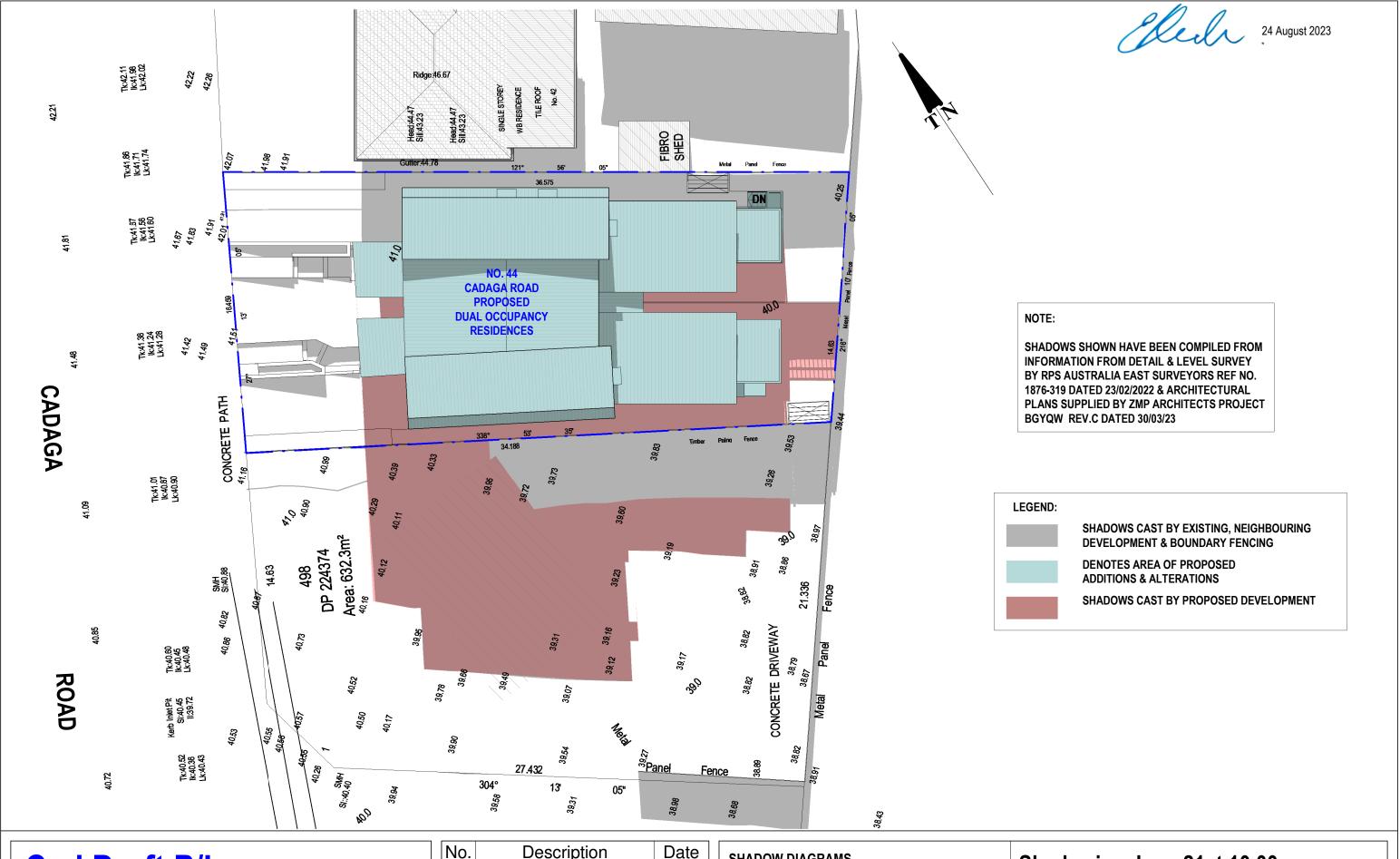
info@caddraftnsw.com.au	
iiio@caudiaitiisw.coiii.au	

Description	Date
	Description

SHADOW DIAGRAMS
DUAL OCCUPANCY
No. 44 CADAGA ROAD
GATESHEAD

CLIENT: C/- ZMP ARCHITECTS
OLILITION LINE AUTOMICE

Project number	23-20		
Date	3-4-23	A1	00
Drawn by	КР		
Checked by	ın	Scale	1 · 200



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SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW

P.O.BOX 446 GLADESVILLE 2111

SHADOW ANALYSIS CONSULTANTS

info@caddraftnsw.com.au

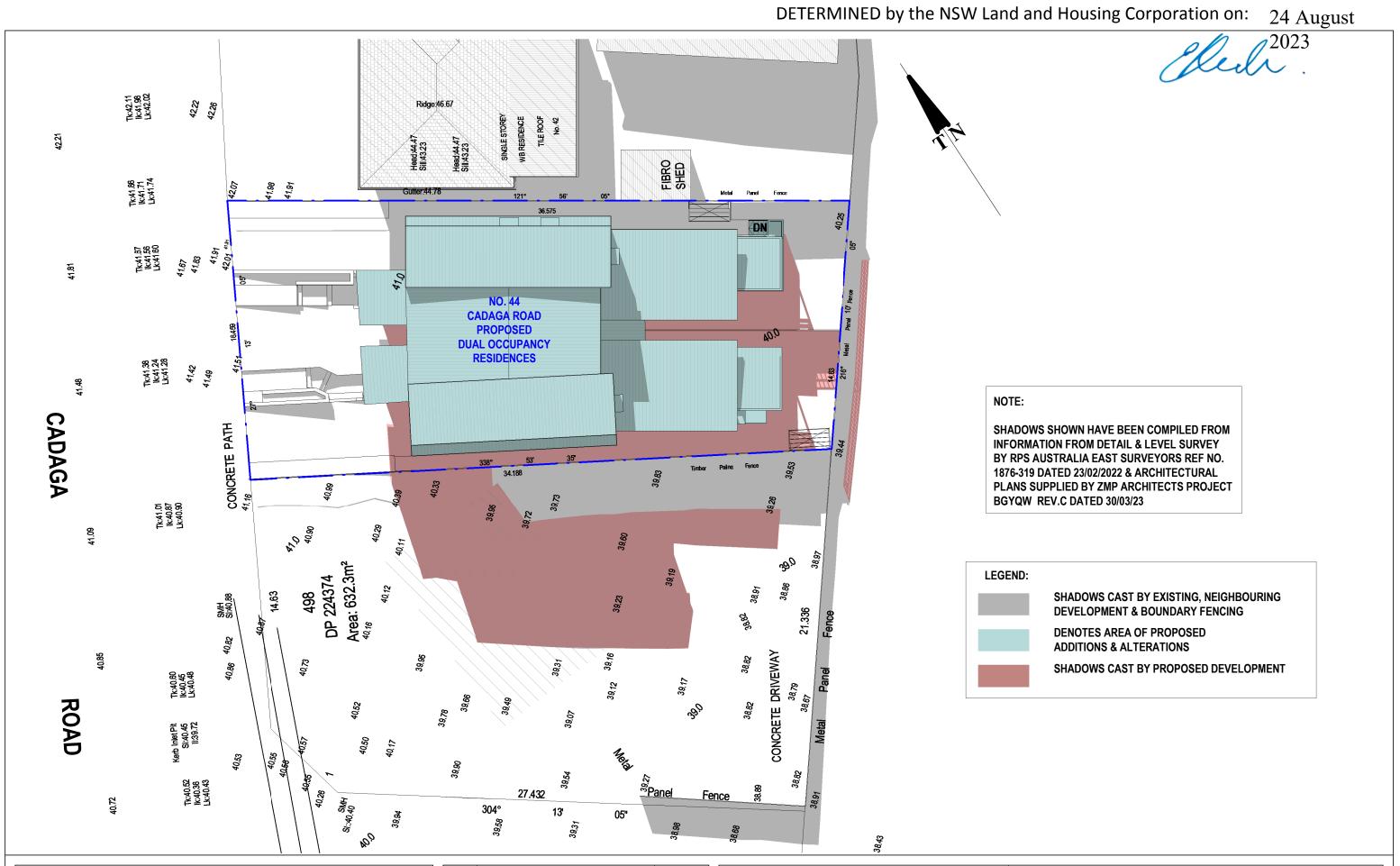
MOBILE: 0410 699919

No.	Description	Date

SHADOW DIAGRAMS
DUAL OCCUPANCY
No. 44 CADAGA ROAD
GATESHEAD

<b>Shadowing June</b>	21st 10.00am
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Project number	23-20		
Date	3-4-23	A101	
Drawn by	KP		
Checked by	JD	Scale	1 : 200



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ABN 27 083 288	153			

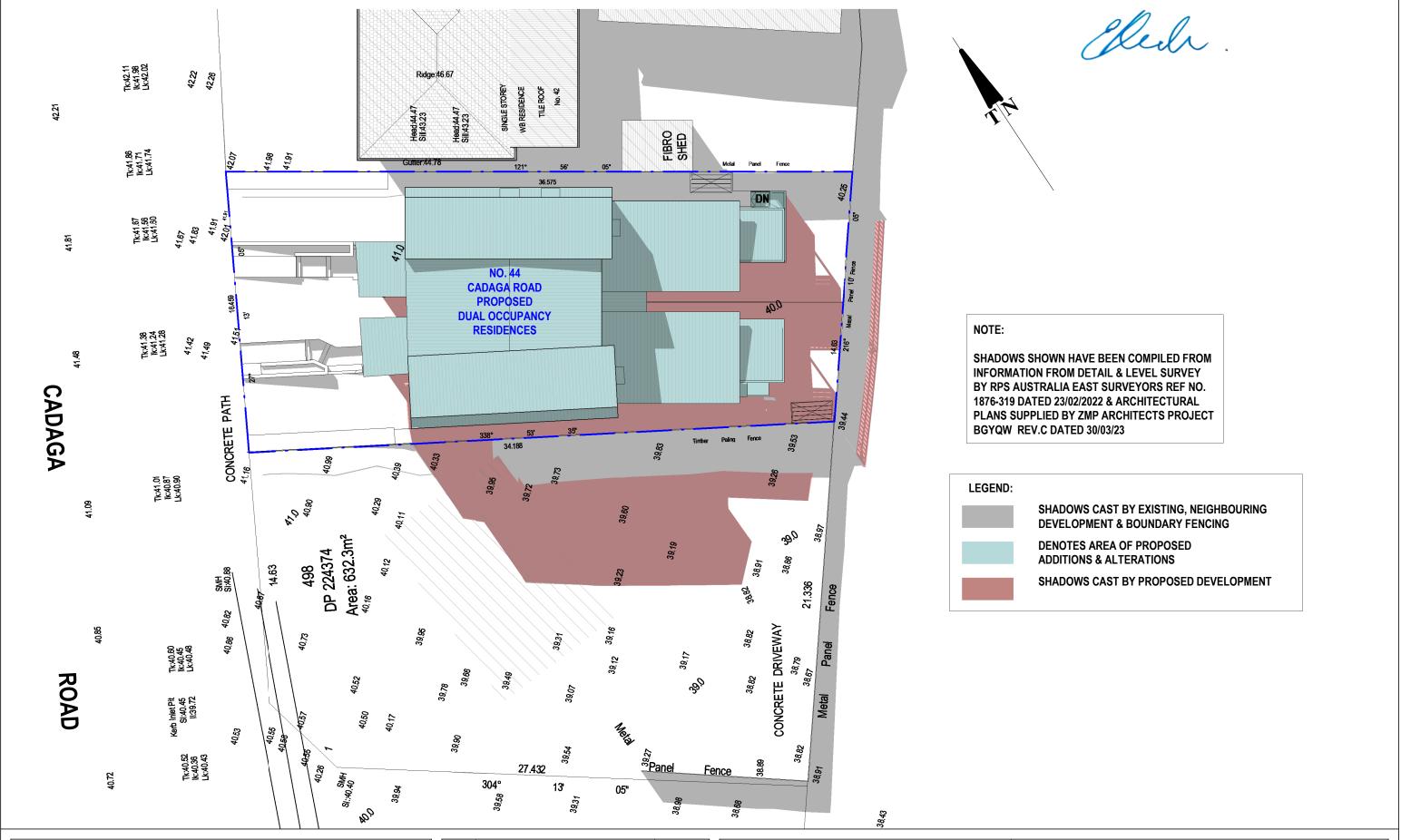
SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 **SHADOW ANALYSIS CONSULTANTS** 

MOBILE: 0410 699919 info@caddraftnsw.com.au

No.	Description	Date

SHADOW DIAGRAMS
DUAL OCCUPANCY
No. 44 CADAGA ROAD
GATESHEAD

Project number	23-20			
Date	3-4-23	A10	)2	
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Checked by	JD	Scale	1 : 200	



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ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD,
LILYFIELD, NSW
P.O.BOX 446 GLADESVILLE 2111

SHADOW ANALYSIS CONSULTANTS
MOBILE: 0410 699919

info@caddraftnsw.com.au

No.	Description	Date

SHADOW DIAGRAMS
DUAL OCCUPANCY
No. 44 CADAGA ROAD
GATESHEAD

Project number	23-20			
Date	3-4-23	A103		
Drawn by	KP			
Checked by	JD	Scale	1:200	

# Cad Draft P/L ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS MOBILE: 0410 699919

info@caddraftnsw.com.au

No.	Description	Date

13'

39.31

05"

304°

39.58

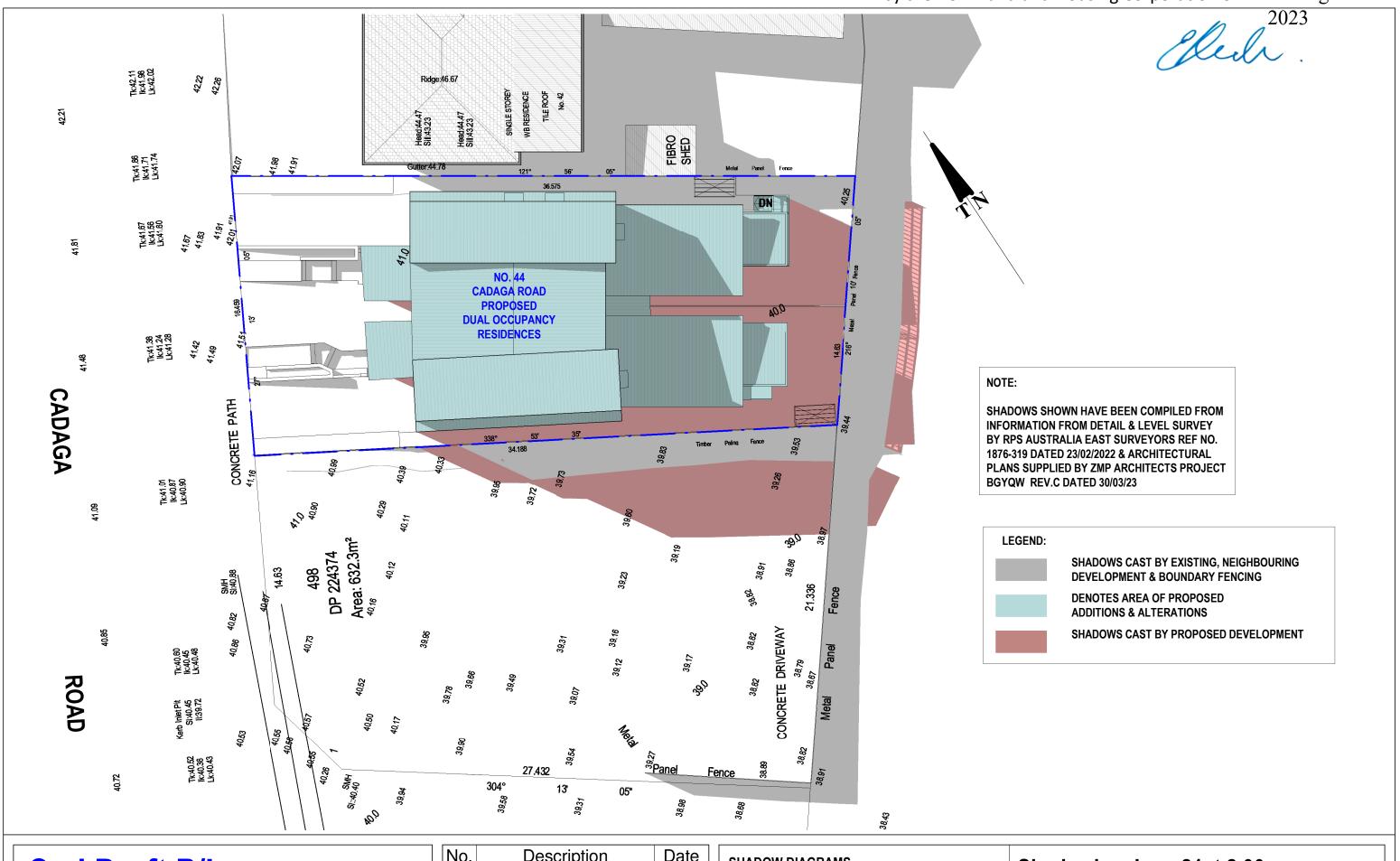
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

