

ACTIVITY DETERMINATION

Project No. BGWY7

Conflict of Interest¹

In this matter:

1. I have declared any possible conflict of interests (real, potential or perceived) to the Chief Executive, NSW Land & Housing Corporation.
2. I do not consider I have any personal interests that would affect my professional judgement.
3. I will inform the Chief Executive, NSW Land & Housing Corporation as soon as I become aware of a possible conflict of interest.

Signed.....

Name.....Robert Stark.....

Dated.....18 June 2023.....

Having regard to the Determination Recommendation Report, the Decision Statement 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

38-40 & 31-33

Street or property name

John T Bell Drive & Matfen Close

Suburb, town or locality

Maryland, NSW

Postcode

2287

Local Government Area(s)

City of Newcastle

Real property description (Lot and DP)

Lots 111, 112, 116, 117 in DP253956

ACTIVITY DESCRIPTION

Provide a description of the activity

Demolition of 4 dwellings and construction of 2 residential flat buildings containing 16 dwellings, comprising 6 x 1-bedroom and 10 x 2-bedroom units, parking for 8 vehicles, associated site works and landscaping, and consolidation of 4 lots into a single lot.

¹ 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.

Signed.....

Dated...18 June 2023.....

Robert Stark
A/ Head of Policy and Innovation
NSW Land and Housing Corporation

Schedule 1

PART A – Standard identified requirements

THE DEVELOPMENT

The following identified requirements have been imposed to ensure that the development 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 and as modified below by any of the undermentioned identified requirements:

Title / Name:	Drawing No. / Document Ref	Revision / Issue:	Date [dd.mm.yyyy]:	Prepared by:
Architectural Plans				
Coversheet	A-0001	B	26.08.2022	CKDS Architecture
Planning Controls	A-0002	B	26.08.2022	CKDS Architecture
Block Analysis	A-0003	C	10.03.2023	CKDS Architecture
Site Analysis	A-004	C	10.03.2023	CKDS Architecture
Demolition Plan	A-0101	B	26.08-.022	CKDS Architecture
Site Plan - Ground	A-1001	C	10.03.2023	CKDS Architecture
Site Plan – First Floor	A-1002	C	10.03.2023	CKDS Architecture
Site Plan - Roof	A-1003	C	10.03.2023	CKDS Architecture
Ground Floor Plan - South	A-1101	C	10.03.2023	CKDS Architecture
Ground Floor Plan - North	A-1102	C	10.03.2023	CKDS Architecture
First Floor Plan - South	A-1103	C	10.03.2023	CKDS Architecture
First Floor Plan - North	A-1104	C	10.03.2023	CKDS Architecture
Roof Plan - South	A-1105	C	10.03.2023	CKDS Architecture
Roof Plan - North	A-1106	C	10.03.2023	CKDS Architecture
Street Elevations	A-2001	C	10.03.2023	CKDS Architecture
East / West Elevation	A-2002	C	10.03.2023	CKDS Architecture
North / South Elevation	A-2003	C	10.03.2023	CKDS Architecture
Sections A	A-3001	C	10.03.2023	CKDS Architecture
Section B & C	A-3002	C	10.03.2023	CKDS Architecture
Cut and Fill Diagram	A-4001	B	26.08.2022	CKDS Architecture
Waste Management Plan	A-4002	C	13.01.2023	CKDS Architecture
RFB & Landscape - Area	A-4003	B	26.08.2022	CKDS Architecture
Shadow Diagrams	A-5001	B	26.08.2022	CKDS Architecture
Solar – South	A-5002	B	26.08.2022	CKDS Architecture
Solar - North	A-5003	B	26.08.2022	CKDS Architecture

Schedule of Finishes	A-6001	B	26.08.2022	CKDS Architecture
Matfen Close	A-6001	B	26.08.2022	CKDS Architecture
Window schedule	A-7001	B	26.05.2022	CKDS Architecture
Landscape Plan				
Cover Sheet	DA-L000	E	03.09.2022	Xeriscapes
Landscape Plan	DA - L101	E	03.09.2022	Xeriscapes
Precedent Images	DA - L201	D	22.07.2022	Xeriscapes
Indicative Plant Schedule	DA - L301	D	22.07.2022	Xeriscapes
Civil – Appendix P				
Cover Sheet, Locality Plan and Drawing List	DA.C01	A	19.07.2022	Northrop
Erosion and Sediment Control Plan	DA.C02	A	19.07.2022	Northrop
Erosion and Sediment Control Details	DA.C03	A	19.07.2022	Northrop
Civil Stormwater and Levels Plan	DA.C04	B	06.09.2022	Northrop
Civil Stormwater and Levels Plan	DA.C05	B	06.09.2022	Northrop
Survey – Appendix O				
Site Detail Survey (2002455)	Layout 01- 08	Rev B	14.10.2020	Indiya Geospatial
BASIX / NatHERS				
BASIX Certificate	1311106M_02	-	05.09.2022	Chapman Environmental Services Pty Ltd
NatHERS Certificate	007900160	-	22.07.2022	Chapman Environmental Services Pty Ltd
Specialist Reports				
Arborist's Stage C Report	-	-	29.07.2022	Hunter Horticultural Services
BCA Compliance Assessment Report	10644.2	Revision 2	05.09.2022	AED Group
Geotechnical Investigation and Acid Sulfate Soils Assessment	20/3519	-	October 2020	STS Geotechnics Pty Ltd
Acid Sulfate Soils Management Plan	22/2797	-	August 2022	STS Geotechnics Pty Ltd
Flood Report	L.A10426.001	-	17.03.2022	BMT Commercial Australia Pty Ltd
Traffic and Parking Impact Assessment	220409.01FB	-	06.10.2022	McLaren Traffic Engineers and Road Safety Consultants
Access Report	LP_20267	Revision 4	09.10.2022	Lindsay Perry Access
Waste Management				
Site Waste Minimisation and Management Plan		-	13.01.23	CKDS Architecture – Ben Rapley

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 complied with.

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*.
5. The land the subject of this approval must be consolidated into a single lot. The plan of consolidation must be lodged at the NSW Land Registry Services and be registered prior to occupation of the development. A copy of the registered plan is to be provided to the Land & Housing Corporation.

OPERATIONAL MATTERS

These identified requirements pertain to the use of the site and have been imposed to ensure that the development and its operation do not interfere with the amenity of the surrounding area.

Stormwater Run-off

6. Stormwater is to be collected within the site, and conveyed in a pipeline to the appropriate gutter or drain under the control of the council for the area substantially in accordance with the approved concept stormwater drainage plans.
7. Alterations to the natural surface contours or surface absorption characteristics must not impede, increase or divert natural surface water runoff, so as to cause a nuisance to adjoining property owners.
8. All driveways are to be graded in such a manner as to provide continuous surface drainage flow paths to appropriate points of discharge.
9. 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

10. A concrete vehicular crossing and layback must be provided at the entrance / exit to the property. The crossing and layback must be constructed in accordance with the City of Newcastle Council's standard requirements for residential crossings. Council shall be provided with plans for the crossing and layback together with the payment of any council inspection fees.
11. Particular care should 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 layback / driveway is to be borne by the Land & Housing Corporation. Obsolete gutter laybacks are to be constructed as kerb in accordance with the City of Newcastle Council's standards.

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

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

Site Works

13. All soil erosion and sediment control measures required to be put in place prior to the commencement of demolition / construction works are to be maintained during the entire period of the works until 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).
14. 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

15. All buildings are to be sited well clear of any easements affecting the allotment. The builder shall ascertain if any easements do exist and if so obtain full details of such prior to construction commencing.

Smoke Detection System(s)

16. Smoke detection systems shall be installed throughout the building(s) in accordance with requirements of Clause E1.7 of the Building Code of Australia. Detectors shall comply with AS 3786 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

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

Landscaping

18. Landscaping is to be carried out substantially in accordance with the approved Landscape Plan and maintained for a period of 12 months by the building contractor. The Council for the area is to be consulted in relation to the planting of any street trees along the site frontages.
19. 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 and provide a copy to the Land & Housing Corporation.

Tree Removal

20. Removal of trees is to be carried out in accordance with the trees shown for removal on the approved landscape plan and Arborist report and no other trees are to be removed without further approval. Trees identified for retention on the approved landscape plan and Arborist report are to be retained.

Tree Protection measures are to be provided in accordance with the Arborist report and Landscape & Architectural Plans. Retained trees shall be protected in accordance with AS4970 – Protection of Trees on Development Sites, before any site works commence.

Note: Any works within the Tree Protection Zones of any trees near the proposed stormwater drainage works on surrounding land are also to be protected in accordance with these requirements.

Fencing

21. All front fencing and gates are to be constructed wholly within the boundaries of the site. All gates associated with the fencing are to swing inwards towards the site.

Provision of Letterbox Facilities

22. Suitable letterbox facilities shall be provided in accordance with Australia Post specifications.

Public Liability Insurance

23. 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.

Service Authority Clearances

24. An application for a compliance certificate is to be made to the relevant water utility (e.g. the Council for the area or Hunter Water or Sydney Water) or other evidence of the utility's non-objection to the commencement of work on the basis of service availability is to be obtained prior to work commencing. 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.

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.

25. A written clearance from an electricity supply authority stating that electrical services have been made available to the development or that arrangements have been entered into for the provision of services to the development is to be obtained prior to work commencing.

26. A certificate from an approved telecommunications carrier to certify that satisfactory arrangements have been made to ensure the provision of underground telephone services to the site and each dwelling in the development is to be obtained prior to work commencing.
27. 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 the site and each dwelling in the development is to be obtained prior to work commencing.

Utilities Service Provider Notification

28. The demolition / construction plans must be submitted to the appropriate water utility's office (e.g. Hunter Water office) to determine whether the development will affect the utility's sewer and water mains, stormwater drains and/or easements. The plans must clearly identify the existing and proposed sewer alignments, pits and/or manholes. If the development complies with water utility's requirements, the plans will be stamped indicating that no further requirements are necessary.

Disconnection of Services

29. All previously connected services that are required to be disconnected are to 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.
30. All existing services within the boundary to remain live must be identified, pegged and made safe.

Demolition

31. The builder is to notify the occupants of premises on either side, opposite and at the rear of the development site a minimum of 2 days prior to demolition/site clearance. Such notification is to be clearly written on A4 size paper giving the date demolition/site clearance will commence and be placed in the letterbox of every premise (including every unit of a multi-unit residential building or mixed use building if applicable). The demolition/site clearance must not commence prior to the date which has been stated in the notice letter.
32. Prior to the demolition/site clearance, a Work Plan shall be prepared by a competent person(s) and shall be submitted to the Land & Housing Corporation. The Work Plan shall outline the identification of any hazardous materials, including surfaces coated with lead paint, method of demolition/site clearance, the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.
33. If buildings to be demolished are determined as, or suspected of, containing asbestos cement, a standard commercially manufactured sign containing the words 'DANGER ASBESTOS REMOVAL IN PROGRESS', and measuring not less than 400mm x 300mm, shall be erected in a prominent visible position on the site for the duration of the demolition works.

Note Any buildings constructed before 1987 is assumed to contain asbestos.

Stormwater Disposal

34. Detailed stormwater drainage plans, substantially in accordance with the approved concept stormwater drainage plans, are to be prepared and submitted to the Land & Housing Corporation. Any on-site detention system shall be designed in accordance with any catchment authority requirements and/or the council for the area's drainage code.
35. Where a drainage easement is required, proof of lodgement of the plan of the drainage easement at the NSW Land Registry Services must be submitted to the Land & Housing Corporation prior to commencement of works. Registration of the plan of easement must be completed prior to occupation of the development and a copy of the registered plan is to be provided to the Land & Housing Corporation.

Council Notification

36. The City of Newcastle Council shall be advised in writing, of the date it is intended to commence work, including demolition/site clearance. A minimum period of 5 working days notification shall be given.

Landfill

37. Where site filling is necessary, a minimum of 95% standard compacting must be achieved and certified by a NATA registered Soils Laboratory.
38. 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.

Site Facilities

39. 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 the council for the area 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 are not to be placed on any property other than that to which this approval relates to.
40. Access to the site is to be provided only via an all weather driveway on the property and is not to be provided from any other site.

Site Safety

41. A sign must be erected in a prominent position on the site:
- (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 during and outside working hours, and
 - (c) stating that unauthorised entry to the work site is prohibited.

The sign is to be maintained while the work is being carried out, but must 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.

42. 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.

43. Building and demolition materials shall not be stored on the footpath or roadway.

Protection of Trees

44. Street trees and other vegetation that are to be retained 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 Arborist's Stage C Report.

Waste Management

45. A final Waste Management Plan is to be prepared and submitted to the Land & Housing Corporation 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, including provision for adequate receptacle(s) to store all waste generated by the development, pending disposal.

DURING DEMOLITION / CONSTRUCTION

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

Heritage

46. 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 in the affected area. Subsequently where historical items or indigenous items have been uncovered, the Department of Planning and Environment must be contacted.
47. All workers / contractors must be informed of their obligations under the *National Parks and Wildlife Act 1974*, namely that it is illegal to disturb, damage or destroy a relic without prior approval.

Demolition

48. Any existing structures are to be demolished/removed prior to commencement of construction of the approved development.
49. Demolition is to be carried out in accordance with the appropriate provisions of AS 2601.
50. Where materials containing asbestos are to be removed, the removal is to be carried out by a licensed contractor(s) who has current SafeWork NSW accreditation in asbestos removal.
51. Removal of asbestos-based thermal or acoustic insulation, such as sprayed asbestos and asbestos-based lagging, including friable asbestos boards, shall be carried out in accordance with the National Occupational Health and Safety Commission's Code of Practice for the Safe Removal of Asbestos, 2nd Edition [NOHSC:2002 (2005)].
52. Hazardous or intractable wastes, including all asbestos laden waste, arising from the demolition/site clearance process shall be removed and disposed of in accordance with the requirements of SafeWork NSW.

Following completion of demolition and prior to the commencement of works a site clearance report from a qualified Hygienist is to be obtained to confirm the site is clear of hazardous materials.

53. Documentary evidence in the form of tip receipts from an approved Waste Management Facility shall be obtained by the demolition/site clearance contractor and submitted to the Land & Housing Corporation demonstrating the appropriate disposal of the asbestos waste.
54. Demolition/site clearance procedures shall maximise the reuse and recycling of materials from the site in order to reduce the environmental impacts of waste disposal.
55. During demolition/site clearance, the public footway and public road shall be kept clear at all times and shall not be obstructed by any demolished material or vehicles. The public road and footway shall be swept (not hosed) clean of any material, including clay, soil and sand.

- 56. All vehicles leaving the site with demolition/site clearance materials shall have their loads covered and vehicles shall not track soil and other material onto the public roads and footways and the footway shall be suitably protected against damage when plant and vehicles access the site. All loading of vehicles with demolished materials shall occur on site.
- 57. Care shall be taken during demolition/site clearance to ensure that existing services on the site (i.e. sewer, electricity, gas, and telecommunications) are not damaged.

Survey Reports

- 58. Survey reports are to be submitted 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 boundary allotments in accordance with this determination.

Hours of Demolition / Construction / Civil Work

- 59. Demolition / site clearance / construction / civil work is only permitted 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

- 60. All excavations and backfilling associated with site clearance and the undertaking of the activity must be executed safely and in accordance with appropriate professional standards. All such work is to be guarded and protected to prevent it from being dangerous to life or property.

Pollution Control

- 61. Any noise generated during the carrying out of the activity shall not exceed the limits specified in the July 2009 Interim Construction Noise Guidelines, published by the Department of Environment and Climate Change.
- 62. No fires are to be lit or waste materials burnt on the site.
- 63. No washing of concrete forms or trucks is to occur on the site.
- 64. Any contamination / spills on the site during construction works must be actively managed and reported immediately to appropriate regulatory authorities to minimise any potential damage to the environment.
- 65. Dust generation during demolition / site clearance / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.
- 66. All vehicles transporting loose materials and travelling on public roads must be secured (i.e. closed tail gate and covered) to minimise dust generation.
- 67. Spraying of paint and other materials with the potential to become air borne particulates must only be undertaken in light wind conditions.

68. Non-recyclable waste and containers must be regularly collected and disposed of at a licensed landfill or other disposal site in the area in accordance with details set out in the Waste Management Plan to be prepared and submitted to the Land & Housing Corporation prior to the commencement of demolition/construction.

Impact of Construction Works

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

PRIOR TO OCCUPATION OF THE DEVELOPMENT

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

General

71. The occupation of the development shall not commence until all the Identified Requirements of this determination have been complied with.

Termite Protection

72. To protect buildings from subterranean termite, termite barriers installed in accordance with AS 3660.1 are required on the underside and 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.

Damage to Council Assets

73. The cost of repairing any damage caused to the City of Newcastle Council's assets in the vicinity of the subject site as a result of demolition / site clearance / construction works associated with the approved development is to be met in full by the building contractor.

Stormwater Drainage

74. Prior to occupation of the development, a Work As Executed Plan must be prepared clearly showing all aspects of the constructed stormwater drainage system, including any on-site detention system and any works undertaken in the road reserve. The plan shall demonstrate general compliance with the approved concept stormwater drainage plan(s) and must include:
- Sufficient levels and dimensions to verify the constructed storage volume.

- Location and surface levels of all pits.
- Invert levels of the internal drainage line, orifice plates fitted and levels within the outlet control pit.
- Finished floor levels of all structures.
- Verification that any required trash screens have been installed.
- Locations and levels of any overland flow paths.
- Verification that any drainage lines are located wholly within easements.

The plans shall be prepared by a Practicing Professional Engineer or Registered Surveyor experienced in the design of stormwater drainage systems.

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

A copy of the Work As Executed Plan shall be submitted to Land and Housing Corporation and to City of Newcastle Council prior to occupation.

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

PART B – Additional Identified Requirements

Site Specific Requirements

75. **Floor levels** - The proposed development is to have a minimum finished floor level for Unit 1 to 5 to be set at +5.1m or above, and Unit 6 to 8 to be set at +5.5m or above to provide adequate freeboard above the 1% Annual Exceedance Probability (AEP) flood event, as recommended by the Flood impact assessment report prepared by BMV Commercial Australia Pty Ltd, dated 8 February 2023.
76. **Lighting** – External lighting is to be provided in accordance with AS1158 to roads and pedestrian spaces, and avoid light spill to private areas.
77. **Flooding** – All electrical fixtures such as power points, light fittings and switches are to be sited above the FPL unless they are on a separate circuit (with earth leakage protection) to the rest of the building.
78. **Flooding** - Where parts of the building are proposed below the flood planning level, they are constructed of water-resistant materials.
79. **Flooding** – An on-site flood free refuge area to be provided in accordance with the standards specified in Newcastle DCP 2012 and it is to be clearly marked on the set of construction drawings prior to construction.
80. **Flooding** – A design certification by a practicing structural engineer that the building is able to withstand the hydraulic loading due to flooding is required prior to construction.

Requirements resulting from consideration of the City of Newcastle Council's notification response in the REF

81. **Flood Management** – Certification is to be prepared by a Registered Surveyor and submitted to the Building Superintendent at the stages of construction indicated:
 - a) On completion of ground floor construction, confirming that the floor levels are in accordance with the approved levels.
 - b) On completion of each subsequent floor level, confirming that the floor levels are in accordance with the approved levels.
82. **Stormwater:** Flow paths proposed along the east and west property boundaries for major storm runoff must be shaped such that conveyed stormwater flows are contained wholly within the development site up to and including the 5% AEP.
83. **Stormwater:** The proposed new kerb inlet pit must be connected to Council's existing stormwater system via 375mm diameter Reinforced Concrete Pipe (RCP) at a minimum 1% fall as required by Council's 'Stormwater and Water Efficiency for Development' Technical Manual.
84. **Stormwater:** A Stormwater Maintenance Manual for stormwater devices, including rainwater reuse and retention tanks, is to be prepared in accordance with Council's 'Stormwater and Water Efficiency for Development' Technical Manual. The Maintenance Manual is to address maintenance issues including routine monitoring and regular maintenance and is to be kept on site at all times. Establishment and maintenance of the water quality devices in accordance with the Maintenance Manual must be prepared and completed prior to occupation of this site for the intended use.
85. **Roofwater:** An electronically activated mechanical valve device is to be installed on the water reuse tank to switch to mains water when the water level in the tank falls below 100mm in depth. The water tank and plumbing are to be designed in accordance with the Plumbing Code of Australia (National Construction Code Volume 3).
86. **Civil Plans:** Engineering design plans and specifications for the works being undertaken within the public road reserve are required to be prepared by a suitably qualified practising civil engineer with experience and competence in the related field. A copy of the plans is to be submitted to Council prior to work commencing. Land & Housing Corporation shall arrange for necessary inspections by Council whilst the work is in progress and/or after completion of the works, together with the payment of any Council inspection fees.
87. **Vehicular Crossing:** A 5.5m wide commercial driveway crossing, constructed in accordance with City of Newcastle' Council's *Driveway Crossing Standard Design Details* (CN A1300) is to be provided to Matfen Close.
88. **Driveway Entrance:** Letterboxes, landscaping and any other obstructions to visibility should be kept clear of or limited in height to 1.2 metre, in the 2 metres by 2.5 metre splay within the property boundary each side of the driveway entrance.

- 89. Waste Bin Provision:** Waste bins are to be provided as follows:
- 7 x 240L for General Waste (1,480L collected weekly)
 - 9 x 360L for Recycling Waste (2,960L collected fortnightly)
 - 3 x 240L for Organic Waste (800L collected fortnightly)
- 90. House Numbering:** The premises are to be identified by the provision of house and street numbers on the building exterior and mailbox, respectively, such that they are clearly visible from the road frontage.

The minimum numeral heights are to be:

- a) exterior of the building = 75mm and
- b) group mailbox street number = 150mm
- c) group mailbox house number = 50mm

Street addresses to be provided in accordance with the following Schedule provided by City of Newcastle Council:

ADDRESS SCHEDULE				
Unit/ Dwelling/ Lot Number on plan	Council Allocated Street Addresses			
	House Number	Street Name	Street Type	Suburb
Primary Site Address	38	John T Bell	Drive	Maryland
Alternative Site Address	31	Matfen	Close	Maryland
Proposed Unit 1	6/38	John T Bell	Drive	Maryland
Proposed Unit 2	5/38	John T Bell	Drive	Maryland
Proposed Unit 3	2/38	John T Bell	Drive	Maryland
Proposed Unit 4	1/38	John T Bell	Drive	Maryland
Proposed Unit 5	10/38	John T Bell	Drive	Maryland
Proposed Unit 6	14/31	Matfen	Close	Maryland
Proposed Unit 7	13/31	Matfen	Close	Maryland
Proposed Unit 8	12/31	Matfen	Close	Maryland
Proposed Unit 9	3/38	John T Bell	Drive	Maryland
Proposed Unit 10	7/38	John T Bell	Drive	Maryland
Proposed Unit 11	4/38	John T Bell	Drive	Maryland
Proposed Unit 12	3/38	John T Bell	Drive	Maryland
Proposed Unit 13	9/38	John T Bell	Drive	Maryland
Proposed Unit 14	16/31	Matfen	Close	Maryland
Proposed Unit 15	15/31	Matfen	Close	Maryland
Proposed Unit 16	11/31	Matfen	Close	Maryland

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 www.1100.com.au or by dialing 1100.

Decision Statement

SITE IDENTIFICATION	
STREET ADDRESS	
Unit/Street No	Street or property name
38-40 & 31-33	John T Bell Drive & Matfen Close
Suburb, town or locality	Postcode
Maryland, NSW	2287
Local Government Area(s)	Real property description (Lot and DP)
City of Newcastle	Lots 111, 112, 116, 117 in DP253956
ACTIVITY DESCRIPTION	
Provide a description of the activity	
Demolition of 4 dwellings and construction of 2 residential flat buildings containing 16 dwellings, comprising 6 x 1-bedroom and 10 x 2-bedroom units, parking for 8 vehicles, associated site works and landscaping, and consolidation of 4 lots into a single lot.	

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 Newcastle 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 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 residential flat buildings will have economic and social benefits and any minor short-term impacts on the environment or surrounding properties can be appropriately mitigated.
- The proposed residential flat buildings will assist LAHC in providing new, fit for purpose housing in the Newcastle area which will assist in addressing the existing and growing demand for accommodation in this local government area.

. 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.

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...18 June 2023.....

Robert Stark
Acting Head of Policy and Innovation
Land and Housing Corporation
Department of Planning & Environment

38, 40 John T Bell Dr & 31, 33 Matfen Cl Maryland NSW 2287
Lot 111, 112, 116, 117/-/DP253956

An aerial photograph of a residential neighborhood. A black circle with a crosshair is centered on a specific location, labeled "SUBJECT SITE". The area is densely packed with houses and streets. To the right of the subject site, there is a large, open green field. The overall scene is a typical suburban residential development.