Fence

**CLIENT: C/- ZMP ARCHITECTS** 

23-20 Project number A104 Date 3-4-23 Drawn by ΚP Checked by JD Scale

1:200



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SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW

P.O.BOX 446 GLADESVILLE 2111

SHADOW ANALYSIS CONSULTANTS

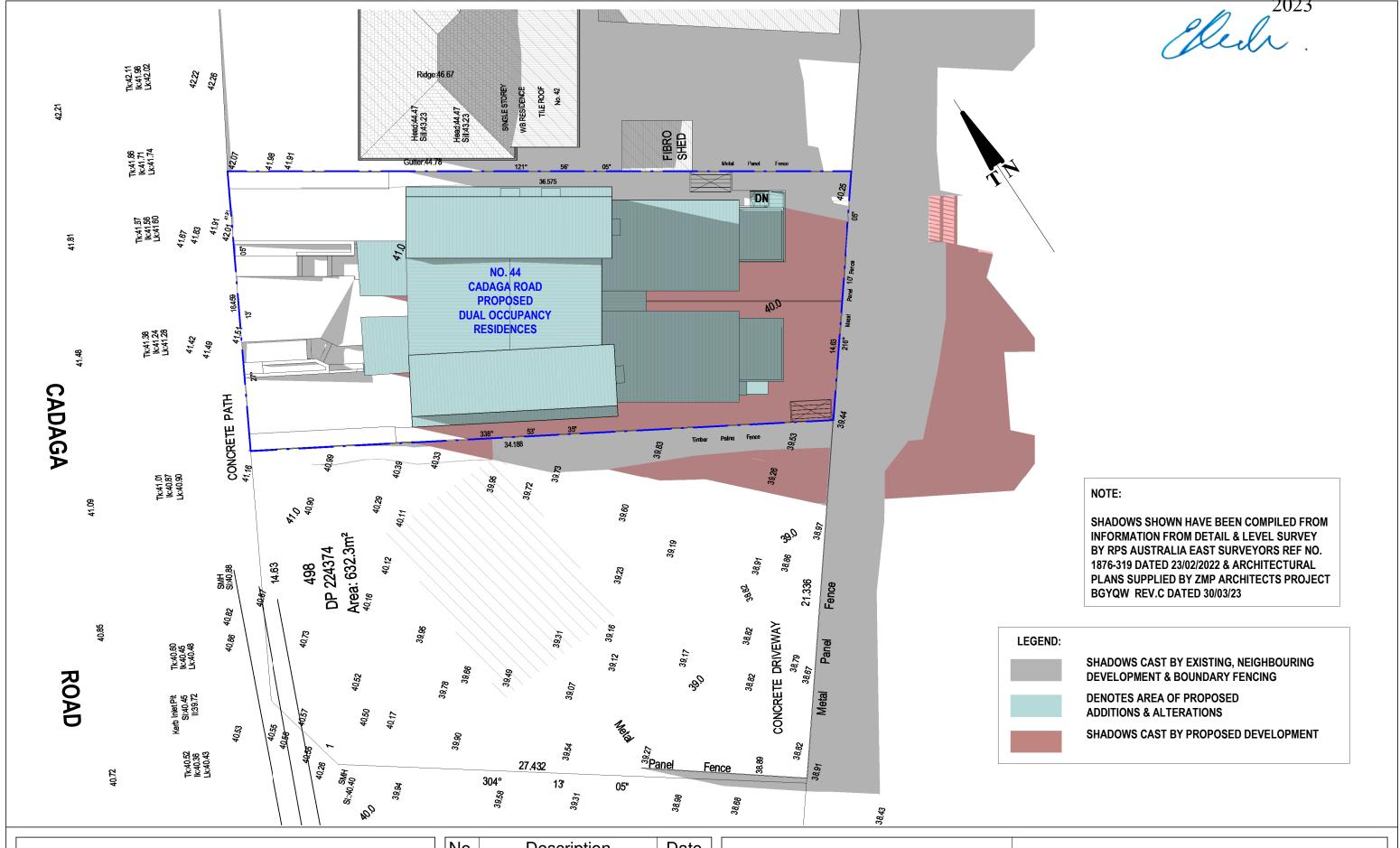
MOBILE: 0410 699919

info@caddraftnsw.com.au

No.	Description	Date

SHADOW DIAGRAMS
<b>DUAL OCCUPANCY</b>
No. 44 CADAGA ROAD
GATESHEAD

Project number	23-20		
Date	3-4-23	A105	
Drawn by	КР		
Checked by	JD	Scale	1 : 200



Cad	<b>Draft P/L</b>	

ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

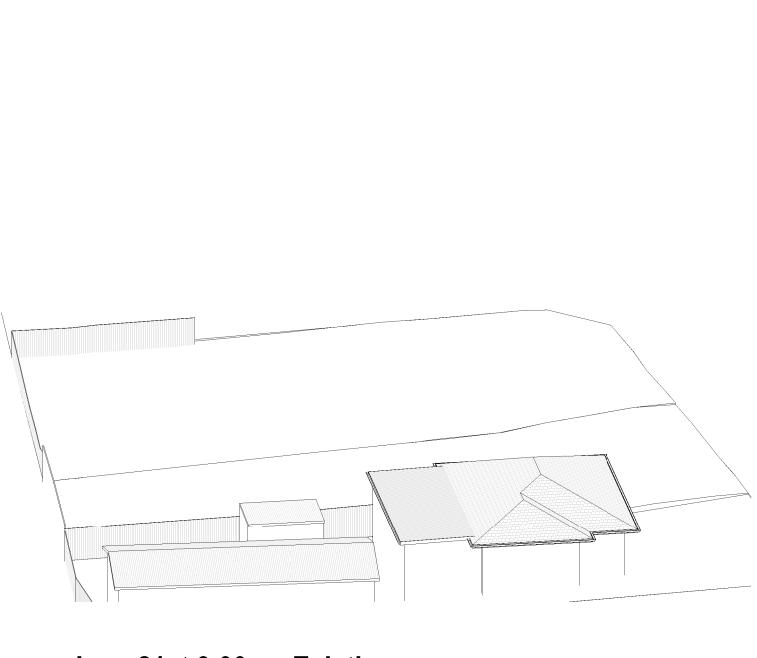
MOBILE: 0410 699919

info@caddraftnsw.com.au

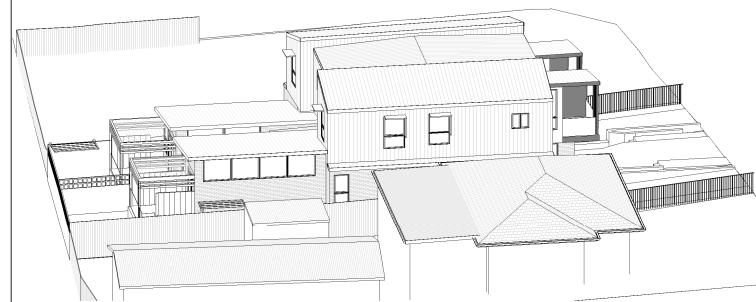
No.	Description	Date

SHADOW DIAGRAMS
<b>DUAL OCCUPANCY</b>
No. 44 CADAGA ROAD
GATESHEAD

Project number	23-20		
Date	3-4-23		A106
Drawn by	KP		
Checked by	JD	Scale	1 : 200



June 21st 9.00am Existing



Cad Draft P/L

ABN 27 083 288 153

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MOBILE: 0410 699919

info@caddraftnsw.com.au

Description	Date
	Description

SHADOW DIAGRAMS DUAL OCCUPANCY No. 44 CADAGA ROAD GATESHEAD

**CLIENT: C/- ZMP ARCHITECTS** 

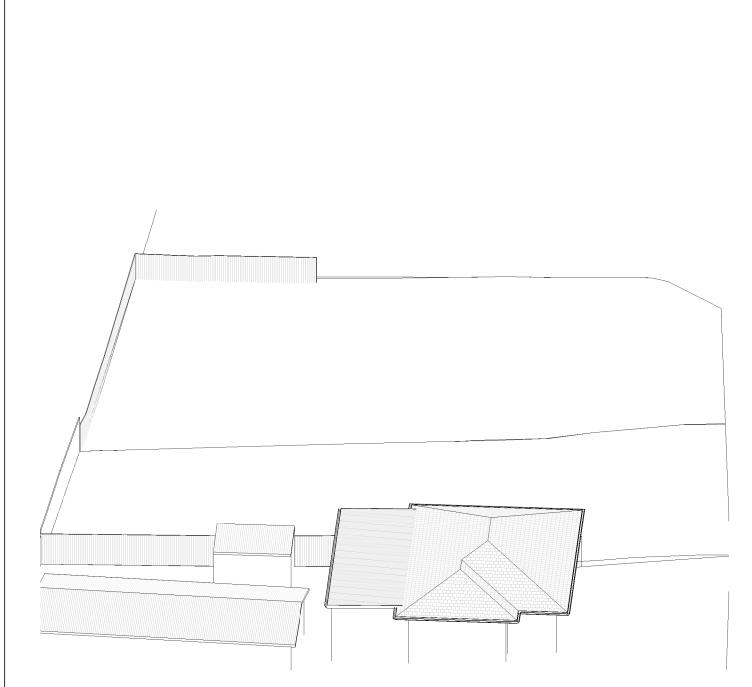
June 21st 9.00am Proposed

3D	Sun	<b>Views</b>	June	<b>21st</b>	9.00am
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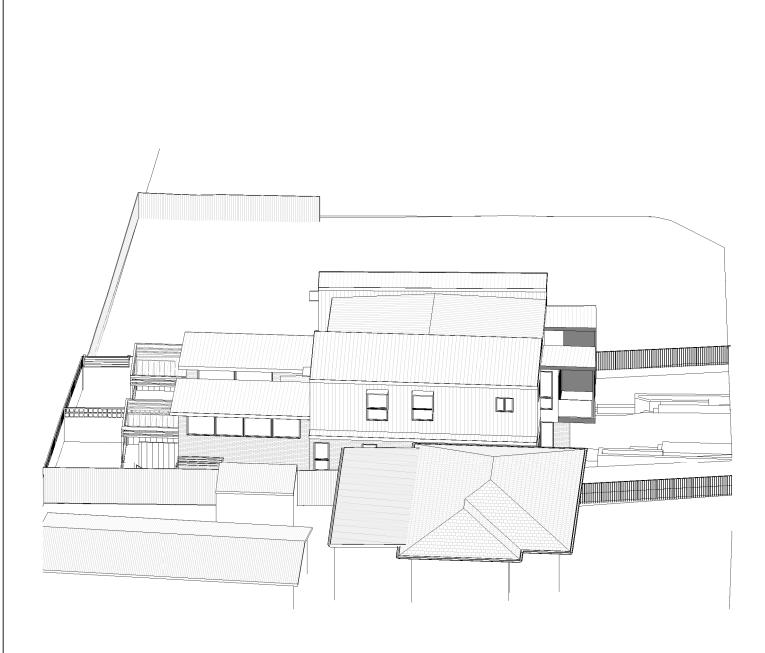
Project number	23-20	
Date	3-4-23	A107
Drawn by	KP	
Checked by	JD	Scale

24 August 2023

DETERMINED by the NSW Land and Housing Corporation on: 24 August 2023



June 21st 10.00am Existing



June 21st 10.00am Proposed

Cad Draft P/L
ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

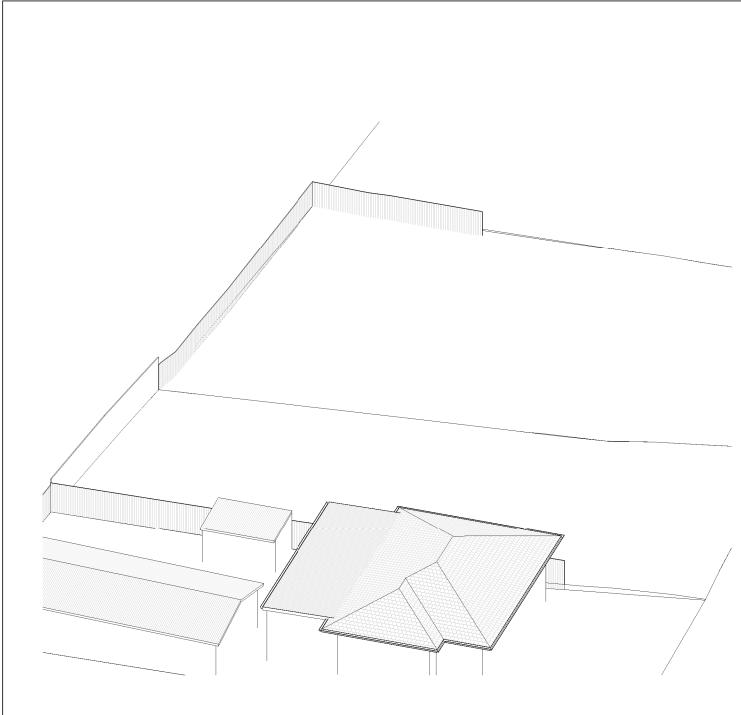
info@caddraftnsw.com.au

No.	Description	Date

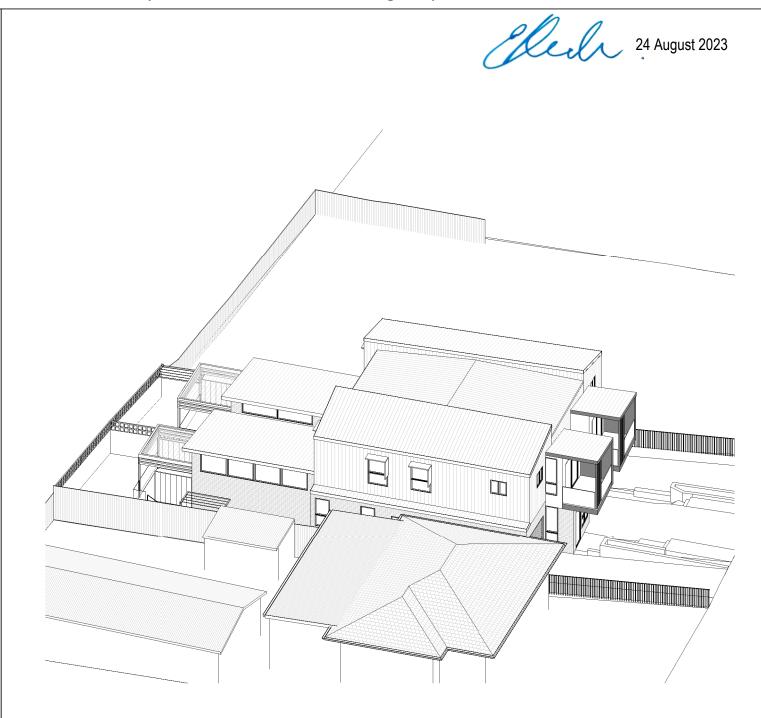
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

3D	Sun	<b>Views</b>	June	21st	10	00am
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Project number	23-20	
Date	3-4-23	A108
Drawn by	KP	
Checked by	JD	Scale



June 21st 11.00am Existing



June 21st 11.00am Proposed

# Cad Draft P/L ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

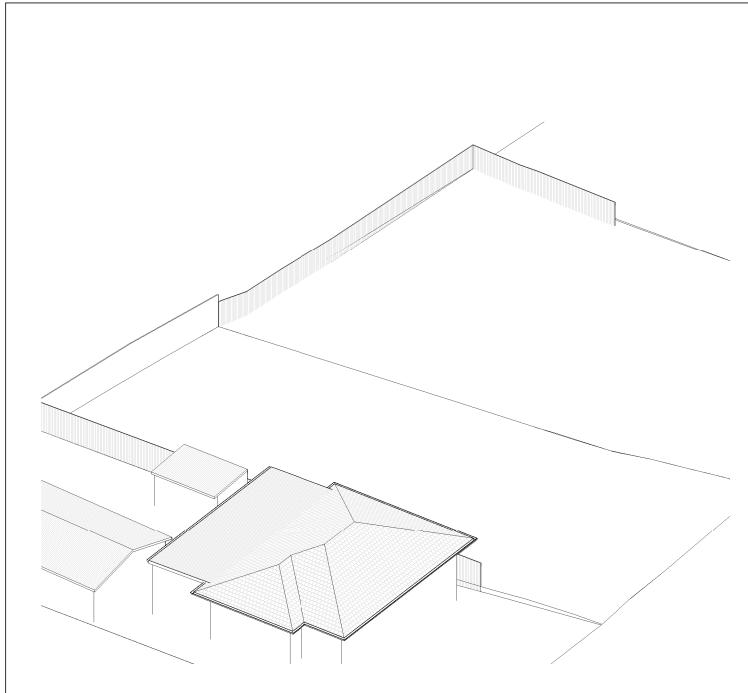
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info@caddraftnsw.com.au

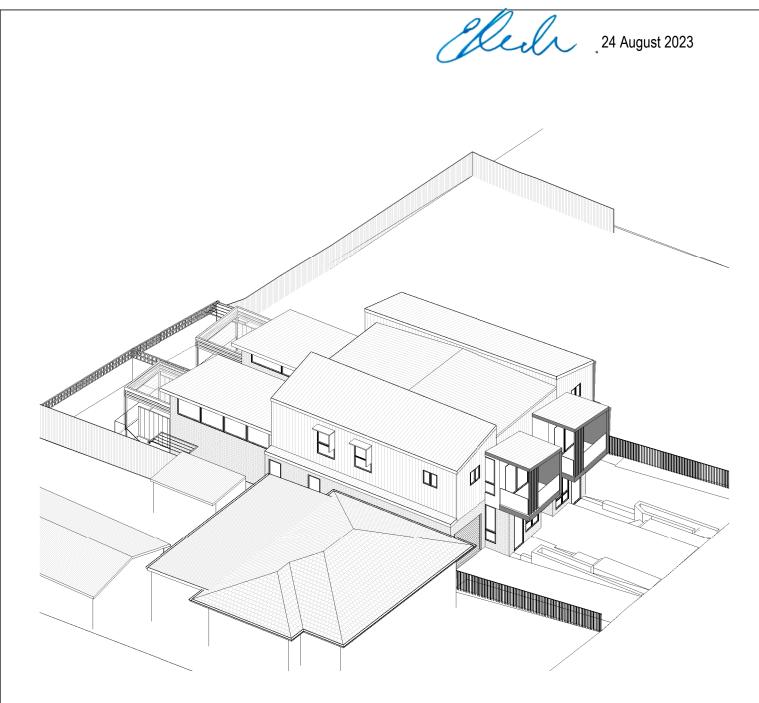
No.	Description	Date

SHADOW DIAGRAMS **DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

Project number	23-20	
Date	3-4-23	A109
Drawn by	KP	
Checked by	JD	Scale



June 21st 12.00pm Existing



June 21st 12.00pm Proposed

# Cad Draft P/L ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW

SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

info@caddraftnsw.com.au

No	. Description	Date

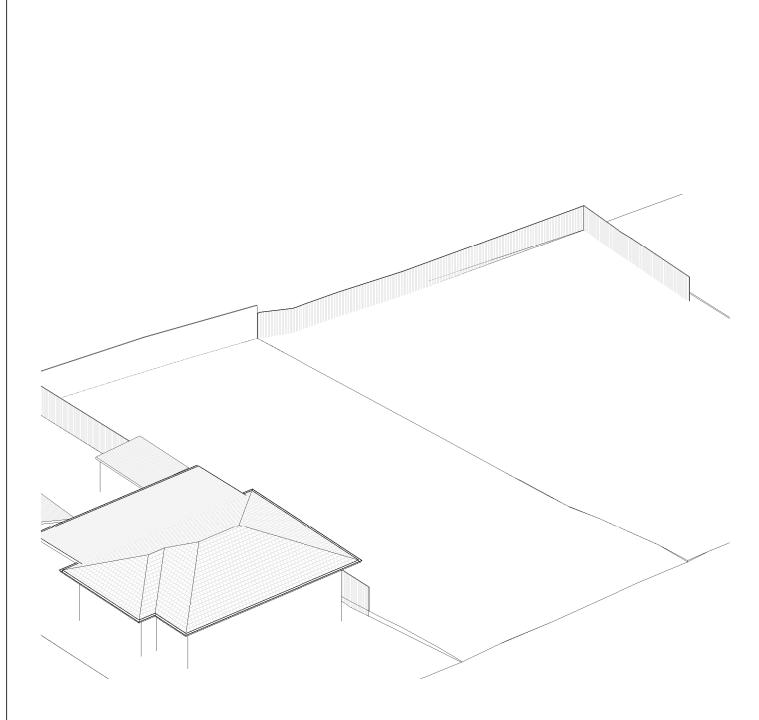
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

**CLIENT: C/- ZMP ARCHITECTS** 

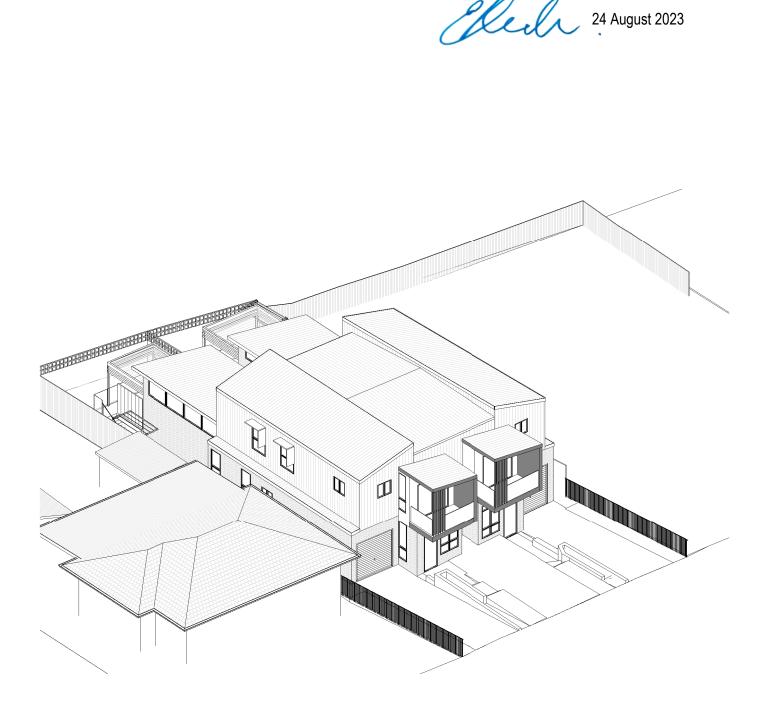
### 3D Sun Views June 21st 12.00pm

Projec	t number	23-20	
Date		3-4-23	A110
Drawn	by	KP	
Check	ed by	JD	Scale

DETERMINED by the NSW Land and Housing Corporation on:



June 21st 1.00pm Existing



June 21st 1.00pm Proposed

# Cad Draft P/L ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

info@caddraftnsw.com.au

No.	Description	Date

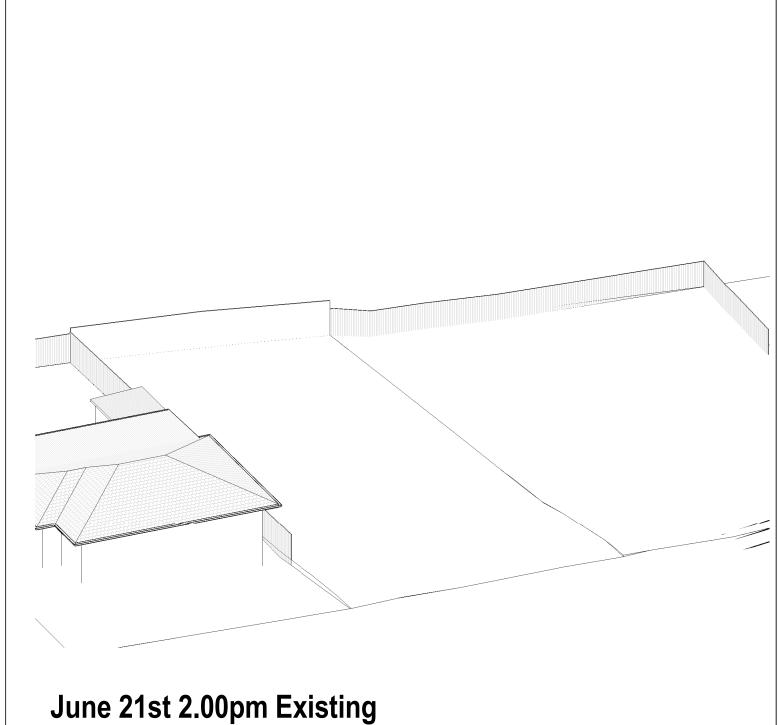
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

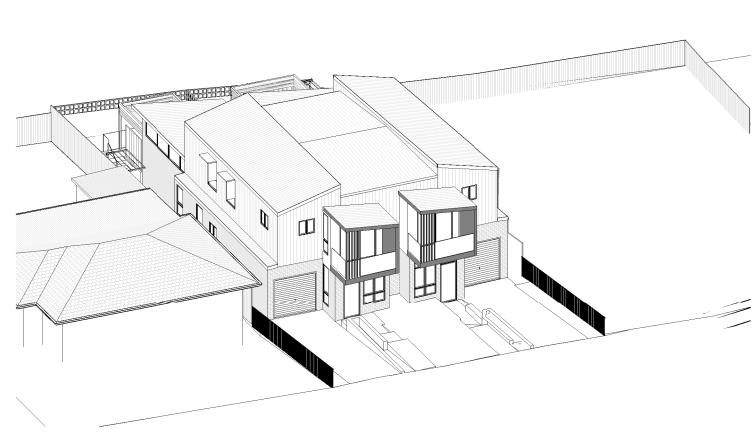
**CLIENT: C/- ZMP ARCHITECTS** 

### 3D Sun Views June 21st 1.00pm

Project number	23-20	
Date	3-4-23	A111
Drawn by	KP	
Checked by	JD	Scale

June 21st 2.00pm Proposed





Cad Draft P/L
ABN 27 083 288 153

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

info@caddraftnsw.com.au

No.	Description	Date

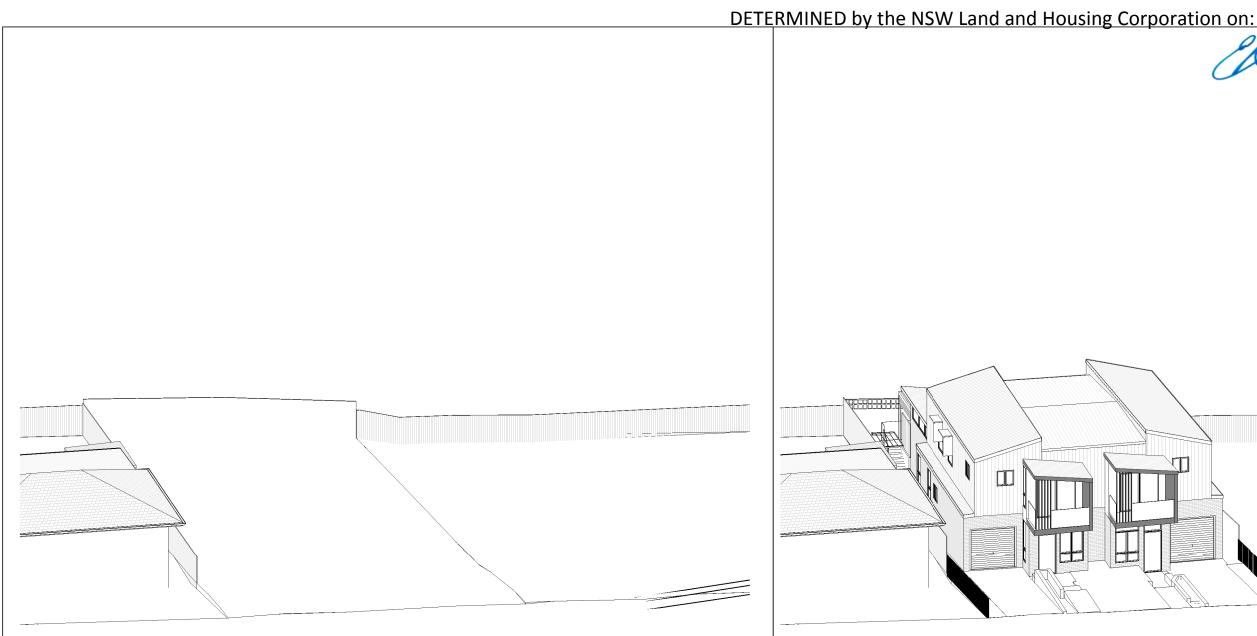
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

**CLIENT: C/- ZMP ARCHITECTS** 

3D	Sun	<b>Views</b>	June	<b>21st</b>	2.00pm
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Project number	23-20	
Date	3-4-23	A112
Drawn by	KP	
Checked by	JD	Scale

24 August 2023





June 21st 3.00pm Existing

June 21st 3.00pm Proposed

# Cad Draft P/L

SUITE 1, 505 BALMAIN ROAD, LILYFIELD, NSW P.O.BOX 446 GLADESVILLE 2111 SHADOW ANALYSIS CONSULTANTS

MOBILE: 0410 699919

info@caddraftnsw.com.au

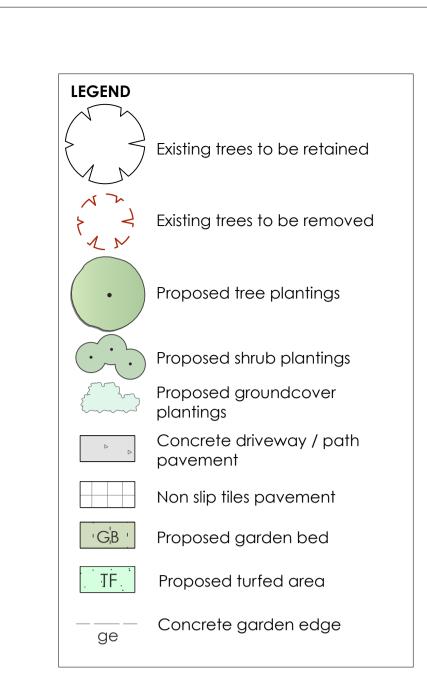
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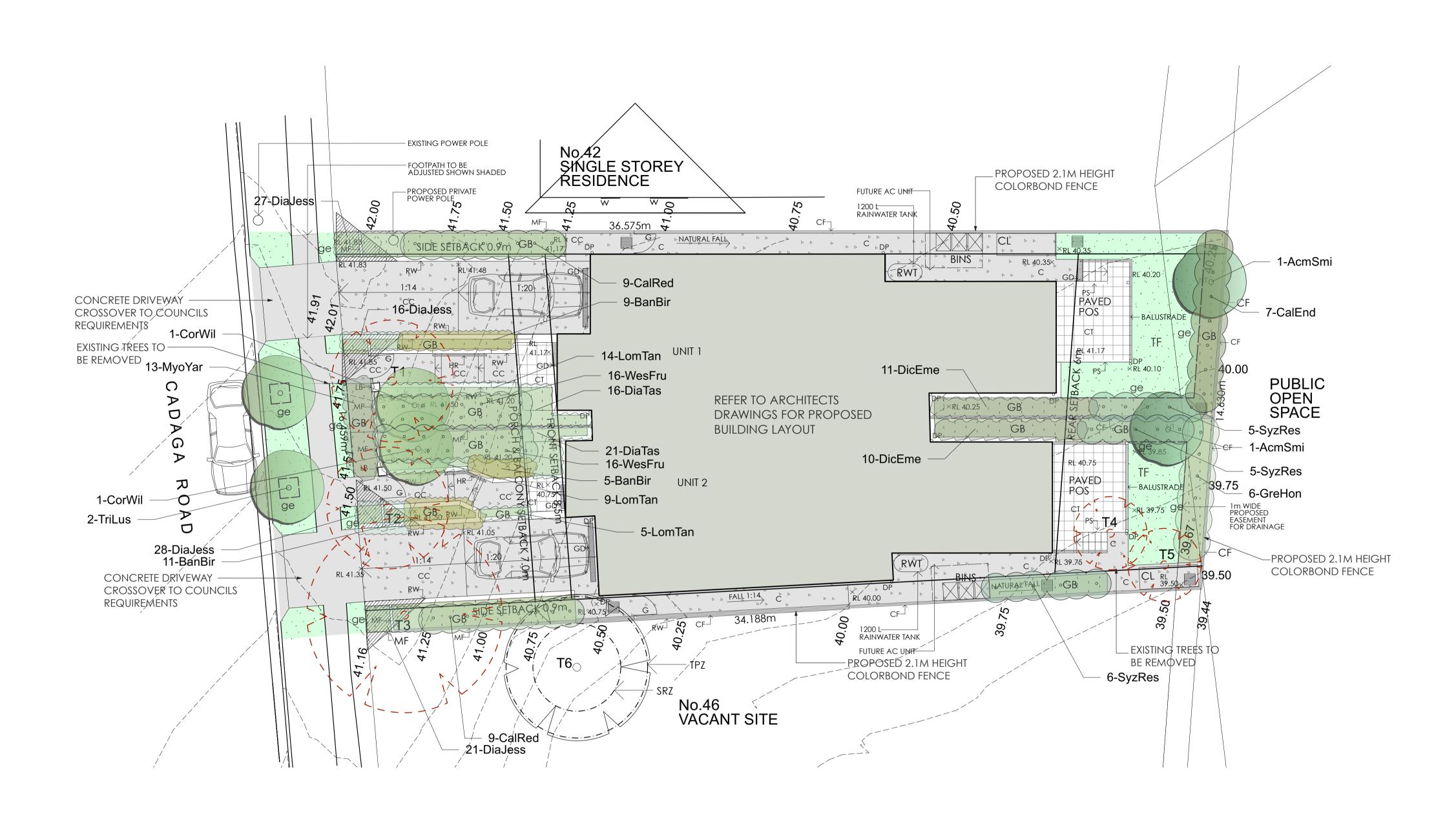
**SHADOW DIAGRAMS DUAL OCCUPANCY** No. 44 CADAGA ROAD **GATESHEAD** 