JOHN T BELL STREET PERSPECTIVE

DEVELOPMENT DATA						
Job Reference	BGTX2 - 38-40 John T Bell Drive & 31-33 Matten Close, Maryland (Residential Flat Building)					
Locality / Suburb	Maryland (Newcastle City Council)					
Street Address	38-40 John T Bell Drive & 31-33 Matten Close					
Lot & DP	Lots 111, 112, 116, and 117 DP253956					
SITE AREA	2311					
EXISTING LOTS	4					
PROPOSED GFA	1041					
DWELLING #	10 x 2 Bed 6 x 1 Bed = 16 Dwellings					
DWELLINGS	Number	Type*	No of Bedrooms	Area(m ²)	POS*	
	1	ground	2	Social General	76	23
	2	ground	1	Social General	50	17
	3	ground	1	Social General	50	17
	4	ground	2	Social General	71	23
	5	ground	2	Social General	76	21
	6	ground	2	Social General	71	25
	7	ground	2	Social General	71	25
	8	ground	1	Social General	53	17
	9	1st	2	Social General	76	10
	10	1st	1	Social General	50	9
	11	1st	1	Social General	50	9
	12	1st	2	Social General	71	10
	13	1st	2	Social General	76	10
	14	1st	2	Social General	71	10
	15	1st	2	Social General	71	10
	16	1st	1	Social General	58	10
ZONING	Control		Requirement		Proposed	
HEIGHT	Council - Newcastle LEP Council - Newcastle LEP		R2 Low Density Residential 8.5m		R2 8.36m Ridge Line	
FSR	Housing SEPP Council - LEP + Housing SEPP		0.75:1 + 0.5 FSR Bonus pursuant to Division 1 of Housing SEPP		0.45	
SETBACK	Council - Newcastle DCP	Front Street Setback	Prevailing setback within 40m either side of the site. John T Bell Drive - 7.4m Matten Close - 8.325m Maximum encroachment of balcony is 1.5m Newcastle DCP 3.03.01B		7.0m John T Bell Dr / 5.8m Matten Ct	
Second Street		2m	N/A			
Side Setback		0.9m up to a height of 4.5m, then at an angle of 4:1 up to the maximum permitted height	3m			
Rear Setback		3m up to 4.5m and 6m greater than 4.5m	N/A			
PARKING	Housing SEPP (Division 1)	accessible	0.5 x 10 (no. 2 Beds) = 5.0 0.4 x 6 (no. 1 beds) = 2.4		8 Car spaces	
LANDSCAPED	Housing SEPP (Division 1)	General	35sqm per Dwelling (Social Housing Provider) = 560sq		615.89sqm	
DEEP SOIL	Housing SEPP (Division 1)	General	15% (3m dimension) = 35sqm 65% at rear (if (practicable)		576.85sqm 411.70m2 at rear (71%)	
SOLAR ACCESS	Housing SEPP (Division 1)	General	70% for 3 hrs in Mid-Winter = 11.2 dwellings		14 Dwellings 87.5%	
POS	SLUDS / LAHC Dwelling Requirement	General	Ground Floor: Min 15m ² (min dimension 3m) 1st Floor: Min 8m ² (1-Bed) & 10m ² (2-bed) (min. dimension 2m)		Refer to table above	
CUT AND FILL	Council - Newcastle DCP	General	Ground floor levels are not more than 1.3m above existing ground level and not more than 1m below existing ground level. Excavation - 1m depth within 1m of a boundary and 1m depth > 1m from a boundary. Fill - Max. 600mm within 1m of a boundary and 1m > 1m from a boundary.		Finished Floor Level to be raised by 500-600mm to meet flood planning level.	
DWELLING SIZE	Housing SEPP (Division 1)	General	1-bed: min. 50m ² 2-bed: min. 70m ²		Refer to table above	

A-0001	Cover Sheet
A-0002	Planning Controls
A-0003	Block Analysis
A-0004	Site Analysis Plan
A-0101	Demolition Plan
A-1001	Site Plan - Ground
A-1002	Site Plan - First Floor
A-1003	Site Plan - Roof
A-1101	Ground Floor Plan - South
A-1102	Ground Floor Plan - North
A-1103	First Floor Plan - South
A-1104	First Floor Plan - North
A-1105	Roof Plan - South
A-1106	Roof Plan - North
A-2001	Street Elevations
A-2002	East / West Elevation
A-2003	Int. North / South Elev.
A-3001	Section A
A-3002	Section B & C
A-4001	Cut & Fill Diagram
A-4002	Waste Management Plan
A-4003	RFB & Landscape - Area
A-5001	Shadow Diagrams
A-5002	Solar - South
A-5003	Solar - North
A-6001	Schedule of Finishes
A-6002	Matten Close

ALL DIMENSIONS TO BE CHECKED AND CONFIRMED ON SITE

ALL BUILDING WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT AND REGULATIONS, THE BUILDING CODE OF AUSTRALIA, AND APPROVED PLANS.

BUILDER SHALL MAKE GOOD ALL DISTURBED AREAS ADJACENT TO THE WORKS ON COUNCIL PROPERTY.

ALL CONCRETE FOOTINGS, FLOOR SLABS, COLUMNS, AND ROOF FRAMING
TO STRUCTURAL ENGINEER'S DETAIL.

ALL STORMWATER REQUIREMENTS, EXTERNAL RL'S AND DRIVEWAY LEVELS TO CIVIL ENGINEER'S DETAILS IF REQUIRED.

ALL LANDSCAPE AREAS, EXISTING TREES, AND DRIVEWAY TO LANDSCAPE
PLANS IF REQUIRED.

issue	description	date	verified
01	For Client Review	24/11/2021	01
02	For Client Review	1/12/2022	02
03	For Client Review	28/2/2022	03
04	For Client Review	27/4/2022	04
05	Issue for information	26/5/2022	05
06	Issue for Review	8/6/2022	06
07	Issue for Review	12/7/2022	07
08	Draw Part 5 Activity Submission	19/7/2022	08
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	29/8/2022	B



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Mayfield NSW 2304
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clients

Land & Housing
Corporation

 **NSW**
GOVERNMENT

**Planning &
Environment**

LAHC Maryland
Development - BGWY7

38, 40 John T Bell Dr & 31, 33 Matten Ct
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title —————

Preliminary

Cover Sheet

drawing scale	drawn	verified	date
AS SHOWN		SC	26/8/2022
project #	drawing #	issue	
20126	A-0001	B	

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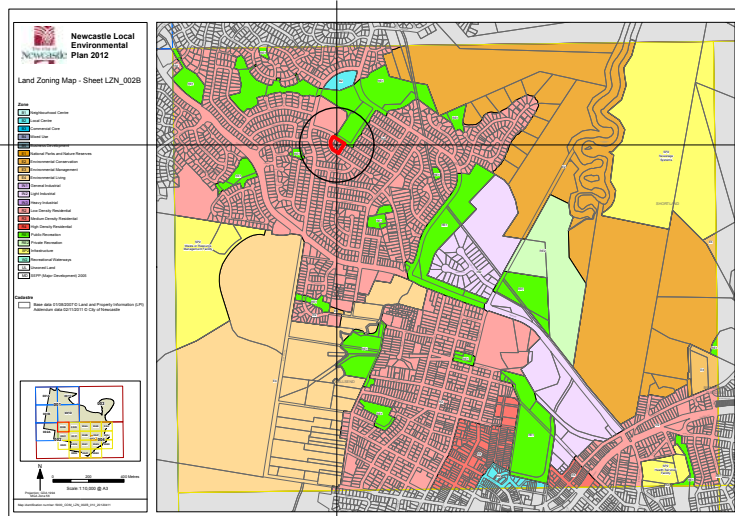
18 June 2023

Newcastle LEP 2012

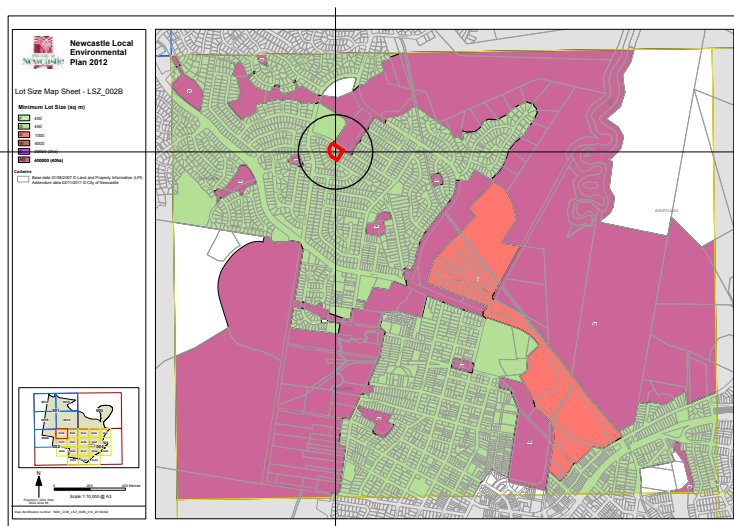
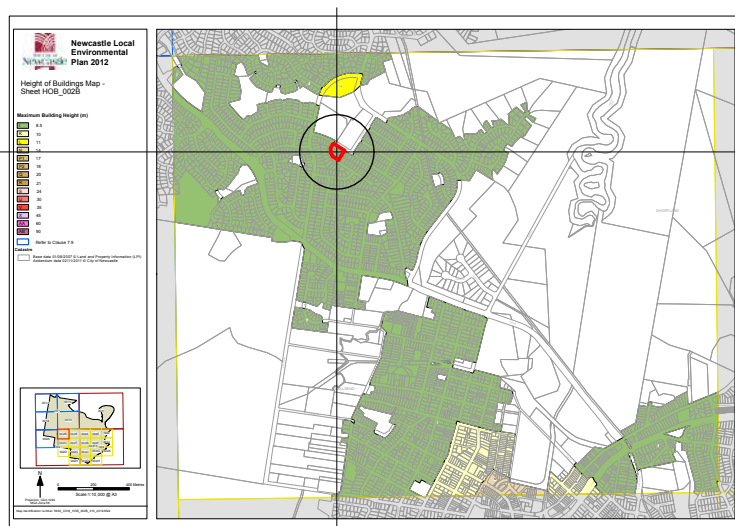
LAND ZONE R2 Low Density Residential
HEIGHT OF BUILDING 8.5m
FLOOR SPACE RATIO 0.75:1
MINIMUM LOT SIZE 450m²
ACID SULFATE SOILS Class 2

LAND APPLICATION N/A
LAND RESERVATION N/A
KEY SITES N/A
HERITAGE N/A

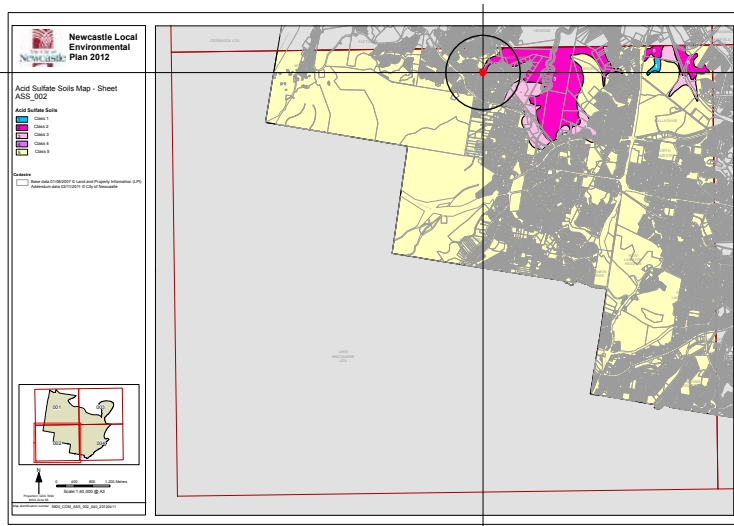
SITE AREA 4174m²
ALLOWABLE GFA 3130m²



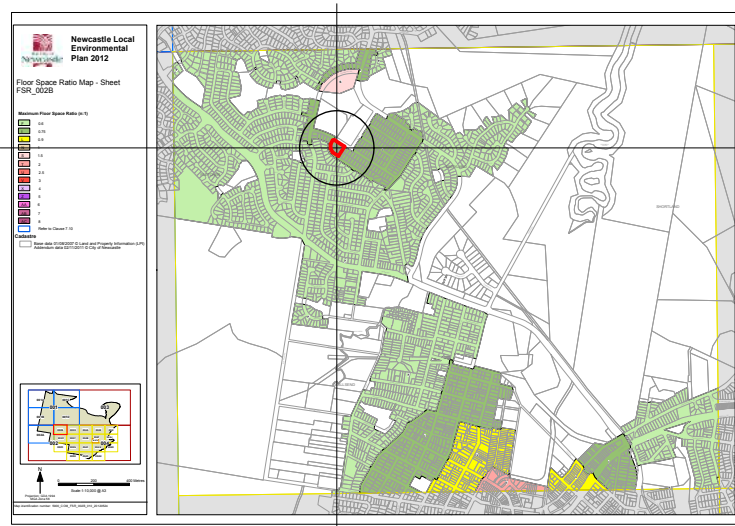
LAND ZONE R2 Low Density Residential

MINIMUM LOT SIZE 450m²

HEIGHT OF BUILDING 8.5m



ACID SULFATE SOILS Class 2



FLOOR SPACE RATIO 0.75:1

NOTE: PRELIMINARY AUTHORITY CONTROL INFORMATION SUBJECT TO PLANNER AND COUNCIL REVIEW AND FURTHER INVESTIGATION

Newcastle DCP 2012

3.30 RESIDENTIAL DEVELOPMENT KEY CRITERIA RESIDENTIAL FLAT BUILDING

FRONT SETBACK AVERAGE OF ALL FRONT SETBACKS WITHIN 40m OF SITE

SIDE SETBACKS 0.9m UP TO 4.5m
THEN ANGLE AT 4:1 TO MAX HEIGHT

LANDSCAPE AREA MIN 30% OF SITE LANDSCAPE AREA
MIN 15% OF SITE DEEP SOIL ZONE

SOLAR & DAYLIGHT ACCESS 2 HRS DIRECT SUNLIGHT BETWEEN 9am & 3pm

DWELLING SIZE & LAYOUT MIN 90m² FOR 2B
MIN 115m² FOR 3B
+5m² FOR ADDITIONAL BATHROOMS

PRIVATE OPEN SPACE MIN 16m² PRIVATE OPEN SPACE
MIN DIMENSION 3m
50% OF P.O.S. COVERED WITH SHADE

STORAGE 2B MIN 8M³
3B MIN 10m³
MIN 50% LOCATED WITHIN DWELLING

UNIVERSAL DESIGN SENIORS HOUSING SEPP, OR;
LIVABLE HOUSING SILVER UNIVERSAL DESIGN FEATURES

7.03 TRAFFIC, PARKING & ACCESS

CAR PARKING MIN 1 SPACE PER DWELLING
MIN 1 VISITOR SPACE PER 5 DWELLINGS

BIKE PARKING 1 SPACE PER DWELLING UNLESS SEPARATE
STORAGE PROVIDED

HOUSING SEPP 2021

SOLAR ACCESS 70% OF DWELLINGS TO RECEIVE
3HRS MID-WINTER BETWEEN 9am & 3pm.

PARKING (FOR SOCIAL HOUSING PROVIDER - ACCESSIBLE SITE) 1B - 0.4 SPACE PER DWELLING
2B - 0.5 SPACE PER DWELLING

LANDSCAPE 35m² PER DWELLING

DEEP SOIL ZONE 15% SITE AREA (3m WIDE)
65% AT REAR OF SITE.

DWELLING SIZE 1B - 50m²
2B - 70m²

issue	description	date	verified
01	For Client Review	24/11/2021	01
02	For Client Review	12/2/22	02
03	For Client Review	29/2/2022	03
04	For Client Review	27/4/2022	04
05	Issue for Information	26/5/2022	05
06	Issue for Review	6/6/2022	06
07	Issue for Review	12/7/2022	07
08	Draft Part 5 Activity Submission	19/7/2022	08
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B





SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.

Part 5 Activity Submission

CKDS
Architecture | Planning | Interiors
NEWCASTLE
115 King Street P.O. Box 958
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issue	description	date	verified
01	Issue for Review	8/6/2022	01
02	Issue for Review	12/7/2022	02
03	Draft Part 5 Activity Submission	19/7/2022	03
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	19/3/2023	C

key plan

issue	description	date	verified
01	Issue for Review	8/6/2022	01
02	Issue for Review	12/7/2022	02
03	Draft Part 5 Activity Submission	19/7/2022	03
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	19/3/2023	C

North Point

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clients

Land & Housing Corporation

NSW Planning & Environment

project

LAHC Maryland Development - BGWY7
38, 40 John T Bell Dr & 31, 33 Matten Cl
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title

Preliminary
Block Analysis

drawing scale

AS SHOWN

project #
20126

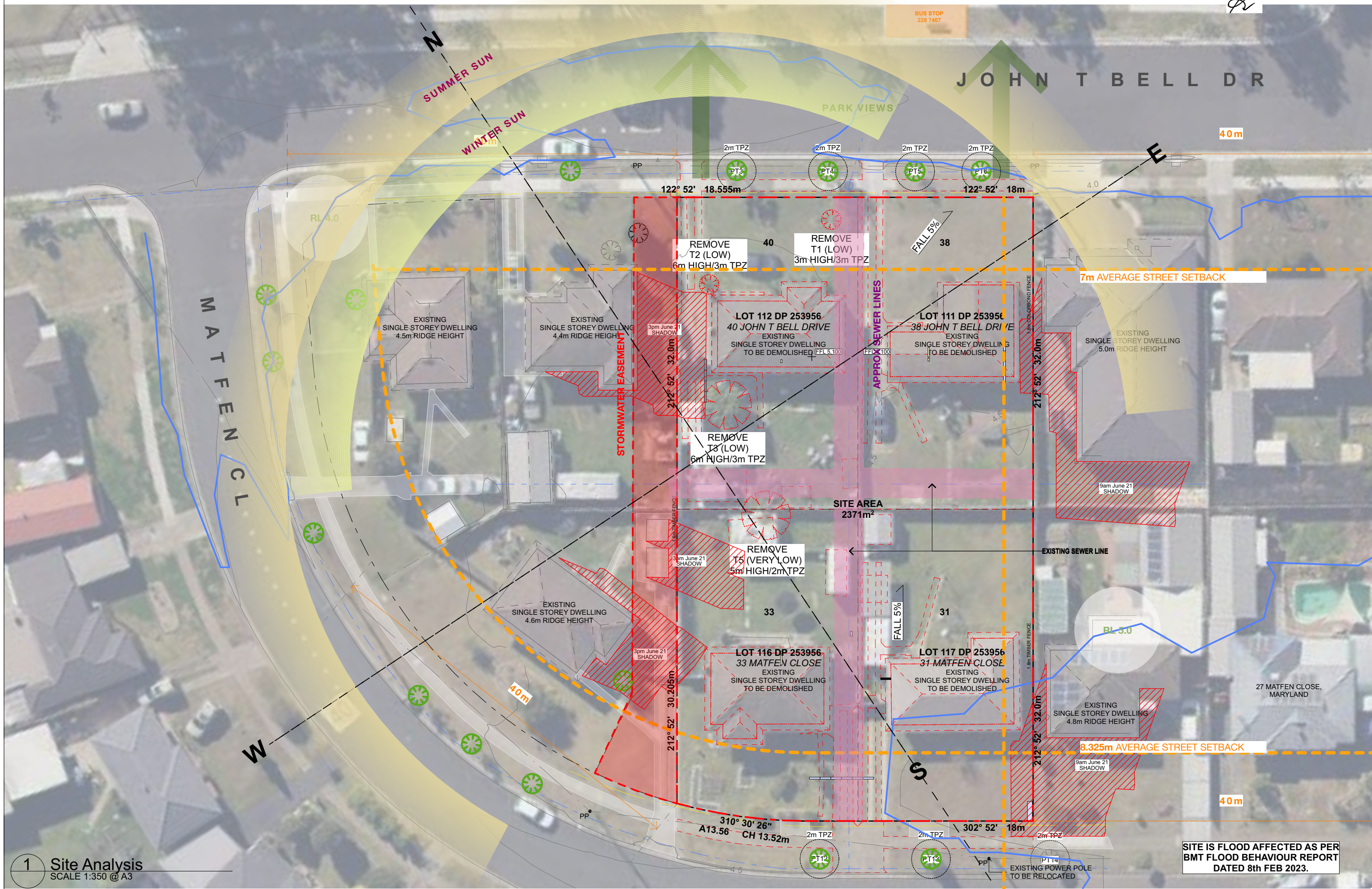
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A-0003

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SC

date
10/3/2023

issue
C

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1 Site Analysis
SCALE 1:350 @ A3

Part 5 Activity Submission

issue	description	date	verified
03	For Client Review	26/2/2022	03
04	For Client Review	3/2/2022	04
05	For Client Review	21/4/2022	05
06	Issue for Information	26/5/2022	06
07	Issue for Review	8/6/2022	07
08	Issue for Review	12/7/2022	08
09	Draft Part 5 Activity Submission	19/7/2022	09
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	16/3/2023	C

18 June 2023



Lot 111 - 38 John T Bell Drive



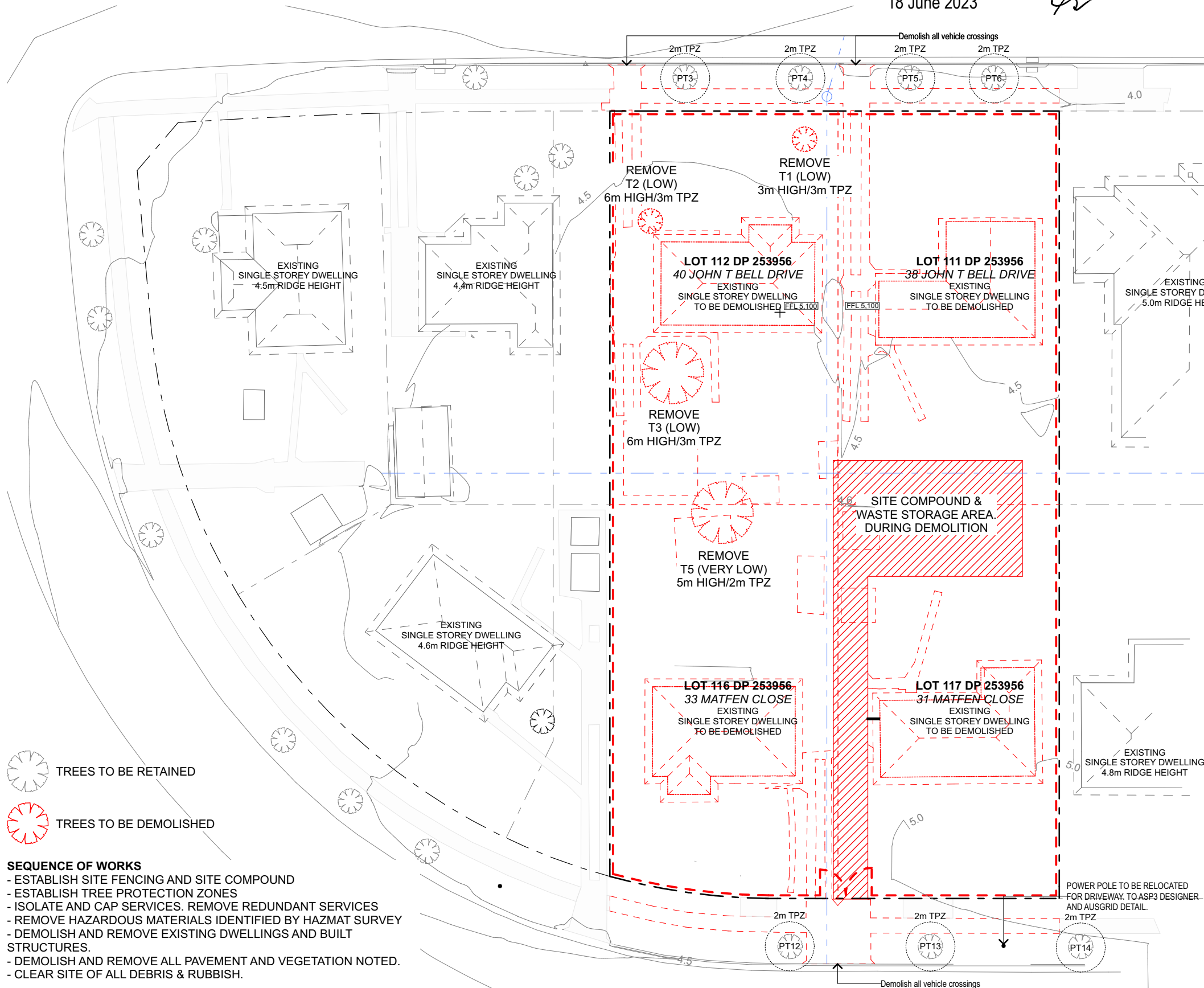
Lot 112 - 40 John T Bell Drive



Lot 116 - 33 Matfen Close



Lot 117 - 31 Matfen Close



TREES TO BE RETAINED

TREES TO BE DEMOLISHED

SEQUENCE OF WORKS

- ESTABLISH SITE FENCING AND SITE COMPOUND
- ESTABLISH TREE PROTECTION ZONES
- ISOLATE AND CAP SERVICES. REMOVE REDUNDANT SERVICES
- REMOVE HAZARDOUS MATERIALS IDENTIFIED BY HAZMAT SURVEY
- DEMOLISH AND REMOVE EXISTING DWELLINGS AND BUILT STRUCTURES.
- DEMOLISH AND REMOVE ALL PAVEMENT AND VEGETATION NOTED.
- CLEAR SITE OF ALL DEBRIS & RUBBISH.