**CLIENT: C/- ZMP ARCHITECTS** 

# 3D Sun Views June 21st 3.00pm

Project number	23-20	
Date	3-4-23	A113
Drawn by	KP	
Checked by	JD	Scale





Plant Sche	edule						
ID	Qty	Common Name	Botanical Name	Size	Mature Height	Mature Spread	Native (N)
Trees							
AcmSmi	2	Lillypilly	Acmena smithii	75Litre	3 - 5m	1 - 3m	N
CorWil	2	Red Flowering Gum	Corymbia ficifolia 'Wildfire'	75Litre	3 - 5m	2.0 - 3.5m	N
TriLus	2	Water Gum	Tristaniopsis laurina 'Luscious'	75Litre	6 - 8m	3.5 - 6m	N
Shrubs							
CalEnd	7	Scarlet Bottlebrush	Callistemon citrinus 'Endevour'	200mm	3 - 5m	2.0 - 3.5m	N
CalRed	18	Red Alert Bottle Brush	Callistemon 'Red Alert'	200mm	1.0 - 1.5m	2.0 - 3.0m	N
GreHon	6	Honey Gem Grevillea	Grevillea 'Honey Gem'	200mm	3.0 - 4.0m	2.0 - 3.0m	N
SyzRes	16	Resilience Lilly Pilly	Syzygium 'Resilience'	200mm	2 - 3m	1.2 - 2.0m	Ν
WesFru	32	Jervis Gem	Westringia fruticosa 'Jervis Gem'	200mm	0.8 - 1.2m	0.8 - 1.2m	N
<b>Ground C</b>	overs						
LomTan	28	Spiny-headed mat rush	Lomandra longifolia 'Tanika'	150mm	0.45 - 0.6m	0.6 - 0.9m	N
DicEme	21	Emerald Falls Dichondra	Dichondra 'Emerald Falls'	150mm	0.0 - 0.3m	0.9 - 1.2m	Ν
DiaJess	92	Little Jess Native Flax	Dianella caerulea 'Little Jess'	150mm	0.3 - 0.4m	0.3 - 0.4m	N
MyoYar	13	Carpet Spreading Myoporum	Myoporum parvifolium 'Yareena'	150mm	0.2 - 0.3m	0.8 - 1.0m	Ν
DiaTas	37	Flax Lily	Dianella tasmanica 'Tasred'	150mm	0.4 - 0.5m	0.4 - 0.5m	N
BanBir	25	Birthday Candle	Banksia spinulosa 'Birthday Candle'	150mm	0.45 - 0.6m	0.9 - 1.2m	N

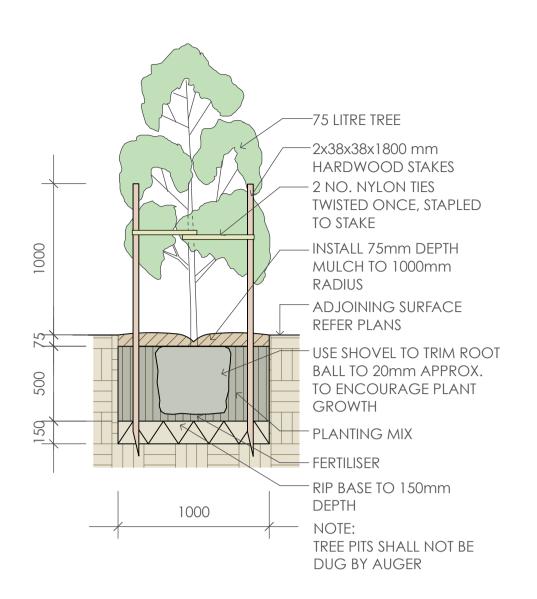


			ARCHITECT ZMP ARCHITECTS & HERITAGE CONSULTANT	
С	03/04/2023	DA	PH 0408 637 214	_
В	27/03/2023	DA	PROJECT MANAGER LAND & HOUSING CORPORATION	
Α	20/02/2023	SKETCH	PH (02) 8753 9000	
REV	DATE	NOTATION/AMENDMENT	LANDSCAPE CONSULTANT	
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.		SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.	GREENLAND DESIGN PTY LTD PH 0403 164 198	

PROJECT:	TITLE:		STATUS: DA						
DUAL OCCUPANCY DEVELOPMENT	LANDSCAPE PLAN			SCALE: 1:100		PROJ:	PROJECT No. BGYQW		
44 CADAGA ROAD GATESHEAD			STAGE:	DRAWN:	CL	CHECKED: GD	NOMINATED ARCHITECT:		
	FILE: 2637	PLOTTED:	LA	1 C	of 2		REV: C		

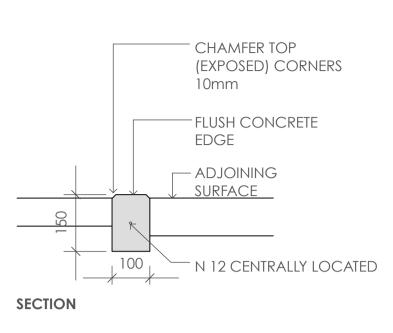
DETERMINED by the NSW Land and Housing Corporation on: 24 August 2023





GARDEN BED PLANTING - REFER PLANS 300mm DEPTH PLANTING MIX -75 mm MULCH AS **SPECIFIED** RIP BASE TO 150mm DEPTH FERTILISER MAX 1:4 FALL FALL BASE OF PLANTING BED PREPARATION TO DRAINAGE OUTLETS/ SUBSOIL DRAINAGE WHERE PROVIDED

TURF STRIPS TO BE STAGGERED PATTERN & BUTTED AGAINST EACH OTHER LAID AT ANGLE (AS SHOWN) TO CONTOURS TURF AS SPECIFIED - TURF STRIPS TO BUTT AGAINST EACH OTHER -TOPDRESS AS PER LANDSCAPE SPECIFICATION PLAN TOPSOIL TO 100mm DEPTH TURFED AREAS CULTIVATE AND FINE GRADE TO 150mm DEPTH **SECTION** PRIOR TO SPREADING TOPSOIL





75 Litre Tree Planting

**SPECIFICATION NOTES** 

PLANTING MATERIALS

Planting mix for tree pit backfill shall be "Organic Garden Mix" consisting of 50% Black Soil

20% Coarse Sand

30% Organic Material as available from Australian Native Landscapes, Phone: [02] 9450 1444, or approved equivalent. Samples shall be provided to the Superintendent prior to ordering or delivery to site. Any material delivered to site, that is rejected by the Superintendent, shall be removed by the contractor at his own expense. Minimum depths of mix to all planting bed areas is as specified on details.

Planting Bed Detail

# Mulch:

Mulch to garden bed:

Mulch shall mean hardwood mulch (25mm grade), free from material derived from Privet, Willow, Poplar, Coral trees, or other noxious weeds. Any mulch exceeding the 25mm grade shall be rejected / removed from the site. Graded hardwood mulch to be supplied by Australian Native Landscapes Pty Ltd Phone (02) 9450 1444, or approved equivalent.

Spread mulch so that after settling, it is:

- smooth and evenly graded between design surface levels;
- flush with adjacent finished levels;
- of the required depths (75mm); and

placed and levelled prior to turfing.

 sloped towards the base of plant stems in plantation beds, but not in contact with the stem (not closer than 50mm in the case of gravel mulches). Place after the preparation of the planting bed, planting and all other work.

# Plant Material:

All plant material must be true to the species. No substitutes will be allowed. All plants shall be free of fungus and insect damage. All plants shall be healthy, well shaped, not soft or force grown and not root bound. Plants are available from **Andreasens Green** wholesale nursery, contact Darren (02)

8777 4713, email darren@andreasensgreen.com.au or approved equivalent.

All new turfed area shall have a minimum 150mm depth of weed free top soil,

All new turfed areas are to be selected weed free Soft Leaf Buffalo. Turf shall be laid neatly butted with staggered joins, flush with adjacent surfaces and have even running falls to all drainage points.

## PREPARATION AND HARDWORKS

Excavating for Spot Planting To planting areas, excavate a hole for each plant large enough to provide not less than twice the depth and twice the diameter than the root ball of species to be planted.

scale as shown

Use durable hardwood, straight, free from knots or twists, pointed at one end. Drive stakes into the ground a minimum one third of their length, avoiding damage to the root system.

• 75 Litre trees in 2 x 38x38x1800mm Hardwood Stake with double Nylon tie TIES: Provide a 50mm wide Nylon webbing tie per stake, fixed securely to the stakes, one tie at half the height of the main stem and the other as necessary to stabilise the plant.

# Concrete Edge

MATERIALS: Concrete to be off white colour.

INSTALLATION: Supply and install 150 x 100mm (width) reinforced flush concrete kerb to locations as approved on site by the Superintendent. Provide flexible joints at maximum 3 metre intervals in colour to match concrete. Lightly expose aggregate through rinsing / sponging. Tool finish exposed edges with 10mm pencil round to prevent chipping.

## MAINTENANCE / PLANT ESTABLISHMENT

Maintenance shall apply to all hard and soft landscape materials installed prior to the "handover" and acceptance by Principles Representative and the Site Superintendent. The maintenance period shall convenience at the granting of practical completion and shall extend for 12 months.

Maintenance shall consist of the following works:

- Follow a daily watering programme to be approved by Superintendent. Water all plants individually, twice per week or when necessary to ensure constant plant growth. Water all turf and native grassed areas, twice per week.

- Apply appropriate weed control sprays and hand weed as required to maintain planting areas, native grassing bed areas, turfed areas, paved areas, and tree pits in turf free of weed or rogue grass growth.

- Regularly tidy and top up mulch and trim edges to prevent spill over onto paved / grassed areas.

Spray to control pests and diseases.

- Replace plants, which fail with plants of a similar size and quality as originally specified to approval of Superintendent. Costs of replacement shall be the responsibility of the Contractor. Replacement planting will be undertaken within 2

weeks of identification of dead material or instruction be the Superintendent. - Report any incidence of plants stolen or destroyed by vandalism.

- Adjust stakes and ties to plants as necessary. Ensure that strangulation of plants does not occur.

- Prune and shape plants as directed or where necessary. - Make good any defects or faults arising out of defective workmanship or materials. - Fertilise lawn areas to maintain healthy growth.

- Make good any erosion or soil subsidence, which may occur including soft areas in pathways. - Mow lawn to maintain neat healthy growth.

- A final inspection shall be made by the Superintendent before handover. Any items

requiring rectification shall be repaired before the works are finally approved, and retention moneys released.

# NOTE:

- All finished levels are to be verified by Contractor on site.

- All landscape works be in strict accordance with Council's landscape code and

- This plan to be used in conjunction with all other submitted architectural, hydraulics and engineering drawing where applicable.

GREENLAND DESIGN												
TWELVE MONTHS MAINTENANCE SCHEDULE	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Plant Care												
Monitoring												
Pruning as required												
Deadhead /tip pruning												
Slow release fertilise												
Rapid suluble fertilise as required												
Cut back perenials and grasses												
Watering as required												
Garden Bed												
Edging												
Remove weeds and herbicide spraying as required												
Top up mulch as required												
Dead foliage removal												
Pest Management												
Monitoring and herbicide spraying as required												
Turfed Area												
Fertilise												
Make good turf as required												
Winter clean up												
Remove dead foliage and pruning as required												

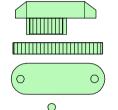


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			ARCHITECT
			ZMP ARCHITECTS & HERITAGE CONSULTANT
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44 CADAGA ROAD, LOT 499 DP224374, GATESHEAD NSW 2290

## STORMWATER LEGEND



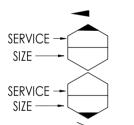
PROPOSED RAINWATER TANK DOWNPIPE, RISER OR VERTICAL DROP RWO - RAINWATER OUTLET FOR BALCONIES, ROOF, CARPARK ETC



**SWALE DRAIN** 

IL 34.75

GENERAL PIPEWORK LEGEND



STW Ø225 @ 1.0%min

PROPOSED SEALED JUNCTION PROPOSED GRATED SUFACE INLET PIT. PIT DIMENSIONS ARE GOVERNED BY DEPTH REFER TO DETAIL. **EXISTING PIT** 

PIT TO BE REMOVED

PROPOSED KERB INLET PIT PROPOSED GRATED DRAIN

GS1 - DOWNPIPE WITH RAIN

**HEAD OVERFLOW** GS2 - DOWNPIPE WITH SUMP SIDE OVERFLOW GS3 - DOWNPIPE WITH SUMP HIGH CAPACITY OVERFLOW

OVERLAND FLOW PATH

ROOF FALL DIRECTION

PROPOSED PAVEMENT SURFACE LEVEL PROPOSED PIT SURFACE LEVEL

PROPOSED FINISHED FLOOR LEVEL

PROPOSED PIT INVERT LEVEL

EXISTING SURFACE LEVEL **EXISTING SURVEY CONTOUR** 

FLOW DIRECTION PIPE FROM ABOVE

PIPE TO BELOW

FALL DIRECTION

PIPE TYPE, SIZE AND GRADE CONNECTION CONTINUATION END CAP **KEYNOTE TAG** 

# PROJECT INFORMATION TABLE

THE TABLES BELOW ARE TO BE READ IN CONJUNCTION WITH THE ADJACENT NOTES

SURVEY INFORMATION

THE SURVEY INFORMATION ON THESE DRAWINGS HAS BEEN PROVIDED BY COMPANY RPS AUSTRALIA 23.02.22

## SAFETY IN DESIGN

THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING THIS DESIGN THAT ARE TYPICAL OF SIMILAR DESIGNS, AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR OPERATOR TO ENSURE THE SAFETY OF WORKERS.

• JN DO NOT CONSIDER THAT THERE ARE ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN OF THIS PROJECT.

## GENERAL

1. ALL EXISTING LEVELS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF WORKS

2. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE NOMINATED OR APPLICABLE COUNCIL SPECIFICATION. WHERE A SPECIFICATION HAS NOT BEEN NOMINATED THEN THE CURRENT NSW DEPARTMENT OF HOUSING CONSTRUCTION SPECIFICATION IS TO BE USED. THE NOMINATED SPECIFICATION SHALL TAKE PRECEDENCE TO THESE NOTES

3. THESE DRAWINGS ARE DIAGRAMMATIC AND SHOW THE GENERAL ARRANGEMENT. ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE CONTRACTOR ON SITE. ENGINEERS DRAWINGS SHALL NOT BE

4. ALL DRAWINGS SHOULD BE READ IN CONJUNCTION WITH THE RELEVANT ARCHITECTURAL DRAWINGS & DRAWINGS FROM OTHER CONSULTANTS 5. THE CONTRACTOR SHOULD REPORT ANY DISCREPANCIES ON THE

DRAWINGS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN. A THE CONTRACTOR SHOULD LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND PROTECT AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE AND/OR ADJUST IF NECESSARY.

INFORMATION GIVEN ON THE DRAWINGS IN RESPECT TO

SERVICES IS FOR GUIDANCE ONLY AND IS NOT GUARANTEED COMPLETE NOR CORRECT. 7. CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE PERMISSION OF THE

8. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED OR REMOVED FROM SITE. 9. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH

10. ALL DRAINAGE LINES THROUGH ADJACENT LOTS SHALL BE CONTAINED WITHIN EASEMENTS CONFORMING TO COUNCIL'S STANDARDS

11. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES AND DEBRIS ETC. TO THE EXTENT SPECIFIED. 12. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL PROVIDE A TRAFFIC MANAGEMENT PLAN PREPARED BY AN ACCREDITED PERSON IN ACCORDANCE WITH RMS REQUIREMENTS, FOR ANY WORK ON OR ADJACENT TO PUBLIC

1. JONES NICHOLSON IS NOT RESPONSIBLE FOR THE ACCURACY OF ANY 3RD PARTY INFORMATION PROVIDED ON THIS DRAWING.

2. ALL LEVELS ARE TO A.H.D. 3. ALL CHAINAGES AND LEVELS ARE IN METRES, AND DIMENSIONS IN

ROADS, PLAN TO BE SUBMITTED TO COUNCIL & RMS.