EXPECTED TIME OF DEMOLITION AND SITE CLEARING TO BE CONFIRMED BY CONTRACTOR AFTER SITE INSPECTION AND PREPARATION OF SITE MANAGEMENT PLAN. ALLOW 15 WORKING DAYS

1 **Demolition Plan**
SCALE 1:350 @ A3

Part 5 Activity Submission

issue	description	date	verified
01	For Client Review	24/11/2021	01
02	For Client Review	26/2/2022	02
03	For Client Review	3/2/2022	03
04	For Client Review	27/4/2022	04
05	Issue for Information	26/5/2022	05
06	Issue for Review	6/6/2022	06
07	Issue for Review	12/7/2022	07
08	Draft Part 5 Activity Submission	19/7/2022	08
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B

key plan



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Land & Housing Corporation

Planning & Environment

project
LAHC Maryland Development - BGWY7
38, 40 John T Bell Dr & 31, 33 Matfen Cl
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title
Demolition Plan(s)
Demolition Plan

drawing scale
AS SHOWN

drawn
SC

verified
SC

date
26/8/2022

project #
20126

drawing #
A-0101

issue
B

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1 Site Plan - Ground
SCALE 1:350 @ A3

SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheetting
MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

issue	description	date	verified
03	For Client Review	28/2/2022	03
04	For Client Review	3/2/2022	04
05	For Client Review	21/4/2022	05
06	Issue for Information	26/5/2022	06
07	Issue for Review	8/6/2022	07
08	Issue for Review	12/7/2022	08
09	Draft Part 5 Activity Submission	19/7/2022	09
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	10/3/2023	C

3 

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheeting
MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

1 **Site Plan - First**
SCALE 1:350 @ A3

**SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.**

Part 5 Activity Submission

issue	description	date	verified
03	For Client Review	28/2/2022	03
04	For Client Review	3/3/2022	04
05	For Client Review	27/4/2022	05
06	Issue for Information	26/5/2022	06
07	Issue for Review	8/6/2022	07
08	Issue for Review	12/7/2022	08
09	Draft Part 5 Activity Submission	19/7/2022	09
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B

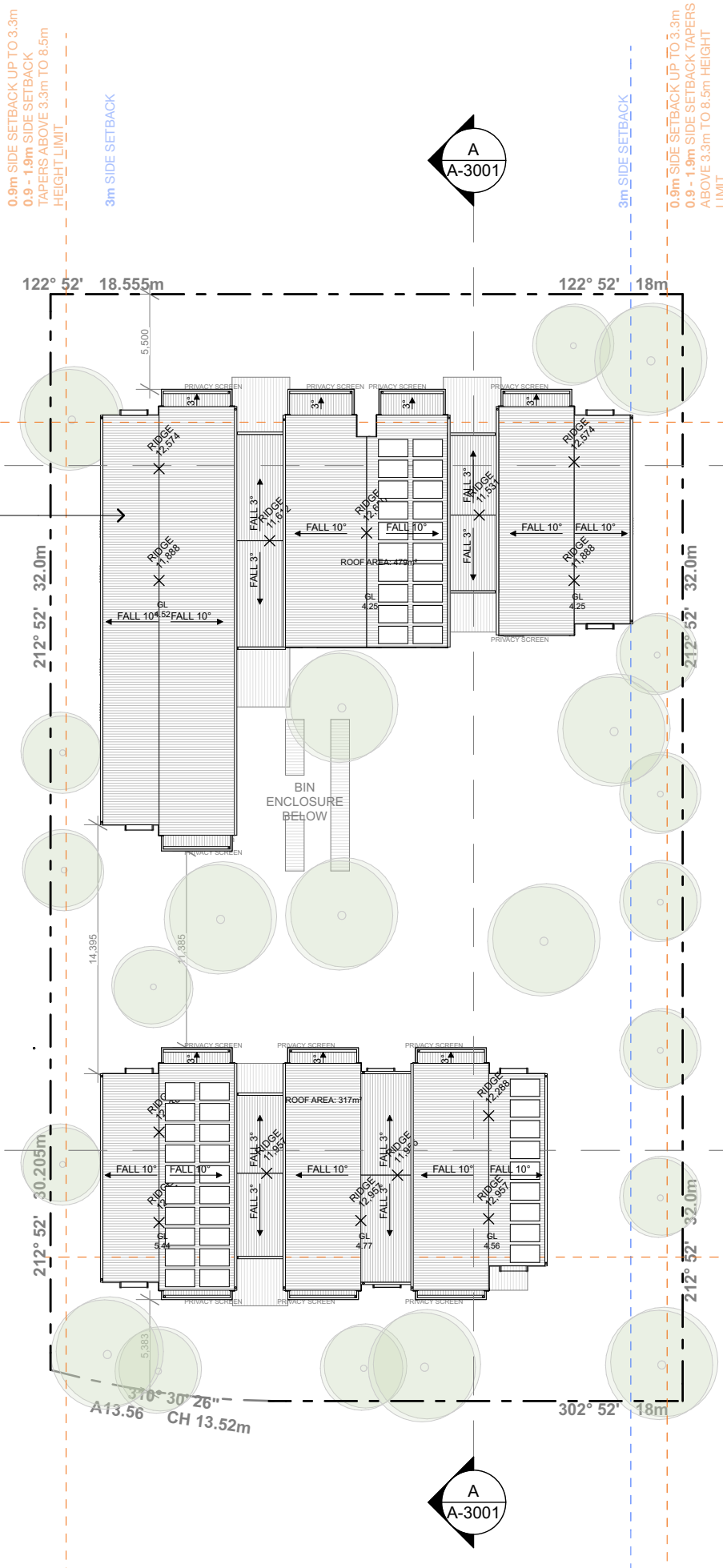




P.O.S.	Private Open Space
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RWT	Rain Water Tank
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MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

1 Site Plan - Roof
SCALE 1:350 @ A3

SHEET METAL ROOFING



SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.

issue	description	date	verified
03	For Client Review	26/2/2022	03
04	For Client Review	3/3/2022	04
05	For Client Review	21/4/2022	05
06	Issue for Information	26/5/2022	06
07	Issue for Review	8/6/2022	07
08	Issue for Review	12/7/2022	08
09	Draft Part 5 Activity Submission	19/7/2022	09
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	18/9/2023	C

key plan



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Land & Housing
Corporation



project

LAHC Maryland
Development - BGWY7

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Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title

Site Plan(s)

Site Plan - Roof

drawing scale drawn verified date

AS SHOWN SC 10/3/2023

project # drawing # issue

20126 A-1003 C

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18 June 2023



1

Ground Floor Plan South

SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheetting
MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

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ABN 12 129 231 269

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issue	description	date	verified
02	For Client Review	12/2022	02
03	For Client Review	28/2/2023	03
04	For Client Review	21/4/2023	04
05	Issue for Information	26/5/2023	05
06	Issue for Review	8/6/2023	06
07	Issue for Review	12/7/2023	07
08	Draft Part 5 Activity Submission	19/7/2023	08
A	Part 5 Activity Submission	21/7/2023	A
B	Part 5 Activity Submission	26/8/2023	B
C	230202 Flood Review	19/9/2023	C

key plan



consultants
Civil/Structural Engineers
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1/215 Pacific Hwy
Charlestown NSW 2290
(02) 4943 1777

Electrical Engineer
Electrical Projects Australia
385 Maitland Rd
Maitland NSW 2304
(02) 4967 5999

clients

Land & Housing
Corporation

Land & Housing
Corporation
Planning & Environment

project

LAHC Maryland
Development - BGWY7
38, 40 John T Bell Dr & 31, 33 Matfen Cl
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

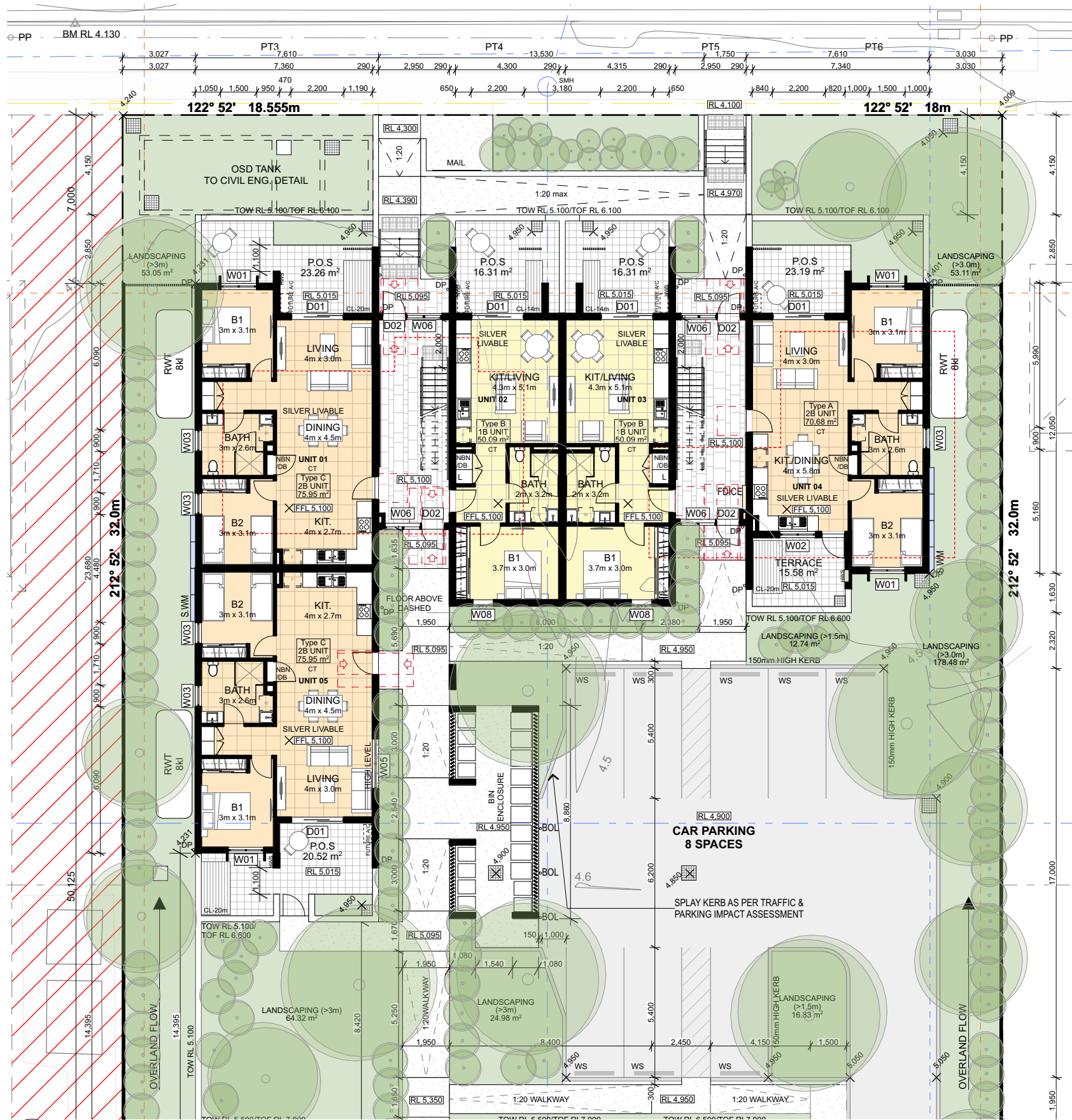
drawing title

General Arrangement Plan(s)
Ground Floor Plan - South

drawing scale	drawn	verified	date
AS SHOWN		SC	10/3/2023
project #	drawing #	issue	
20126	A-1101	C	

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18 June 2023



1 Ground Floor Plan North
SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheetting
MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

EXTERNAL WALL
CAVITY BRICK WORK 270mm

PARTIAL WALL
CAVITY BRICK WORK 290mm

INTERNAL PARTITION WALL
STEEL STUD 102mm

R1.3 BULK INSULATION AS PER
BASIX REQUIREMENT

SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.

Part 5 Activity Submission

issue	description	date	verified
02	For Client Review	12/2022	02
03	For Client Review	28/2/2022	03
04	For Client Review	21/4/2022	04
05	Issue for Information	26/5/2022	05
06	Issue for Review	8/6/2022	06
07	Issue for Review	10/7/2022	07
08	Draw Part 5 Activity Submission	19/7/2022	08
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	10/3/2023	C

key plan





P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
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FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

EXTERNAL WALL
CAVITY BRICK WORK 270mm

PARTI WALL
CAVITY BRICK WORK 290mm

INTERNAL PARTITION WALL
STEEL STUD 102mm

R1.3 BULK INSULATION AS PER
BASIX REQUIREMENT

**SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.**

Part 5 Activity Submission

18 June 2023

[Handwritten signature]



1 First Floor Plan North
SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheetting
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EXTERNAL WALL
CAVITY BRICK WORK 270mm

PARTI WALL
CAVITY BRICK WORK 290mm

INTERNAL PARTITION WALL
STEEL STUD 102mm

R1.3 BULK INSULATION AS PER
BASIX REQUIREMENT

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DATED 8th FEB 2023.

Part 5 Activity Submission

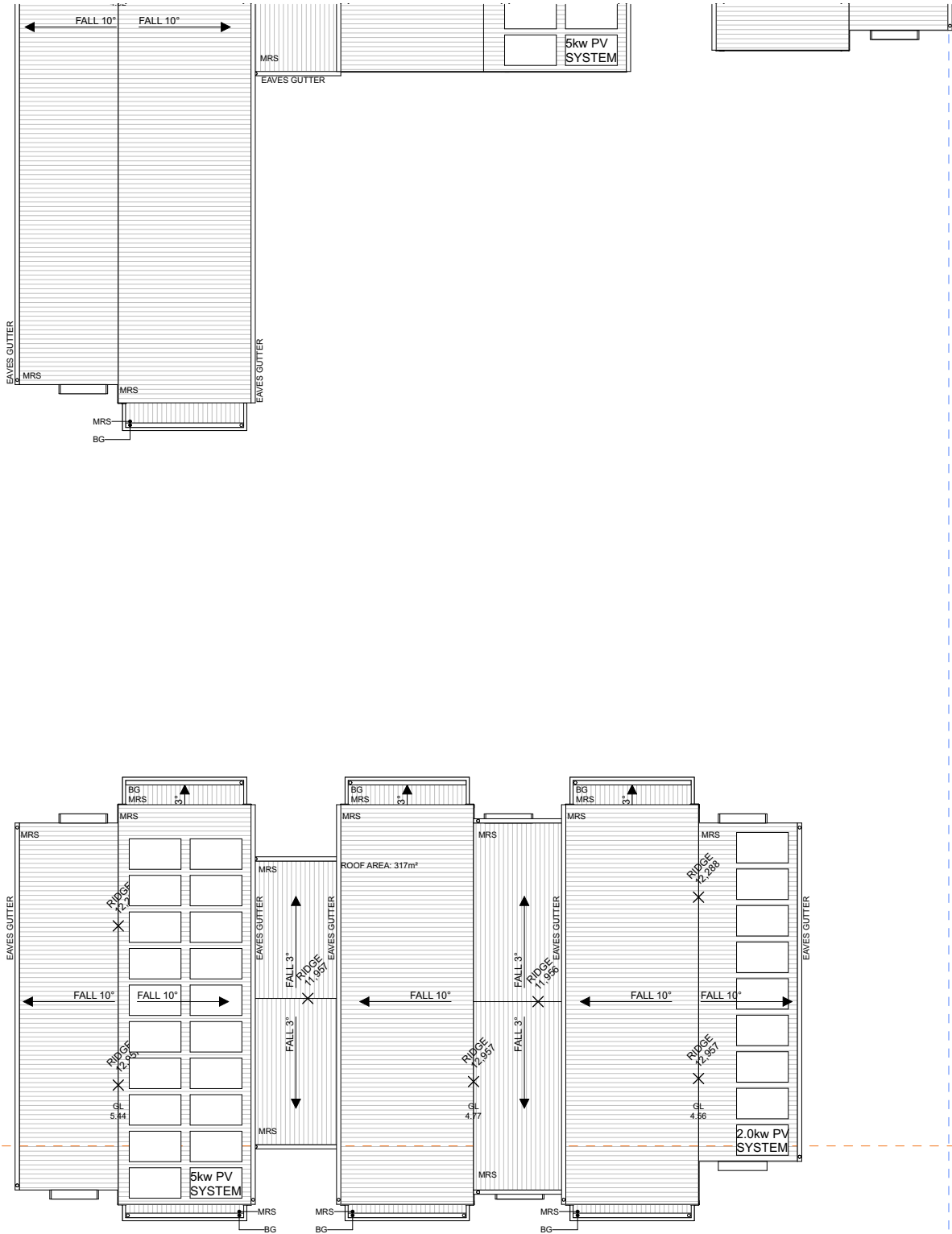
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1 Roof Plan South
SCALE 1:200 @ A3



- EXTERNAL WALL
CAVITY BRICK WORK 270mm
- PARTIAL WALL
CAVITY BRICK WORK 290mm
- INTERNAL PARTITION WALL
STEEL STUD 102mm

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DATED 8th FEB 2023.

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key plan



consultants
Civil/Structural Engineers
Northrop Consulting Engineers
1/215 Pacific Hwy
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(02) 4943 1777
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Xeriscapes
1/28 Adelaide Street,
East Gosford NSW 2250
(02) 4302 0477

Electrical Engineer
Electrical Projects Australia
386 Maitland Rd,
Maitland NSW 2304
(02) 4967 5999
Hydraulic Engineer
McCallums PECA
5/35 Smith St,
Charlestown NSW 2290
(02) 4946 2633

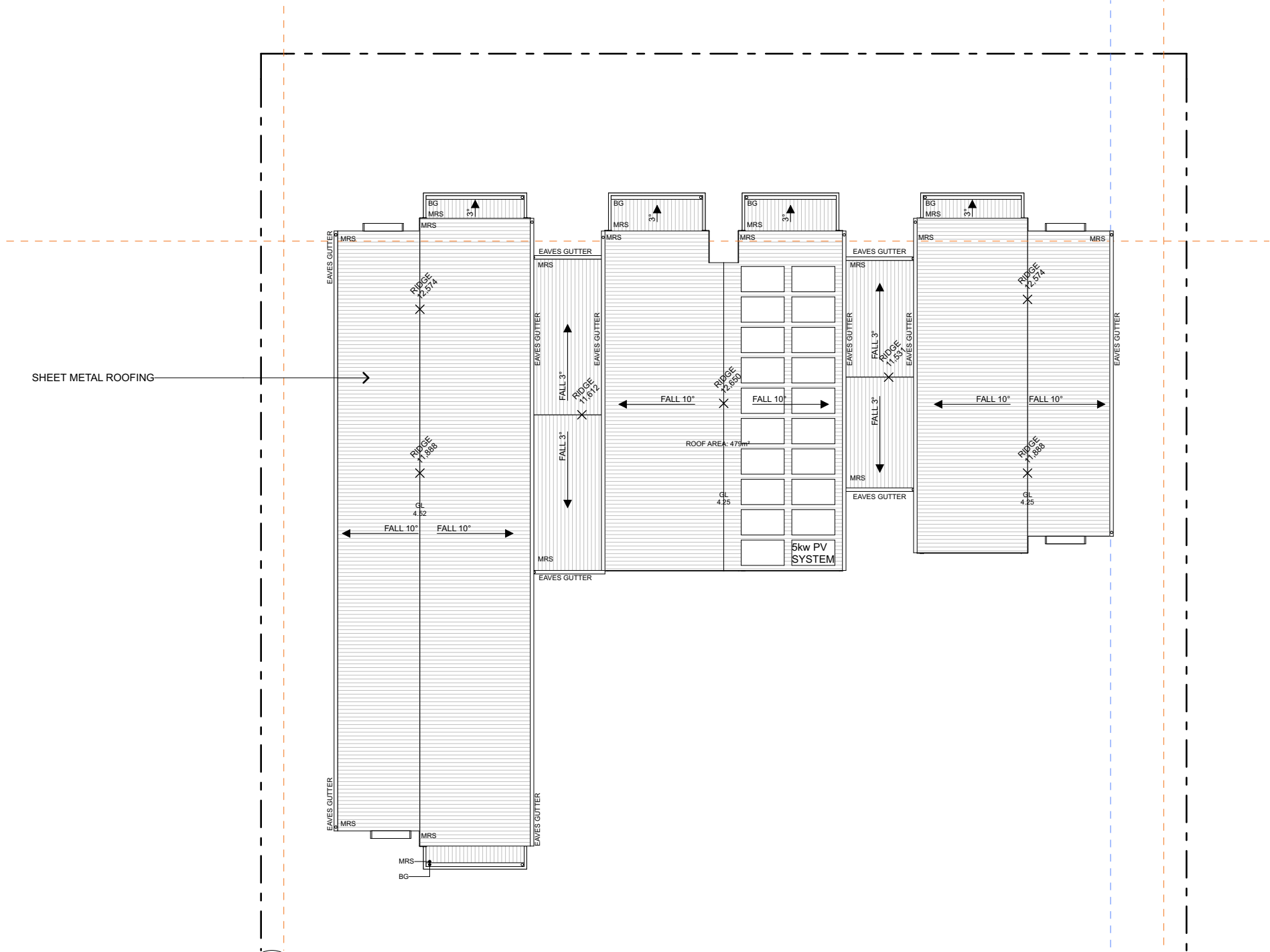
clients
Land & Housing Corporation
Planning & Environment

project
LAHC Maryland Development - BGWY7
38, 40 John T Bell Dr & 31, 33 Matten Ct
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title
General Arrangement Plan(s)
Roof Plan - South

drawing scale	drawn	verified	date
AS SHOWN		SC	10/3/2023
project #	drawing #	issue	
20126	A-1105	C	

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1 Roof Plan North
SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
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PARTIAL WALL
CAVITY BRICK WORK 290mm

INTERNAL PARTITION WALL
STEEL STUD 102mm

SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 8th FEB 2023.

Part 5 Activity Submission

issue	description	date	verified
01	Issue for Review	8/6/2022	01
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(02) 4967 5999

Hydraulic Engineer
McCallums P/CA
5/35 Smith St,
Charlestown NSW 2290
(02) 4946 2633

clients
Land & Housing Corporation

NSW **Planning & Environment**

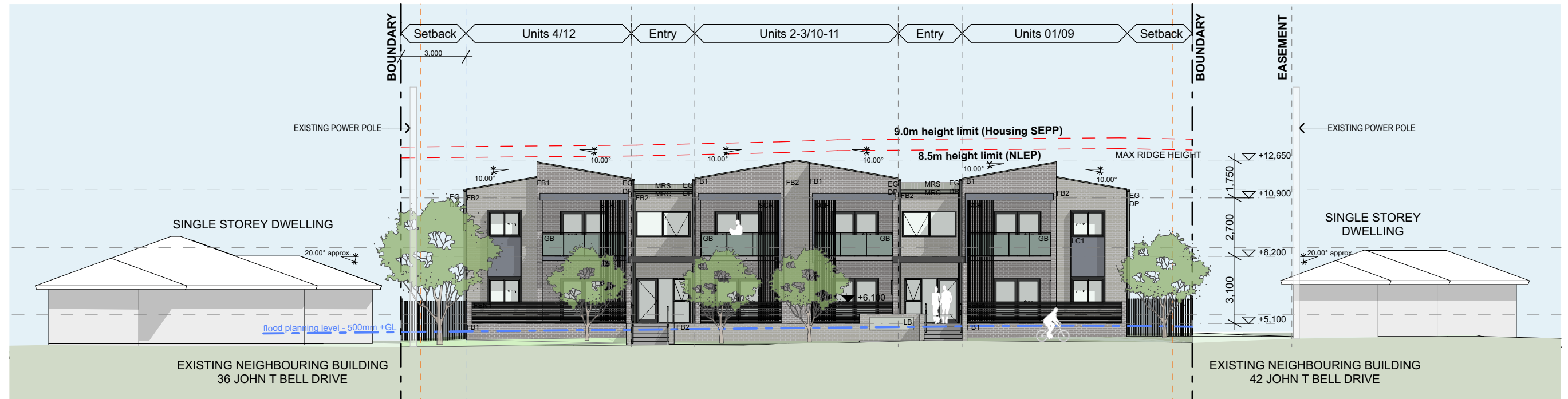
project
LAHC Maryland Development - BGWY7

38, 40 John T Bell Dr & 31, 33 Matten Ct
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title
General Arrangement Plan(s)
Roof Plan - North

drawing scale	drawn	verified	date
AS SHOWN		SC	10/3/2023
project #	drawing #	issue	
20126	A-1106	C	

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1 North Elevation John T Bell Drive
SCALE 1:200 @ A3



2 South Elevation Matfen Close
SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
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DP	Downpipe
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SCR	Privacy Screen - Vertical Slat
LB	Letterbox

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DATED 8th FEB 2023.**

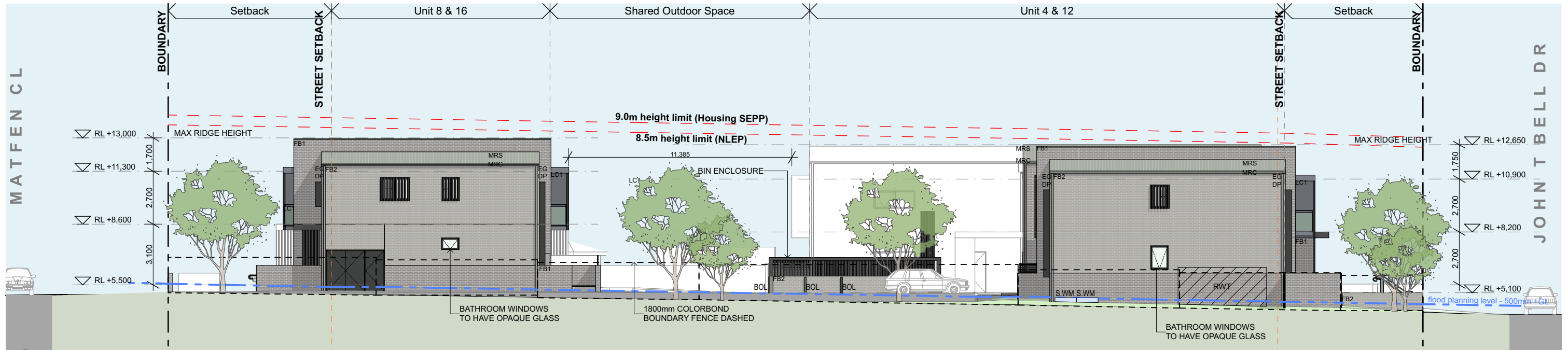
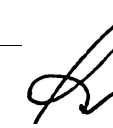
Part 5 Activity Submission

issue	description	date	verified
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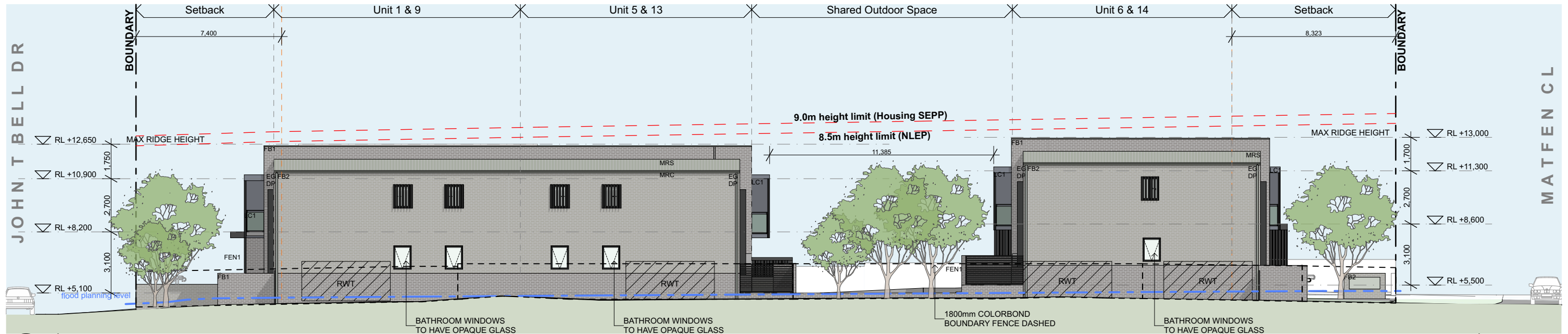
key plan



18 June 2023



1 East Elevation
SCALE 1:200 @ A3



2 West Elevation
SCALE 1:200 @ A3

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
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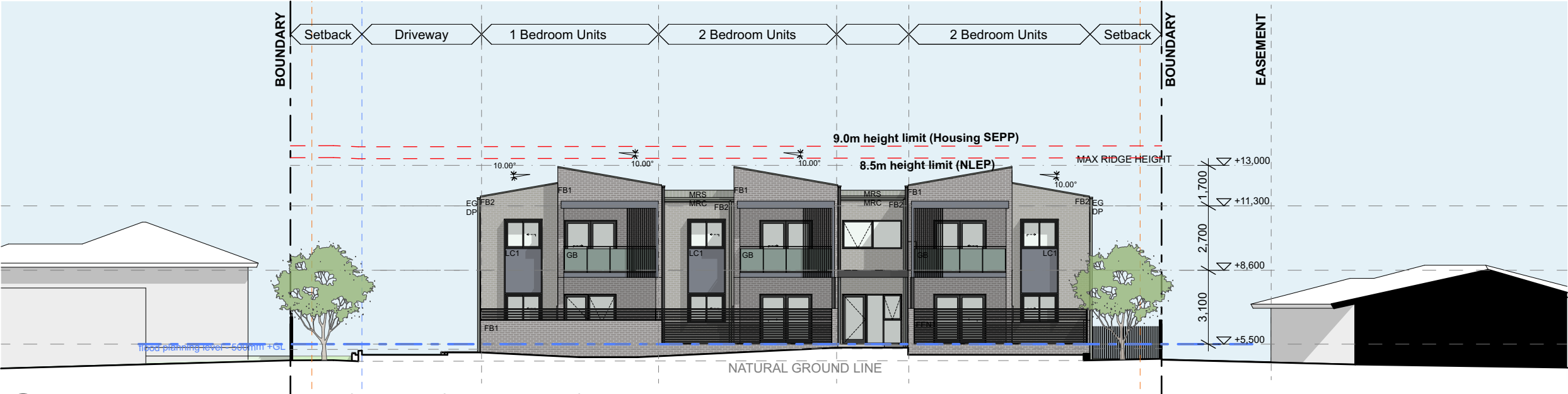
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DATED 8th FEB 2023.