MILLIMETRES. 4. SET OUT COORDINATES ARE BASED ON SURVEY DRAWINGS PROVIDED FOR THE PURPOSE OF CARRYING OUT THE

ENGINEERING DESIGN. 5. CONTRACTOR SHALL VERIFY ALL SET OUT COORDINATES SHOWN ON THE PLANS BY A REGISTERED SURVEYOR 6. CONTRACTORS SHALL ARRANGE FOR THE WORKS TO BE SET OUT

BY A REGISTERED SURVEYOR. 7. ANY DISCREPANCIES SHOULD BE CLARIFIED IN WRITING WITH THE ENGINEER PRIOR TO COMMENCEMENT OF THE WORK FOR

# EARTHWORKS

CONFIRMATION OF THE SURVEY.

1. PROVIDE PROTECTION BARRIERS TO PROTECTED/SENSITIVE AREAS PRIOR TO ANY BUILK EXCAVATION.

2. OVER FULL AREA OF EARTHWORKS, CLEAR VEGETATION, RUBBISH. FALLING TO PITS TO MATCH PIT INVERTS. SLABS ETC. AND STRIP TOP SOIL, AVERAGE 200mm THICK. REMOVE FROM SITE, EXCEPT TOP SOIL FOR RE-USE.

3. CUT AND FILL OVER THE SITE TO LEVELS REQUIRED. 4. PRIOR TO ANY FILLING IN AREAS OF CUT OR IN EXISTING GROUND, PROOF ROLL THE EXPOSED SURFACE, REFER TO

PROJECT INFORMATION TABLES FOR MINIMUM ROLLER WEIGHT AND THE MINIMUM NUMBER OF PASSES. 5. EXCAVATE AND REMOVE ANY SOFT SPOTS ENCOUNTERED DURING PROOF ROLLING AND REPLACE WITH APPROVED FILL COMPACTED IN LAYERS. THE WHOLE OF THE EXPOSED SUBGRADE 17. DOWNPIPES SHOWN ARE INDICATIVE ONLY, ALL ROOF GUTTERING AND FILL SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT  $\pm 2\%$ .

6. FOR ON SITE FILLING AREAS, THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.

7. WHERE HARD ROCK IS EXPOSED IN THE EXCAVATED SUB-GRADE, THIS WILL BE INSPECTED AND A DECISION MADE ON THE LEVEL TO WHICH EXCAVATION IS TAKEN. 8. FILL IN 200mm MAXIMUM (LOOSE THICKNESS) LAYERS TO

UNDERSIDE OF BASECOURSE USING THE EXCAVATED MATERIAL DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% SHOULD THERE BE INSUFFICIENT MATERIAL FROM SITE EXCAVATIONS, IMPORT AS NECESSARY CLEAN GRANULAR FILL TO THE DESIGN ENGINEERS APPROVAL 9. COMPACTION TESTING TO BE CARRIED OUT IN ACCORDANCE

WITH THE PROJECT INFORMATION TABLE. THE COSTS OF TESTING AND RE-TESTING ARE TO BE ALLOWED FOR BY THE BUILDER. 10. BATTERS TO BE AS SHOWN, OR MAXIMUM 1 VERT: 4 HORIZ, ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL

11. ALL BATTERS AND FOOTPATHS ADJACENT TO ROADS SHALL BE TOP SOILED WITH 150mm APPROVED LOAM AND SEEDED UNLESS OTHERWISE SPECIFIED.

## STORMWATER DRAINAGE INSTALLATION

1. SUPPLY & INSTALLATION OF DRAINAGE WORKS TO BE IN

ACCORDANCEWITH THESE DRAWINGS, THE COUNCIL SPECIFICATION AND THE CURRENT APPLICABLE AUSTRALIAN . BEDDING OF THE PIPELINES IS TO BE TYPE 'HS2' IN ACCORDANCE WITH THE STANDARDS AND AS FOLLOWS a. COMPACTED GRANULAR MATERIAL IS TO COMPLY WITH THE

**FOLLOWING GRADINGS:** 

19 | 2.36 | 0.60 | 0.30 | 0.15 | 0.075 (mm) 100 | 50-100 | 20-90 | 10-60 | 0-25 | 0-10 PASSING

- AND THE MATERIAL PASSING THE 0.075 SIEVE HAVING LOW PLASTICITY AS DESCRIBED IN APPENDIX D OF AS1726. b. BEDDING DEPTH UNDER THE PIPE TO BE 100mm. C. BEDDING MATERIAL TO BE EXTENDED FROM THE TOP OF THE BEDDING ZONE UP TO 0.3 TIMES PIPE OUTSIDE DIAMETER. THIS REPRESENTS THE 'HALINCH TONE d. THE BEDDING & HAUNCH ZONE MATERIAL IS TO BE COMPACTED TO A MINIMUM RELATIVE COMPACTION OF

98% WITHIN ROAD RESERVES AND TRAFFICABLE AREAS AND 95% ELSEWHERE FOR COHESIVE MATERIAL OR A MINIMUM DENSITY INDEX OF 70% IN ACCORDANCE WITH THE STANDARDS FOR COHESIONLESS MATERIAL. e. COMPACTION TESTING SHALL BE CARRIED OUT BY AN APPROVED ORGANISATION WITH A NATA CERTIFIED LABORATORY FOR ALL DRAINAGE LINES LAID WHOLLY OR IN

PART UNDER THE KERB & GUTTER OR PAVEMENT. 3. BACKFILL SHALL BE PLACED & COMPACTED IN ACCORDANCE WITH THE SPECIFICATION, A GRANULAR GRAVEL AGGREGATE MATERIAL (<10mm) BACKFILL IS RECOMMENDED FOR THE BEDDING, HAUNCH SUPPORT AND SIDE ZONE DUE TO IT'S SELF COMPACTING ABILITY.

4. A MINIMUM OF 150mm CLEARANCE IS TO BE PROVIDED BETWEEN THE OUTSIDE OF THE PIPE BARREL AND THE TRENCH WALL FOR PIPES < 600 DIA. 200mm CLEARANCE FOR PIPES 600 TO 1200 DIA AND D/6 CLEARANCE FOR PIPES > 1200 DIA.

## STORMWATER DRAINAGE

1. STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH CURRENT AUSTRALIAN STANDARDS AND COUNCIL'S

. PIPES OF 225mm DIA. AND UNDER SHALL BE UPVC. PIPES OF 300mm DIA. AND LARGER SHALL BE FRC OR CONCRETE CLASS 2 RUBBER RING JOINTED UNO.

4. ALL FRC OR RCP STORMWATER PIPES WITHIN ROAD RESERVE AREAS 5. MINIMUM COVER TO PIPES 300mm DIA. AND OVER GENERALLY

SHALL BE 600mm IN CARPARK & ROADWAY AREAS UNO. 6. PIPES SHALL GENERALLY BE LAID AT THE GRADES INDICATED ON THE

7. PIPES UP TO 150mm DIA SHALL BE LAID AT 1.0% MIN. GRADE U.N.O. 8. PIPES 225mm DIA AND OVER SHALL BE LAID AT 0.5% MIN. GRADE

9. BACKFILL TRENCHES WITH APPROVED FILL COMPACTED IN 200mm LAYERS TO 98% OF STANDARD DENSITY. 10. ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT

11. PITS SHALL BE AS DETAILED WITH METAL GRATES AT LEVELS INDICATED. ALL PITS DEEPER THAN 1200mm TO HAVE CLIMB IRONS. 12. BUILD INTO UPSTREAM FACE OF ALL PITS A 3.0m SUBSOIL LINE

13. ALL COURTYARD & LANDSCAPED PITS TO BE 450 SQUARE LOAD

CLASS A UNLESS NOTED OTHERWISE. 14. ALL DRIVEWAY & OSD PITS TO BE 600 SQUARE LOAD CLASS D UNLESS 15. INSTALL TEMPORARY SEDIMENT BARRIERS TO INLET PITS, TO

COUNCIL'S STANDARDS UNTIL SURROUNDING AREAS ARE PAVED OR 16. PITS & DOWNPIPE LOCATIONS AND LEVELS MAY BE VARIED TO SUIT SITE CONDITIONS AFTER CONSULTING THE ENGINEER.

AND DOWNPIPES TO THE CURRENT AUSTRALIAN STANDARDS. 18. ALL PLANTER BOXES AND BALCONIES TO BE CONNECTED TO THE PROPOSED STORMWATER DRAINAGE LINE. 19. HAND-EXCAVATE STORMWATER PIPES IN VICINITY OF TREE ROOTS.

20. FOOTPATH CROSSING LEVELS SHOWN ARE TO BE ADJUSTED TO FINAL COUNCIL'S ISSUED LEVELS. 21. GEOTEXTILE FABRIC TO BE PLACED UNDER RIP RAP SCOUR

PROTECTION. 22. ALL BASES OF PITS TO BE BENCHED TO HALF PIPE DEPTH AND PROVIDE GALVANISED ANGLE SURROUNDINGS TO GRATE. AND COMPACTED TO 98% STANDARD (AS 1289 5.1.1), MAXIMUM 23, SUBSOIL LINE PIPES AND FITTINGS SHALL BE PERFORATED PLASTIC TO CURRENT AUSTRALIAN STANDARDS. LAY PIPES ON FLOOR OF TRENCH GRADED AT 1% MIN. AND OVERLAY WITH FILTER MATERIAL

> 24. SHOULD THE CONTRACTOR ELECT TO INSTALL PRECAST STORMWATER PITS AND THEY ARE PERMITTED BY COUNCIL AND THE CLIENT, THE PRECAST PITS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH RMS STANDARDS INCLUDING:

EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND

1. SEAL THE SEGMENTS TOGETHER USING A SITE-APPROVED NON-SHRINK GROUT OR MASTIC-TYPE PRODUCT. APPLY THE SEALANT IN ACCORDANCE WITH THE PRODUCT MANUFACTURER'S

REQUIREMENTS.

2. ENSURE THAT NO GAPS REMAIN AND THAT A SMOOTH FACE EXISTS BETWEEN MULTIPLE UNITS.

3. LEAVE THE SEGMENTS UNDISTURBED UNTIL THE PERIOD OF CURING IS COMPLETED IN ACCORDANCE WITH THE GROUT OR SEALANT PRODUCT MANUFACTURER'S REQUIREMENTS.

# PAVEMENT LEGEND

**BUTT JOINT** 150mm HIGH KERB & GUTTER 150 K&G

150 KO

EXTENT OF CONCRETE PAVEMENT

2N12 TRIMMERS x 1200 LONG (TIED UNDER TOP MESH)

150mm HIGH KERB ONLY EXTENT OF BITUMEN PAVEMENT

PAVEMENT - RIGID 1. THE PAVEMENT DESIGN AS DETAILED ASSUMES A PROPERLY PREPARED UNIFORM AND STABLE SUBGRADE. CONFIRMATION OF DESIGN CBR RATIO IS REQUIRED BY A GEOTECHNICAL ENGINEER PRIOR TO WORKS

**DETERMINED by the NSW Land and Housing Corporation on:** 24 August 2023

COMMENCING 2. PREPARATION FOR PAVEMENT: CLEAR SITE, STRIP TOPSOIL, CUT AND FILL AND PREPARATION OF SUBGRADE SHALL BE AS DESCRIBED IN "EARTHWORKS" NOTES.

3. SUBGRADE SHALL BE COMPACTED TO 98% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS

4. BASE COURSE SHALL BE CONSTRUCTED FROM FINE CRUSHED ROCK DGB20 COMPACTED TO 100% STANDARD MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ± 2% IN ACCORDANCE WITH AS 1289 5.1.11 . CONCRETE PAVEMENT SLABS SHALL BE AS DETAILED ON THE DRAWINGS.

6. ALL WORKMANSHIP AND MATERIALS FOR CONCRETE WORK SHALL BE IN ACCORDANCE WITH AS 3600 AND AS 3610 CURRENT EDITIONS WITH

AMENDMENTS, EXCEPT WHERE VARIED BY THE CONTRACT DOCUMENTS. 7. CONCRETE QUALITY ALL CEMENT SHALL BE TYPE SL SHRINKAGE LIMITED CEMENT IN ACCORDANCE WITH AS3972

ELEMENT	STRENGTH GRADE (MPa)	SLUMP	MAXIMUM AGGREG. SIZE (mm)
PAVEMENT	32	80	20

8. PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH

9. NO ADMIXTURES SHALL BE USED IN CONCRETE UNLESS APPROVED IN

10. CLEAR CONCRETE COVER TO ALL REINFORCEMENT FOR DURABILITY SHALL

11. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE LOCATED TO THE APPROVAL OF THE ENGINEER. 12. THE FINISHED CONCRETE SHALL BE MECHANICALLY VIBRATED TO ACHIEVE

A DENSE HOMOGENEOUS MASS. COMPLETELY FILLING THE FORMWORK THOROUGHLY EMBEDDING THE REINFORCEMENT AND FREE OF STONE POCKETS. CONCRETE SHALL BE COMPACTED WITH MECHANICAL

13. CURING OF ALL CONCRETE IS TO BE ACHIEVED BY KEEPING SURFACES CONTINUOUSLY WET FOR A PERIOD OF THREE DAYS, AND THE PREVENTION OF LOSS OF MOISTURE FOR A TOTAL OF 7 DAYS FOLLOWED BY A GRADUAL DRYING OUT.

14. REPAIRS TO CONCRETE SHALL NOT BE ATTEMPTED WITHOUT THE PERMISSION

No.	SHEET NAME		
C001	NOTES & LEGEND		
C050	TYPICAL DETAILS		
C200	GROUND STORMWATER PLAN		
C300	ROOF STORMWATER PLAN		
C400	DRIVEWAY LAYOUT PLAN		