Part 5 Activity Submission

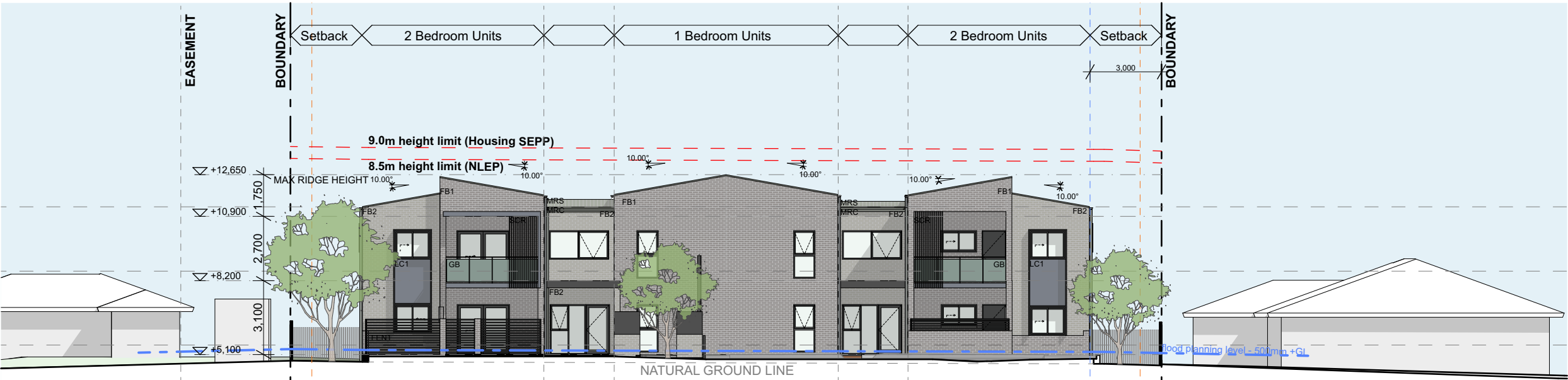
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2 North Elevation (Building B)
SCALE 1:200 @ A3



1 South Elevation (Building A)
SCALE 1:200 @ A3

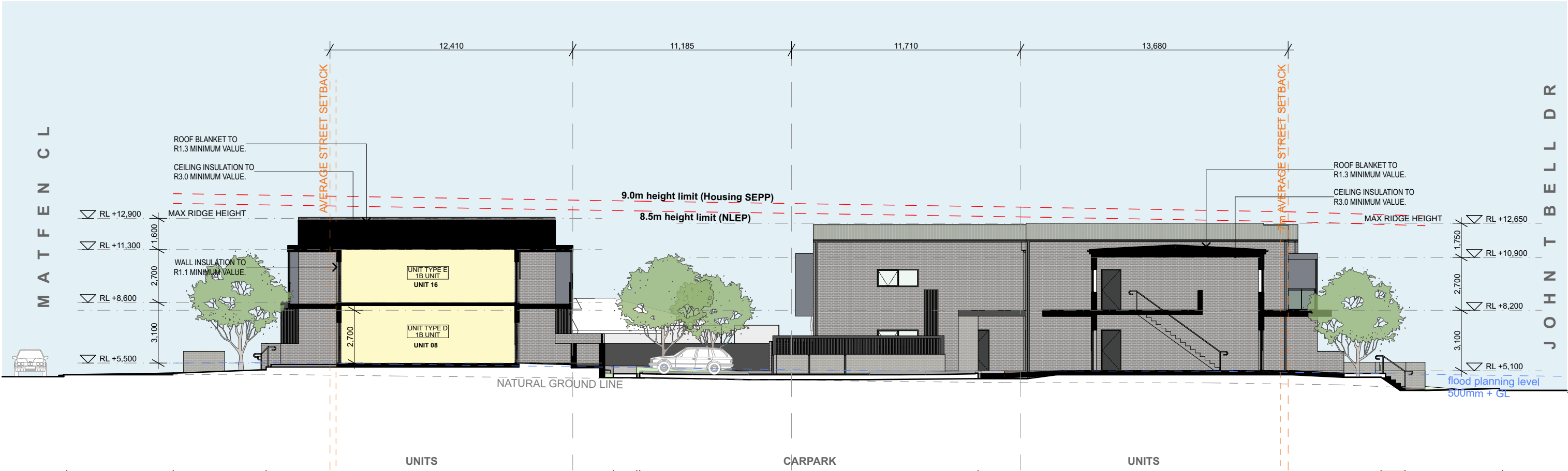
P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsastrade - Obscure
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MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
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Part 5 Activity Submission

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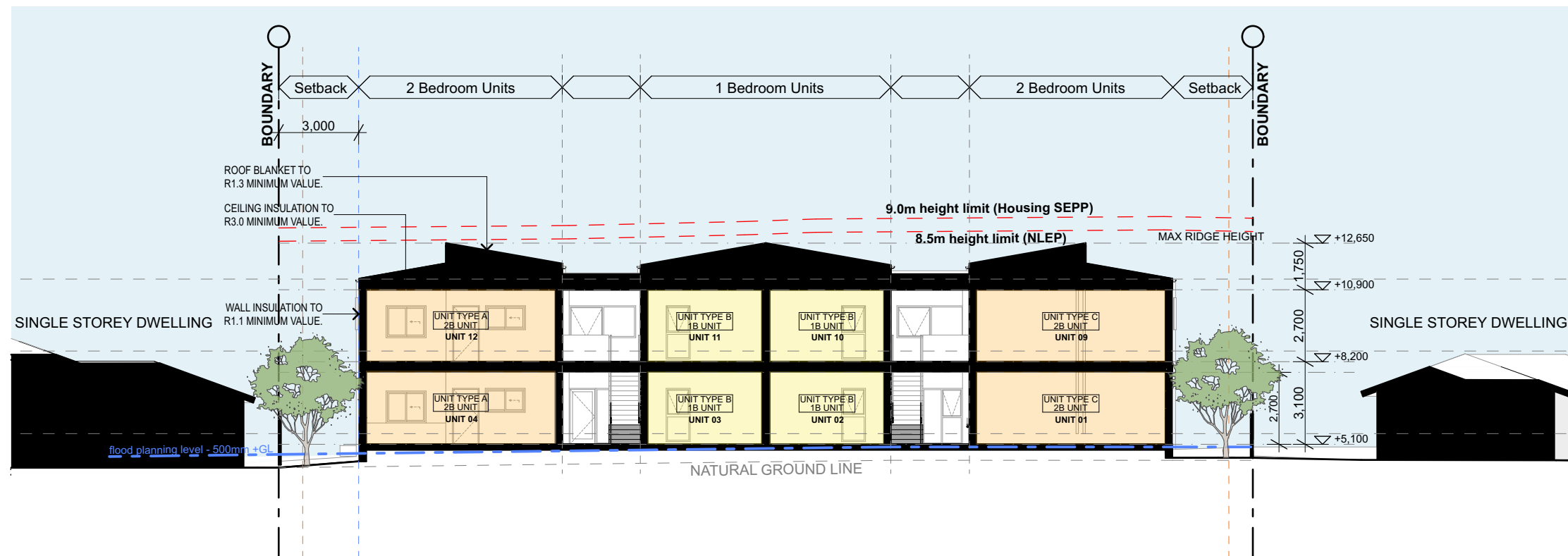
1 Section A
SCALE 1:200 @ A3

SITE IS FLOOD AFFECTED AS PER
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DATED 8th FEB 2023.

Part 5 Activity Submission



1 Section B
SCALE 1:200 @ A3



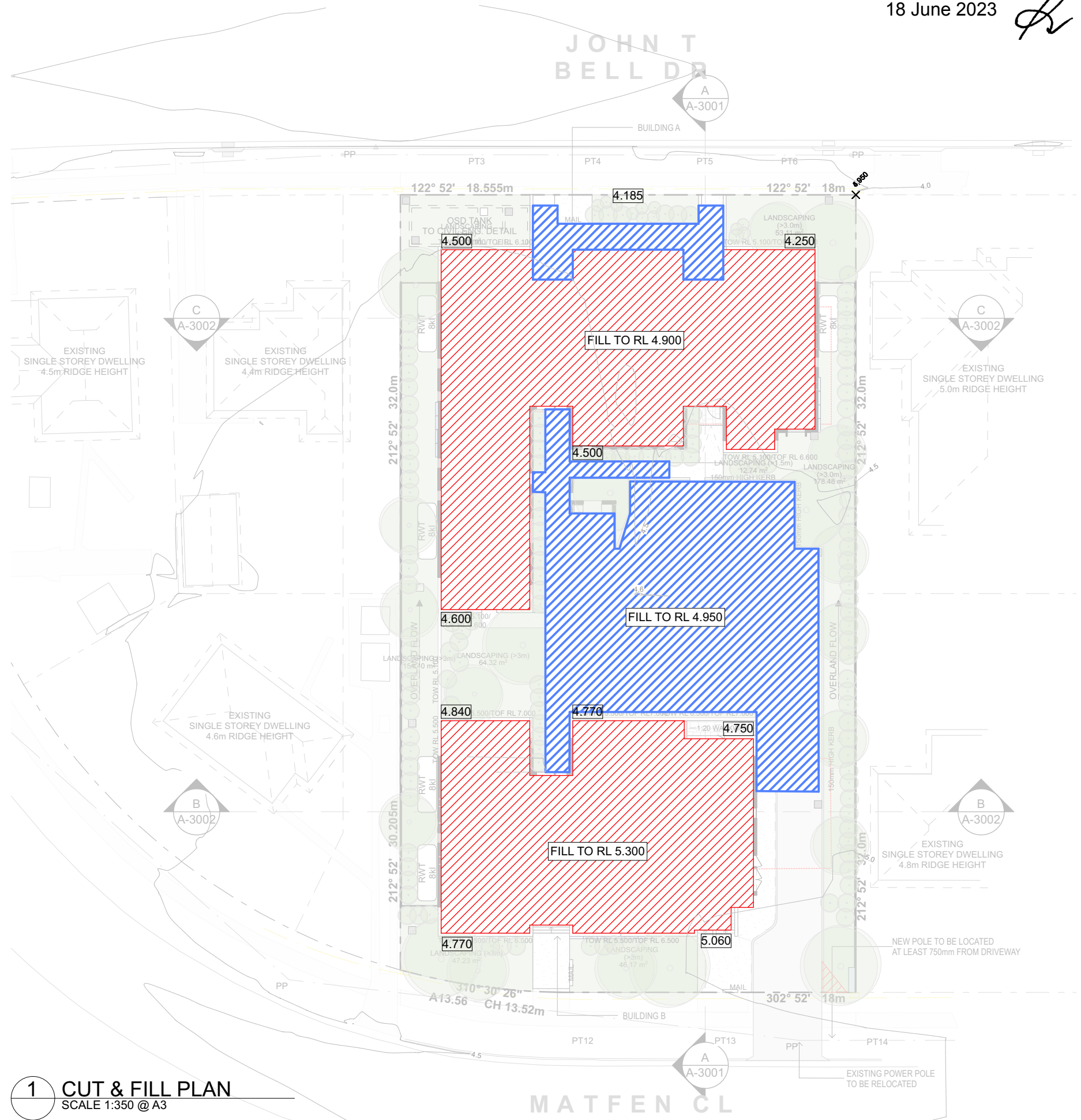
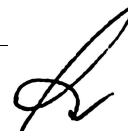
2 Section C
SCALE 1:200 @ A3

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DATED 8th FEB 2023.

issue	description	date	verified
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A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B
C	230202 Flood Review	19/3/2023	C

key plan





-
- EXTENT OF FILL TO THE BUILDINGS

1 CUT & FILL PLAN
SCALE 1:350 @ A3

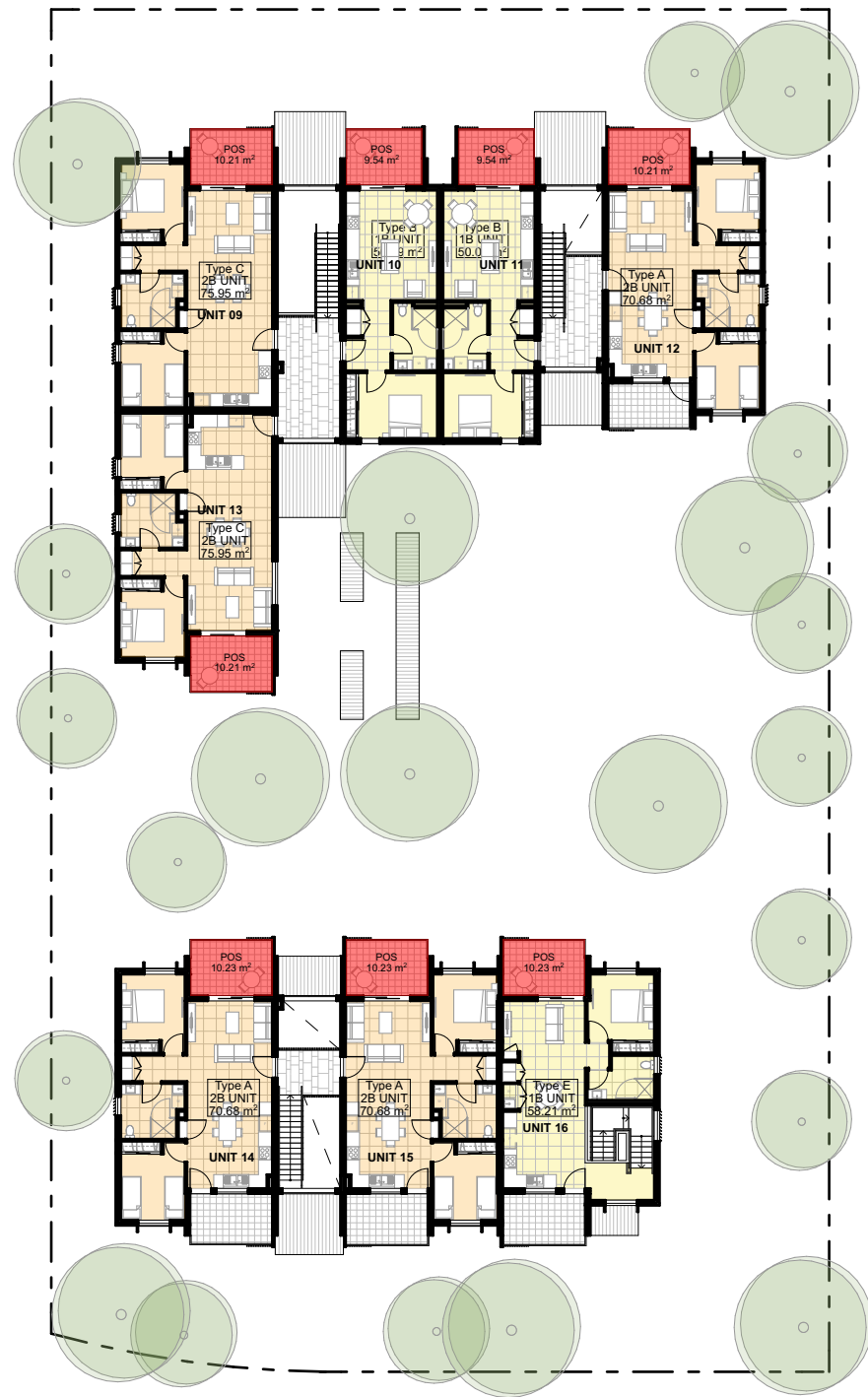
Part 5 Activity Submission



→ WASTE STORED IN SCREENED BIN ENCLOSURE
UNTIL COLLECTION DAY AND PRESENTED TO STREET
BY SERVICE PROVIDER



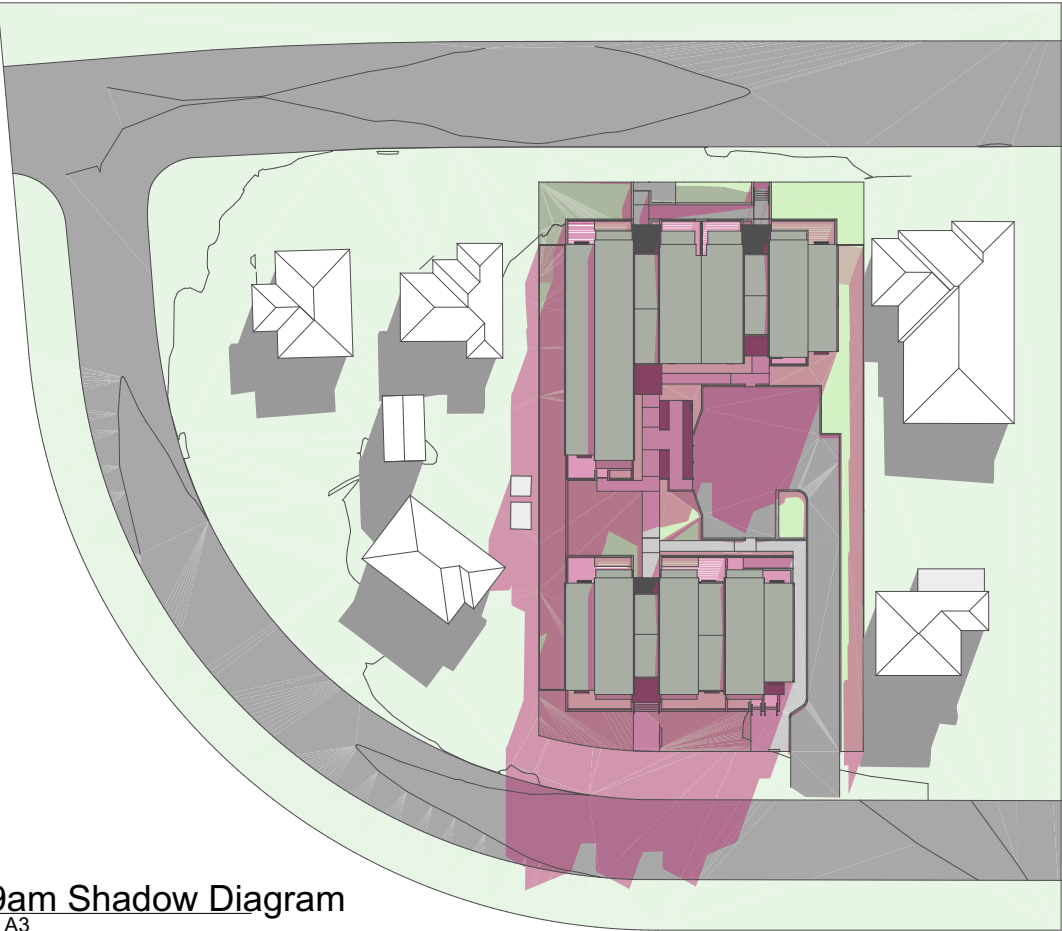
1 RFB Areas Review Ground Floor
SCALE 1:350 @ A3



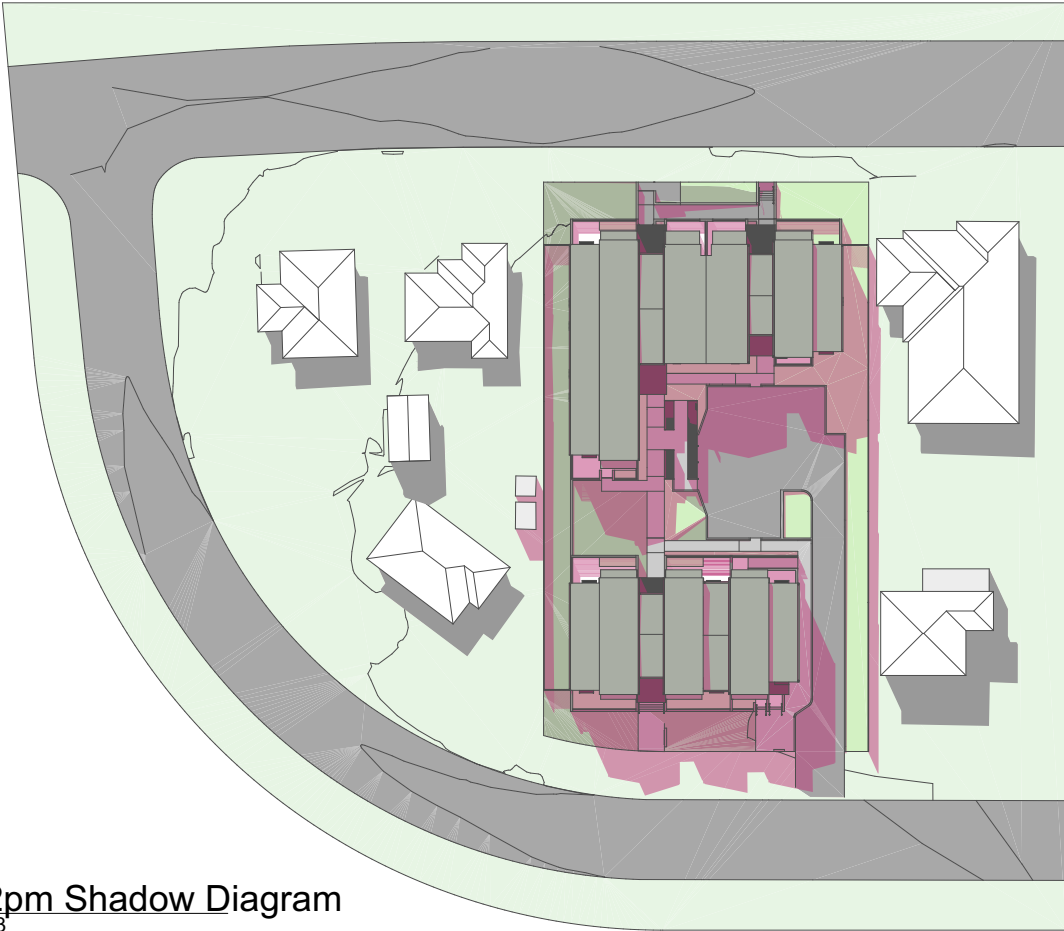
1 RFB Areas Review First Floor
SCALE 1:350 @ A3

issue	description	date	verified
02	For Client Review	12/2022	02
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04	For Client Review	3/3/2022	04
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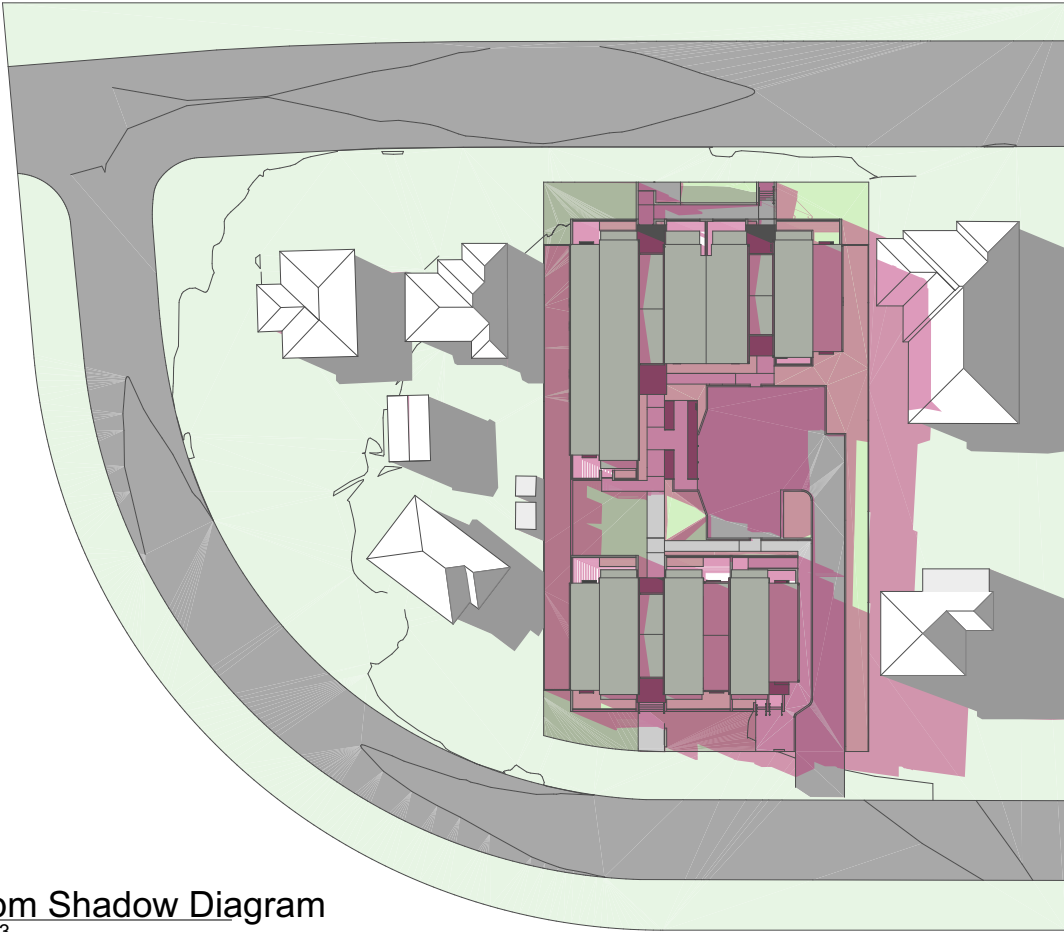
18 June
2023



1 June 22 9am Shadow Diagram
SCALE 1:850 @ A3



1 June 22 12pm Shadow Diagram
SCALE 1:850 @ A3



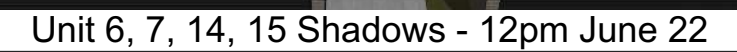
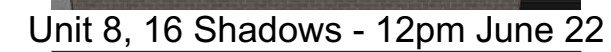
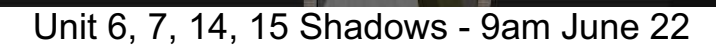
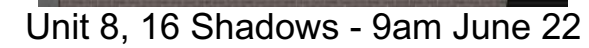
1 June 22 3pm Shadow Diagram
SCALE 1:850 @ A3

Part 5 Activity Submission

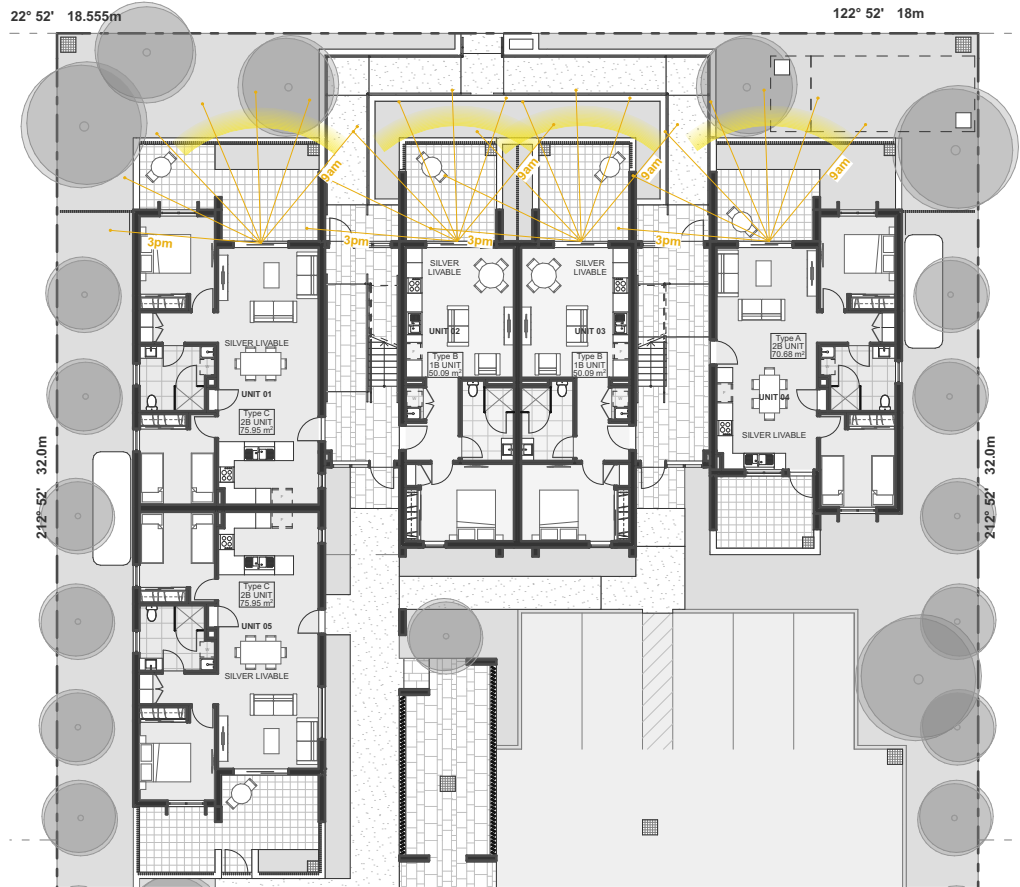
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key plan

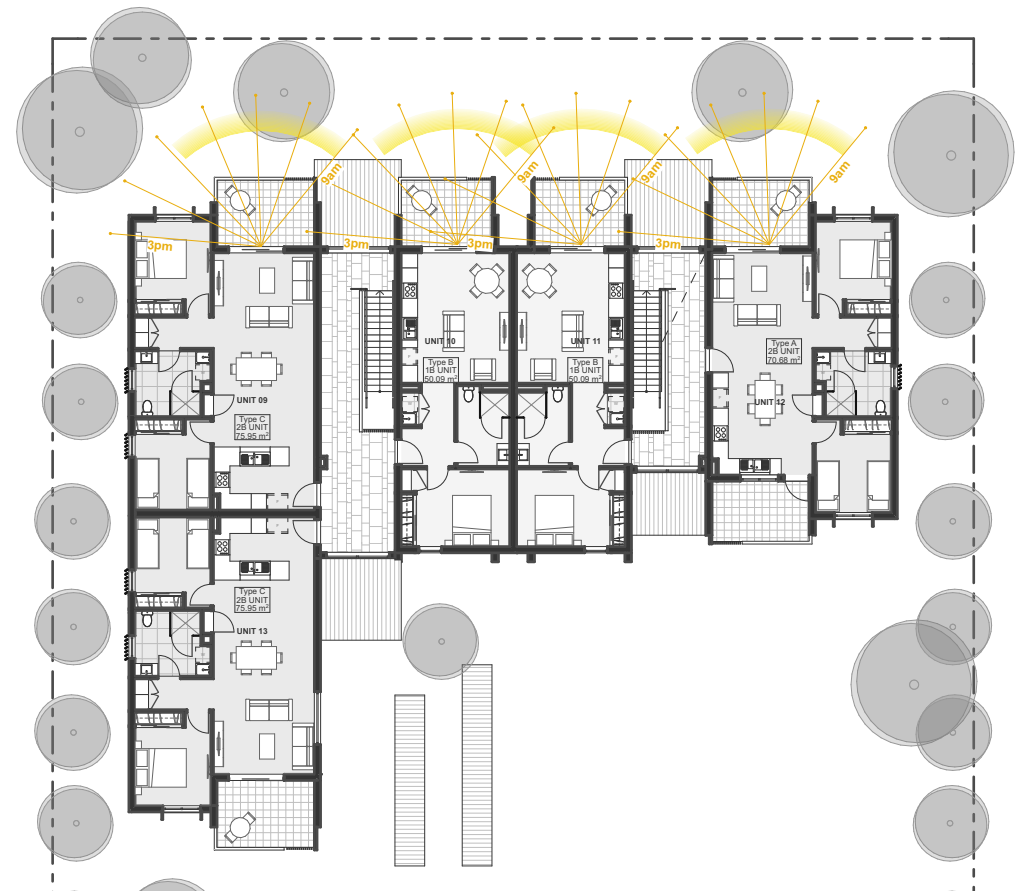




Solar Access (between 9am to 3pm 21st June)		
Unit Number	Living Room	Private Open Space
01	Yes	Yes
02	Yes	Yes
03	Yes	Yes
04	Yes	Yes
05	No	No
06	Yes	Yes
07	Yes	Yes
08	Yes	Yes
09	Yes	Yes
10	Yes	Yes
11	Yes	Yes
12	Yes	Yes
13	No	No
14	Yes	Yes
15	Yes	Yes
16	Yes	Yes
Total	14 (87.5%)	14 (87.5%)



1 ADG Solar Review - Ground
SCALE 1:300 @ A3



1 ADG Solar Review - First
SCALE 1:300 @ A3



Unit 3, 4, 11, 12 Shadows - 9am June 22



Unit 1, 2, 9, 10 Shadows - 9am June 22



Unit 3, 4, 11, 12 Shadows - 12pm June 22



Unit 1, 2, 9, 10 Shadows - 12pm June 22

Solar Access (between 9am to 3pm 21st June)		
Unit Number	Living Room	Private Open Space
01	Yes	Yes
02	Yes	Yes
03	Yes	Yes
04	Yes	Yes
05	No	No
06	Yes	Yes
07	Yes	Yes
08	Yes	Yes
09	Yes	Yes
10	Yes	Yes
11	Yes	Yes
12	Yes	Yes
13	No	No
14	Yes	Yes
15	Yes	Yes
16	Yes	Yes
Total	14 (87.5%)	14 (87.5%)

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MRS

Metal Roof Sheetting - Surfmist

FB2

Face Brickwork - Urban 'Silver'

Window/Door Frame - Monument

GB

Glazed Balustrade - Obscure Glass

FB1

Face Brickwork - Urban 'Chiffon'

LC01

Pre-finished Board Soffit Cemintel Surround

FEN1/SCRN

Screen/Fencing - Powdercoated 'Monument'



John T Bell Drive Perspective

issue	description	date	verified
01	For Client Review	24/11/2021	01
02	For Client Review	10/2/2022	02
03	For Client Review	29/2/2022	03
04	For Client Review	27/4/2022	04
05	Issue for Information	26/5/2022	05
06	Issue for Review	6/6/2022	06
07	Issue for Review	12/7/2022	07
08	Draft Part 5 Activity Submission	19/7/2022	08
A	Part 5 Activity Submission	21/7/2022	A
B	Part 5 Activity Submission	26/8/2022	B

key plan

North Point

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Hydraulic Engineer

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clients

Land & Housing Corporation

project

LAHC Maryland Development - BGWY7

38, 40 John T Bell Dr & 31, 33 Matten Ct
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title

Materials

Schedule of Finishes

drawing scale

AS SHOWN

drawn

verified

date

SC

26/8/2022

project #

20126

drawing #

A-6001

issue

B

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Matfen Close Perspective

Part 5 Activity Submission



Architecture | Planning | Interiors

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issue	description	date	verified
01	For Client Review	12/2022	01
02	For Client Review	28/2/2022	02
03	For Client Review	21/4/2022	03
04	Issue for Information	26/5/2022	04
05	Issue for Review	8/6/2022	05
06	Issue for Review	12/7/2022	06
07	Draft Part 5 Activity Submission	19/7/2022	07
A	Part 5 Activity Submission	21/7/2022	A
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key plan



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clients
Land & Housing Corporation
 Planning & Environment

project
LAHC Maryland Development - BGWY7
38, 40 John T Bell Dr & 31, 33 Matfen Cl
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title
Materials
Matfen Close

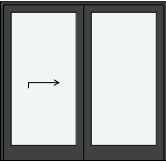
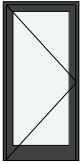
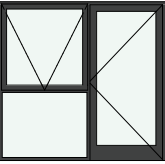
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AS SHOWN		SC	26/8/2022
project #	drawing #	issue	
20126	A-6002	B	

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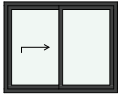



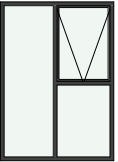
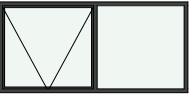
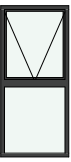

18 June 2023

[Handwritten Signature]

Glazed Doors

Element ID	D01	D02	D03
Quantity	15	6	1
Height	2,100	2,100	2,100
Width	2,200	1,000	2,200
			

Glazed Windows

Element ID	W01	W02	W03	W05	W06	W07	W08	W09	
Quantity	20	8	13	2	6	6	4	1	
Height	1,200	900	1,200	900	2,100	1,200	2,000	600	
Width	1,500	1,500	900	2,100	1,500	2,500	900	900	
									

issue	description	date	verified
01	Issue for Information	26/5/2022	01
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A	Part 5 Activity Submission	21/7/2022	A
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clients



project

LAHC Maryland Development - BGWY7

38, 40 John T Bell Dr & 31, 33 Matten Cl
Lot 111, 112, 116, 117/-/DP253956
Maryland NSW 2287

drawing title

Schedules

Window Schedule

drawing scale	drawn	verified	date
AS SHOWN		SC	26/8/2022
project #	drawing #		issue
20126	A-7001		B
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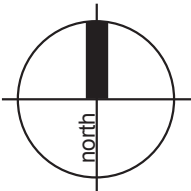
LAHC MARYLAND DEVELOPMENT

SEPTEMBER 2022

DETERMINED by the NSW Land and Housing Corporation on:
18 June 2023



LOCATION MAP



Drawing Schedule			Site Calculations		
Name	Drawing Number	Revision	Item	Area	Percentage
Cover Sheet	DA-L000	E	Total Site	2310 m²	
Landscape Plan	DA-L101	E			
Precedent Images	DA-L201	D	Ground Floor Building Footprint	815 m²	
Indicative Plant Schedule	DA-L301	D	Total Hard Landscaping	780 m²	44 %
			Total Soft Landscaping	715 m²	
			Deep Soil Planting Zones	560 m²	35%

Statutory & Regulatory Guidelines

- CITY OF NEWCASTLE
- Newcastle Local Environmental Plan (LEP) 2012
 - Newcastle Development Control Plan (DCP) 2012

DESIGN REPORT

Site Description:

The subject site is located at 38-40 John T Bell Drive, Maryland, NSW 2287. The site is located and zoned as R2 Low Density Residential.

The existing topography of the site is relatively flat site with a cross fall from the approximate high point RL 5.13 located on the south corner to the approximate low point RL 4.00 located in the north-east corner.

As a result, the proposed site has an overall crossfall of 1.8%.

Within the proposed development boundary there are four existing dwellings consisting of two single storey brick dwellings and two weatherboard dwellings. Each dwelling includes a single driveway access with no existing front boundary fences.

The existing dwellings and driveway crossovers are to be demolished.

Within the site there are large turf landscaped areas with minimal planting. The planting consists of small to medium size native and exotic shrubs that provide no wildlife or aesthetic importance to the site or surrounding context. The shrubs will be removed as part of the proposed development.

Local Context/Character:

The existing street character of John T Bell Drive and Matfen Close is predominately residential single story dwellings with established and maintained landscaped gardens with no front boundary fences. The street frontages consists of turfed verges and small to large shrubs, feature planting and hedges consisting of a mix of native and exotic species.

There are medium established street trees along John T Bell Drive including native and exotic species contributing to the street character and visual amenity. There a very few established street tree plantings along Matfen Close which hold minimal street character value.

There is existing kerb and gutter along John T Bell Drive and Matfen Close with cars utilising the on street kerb side parking. A turf verge and pedestrian footpath is located along John T Bell Drive and Matfen Close that is to be retained as part of the development. The only apparent infrastructure along John T Bell Drive and Matfen Close near the subject site are overhead powerlines.

The subject site is located in close proximity to Maryland Shopping Centre, Maryland Early Education Centre and Maryland Public School. Grand Avenue Reserve and sporting fields are located adjacent to John T Ball Drive.

Proposed Development:

The proposed development will include 5 residential units and include designated bin enclosure and an 8 space carpark to accommodate residents without causing congestion to John T Bell Drive and Matfen Close. There are private terrace space and vegetation to create privacy for all residents associated with this development and are as follows:

Private Open Space:

Private open space terrace and courtyard areas have been provided for each of the units on site and are in accordance with the minimum area requirements with Council's DCP & NSW Planning & Environment; Apartment Design Guide.

- The landscape intent for these private open space terrace areas will include the following:
- Private terrace or courtyard areas for the each of the dwellings that can be used for outdoor entertaining,
 - Suitable screening shrubs between courtyard areas of each unit for privacy,
 - Landscape buffer zone between the private open space terrace areas and any common open space areas for privacy
 - Acoustic fencing to create privacy

Public Domain Areas:

Public domain works with this residential flat building development will include street improvement works to John T Bell Drive and Matfen Close.

These public domain improvement works will include the following:

- New in situ concrete footpaths to Council standards
- New tree planting & verge planting to Council standards

Location of all verge plantings will be in respect to street amenity, existing/proposed services, infrastructure and on street car parking.

Planting Design Strategy:

The planting design strategy for this residential flat building development to include the following:

- Tree planting within appropriate deep soil zones to reduce bulk & scale of the development
 - Evergreen tree planting to provide shade & amenity
 - A broad planting palette to include a variety native species & exotic species to provide colour, texture, aroma & form
 - Implementation of some endemic indigenous species to encourage canopy corridor links and biodiversity
- With the proposed landscape design for this development we would implement the following safety planting initiatives:
- Avoid planting tree species that are prone to potential limb drop
 - Avoid planting species close to paths and hard paved areas that are known for excessive flower and foliage drop that may cause potential slip hazards
 - Avoid planting species that are known for invasive root structure that may cause damage to existing infrastructure and damage paths & hard paved areas, which may cause potential trip hazards
 - Avoid planting species that are known to be toxic or may cause respiratory, allergy and/ or skin irritations

Shrub species, sizing & locations are to ensure that passive surveillance is maintained at building, carpark & driveway entries path and all plantings are to be layered to with smaller groundcovers and shrubs adjacent to paths and buildings in accordance with Crime Prevention Through Environmental Design (CPTED) principles.

All proposed plant species selection has been considered in terms of soil types, species hardiness and on-going watering maintenance requirements. Predominantly low water use species (both native & exotic) have been grouped in regard to watering requirements and to reduce reliance on use of potable water.

xeriscapes

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PROJECT

LAHC MARYLAND DEVELOPMENT
38-40 JOHN T BELL DRIVE, MARYLAND NSW 2287

DRAWING NAME

COVER SHEET

CLIENT LAHC

PROJECT NO 20129

DRAWING NO DA-L000

SCALE NA

REVISION E

DATE 03.09.2022

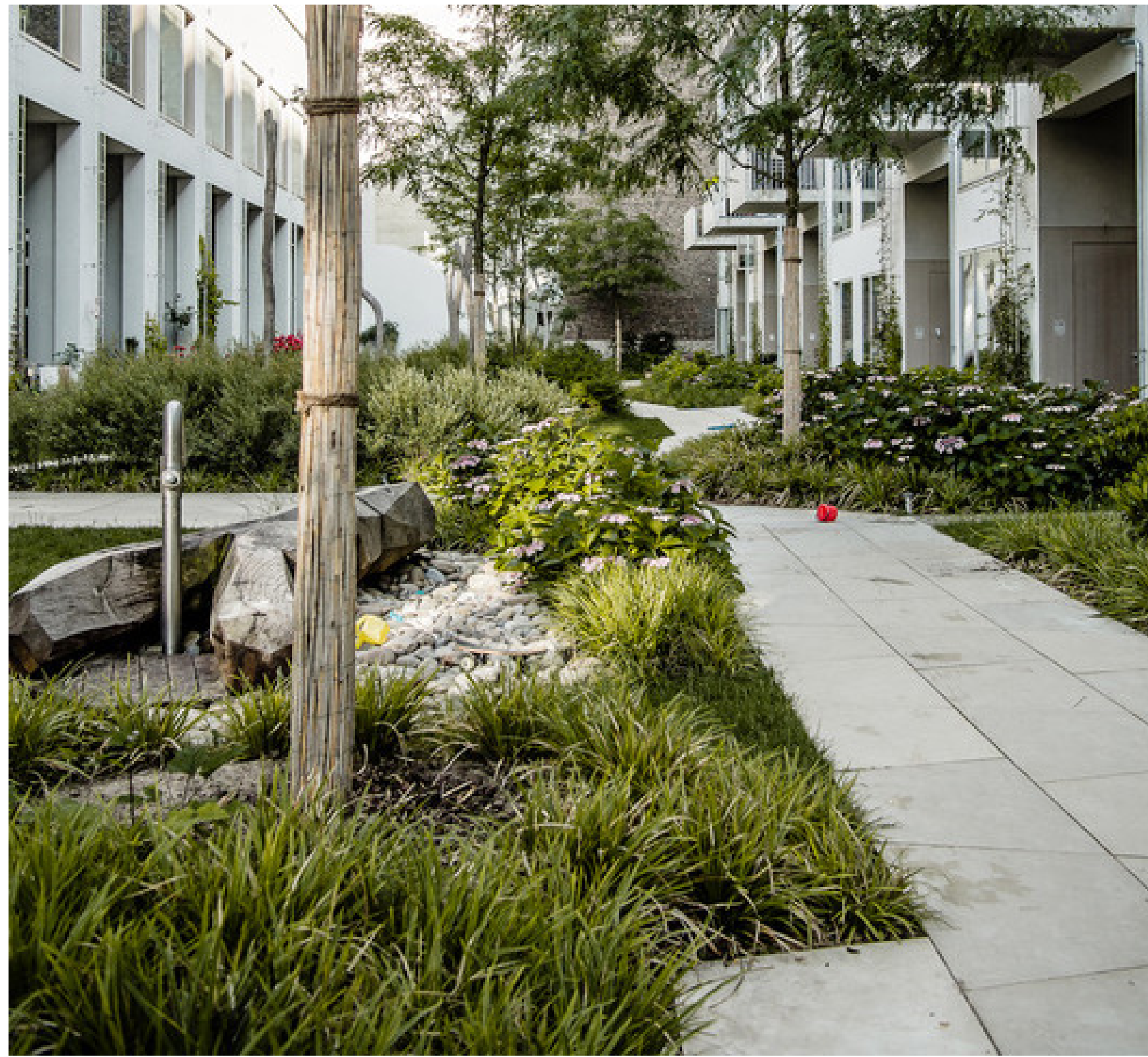
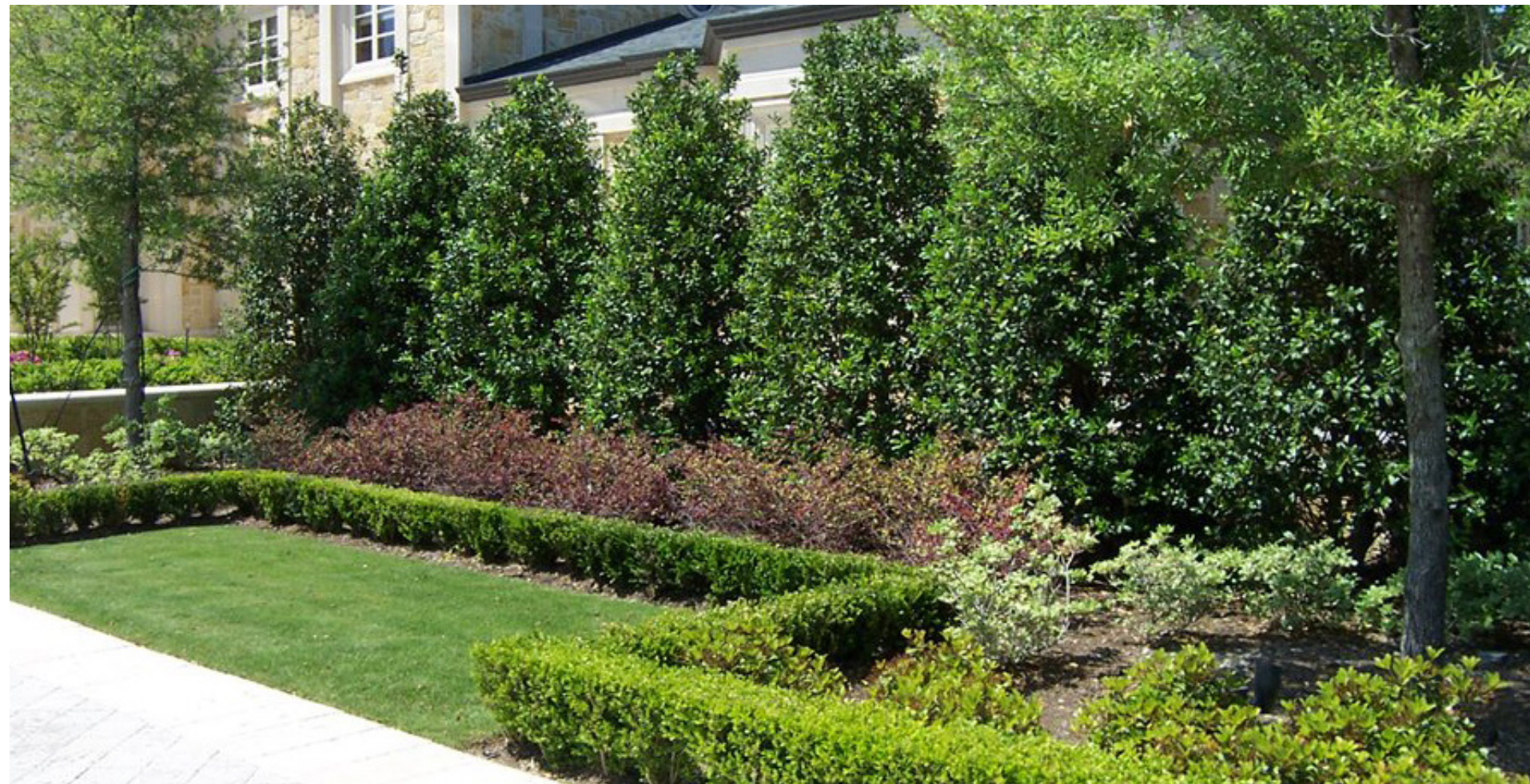
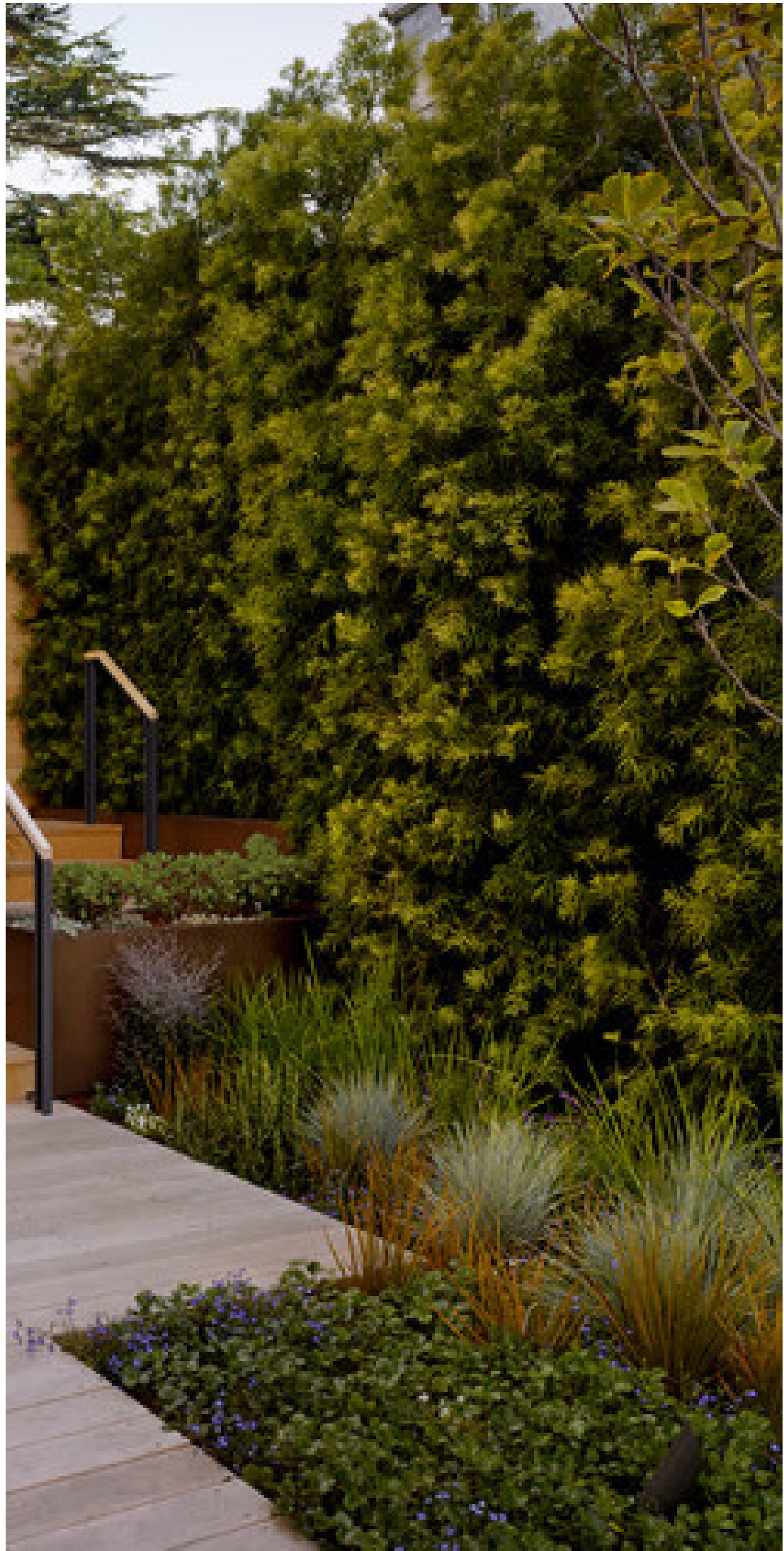
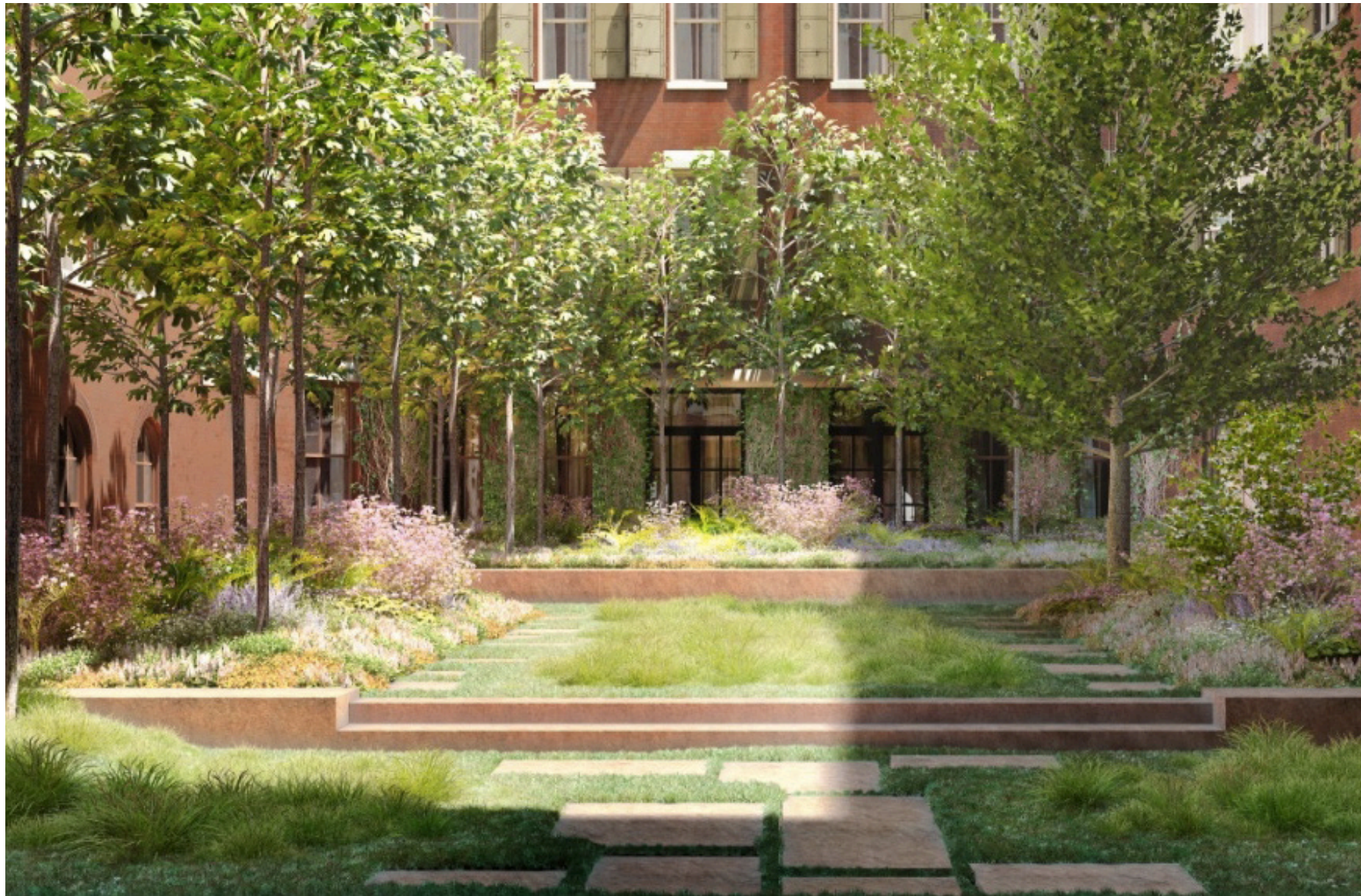
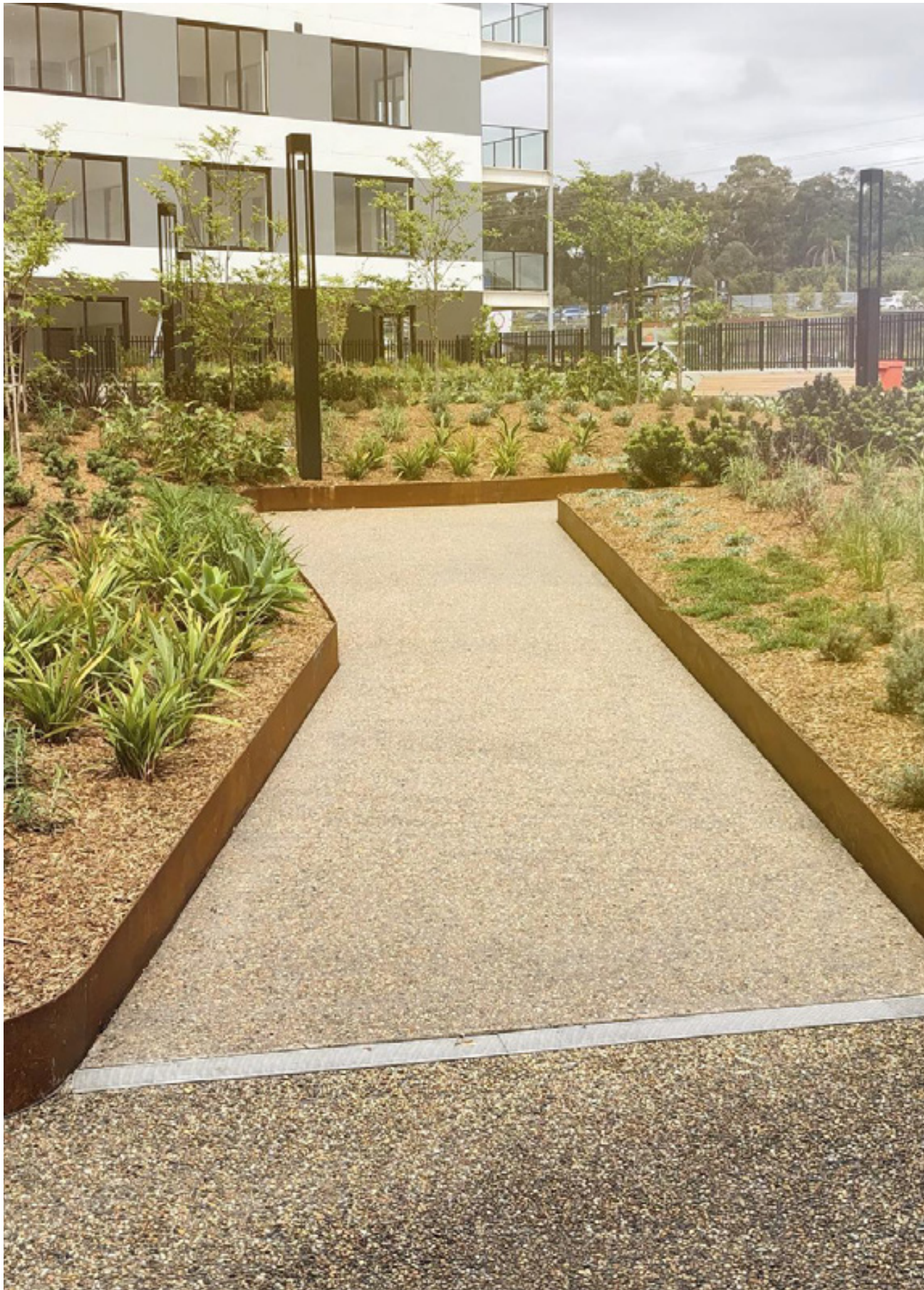