CIVIL DRAWING LIST

DESCRIPTION

05.04.23 ISSUED FOR DA



PRELIMINARY

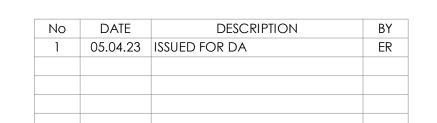
ZMP ARCHITECTS

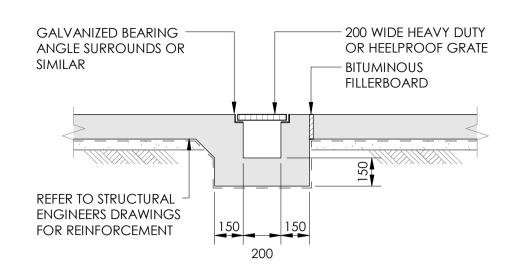
CIVIL DESIGN

DRAWING TITLE **NOTES & LEGEND** 

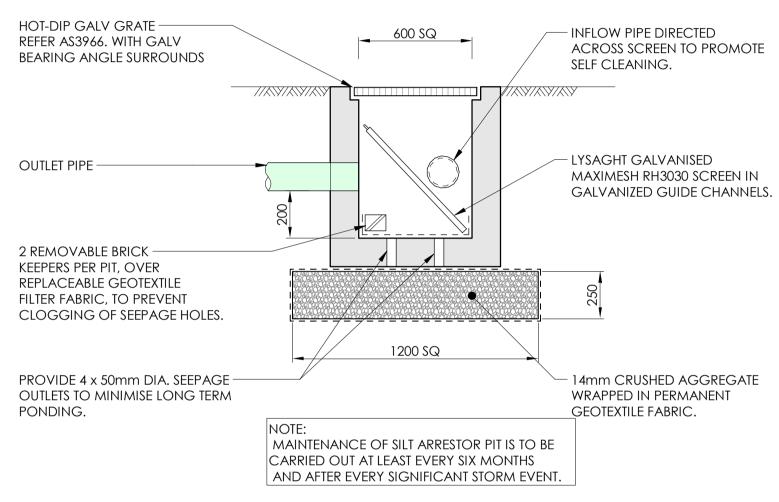
# PROPOSED DUAL OCCUPANCY



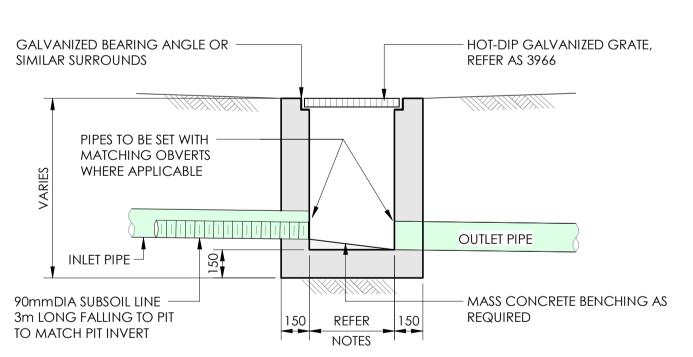




TYPICAL 200mm GRATED DRAIN DETAIL



TYPICAL SILT ARRESTOR PIT



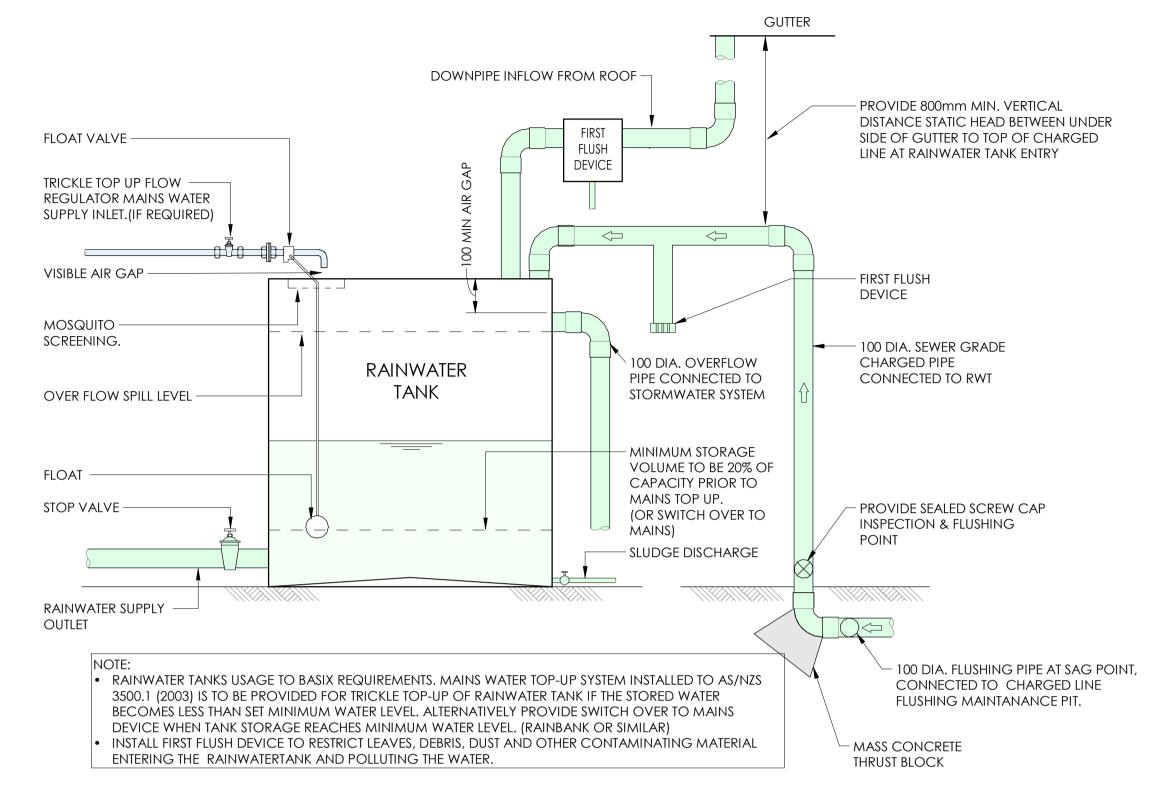
minimum internal dimensions for stormwater pits								
DEPTH OF INVERT OF OUTLET DEPTH OF INVERT OF OUTLET								
		WIDTH	LENGTH					
	< 600	450	450					
> 600		600	600					
> 900		600	900					
> 1200 900 900								
*STEP IRONS SHALL BE PROVIDED FOR PITS WITH DEPTHS EXCEEDING 1000mm								

1. CLIMB IRONS SHALL BE PROVIDED UNDER LID AT 300 CTS TO COUNCIL STANDARDS WHERE PIT

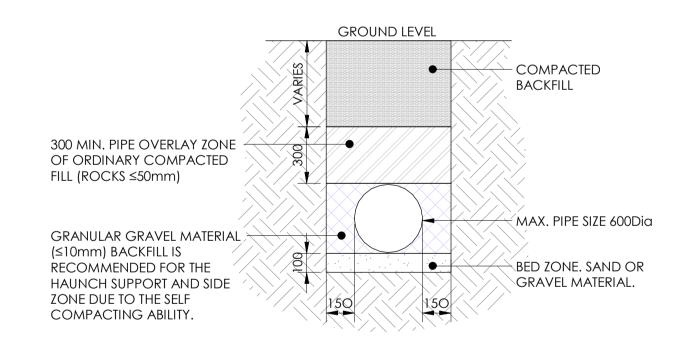
DEPTH IS DEEPER THAN 1000. 2. PROVIDE 90Dia x 3000 LONG SUBSOIL DRAINAGE STUB PIPE SURROUNDED WITH 100mm THICKNESS OF NOMINAL 20mm COARSE FILTER MATERIAL WRAPPED IN GEOTEXTILE FILTER

(BIDUM A24 OR APPROVED SIMILAR). TO BE PARALLEL TO UPSTREAM SIDE OF EACH INLET PIPE. 4. ALTERNATIVE PIT CONSTRUCTION MAY BE USED SUBJECT TO THE ENGINEERS APPROVAL. 5. CONCRETE STRENGTH F'c = 32 MPa

> TYPICAL CONCRETE INLET PIT -NATURAL SURFACE



TYPICAL RAINWATER TANK DETAIL - CHARGED LINE



TYPICAL SCHEMATIC PIPE TRENCH DETAIL



ZMP ARCHITECTS

STATUS

DISCIPLINE **CIVIL DESIGN** 

DRAWING TITLE TYPICAL DETAILS

PROJECT

PROPOSED DUAL OCCUPANCY





No	DATE	DESCRIPTION	BY
1 05.04.23		ISSUED FOR DA	ER

## STORMWATER DESIGN SUMMARY:

LAKE MACQUARIE DCP - 2014 DRAINAGE DESIGN HANDBOOK - 2013 WATER CYCLE MANAGEMENT GUIDELINES, **REVISION 2 - 2013** 

SITE AREA: 543.8m<sup>2</sup> PROPOSED DUAL OCCUPANCY IMPERVIOUS AREA: 418m<sup>2</sup> ROOF AREA: 285m<sup>2</sup>

SDI = 0, ALL IMPERVIOUS AREAS DRAIN THROUGH EITHER THE RAINWATER TANK OR SILT ARRESTOR PITS WITH TRASH SCREEN, SUMP AND INFILTRATION BASE.

ONSITE DETENTION NOT REQUIRED FOR DUAL OCCUPANCY

WATER CYCLE MANAGEMENT PLAN NOT REQUIRED FOR DUAL OCCUPANCY



# ZMP ARCHITECTS

PRELIMINARY

CIVIL DESIGN

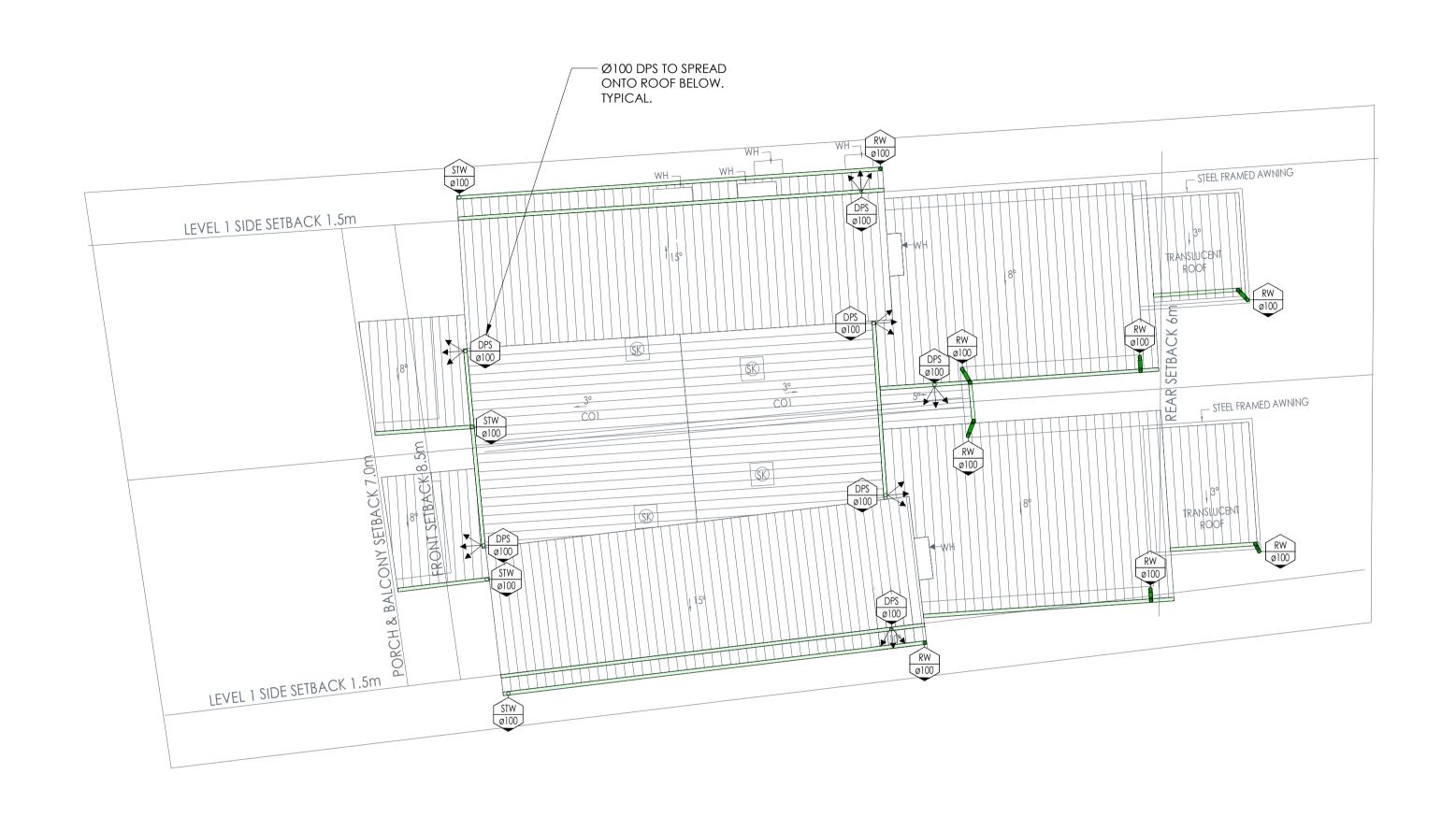
GROUND STORMWATER PLAN

PROJECT

# PROPOSED DUAL OCCUPANCY



	No	DATE	DESCRIPTION	BY
	1 05.04.23		ISSUED FOR DA	ER
ı				



ROOF STORMWATER PLAN SCALE 1:100



ZMP ARCHITECTS

PRELIMINARY

CIVIL DESIGN

ROOF STORMWATER PLAN

PROJECT

PROPOSED DUAL OCCUPANCY





DESCRIPTION 1 05.04.23 ISSUED FOR DA ER

LEGEND



NEW KERB LAYBACK TO COUNCIL STANDARD DETAIL EGSD-103



NEW FOOTPATH TO COUNCIL STANDARD DETAIL EGSD-301



NEW VEHICLE ACCESS TO COUNCIL STANDARD DETAIL EGSD-201



ZMP ARCHITECTS

PRELIMINARY

DISCIPLINE **CIVIL DESIGN** 

DRIVEWAY LAYOUT PLAN

**PROJECT** 

PROPOSED DUAL OCCUPANCY



# Job No. N0221035

## ENVIRONMENTAL SITE MANAGEMENT LEGEND

- - - - PROPRIETARY SILT FENCE PROVIDE TEMPORARY CHAIN WIRE FENCING (HOARDING) ALONG THE SITE BOUNDARY.

PROPOSED BUILDING LINE

TEMPORARY STABALISED CONSTRUCTION ENTRY/EXIT. (SHAKER PAD)

KERB INLET PITS. NOMINATED DISPOSAL ROUTE FOR TRUCK MATERIAL TRANSPORTATION.

TEMPORARY FILTER TUBE WITH SAFETY BARRICADE

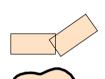
TEMPORARY MASS CONCRETE FOOTPATH CROSSING.

UNDISTURBED NON-TRAFFICABLE AREA

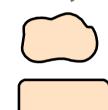
DIVERSION BANK



SURFACE INLET DRAINAGE PIT WITH SURROUNDING FILTER SEDIMENT TRAP OR FILTER TUBES (SANDBAGS)



TEMPORARY GEOTEXTILE WRAPPED HAY BALES/SAND BAGS



SITE EQUIPMENT LOCATIONS

STOCK MATERIALS

### SAFETY IN DESIGN THERE ARE INHERENT RISKS WITH CONSTRUCTING, MAINTAINING, OPERATING, DEMOLISHING, DISMANTLING AND DISPOSING THIS DESIGN THAT ARE TYPICAL OF SIMILAR DESIGNS. AS FAR AS IS REASONABLY PRACTICABLE RISKS HAVE BEEN ELIMINATED OR MINIMISED THROUGH THE DESIGN PROCESS. HAZARD CONTROLS

• JN DO NOT CONSIDER THAT THERE ARE ANY UNIQUE RISKS ASSOCIATED WITH THE DESIGN OF THIS PROJECT.

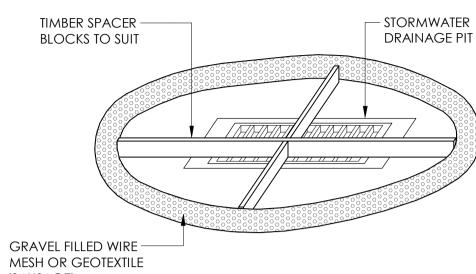
OPERATOR TO ENSURE THE SAFETY OF WORKERS.