Image	Botanical Name	Common Name	Mature Height (m.)	Mature Spread (m.)	Pot Size	Comments	Soil Types *
Street Trees							
01	<i>Backhousia citriodora</i>	Lemon Myrtle	5-10	2-5	75L	Stakes and ties	S C L
02	<i>Callistemon salignus</i> **	Weeping Paperbark Tree	6	6	45L		
03	<i>Callistemon viminalis</i> **	Weeping Bottlebrush	5	5	45L		
04	<i>Cupaniopsis anacardioides</i> **	Tuckeroo	8	7	75L	Stakes and ties	S C L
	<i>Waterhousia floribunda</i> 'Sweeper'***	Weeping Lilly Pilly	10	7	75L	Stakes and ties	S L
Shade Amentity Trees							
<i>Backhousia citriodora</i> **							
05	<i>Corymbia ficifolia</i> 'Orange Splendour'	Dwarf Flowering Gum	5-10	2-5	75L	Stakes and ties	S C L
06	<i>Elaeocarpus reticulatus</i> **	Blueberry Ash	6	4-6	45L	Stakes and ties	S L
07	<i>Tristaniopsis luscious</i> '	Luscious Water Gum	10	5-8	45L	Stakes and ties	S C L
			8	5	75L	Stakes and ties	S L
Tall Screen Shrubs > 1.5m							
08	<i>Callistemon linearis</i> **	Narrow-leaved Bottlebrush	3	3	300mm		S C L
	<i>Grevillea</i> 'Honey Gem'	Spider Flower Grevillea	4	3	300mm		S C L
	<i>Leucospermum cordifolium</i>						
09	'Scarlet Ribbon'	Scarlet Ribbon	2	1.5	300mm		L S
10	<i>Syzigium australe</i> 'Straight & Narrow'	Narrow Lilly Pilly	5-8	1-1.5	300mm		S C L
11	<i>Viburnum odoratissimum</i>	Dense Fence	2.5	2	300mm		S C L
Shrubs < 1.5m							
<i>Callistemon</i> 'Better John'							
12	<i>Grevillea</i> 'Crimson Villa'	Better John Bottlebrush	1.2	0.9	200mm		S C L
		Crimson Villa	0.7	0.7	200mm		S C L
13	<i>Raphiolepis indica</i> 'Apple Blossom'	Apple Blossom Hawthorn	1	1	200mm		S C L
	<i>Westringia fruticosa</i> 'Zena'	Westringia 'Zena'	1.2	1.2	200mm		S C L
Mass Planted Groundcovers							
14	<i>Alternanthera dentata</i> 'Little Ruby'	Littly Ruby	0.5	0.5	140mm		S C L
15	<i>Convolvulus cneorum</i>	Silver Bush	0.5	1	140mm		S C L
	<i>Dianella caerulea</i> 'Little Jess'	Little Jess Flax Lily	0.4	0.4	140mm		
16	<i>Dichondra repens</i>	Kidney Weed	0.1	1.5	140mm		
17	<i>Liriope muscari</i> 'Isabella'	Isabella Fine Leaf Liriope	0.4	0.5	140mm		
	<i>Myoporum parvifolium</i> 'Yareena'	Yareena Creeping Boobialla	0.1	1	140mm		
18	<i>Neomarica gracilis</i>	Walking Iris	0.5	0.5	140mm		
	<i>Poa labillardieri</i> 'Kingsdale'	Blue Tussock Grass	0.45	0.45	140mm		
19	<i>Westringia</i> 'Mundi'	Westringia 'Mundi'	0.6	1.5	140mm		
Low Border Planting							
20	<i>Carex albula</i> 'Frosted Curls'	New Zealand Hair Sedge	0.6	0.6	140mm		
21	<i>Chrysocephalum apiculatum</i> 'Desert Flame'	Yellow Buttons	0.5	0.3	140mm		
22	<i>Lomandra labill</i>	Evergreen Baby	0.45	0.45	140mm		
	<i>Stachys byzantina</i>	Lambs Ears	0.5	0.5	140mm		
Shade Tolerant Planting							
23	<i>Asplenium australasicum</i>	Birds Nest Fern	1	1	140mm		
	<i>Blechnum nudum</i>	Fishbone Water Fern	0.7	0.5	140mm		
	<i>Macrozamia communis</i>	Burrawang	1	1.5	140mm		
24	<i>Philodendron</i> 'Xanadu'	Xanadu Dwarf Philodendron	0.8	0.8	140mm		
	<i>Pteris tremula</i>	Tender Brake	1	0.8	140mm		
	<i>Dianella caerulea</i> 'Little Jess'	Little Jess Flax Lily	0.4	0.4	140mm		
	<i>Doodia aspera</i>	Rasp Fern	0.2	0.4	140mm		
	<i>Aspidistra elatior</i>	Cast Iron Plant	0.7	0.5	140mm		
	<i>Viola hederacea</i>	Native Violet	0.1	0.3	140mm		
Climbers							
25	<i>Cissus antarctica</i>	Kangaroo Vine	6		140mm		
	<i>Pandorea jasminoides</i>	Bower of Beauty	5		140mm		
	<i>Pyrostegia venusta</i>	Orange Trumpet Vine	10		140mm		

***Soil Types**
(S) Sandy, (C) Clay, (L) Loamy Soils

****Species Selection:**
As per suggested species list on the *Ornamental Native Tree Species suitable for growing in the Cumberland City Council Local Government Area (LGA)* report



LAHC MARYLAND

38 - 40 JOHN T BELL DRIVE MARYLAND, NSW
CIVIL DA PACKAGE



LOCALITY PLAN

IMAGE SOURCE : GOOGLE EARTH

DRAWING LIST

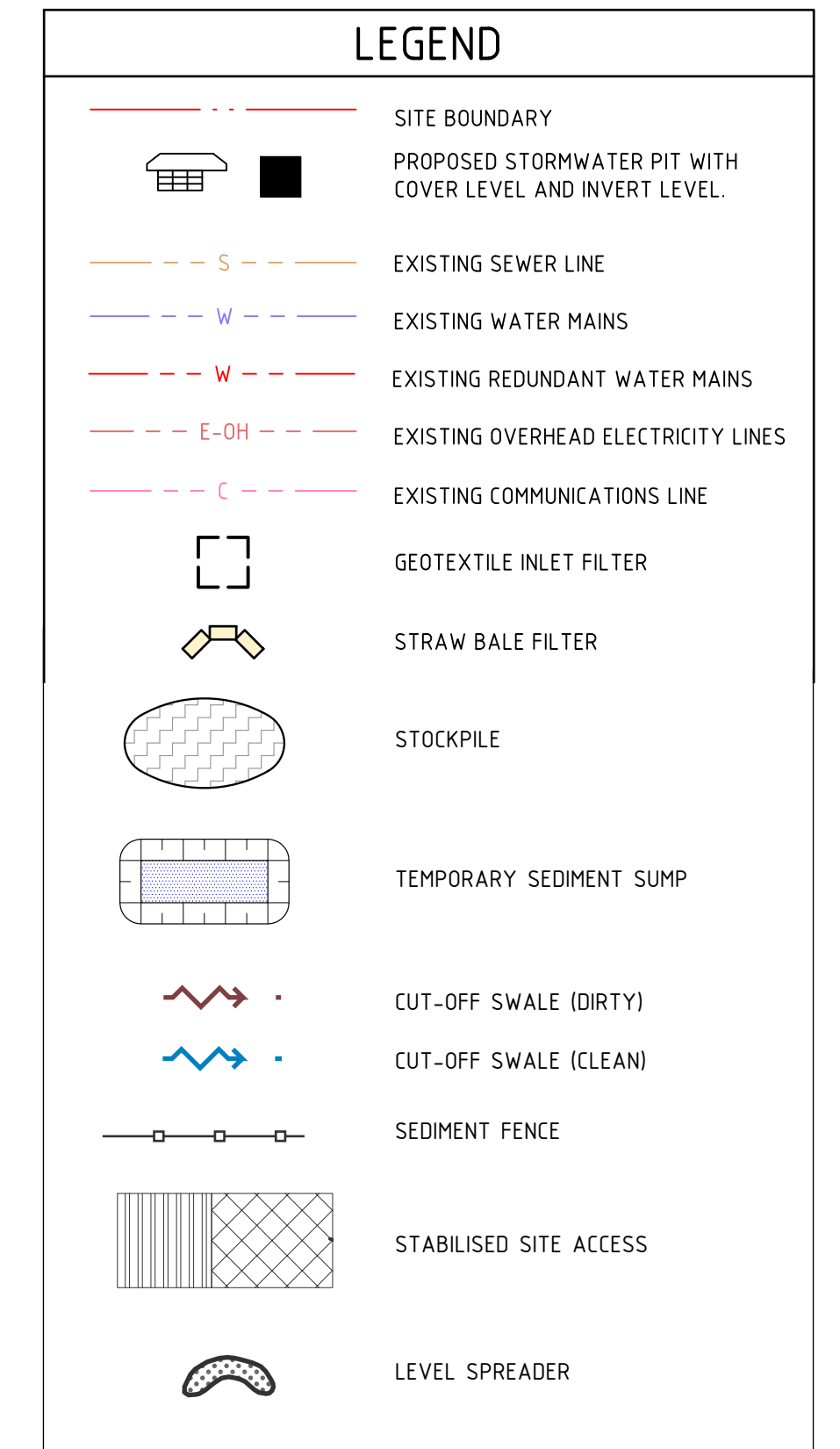
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DA.C02	EROSION AND SEDIMENT CONTROL PLAN
DA.C03	EROSION AND SEDIMENT CONTROL DETAILS
DA.C04	CIVIL STORMWATER AND LEVELS PLAN
DA.C05	CIVIL STORMWATER PHILOSOPHY AND DETAILS

DRAWN: J LEWIS
DESIGNED: E GEARING
JOB MANAGER: K SINCLAIR
VERIFIER: K SINCLAIR



NOT FOR CONSTRUCTION

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE	CLIENT	ARCHITECT	PROJECT	DRAWING TITLE	JOB NUMBER
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A	ISSUED FOR APPROVAL	BD	KS	EG	19.07.2022					
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										REVISION A
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EROSION AND SEDIMENT CONTROL PLAN

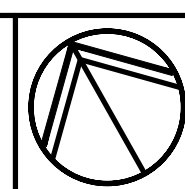
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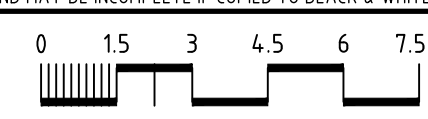


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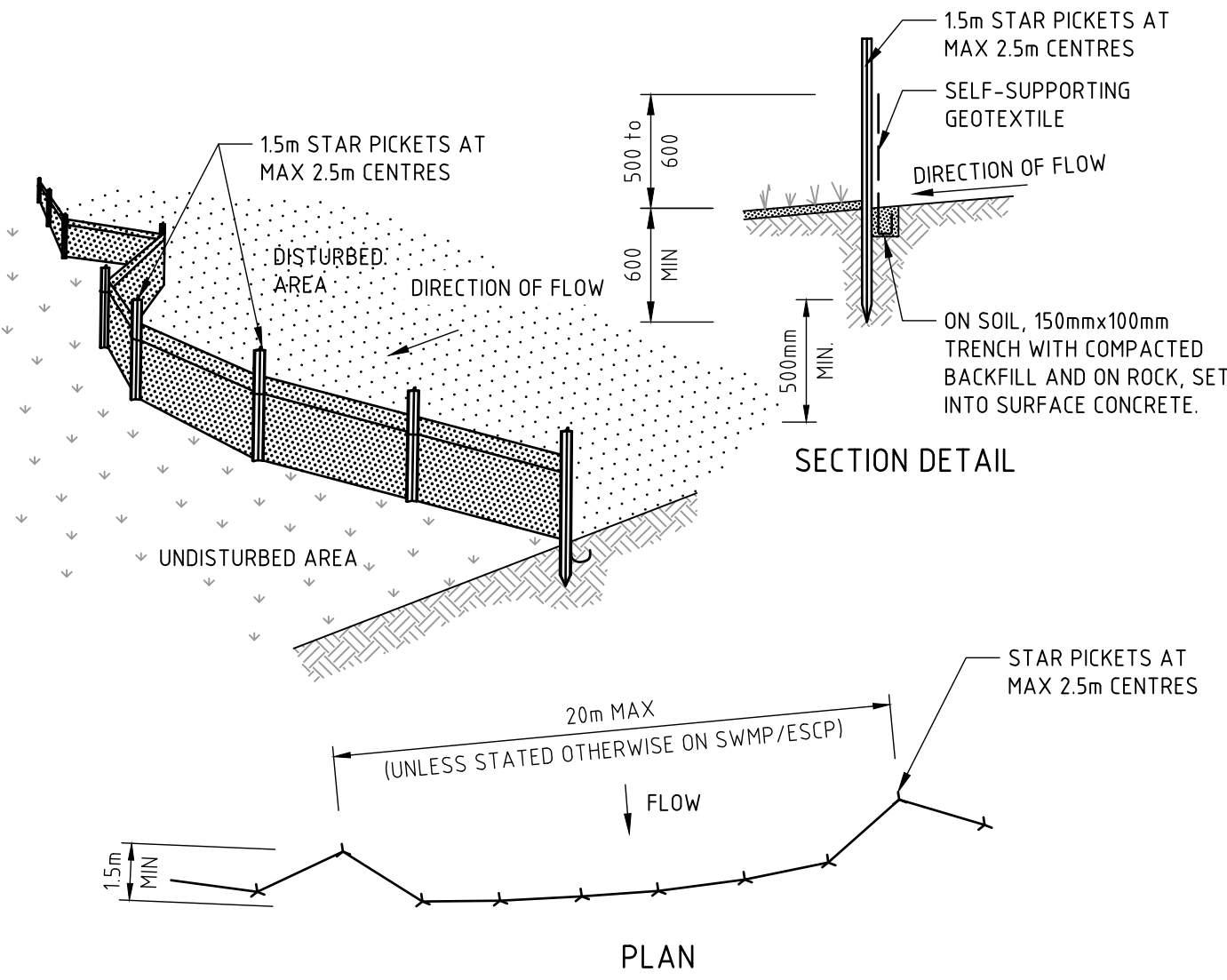


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ABN 81 094 433 100

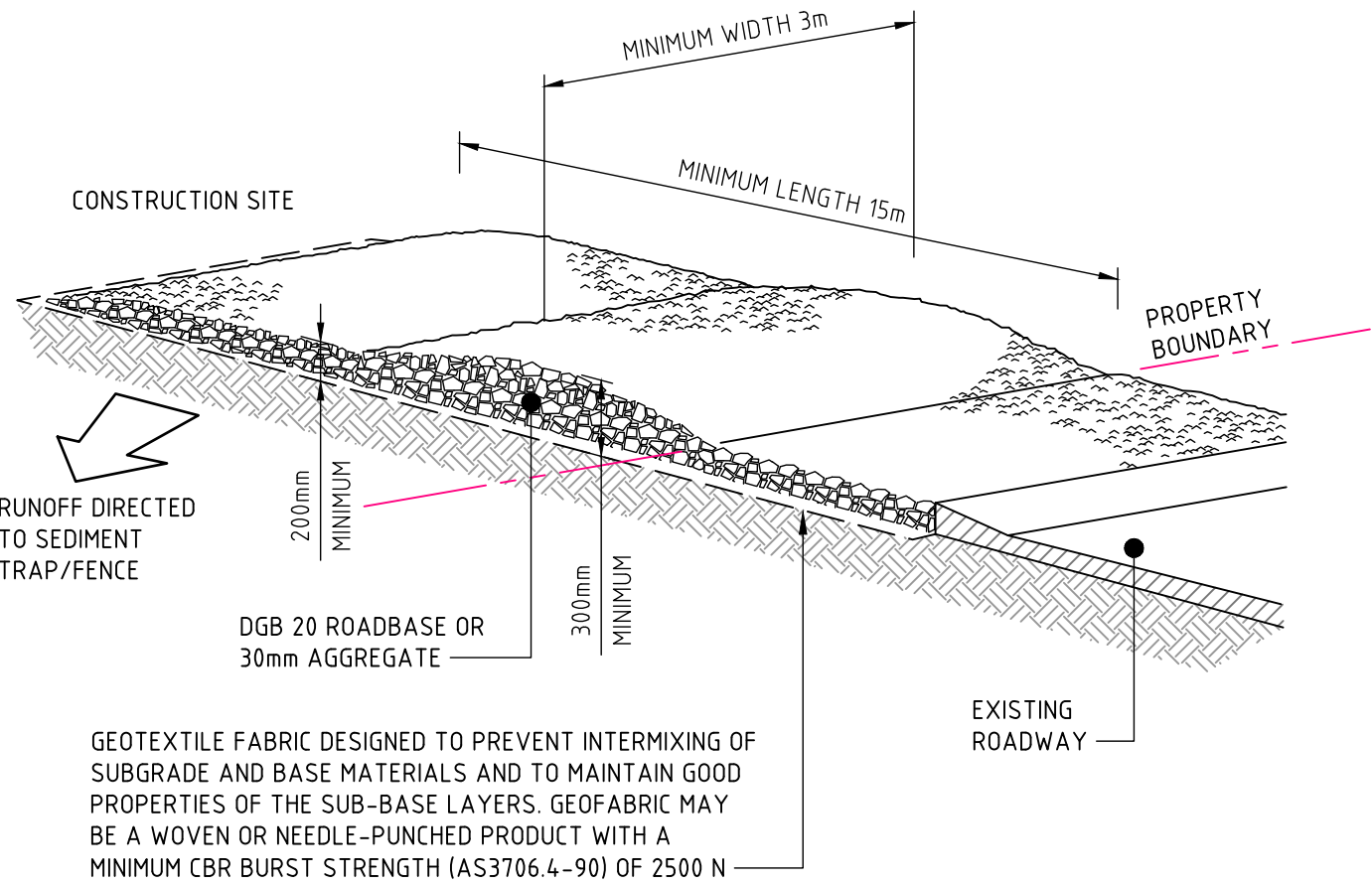
38 - 40 JOHN T BELL DRIVE
MARYLAND, NSW



CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND AT 2.5 METRE INTERVALS (MAX) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.
6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

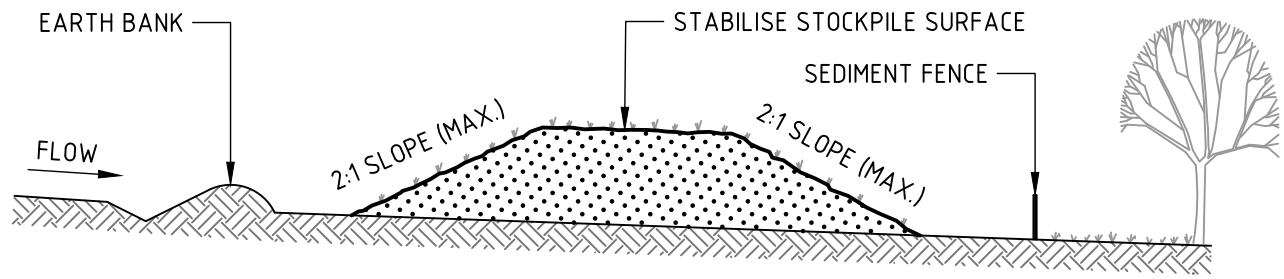
SEDIMENT FENCE (SD 6-8)



CONSTRUCTION NOTES

1. STRIP THE TOPSOIL, LEVEL THE SITE AND COMPACT THE SUBGRADE.
2. COVER THE AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
3. CONSTRUCT A 200mm THICK PAD OVER THE GEOTEXTILE USING ROAD BASE OR 30mm AGGREGATE.
4. ENSURE THE STRUCTURE IS AT LEAST 15 METRES LONG OR TO BUILDING ALIGNMENT AND AT LEAST 3 METRES WIDE.
5. WHERE A SEDIMENT FENCE JOINS ONTO THE STABILISED ACCESS, CONSTRUCT A HUMP IN THE STABILISED ACCESS TO DIVERT WATER TO THE SEDIMENT FENCE.

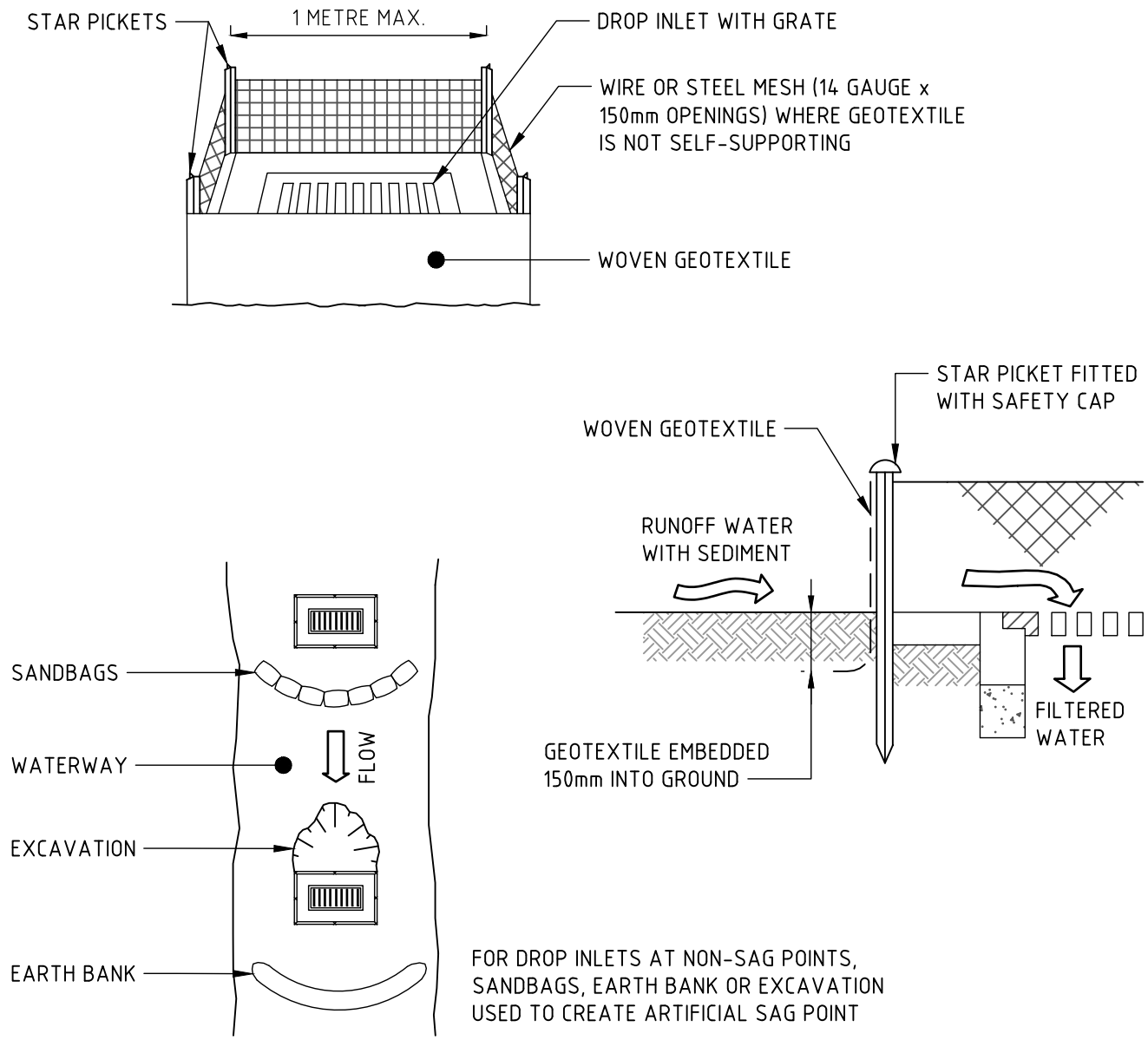
STABILISED SITE ACCESS (SD 6-14)



CONSTRUCTION NOTES

1. PLACE STOCKPILES MORE THAN 2m (PREFERABLY 5m) FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE THEY ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED ESCP OR SWMP TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS (STANDARD DRAWING 5-5) ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES (STANDARD DRAWING 6-8) 1 TO 2m DOWNSLOPE.

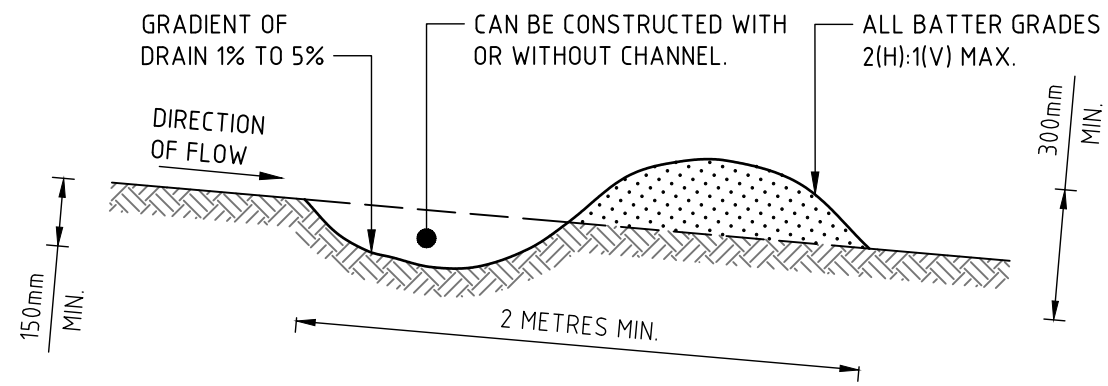
STOCKPILES (SD 4-1)



CONSTRUCTION NOTES

1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
2. FOLLOW STANDARD DRAWING 6-7 AND STANDARD DRAWING 6-8 FOR INSTALLATION PROCEDURES FOR THE STRAW BALES OR GEOTEXTILE. REDUCE THE PICKET SPACING TO 1 METRE CENTRES.
3. IN WATERWAYS, ARTIFICIAL SAG POINTS CAN BE CREATED WITH SANDBAGS OR EARTH BANKS AS SHOWN IN THE DRAWING.
4. DO NOT COVER THE INLET WITH GEOTEXTILE UNLESS THE DESIGN IS ADEQUATE TO ALLOW FOR ALL WATERS TO BYPASS IT.

GEOTEXTILE INLET FILTER (SD 6-12)



CONSTRUCTION NOTES

1. BUILD WITH GRADIENTS BETWEEN 1 AND 5 PERCENT.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS SECTIONS, NOT V SHAPED.
5. ENSURE THE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.
EARTH BANK - LOW FLOW (SD 5-5)

VERIFIER: K SINCLAIR
JOB MANAGER: K SINCLAIR
DESIGNED: E GEARING
DRAWN: J LEWIS

REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
1	ISSUED FOR INFORMATION	JL		EG	02.06.2022
A	ISSUED FOR APPROVAL	BD	KS	EG	19.07.2022



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SCALE 1:10 @A1 0.0 0.1 0.2 0.3 0.4 0.5m



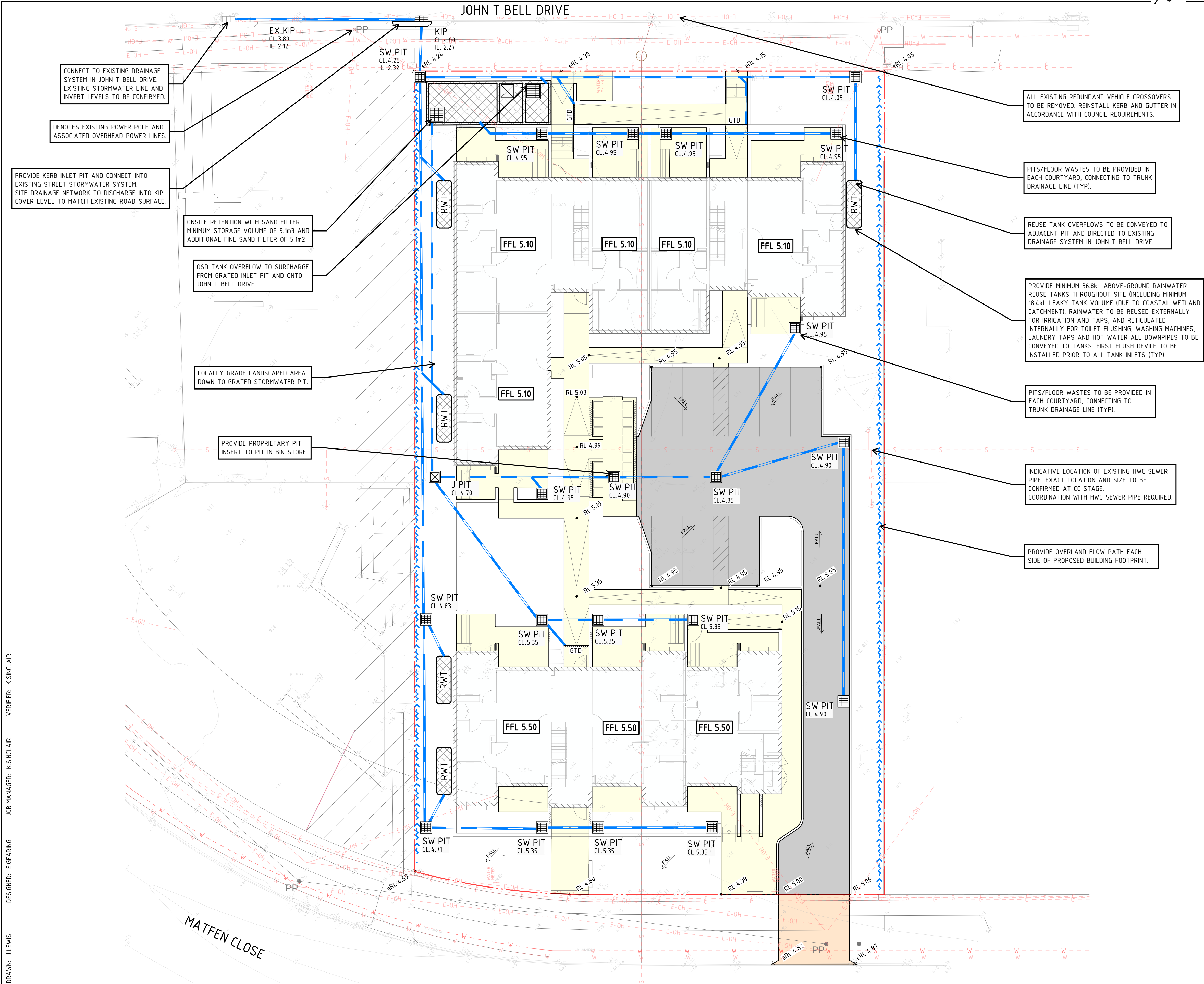
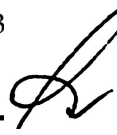
PROJECT
38 - 40 JOHN T BELL DRIVE
MARYLAND, NSW

DRAWING TITLE
EROSION AND SEDIMENT CONTROL
DETAILS



NOT FOR CONSTRUCTION

JOB NUMBER NL202298
DRAWING NUMBER DA.C03
REVISION A
DRAWING SHEET SIZE = A1



LEGEND	
	SITE BOUNDARY
	INDICATIVE EASEMENT LINE
	PROPOSED BUILDING FOOTPRINT. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
	PROPOSED VEHICULAR DRIVEWAY PAVEMENT.
	PROPOSED VEHICULAR DRIVEWAY CROSSOVER AS PER COUNCIL SPECIFICATIONS.
	PROPOSED PEDESTRIAN PAVEMENT.
	PROPOSED BUILDING FINISHED FLOOR LEVEL
	PROPOSED STORMWATER PIPE
	PROPOSED RAINWATER HARVESTING TANK
	PROPOSED STORMWATER PIT WITH COVER LEVEL.
	ON-SITE DETENTION AND SAND FILTER TANK.
	EXISTING SEWER LINE
	EXISTING WATER MAINS
	EXISTING REDUNDANT WATER MAINS
	EXISTING OVERHEAD ELECTRICITY LINES
	EXISTING COMMUNICATIONS LINE
	EXISTING SPOT HEIGHT
	PROPOSED SPOT HEIGHT
	DIRECTION OF FALL IN SURFACE LEVEL
	EXISTING STORMWATER PIT
	GRATED TRENCH DRAIN
	MAJOR STORM EVENT OVERLAND FLOW PATH

VERIFIER: K SINCLAIR
JOB MANAGER: K SINCLAIR
DESIGNED: E GEARING
DRAWN: J LEWIS



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REVISION	DESCRIPTION	ISSUED	VER'D	APP'D	DATE
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2	ISSUED FOR INFORMATION	JL		EG	02.06.2022
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B	ISSUED FOR APPROVAL	JK	KS	EG	06.09.2022

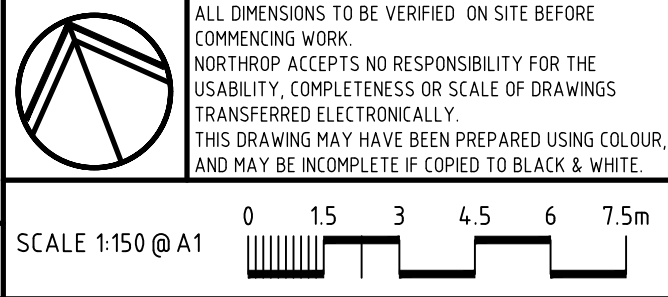
Family & Community Services
Land & Housing Corporation

CKDS
Architects & Planning

NORTHROP
Newcastle
Level 1, 215 Pacific Hwy, Charlestown NSW 2290
Ph (02) 4943 1777 Email newcastle@northrop.com.au
ABN 81 094 433 100

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ABN 81 094 433 100

PROJECT
38 - 40 JOHN T BELL DRIVE
MARYLAND, NSW

DRAWING TITLE
CIVIL STORMWATER AND
LEVELS PLAN

JOB NUMBER NL202298	
DRAWING NUMBER DA.C04	REVISION B
DRAWING SHEET SIZE = A1	

CONCEPT STORMWATER MANAGEMENT SUMMARY

LGA: CITY OF NEWCASTLE (CN)

NORTHROP CONSULTING ENGINEERS HAVE PREPARED A CONCEPT STORMWATER DRAINAGE DESIGN FOR THE PROPOSED DEVELOPMENT AT 38-40 JOHN T BELL DRIVE AND 31-33 MATFEN CLOSE, MARYLAND. THE PROPOSED MANAGEMENT PLAN HAS BEEN DEVELOPED IN ACCORDANCE WITH THE CN'S DEVELOPMENT CONTROL PLAN, CN'S STORMWATER AND WATER EFFICIENCY FOR DEVELOPMENT TECHNICAL MANUAL AND AS3500.3:2015 PLUMBING AND DRAINAGE - STORMWATER DRAINAGE.

THE SITE CURRENTLY CONTAINS 4 SINGLE STOREY BUILDINGS ACROSS FOUR LOTS (LOT 111, 112, 116 AND LOT 117 DP253956), WITH A TOTAL AREA OF 2340m2 AND IS LOCATED WITHIN THE SEPP 14 WETLANDS CATCHMENT. THE DEVELOPMENT PROPOSES THE CONSTRUCTION OF A 2-STOREY AFFORDABLE HOUSING BUILDING WITH ASSOCIATED LANDSCAPING AND HARDSTAND. A VEHICLE ACCESS POINT IS PROPOSED FROM MATFEN CLOSE WITH PEDESTRIAN ACCESS ALSO PROPOSED FROM BOTH THE MATFEN CLOSE AND JOHN T BELL DRIVE FRONTAGES.

STORMWATER RUNOFF FROM THE ROOF AREA IS PROPOSED TO BE CONVEYED TO ABOVE GROUND REUSE TANKS WITH LEAKY TANK VOLUME. RUNOFF FROM DRIVEWAY AND LANDSCAPING AREAS IS PROPOSED TO BE CONVEYED TO A BELOW GROUND OSD TANK WITH SAND FILTER LOCATED ADJACENT JOHN T BELL DRIVE. CAPTURED RUNOFF IS ULTIMATELY PROPOSED TO BE DISCHARGED TO THE EXISTING DRAINAGE NETWORK WITHIN JOHN T BELL DRIVE.

1. STORAGE REQUIREMENTS

TOTAL SITE AREA	= 2330 m2
TOTAL ROOF AREA TO REUSE TANK	= 920 m2
TOTAL HARDSTAND AREA TO OSD	= 550 m2
TOTAL LANDSCAPE TO OSD	= 90 m2
TOTAL IMPERVIOUS AREA	= 1570 m2
TOTAL PERVIOUS AREA	= 760 m2
SITE IMPERVIOUS PERCENTAGE	= 67.4%

IN ACCORDANCE WITH THE CN 2012 DCP, SECTION 7.06 (STORMWATER), FIGURE 1, A MINIMUM OF 16.52mm/m2/ OF RAINFALL IS TO BE CAPTURED FROM THE SITE'S IMPERVIOUS AREA TO MANAGE PEAK RUNOFF.

TOTAL SITE STORAGE REQUIREMENT	= 16.52 mm/m2 x 1570 m2
	= 25.94 m3

2. ONSITE HARVESTING/REUSE

TO ACHIEVE THE WETLANDS CATCHMENT REQUIREMENTS, RAINWATER HARVESTING TANKS HAVE BEEN PROPOSED TO COLLECT 100% OF ROOF RUNOFF, WHICH WHEN COMBINED WITH THE PROPOSED OSD VOLUME WILL ADEQUATELY SATISFY THE TOTAL SITE STORAGE REQUIREMENT. A COMBINED 36.8m3 (0.04 x 920m2) OF REUSE TANKS HAS BEEN PROPOSED WHICH WILL INCORPORATE 18.4m3 REUSE VOLUME AND 18.4m3 LEAKY TANK VOLUME. THE HARVESTED VOLUME IS TO BE RETICULATED INTERNALLY FOR TOILET FLUSHING AND LAUNDRY USE AS WELL AS EXTERNALLY FOR LANDSCAPING IRRIGATION. ALL DOWN PIPES ARE TO BE CONNECTED TO A FIRST FLUSH DEVICE LOCATED PRIOR TO THE TANK INLET.

3. STORMWATER QUANTITY

IN ORDER TO SATISFY CN'S SITE STORAGE VOLUME AN OSD TANK HAS BEEN PROPOSED TO LIMIT PEAK STORMWATER DISCHARGE FROM SITE. 9.1m3 OSD VOLUME IS PROPOSED (16.52 mm/m2 x 550m2), WHICH WHEN COMBINED WITH THE PROPOSED 36.8m3 REUSE VOLUME, SATISFIES THE TOTAL SITE STORAGE REQUIREMENT.

4. STORMWATER QUALITY

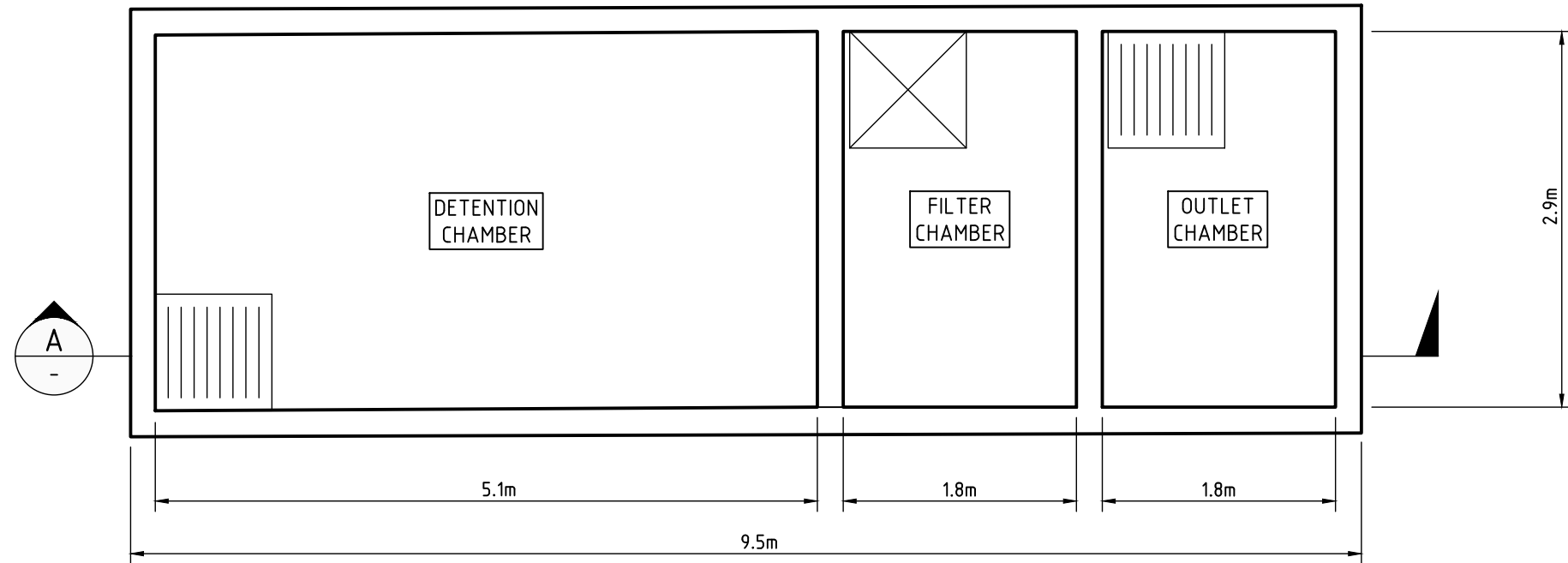
IN ACCORDANCE WITH CN'S DCP WATER QUALITY PROVISIONS HAVE BEEN PROPOSED IN ORDER TO LIMIT ECOLOGICAL IMPACTS OF THE DOWNSTREAM RECEIVING WATER BODIES DUE TO THE DEVELOPMENT. THE NEW ROOF AREA IS PROPOSED TO BE MANAGED BY THE 36.8m3 RAINWATER REUSE TANK DESCRIBED IN SECTION 2 ABOVE. THE REMAINING SITE AREA (HARDSTAND AND LANDSCAPING) IS PROPOSED TO BE CONVEYED TO WATER QUALITY PROVISIONS WITHIN THE OSD TANK. IT IS PROPOSED TO PROVIDE A 5.1m2 IN-TANK SAND FILTER CHAMBER TO POLISH RUNOFF PRIOR TO SITE DISCHARGE.

SAND FILTER AREA REQUIREMENT	= 0.8m2 FILTER AREA PER 100m2 CONTRIBUTING CATCHMENT
	= 0.8m2 x 640m2 /100
	= 5.12m2

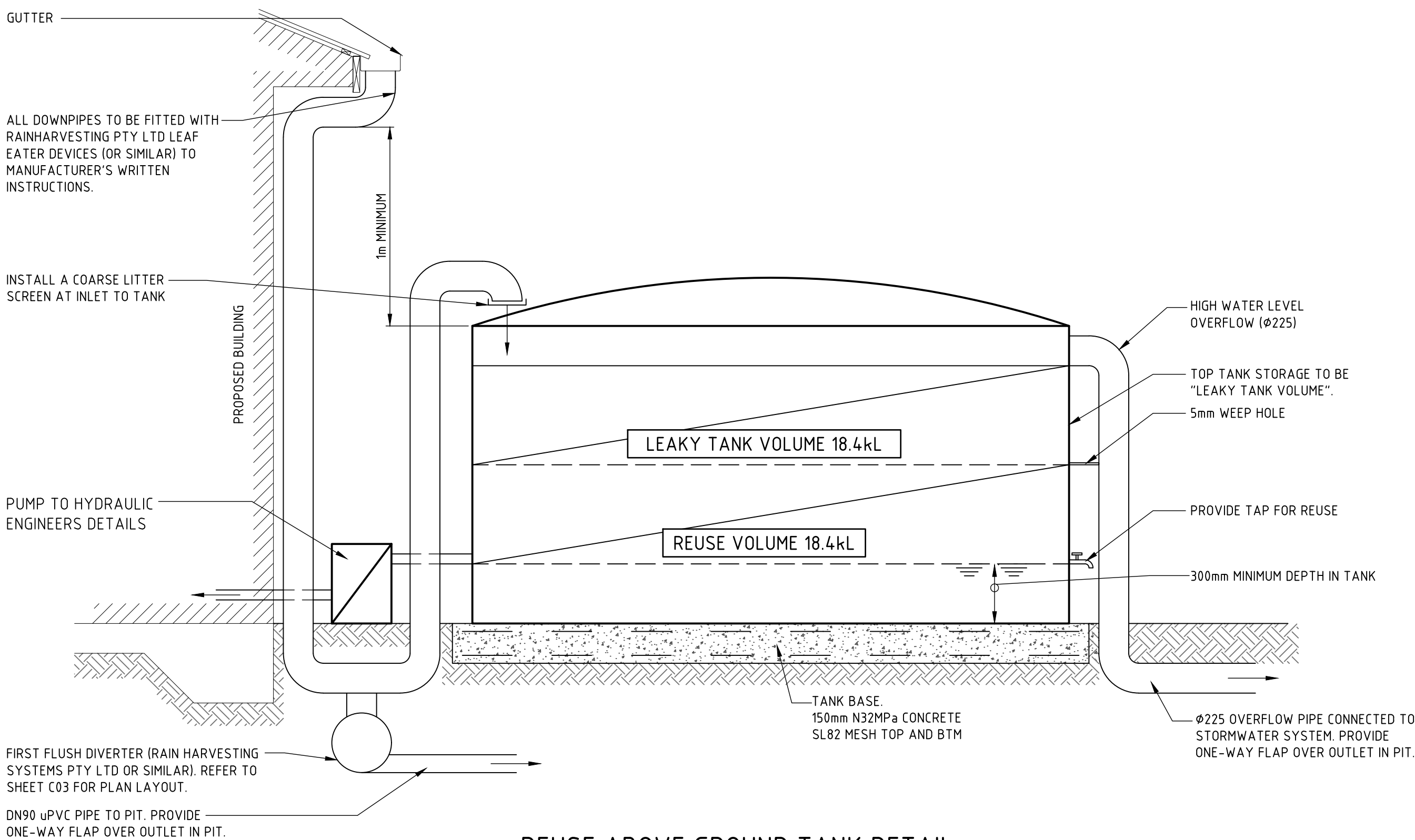
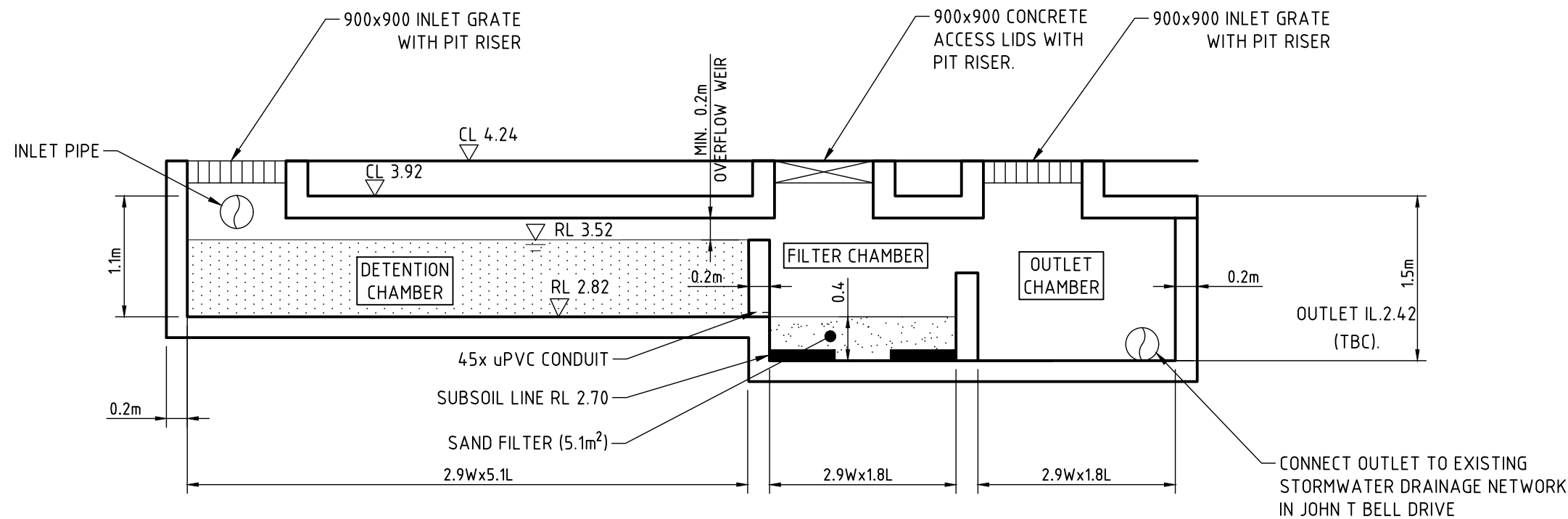
3. FLOODING

THE SITE IS SUBJECT TO FLOODING AND HAS BEEN ADDRESSED IN BMT'S EXISTING FLOOD BEHAVIOUR REPORT. THE RECOMMENDED FPL OF 5.1m FOR LOT 111 AND 112 AND 5.5m FOR LOT 116 AND 117 HAVE BEEN INTEGRATED INTO THE DESIGN.