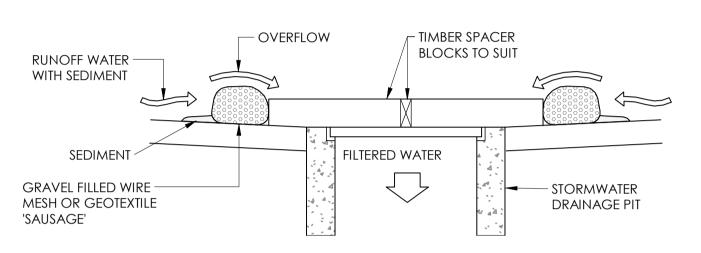
MUST STILL BE IMPLEMENTED BY THE CONTRACTOR, OWNER OR

ESM DRAWING LIST				
No.	SHEET NAME			
ESM1	NOTES LEGEND & DETAILS			
ESM2	ESM PLAN			

## ENVIRONMENTAL SITE MANAGEMENT

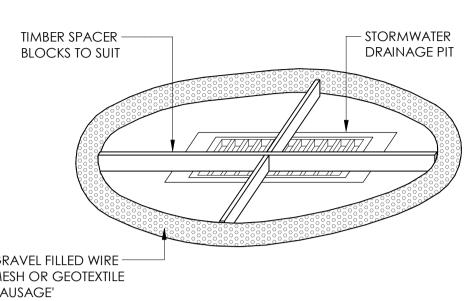
- 1. EROSION & SEDIMENT CONTROLS TO BE INSTALLED IN ACCORDANCE WITH COUNCIL'S SPECIFICATION & THE NSW DEPARTMENT OF HOUSING "BLUE BOOK" -SOILS AND CONSTRUCTION - MANAGING URBAN STORMWATER, 2004. REFER TO THE **BLUE BOOK FOR STANDARD DRAWINGS "SD"**
- 2. SEDIMENT & EROSION CONTROLS MUST BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS OR DEMOLITION ACTIVITY. THE LOCATION OF SUCH DEVICES IS INDICATIVE ONLY AND FINAL POSITION SHOULD BE
- 3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL MEASURES ARE TAKEN DURING THE COURSE OF CONSTRUCTION TO PREVENT SEDIMENT EROSION AND POLLUTION OF THE DOWNSTREAM SYSTEM, SUPERVISING ENGINEER SHOULD BE CONTACTED IF IN DOUBT. ALL SEDIMENT CONTROL STRUCTURES TO BE INSPECTED AFTER EACH RAINFALL EVENT FOR STRUCTURAL DAMAGE AND ALL TRAPPED SEDIMENT TO BE REMOVED TO A NOMINATED SOIL STOCKPILE SITE.
- 4. RETAIN ALL EXISTING GRASS COVER WHEREVER POSSIBLE. TOPSOIL FROM ALL AREAS THAT WILL BE DISTURBED TO BE STRIPPED AND STOCKPILED AT THE NOMINATED SITE. A SEDIMENT FENCE TO BE PLACED DOWNHILL OF STOCKPILE
- 5. AREAS OF SITE REGRADING ARE TO BE COMPLETED PROGRESSIVELY DURING THE WORKS AND STABILISED AS EARLY AS POSSIBLE. THE SUPERVISING ENGINEER MAY DIRECT THE CONTRACTOR TO HAVE AREAS OF DISTURBANCE COMPLETED AND STABILISED DURING THE COURSE OF THE WORKS.
- 6. ALL DISTURBED AREAS ARE TO BE SEEDED & FERTILISED WITHIN 14 DAYS OF EXPOSURE 7. ALL EXISTING TREES TO BE RETAINED UNLESS SHOWN OTHERWISE ON APPROVED. DRAWINGS. TREES RETAINED ARE TO BE PROTECTED WITH A HIGH VISIBILITY FENCE, PLUS FLAGGING TO INDIVIDUAL TREES AS NECESSARY
- 8. INSTALL TEMPORARY SEDIMENT BARRIERS TO ALL INLET PITS LIKELY TO COLLECT SILT LADEN WATER, UNTIL SURROUNDING AREAS ARE PAVED OR REGRASSED. GRAVEL OR GEOTEXTILE INLET FILTERS TO SD6-11 & SD6-12.
- 9. ALL SILT FENCES & BARRIERS ARE TO BE MAINTAINED IN GOOD ORDER & REGULARLY DESILTED DURING THE CONSTRUCTION PERIOD. SILT FENCES TO SD6-8 OR SD6-9.
- 10. STOCKPILES OF LOOSE MATERIALS SUCH AS SAND, SOIL, GRAVEL MUST BE COVERED WITH GEOTEXTILE SILT FENCE MATERIAL. PLASTIC SHEETING OR MEMBRANE MUST NOT BE USED. SAFETY BARRICADING SHOULD BE USED TO ISOLATE STOCKPILES OF SOLID MATERIALS SUCH AS STEEL REINFORCING, FORMWORK AND SCAFFOLDING.
- 11. WASTE MATERIALS ARE TO BE STOCKPILED OR LOADED INTO SKIP-BINS LOCATED ON SITE AS SHOWN ON PLAN.
- 12. NO MORE THAN 150m OF TRENCHING TO BE OPEN AT ANY ONE TIME. IMMEDIATELY AFTER TRENCH BACKFILLING, PROVIDE SANDBAGS OR SAUSAGE FILTERS ACROSS EACH TRENCH AT MAXIMUM 20m SPACINGS. FILTERS TO REMAIN IN PLACE UNTIL REVEGETATION HAS OCCURRED.
- 13. ALL VEHICLES LEAVING THE SITE MUST PASS OVER THE STABILISED SITE ACCESS BALLAST AREA (SIMILAR TO SD6-14) TO SHAKE OFF SITE CLAY AND SOIL. IF NECESSARY WHEELS AND AXLES ARE TO BE HOSED DOWN. BALLAST IS TO BE MAINTAINED & REPLACED AS NECESSARY DURING THE CONSTRUCTION PERIOD.
- 14. THE HEAD CONTRACTOR IS TO INFORM ALL SITE STAFF AND SUB-CONTRACTORS OF THEIR OBLIGATIONS UNDER THE EROSION AND SEDIMENT CONTROL PLAN.
- 15. ANY SEDIMENT DEPOSITED ON THE PUBLIC WAY, INCLUDING FOOTPATH RESERVE
- AND ROAD SURFACE, IS TO BE REMOVED IMMEDIATELY. 16. PROVIDE BARRIERS AROUND ALL CONSTRUCTION WORKS WITHIN THE FOOTPATH
- AREA TO PROVIDE SAFE ACCESS FOR PEDESTRIANS. 17. CONCRETE PUMPS AND CRANES ARE TO OPERATE FROM WITHIN THE BALLAST ENTRY DRIVEWAY AREA AND ARE NOT TO OPERATE FROM THE PUBLIC ROADWAY UNLESS SPECIFIC COUNCIL PERMISSION IS OBTAINED.
- 18. TRUCKS REMOVING EXCAVATED / DEMOLISHED MATERIAL SHOULD TRAVEL ON STABILISED CONSTRUCTION PATHS. MATERIAL TO BE TAKEN TO THE TRUCK TO REDUCE TRUCK MOVEMENT ON SITE, TRUCKS TO BE LIMITED TO SINGLE UNIT HEAVY RIGID VEHICLES. ( NO SEMITRAILERS )
- 19. ANY EXCAVATION WORK ADJACENT TO ADJOINING PROPERTIES OR THE PUBLIC ROADWAY IS NOT TO BE COMMENCED UNTIL THE STRUCTURAL ENGINEER IS CONSULTED AND SPECIFIC INSTRUCTIONS RECEIVED FROM THE ENGINEER.
- 20. TOILET FACILITIES MUST BE EITHER A FLUSHING TYPE OR APPROVED PORTABLE CHEMICAL CLOSET. CHEMICAL CLOSETS ARE TO BE MAINTAINED & SERVICED ON A REGULAR BASIS SO THAT OFFENSIVE ODOUR IS NOT EMITTED.
- 21. DURING TRENCH EXCAVATION ALL SPOIL SHALL BE MOUNDED ON THE UPHILL SIDE OF TRENCHES AND PLACEMENT IS TO COMPLY WITH THE SUPERINTENDENTS REQUIREMENT.
- 22. DIVERSION BANKS SHOULD BE CONSTRUCTED BY MOUNDING STRIPPED TOPSOIL (MIN HEIGHT 600mm) WHERE DIRECTED. MATERIAL TO BE RESPREAD ON FOOTWAYS AFTER FINAL TRIMMING. 23. UNDISTURBED BUFFER ZONE AREAS ARE CLOSED TO ALL TRAFFIC MOVEMENTS
- UNLESS OTHERWISE NOTED BY THE SUPERINTENDENT AND ACCESS TO THE SEWER OR C.D.L. TRENCHING WILL BE AS SHOWN, OR HEAVY PENALTIES MAY BE IMPOSED.
- 24. TRAFFIC MANAGEMENT MEASURES ARE REQUIRED TO BE IMPLEMENTED AND MAINTAINED DURING CONSTRUCTION, IN ACCORDANCE WITH 'R.T.A. TRAFFIC CONTROL AT WORK SITES - CURRENT EDITION' AND AS 1742 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.'
- 25. PEDESTRIAN CONTROL MEASURES ARE REQUIRED TO BE IMPLEMENTED AND MAINTAINED DURING CONSTRUCTION. IN ACCORDANCE WITH AS 1742 'MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

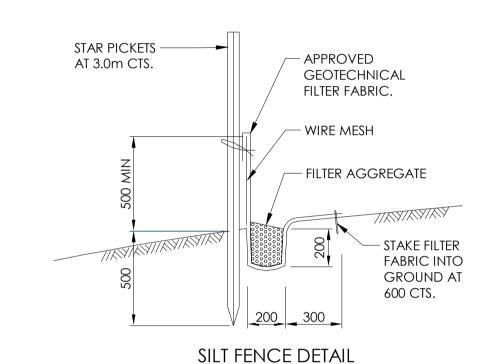




- 1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER
- THAN THE LENGTH ON THE INLET PIT.
- 2. FILL THE SLEEVE WITH 25mm TO 50mm GRAVEL. 3. FORM AN ELLIPTICAL CROSS SECTION ABOUT 150mm HIGH x 400mm
- 4. MAINTAIN A CLEAR DISTANCE AWAY FROM THE PIT WITH SPACER BLOCKS.

# SAUSAGE BARRIER DETAIL





POSTS DRIVEN 0.6m INTO GROUND

- DETAIL OF OVERLAP

DRAINAGE AREA 0.6HA. MAX. SLOPE GRADIENT 1:2

CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO

B. DIG A 200mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE

5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE

MAX. SLOPE LENGTH 60M MAX.

**GENERAL CONSTRUCTION NOTES** 

THE CONTOURS OF THE SITE.

FOR THE FABRIC TO BE ENTRENCHED.

. BACKFILL TRENCH OVER BASE OF FABRIC

SEDIMENT FENCE

. DRIVE 1.5m LONG STAR PICKETS IN GROUND 3m APART.

TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.

JOIN SECTIONS OF FABRIC AT A SUPPORT WITH A 150m OVERLAP.

↓ UNDISTURBED AREA

DETERMINED by the NSW Land and Housing Corporation on:

60m MAX.

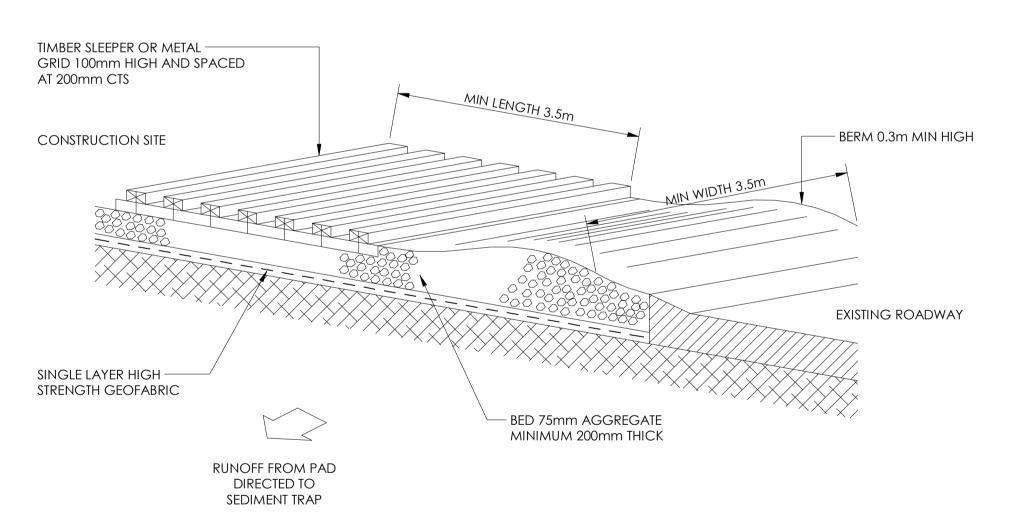
**AGGREGATES** DISTURBED AREA

0.2m

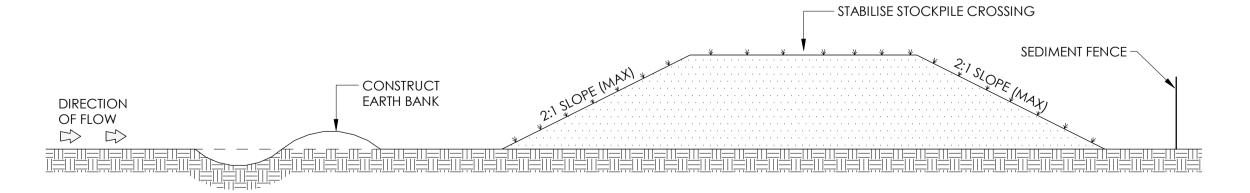
WIRE OR STEEL MESH -

DRAINAGE AREA 0.6ha. MAX. SLOPE GRADIENT 1:2 MAX. SLOPE LENGTH

SEDIMENT SILT FENCE DETAIL



# TEMPORARY CONSTRUCTION EXIT DETAIL - SHAKER



# **STOCKPILES**

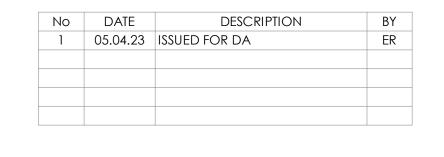
# N.T.S

- GENERAL CONSTRUCTION NOTES: 1. LOCATE STOCKPILE AT LEAST 5m FROM VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
- 2. CONSTRUCT ON THE CONTOUR AS A LOW FLAT ELONGATED MOUND. 3. WHERE THERE IS A SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.

AND A SEDIMENT FENCE 1m TO 2m DOWNSLOPE OF STOCKPILE.

(TO ALLOW AIR VENTILATION FOR FUTURE REUSE) 4. REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP 5. CONSTRUCT EARTH BANK ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE

**STOCKPILES** 





ZMP ARCHITECTS

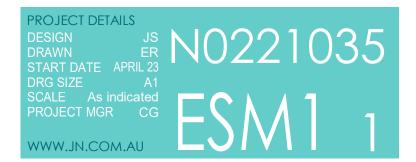
PRELIMINARY

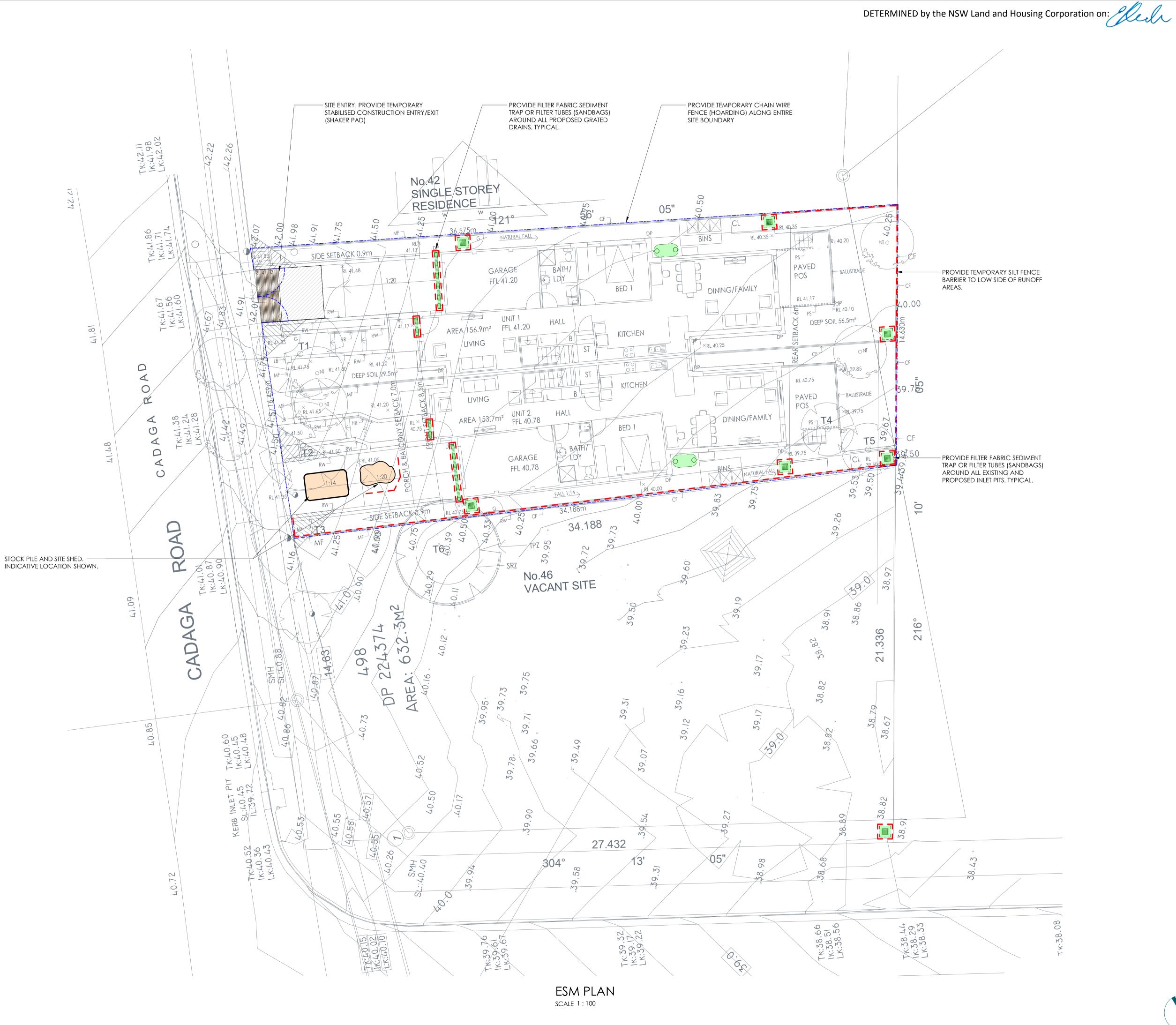
CIVIL DESIGN

NOTES LEGEND & DETAILS

PROPOSED DUAL

OCCUPANCY 44 CADAGA ROAD, LOT 499 DP224374, GATESHEAD NSW





DESCRIPTION 1 05.04.23 ISSUED FOR DA ER



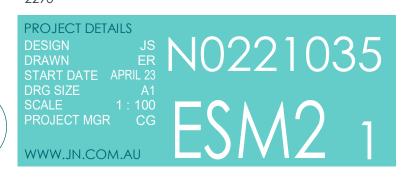
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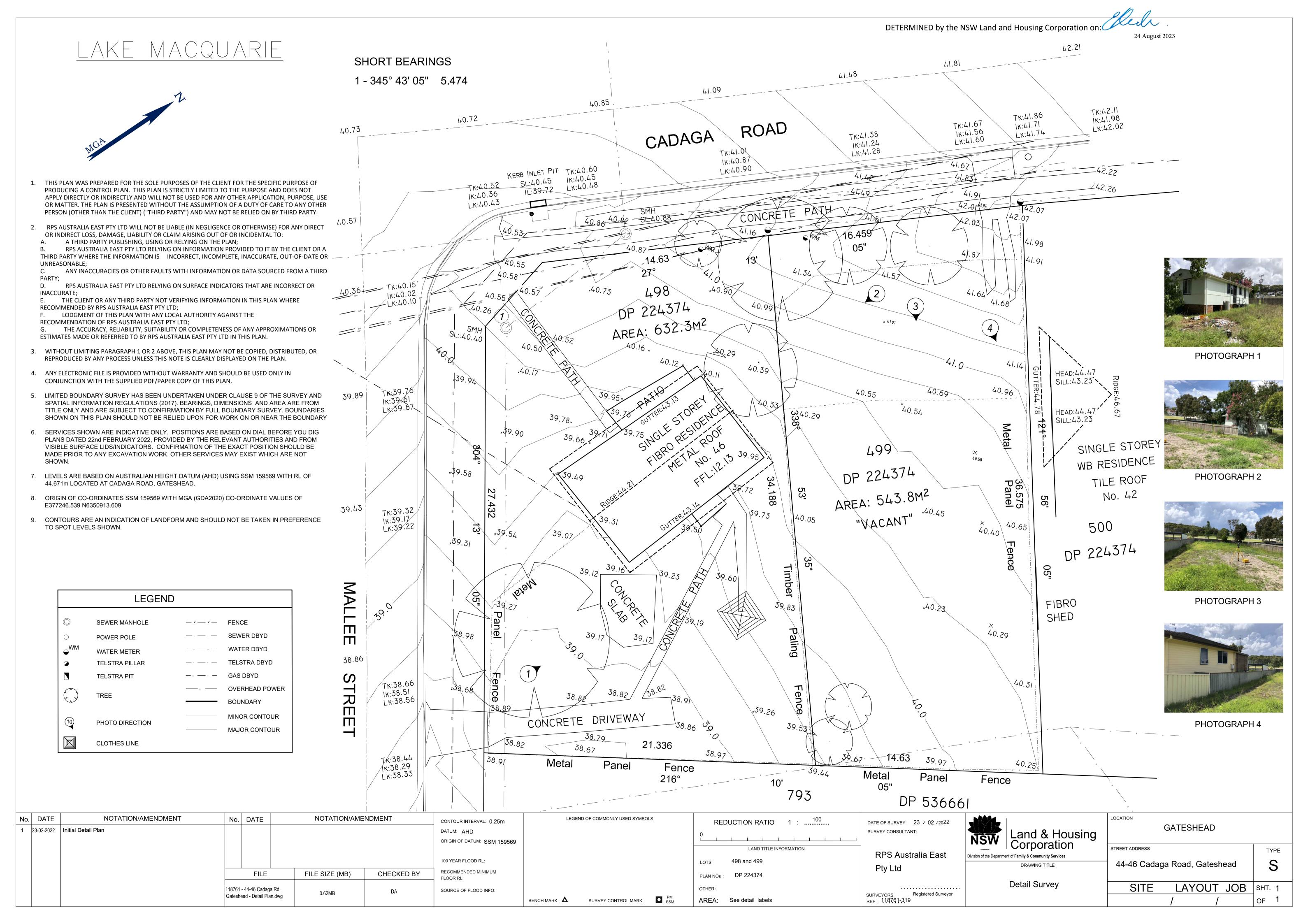
PRELIMINARY

CIVIL DESIGN

DRAWING TITLE ESM PLAN

PROPOSED DUAL OCCUPANCY







# NOTIFICATION PLANS DUAL OCCUPANCY DEVELOPMENT

# 44 Cadaga Road, GATESHEAD









DATE:

05/04/23

PROJECT NO: SHEET:

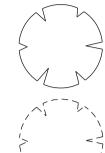
N01

44 CADAGA ROAD, GATESHEAD

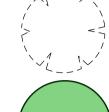
LOT 499, DP 224374



: NEW TURF



: EXISTING TREE TO BE RETAINED



: EXISTING TREE TO BE REMOVED



: PROPOSED NEW TREE

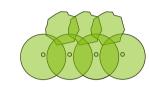
: PROPOSED NEW SHRUBS

CL GB

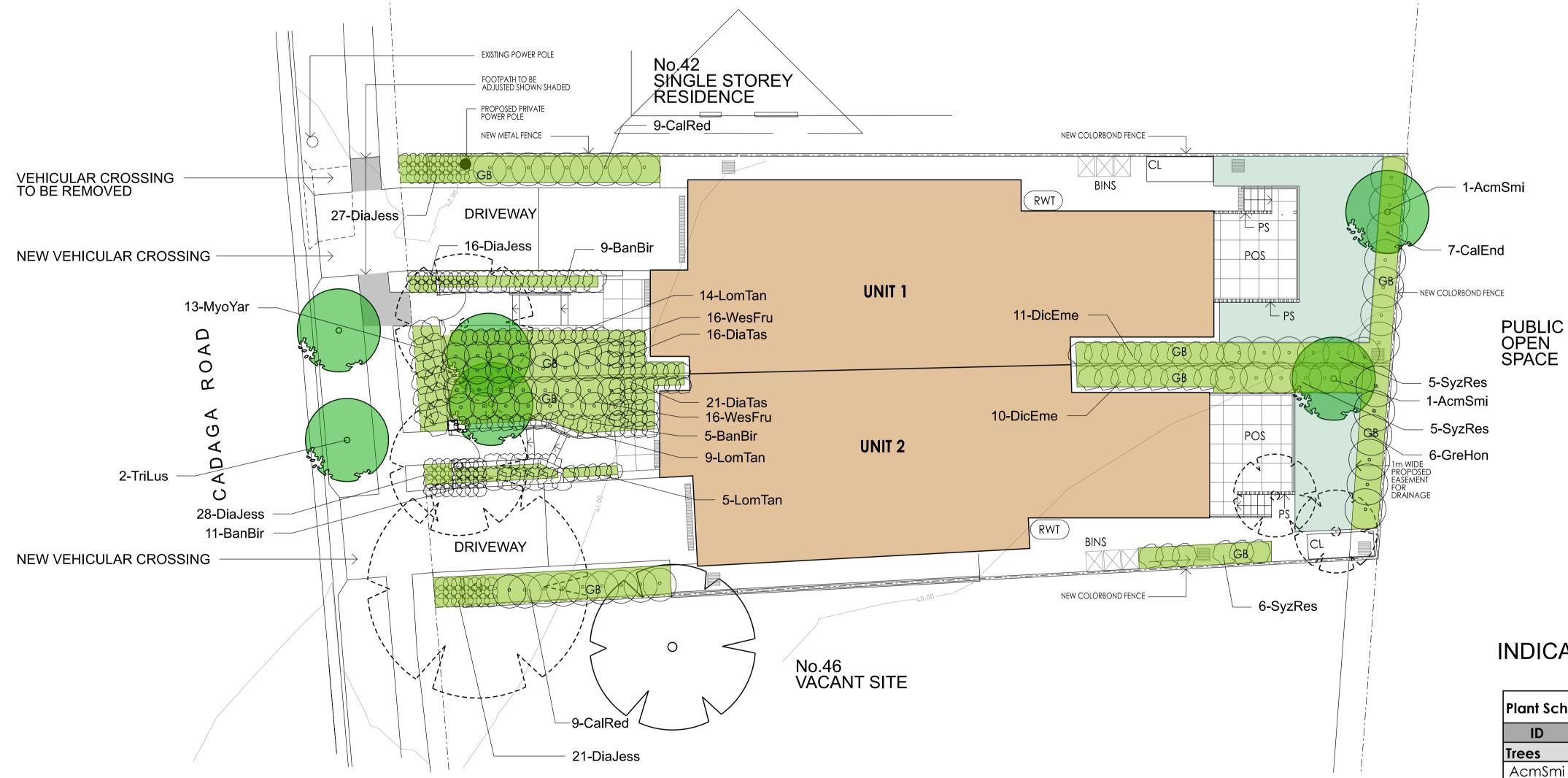
: CLOTHES LINE : GARDEN BED

PS : PRIVACY SCREEN POS

: PRIVATE OPEN SPACE



RWT : RAIN WATER TANK



# INDICATIVE PLANT SCHEDULE

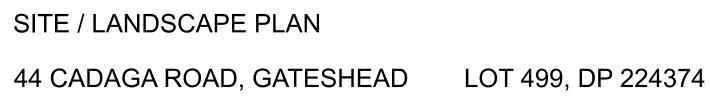
Plant Schedule					
ID Qty		Common Name	Botanical Name		
Trees					
AcmSmi	2	Lillypilly	Acmena smithii		
CorWil	2	Red Flowering Gum	Corymbia ficifolia 'Wildfire'		
TriLus	2	Water Gum	Tristaniopsis laurina 'Luscious'		
Shrubs					
CalEnd	7	Scarlet Bottlebrush	Callistemon citrinus 'Endevour'		
CalRed 18		Red Alert Bottle Brush	Callistemon 'Red Alert'		
GreHon 6		Honey Gem Grevillea	Grevillea 'Honey Gem'		
SyzRes 16		Resilience Lilly Pilly	Syzygium 'Resilience'		
WesFru 32		Jervis Gem	Westringia fruticosa 'Jervis Gem'		
Ground C	overs				
LomTan	28	Spiny-headed mat rush	Lomandra longifolia 'Tanika'		
DicEme	21	Emerald Falls Dichondra	Dichondra 'Emerald Falls'		
DiaJess 92		Little Jess Native Flax	Dianella caerulea 'Little Jess'		
MyoYar 13		Carpet Spreading Myoporum	Myoporum parvifolium 'Yareena'		
DiaTas 37		Flax Lily	Dianella tasmanica 'Tasred'		
BanBir 25		Birthday Candle	Banksia spinulosa 'Birthday Candle'		













# STREET ELEVATION - CADAGA ROAD

PROPOSED DEVELOPMENT DATA – DUAL OCCUPANCY DEVELOPMENT							
Site Area	543.8sqm						
Title Description	Lots 499 in	DP 224374					
Proposed dwelling numbers	velling numbers 2 dwellings = 2x4 bedroom						
	Requirement	Proposed					
Setbacks							
Front setback	8.5m	8.5m					
Side setback	0.9 for ground floor & 1.5m for	0.9 for ground floor & 1.5m for					
	first floor	first floor					
Rear setback	6m	6m					
Height	9m	8.2m					
Site coverage	299.09sqm	270.2sqm					
Parking	2 per dwelling	2 per dwelling					
	Total 4 parking spaces	Total 4 parking spaces					





DEVELOPMENT DATA	
44 CADAGA ROAD, GATESHEAD	LOT 499, DP 224374

REV:	DATE:	PROJECT NO:	SHEET:
1	05/04/23	BGYQW	N03

# SIDE (SOUTH-WEST) ELEVATION SCALE 1:200 @A3













ELEVATIONS
44040404004

DATE:

05/04/23

BGYQW

SHEET:





# COLOUR SCHEDULE

MF	FRONT FENCE	METAL PICKET FENCE	IRONSTONE	CO1	ROOFING	CORRUGATED METAL	DOVER WHITE
CF	FENCE	COLORBOND	IRONSTONE	CO2	ROOFING	CORRUGATED METAL	SURFMIST
FB1	WALLS & LETTER BOXES	FACE BRICK	PGH SMOOTH PEARL GREY	CO3	ROOFING	CORRUGATED METAL	IRONSTONE
FB2	WALLS	FACE BRICK	PGH SMOOTH MINERAL	FC1	BALCONIES	PAINTED FIBRO CEMENT	IRONSTONE
FC	WALLS	PAINTED FIBRO CEMENT	DULUX LEXICON	PS	PRIVACY SCREENS	ALUMINIUM, POWDER COATED	IRONSTONE
P1	WALLS	PAINTED FIBRE CEMENT	DULUX LEXICON QUARTER	AL	WINDOWS, DOORS	ANODISED ALUMINIUM	IRONSTONE
P2	ENTRY DOOR - UNIT 1	PAINTED TIMBER DOOR	DULUX BELLY FIRE	WH	METAL WINDOW HOOD	COLORBOND	DOVER WHITE
P3	ENTRY DOOR - UNIT 2	PAINTED TIMBER DOOR	DULUX HIGHLAND GREEN	RD	GARAGE DOORS	METAL	IRONSTONE





FINISHES SCHEDULE

44 CADAGA ROAD, GATESHEAD LOT 499, DP 224374 REV:

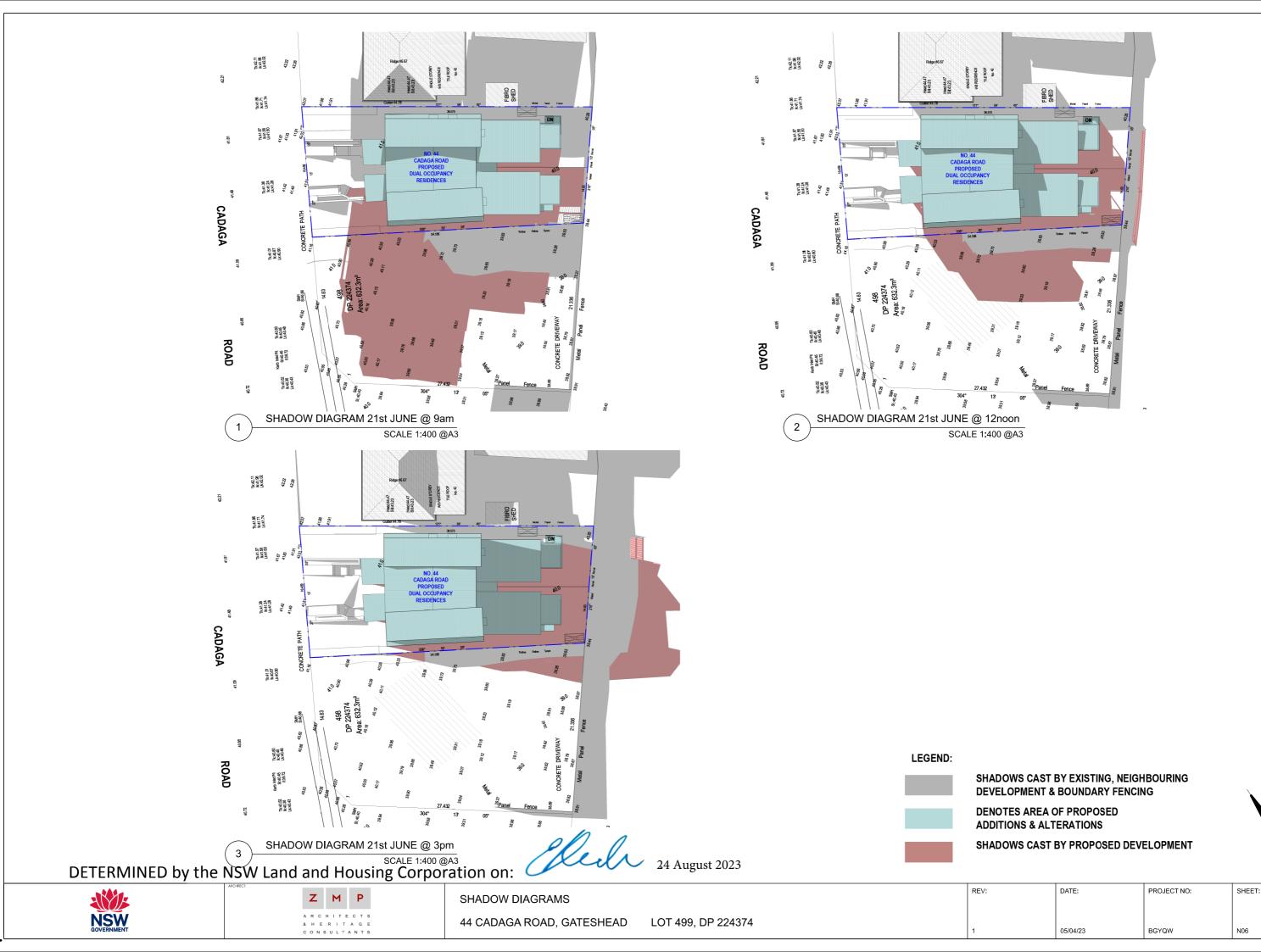
DATE:

PROJECT NO:

SHEET:

N05

05/04/23 BGYQW



17/2