IT IS CONSIDERED THAT THE PROPOSED STORMWATER MANAGEMENT PLAN ADEQUATELY MEETS THE DESIGN INTENT OF CN'S DCP.



PROPOSED DETENTION AND SAND FILTER TANK - PLAN VIEW



REUSE ABOVE GROUND TANK DETAIL

NOTE: THE ENTIRE PRESSURISED DOWNPIPE SYSTEM SHALL BE AIR TIGHT AND BE ABLE TO WITHSTAND ATMOSPHERIC PRESSURE. THE PIPING SYSTEM SHALL BE MINIMUM SN6 AND FITTINGS WITH INTERNAL ULTRA VIOLET STABILISING (OR APPROVED EQUIVALENT).



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VERIFIER: K SINCLAIR
JOB MANAGER: K SINCLAIR
DESIGNED: E GEARING
DRAWN: J LEWIS

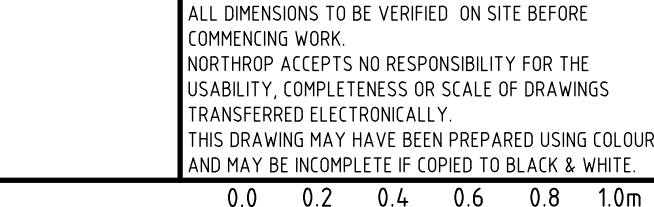
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2	ISSUED FOR INFORMATION	JL		EG	02.06.2022	
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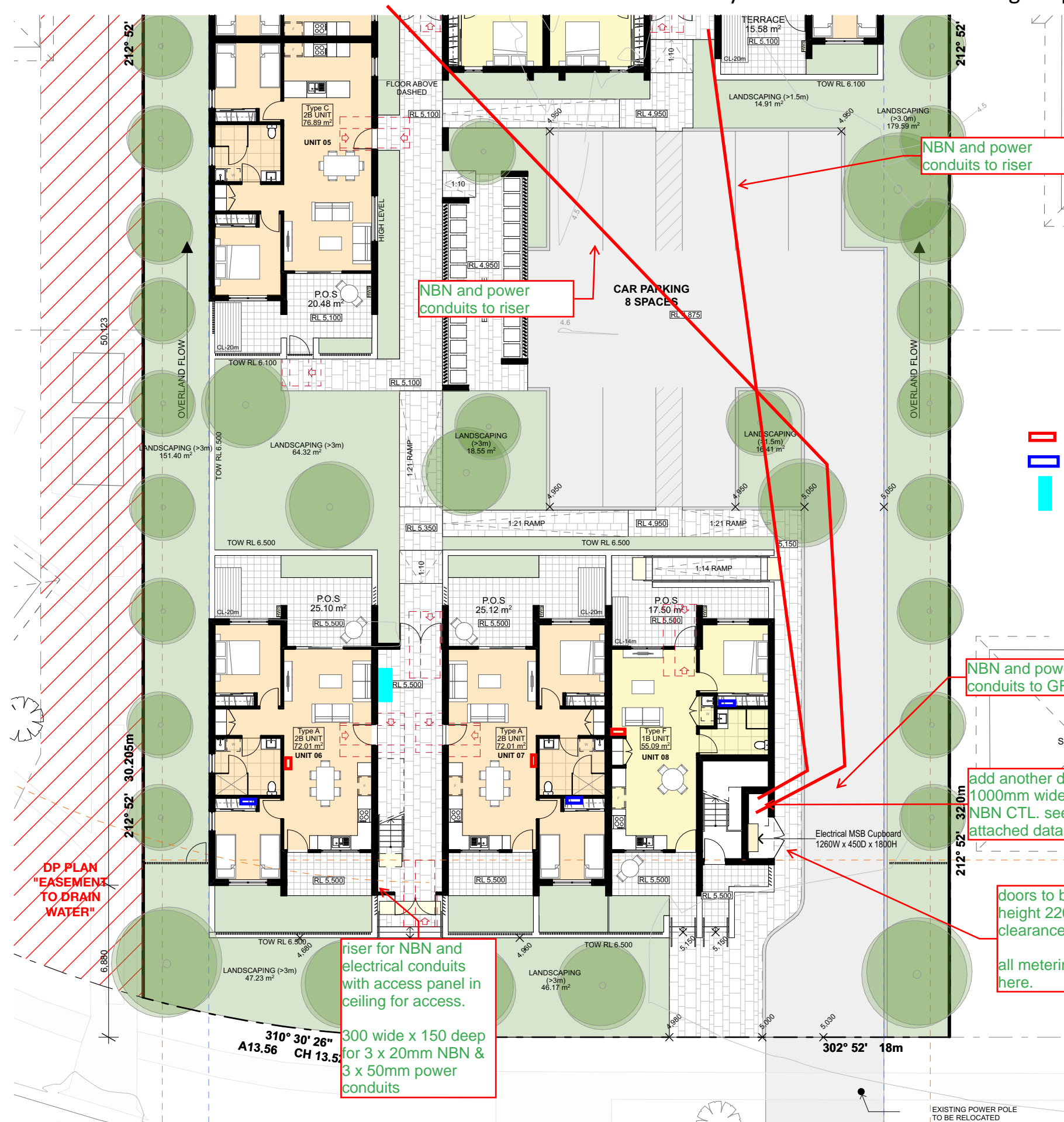
SCALE 1:20 @A1
SCALE 1:50 @A1



PROJECT
38 - 40 JOHN T BELL DRIVE
MARYLAND, NSW

DRAWING TITLE
CIVIL STORMWATER PHILOSOPHY
AND DETAILS

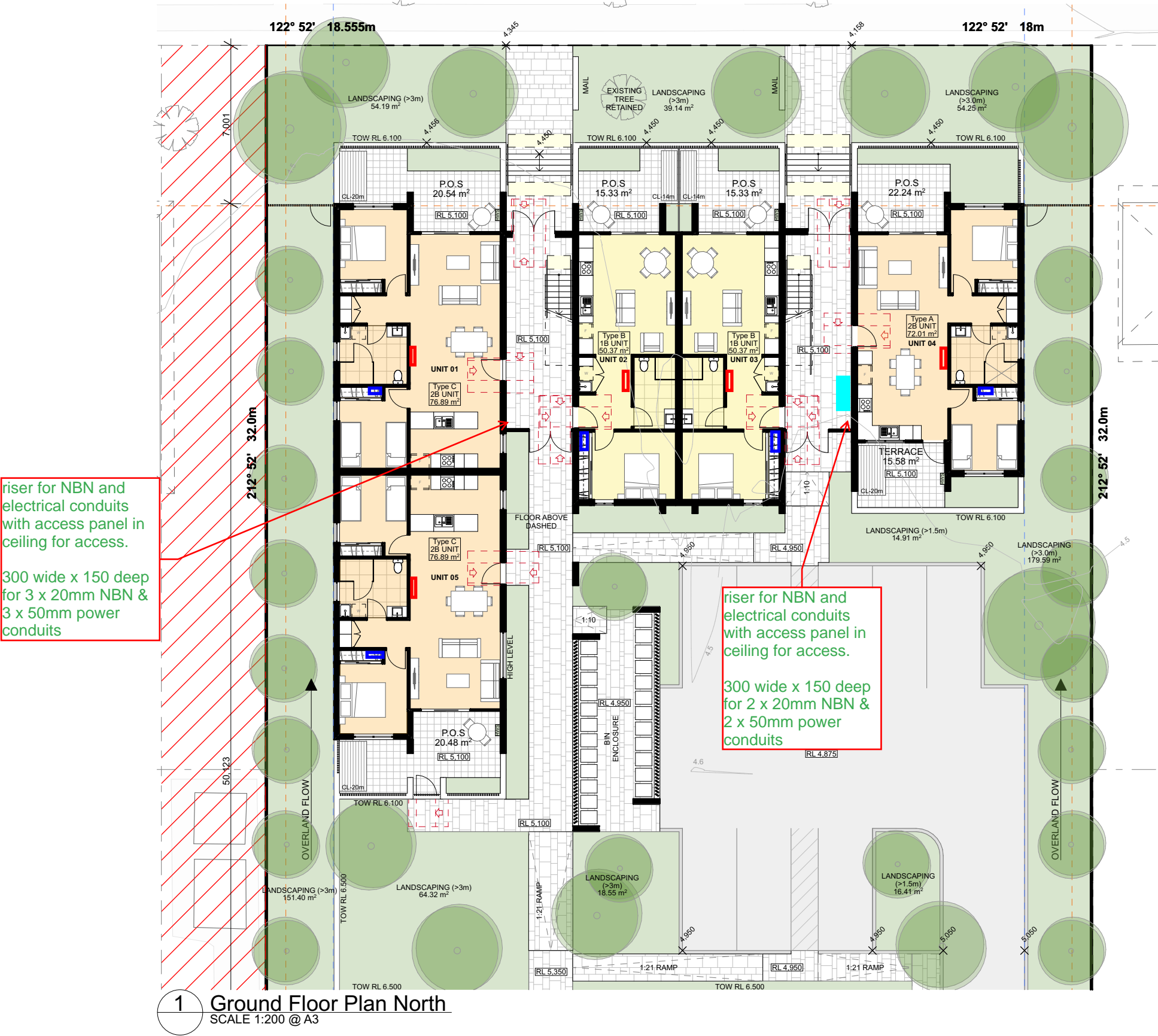
JOB NUMBER NL202298	REVISION B
DRAWING NUMBER DA.C05	
DRAWING SHEET SIZE = A1	



1 Ground Floor Plan South
SCALE 1:200 @ A3

SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 17th MARCH 2021.

Developed Design



SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 17th MARCH 2021.

Developed Design



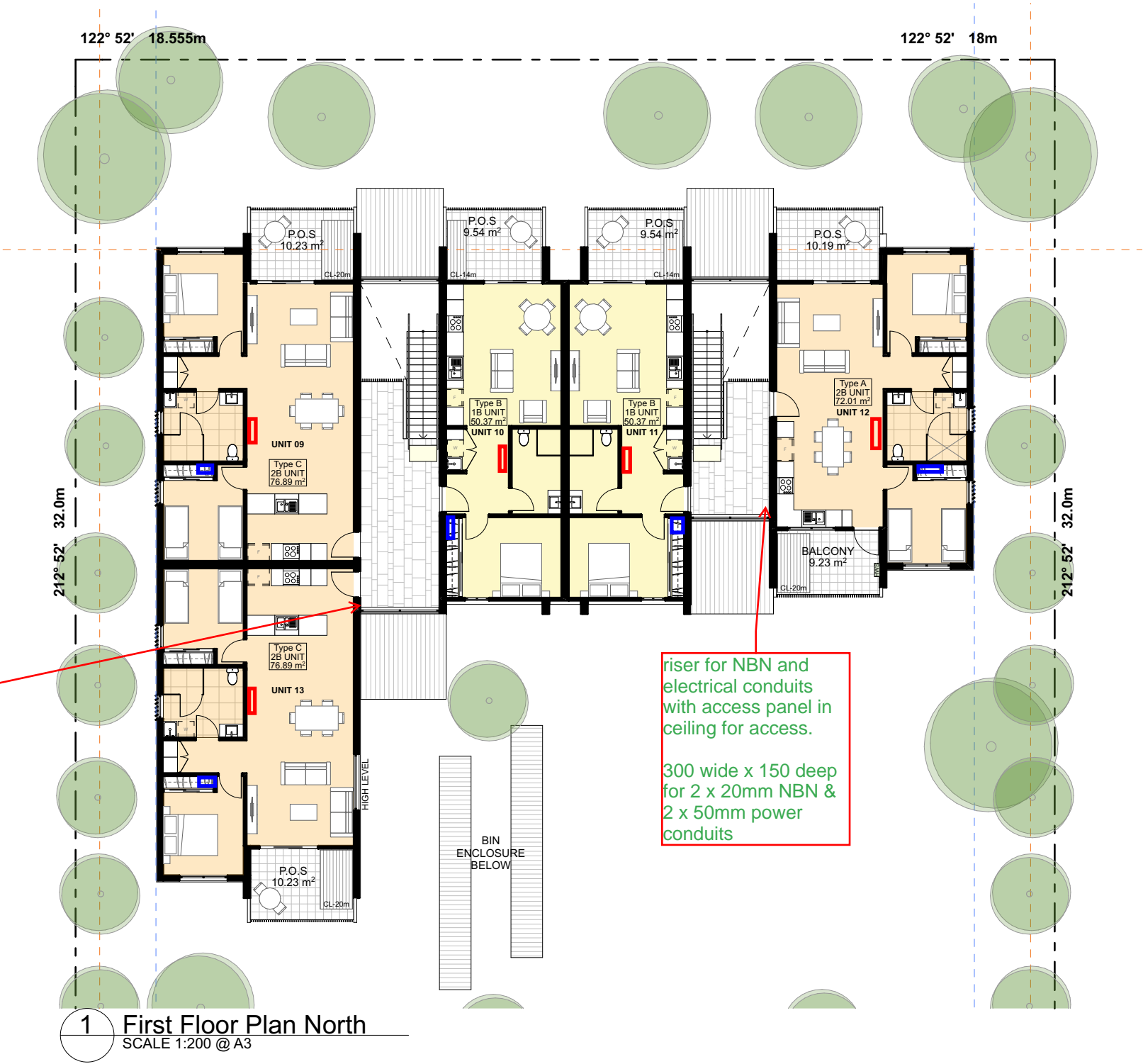


riser for NBN and
electrical conduits
with access panel in
ceiling for access.

300 wide x 150 deep
for 3 x 20mm NBN &
3 x 50mm power
conduits

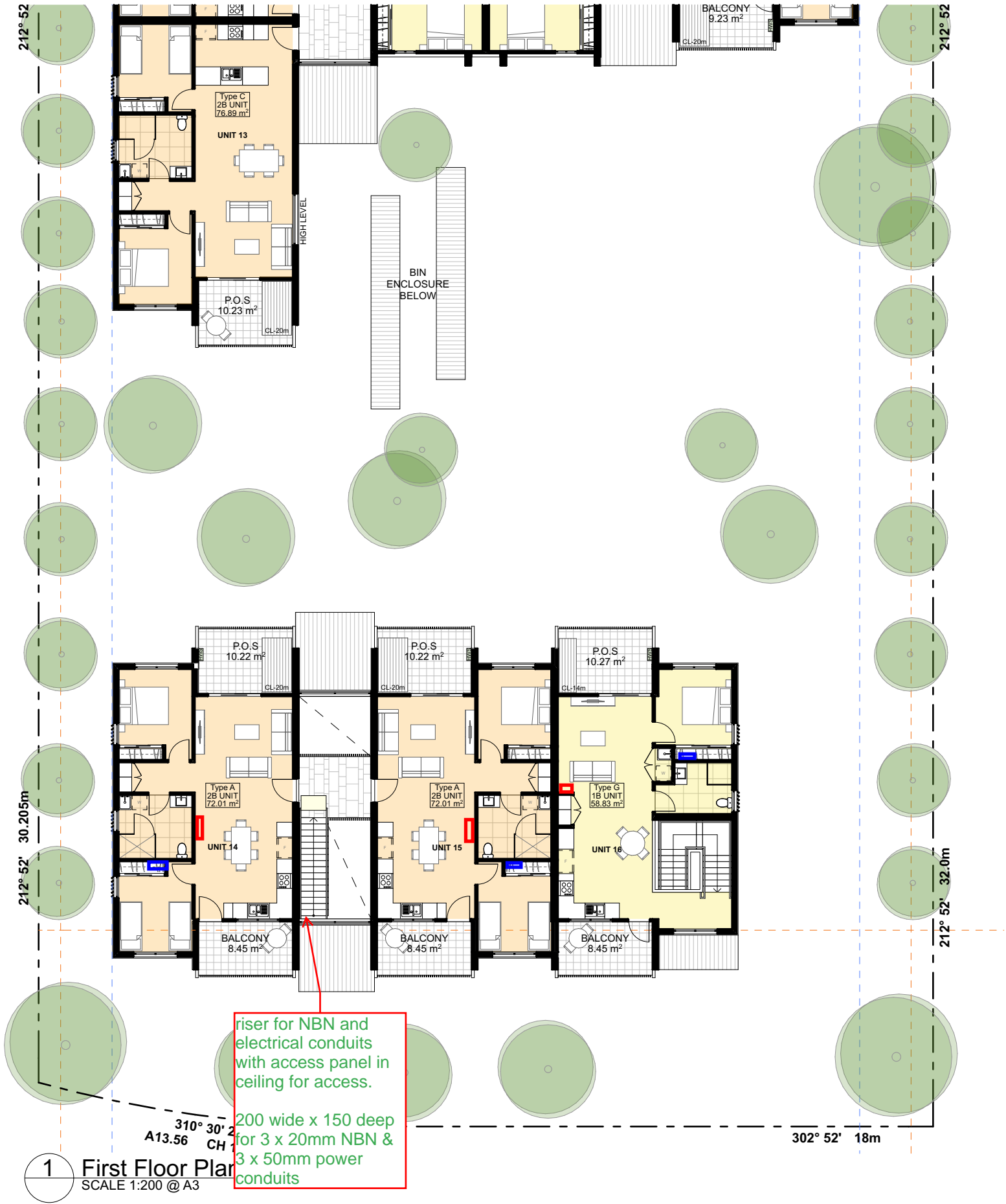
riser for NBN and
electrical conduits
with access panel in
ceiling for access.

300 wide x 150 deep
for 2 x 20mm NBN &
2 x 50mm power
conduits



SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 17th MARCH 2021.





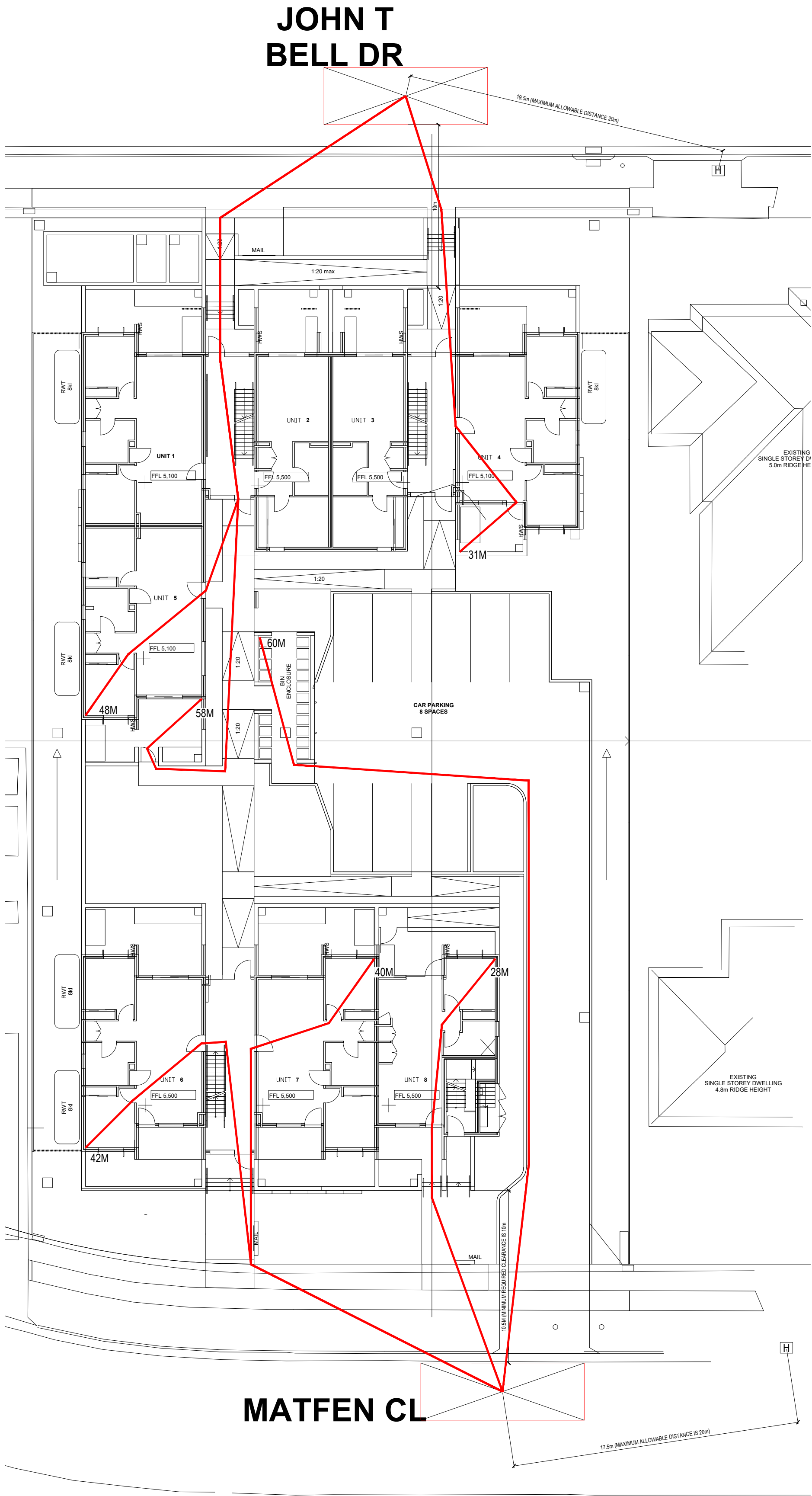
SITE IS FLOOD AFFECTED AS PER
BMT FLOOD BEHAVIOUR REPORT
DATED 17th MARCH 2021.

Developed Design



NOTE: THE ENTIRE PLUMBING INSTALLATION IS TO COMPLY WITH THE FULL REQUIREMENTS OF THE LOCAL REGULATORY AUTHORITY, A.S.3500 AND THE PLUMBING AND THE BUILDING CODES OF AUSTRALIA.

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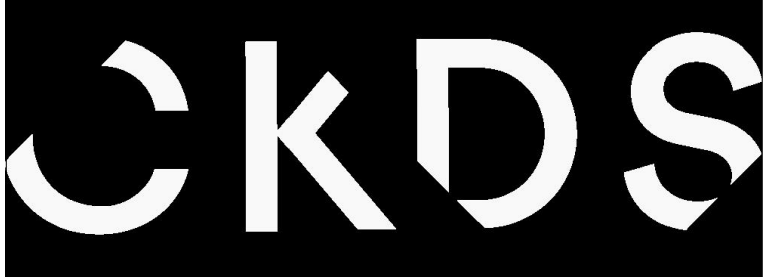
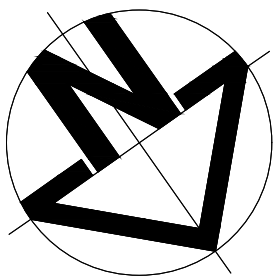


GROUND FLOOR



FIRST FLOOR

1:200 @A1		
0M 10M 20M 30M		
GENERAL NOTES: 1. THE DRAWING ISSUED IS DIAGRAMMATIC. DO NOT SCALE. USE FIGURED DIMENSIONS ONLY. REFER TO ARCHITECTURAL DRAWINGS WHERE APPROPRIATE FOR EXACT LOCATION OF FIXTURES, DUCTS AND THE LIKE. THE DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER DOCUMENTS FORMING THE PROJECT DOCUMENTATION PACKAGE. 2. CONFIRM ALL LEVELS AND DIMENSIONS AS ACCURATE ON SITE PRIOR TO INSTALLATION. REPORT ALL DISCREPANCIES TO THE SUPERINTENDENT IMMEDIATELY. 3. THIS DRAWING HAS BEEN ISSUED IN CONFIDENCE AND REMAINS THE PROPERTY OF MCCALLUM PLUMBING & FIRE CONSULTANTS AUSTRALIA. DISTRIBUTION OR REPRODUCTION OF THE WHOLE OR PART OF THIS DRAWING WITHOUT THE EXPRESS PERMISSION OF MCCALLUM PLUMBING & FIRE CONSULTANTS AUSTRALIA IS A BREACH OF THE COMMONWEALTH COPYRIGHT ACT.		
1	02/09/22	FOR INFORMATION
REV	DATE	AMENDMENT



ARCHITECT:	CKDS
CLIENT:	CKDS
PROJECT:	LAHC MARYLAND DEVELOPMENT 38-40 JOHN T BELL DR, MARYLAND NSW 2287 FIRE HYDRANT COVERAGE

Drawn	A.FATMI
Design	B.McCALLUM
Approved	R.McCALLUM

FOR INFORMATION	
Scale	1:200
Job No.	4214-820W
DRG. No.	F-01

Size	A1
No. in Set	
Revision	1



HYDRAULIC SERVICES
SPATIAL MARKUP
02/09/2022

P.O.S.	Private Open Space
RL	Reduced Level
RWT	Rain Water Tank
BG	Box Gutter
FB1	Face Brickwork Type 1
FB2	Face Brickwork Type 2
LC1	Lightweight Cladding - Prefinished Board
GB	Glazed Aluminium Balsutrade - Obscure
MRS	Metal Roof Sheeting
MRC	Metal Roof Capping/Flashing
EG	Eaves Gutter
DP	Downpipe
FEN1	Fence Type 1 - Vertical Slat
SCR	Privacy Screen - Vertical Slat
LB	Letterbox

1 Site Plan - Ground

SCALE 1:350 @ A3