

## ACTIVITY DETERMINATION

Project No. BGXWX

### Conflict of Interest<sup>1</sup>

In this matter:

1. I have declared any possible conflict of interests (real, potential or perceived) to the Chief Executive Officer, 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 Officer, Land & Housing Corporation as soon as I become aware of a possible conflict of interest.

Signed.....

Name..... Emma Nicholson

Dated..... 9 August 2023

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

### SITE IDENTIFICATION

#### STREET ADDRESS

Unit/Street No

26 and 69-73

Street or property name

Rose Crescent and Bourke Street

Suburb, town or locality

North Parramatta

Postcode

2151

Local Government Area(s)

City of Parramatta

Real property description (Lot and DP)

Lots 2, 3 & 4 in DP 215342

### ACTIVITY DESCRIPTION

Provide a description of the activity

Demolition of 3 existing bedsits containing a total of 13 dwellings and associated structures, removal of trees, and the construction of 14 independent living seniors housing units comprising 6 x one bedroom and 8 x two bedroom units, with associated landscaping and fencing, at-grade parking for 11 cars, and consolidation 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. 9 August 2023

**Emma Nicholson**  
**Acting Head of Policy and Innovation**  
**Land and Housing Corporation**

## SCHEDULE 1

### Recommended Identified Requirements

#### PART A – Standard Identified Requirements

##### THE DEVELOPMENT

The following identified requirements are to ensure that the **seniors housing** 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:
<b>Architectural Plans</b>				
Coversheet	A01 of A17	Rev B	08.12.2022	Barry Rush & Associates Pty Ltd
Site Analysis Plan	A02 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Existing Site Plan	A03 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Site / Ground Floor Plan	A04 of A17	Rev B	29.11.2022	Barry Rush & Associates Pty Ltd
First Floor Plan	A05 of A17	Rev B	29.11.2022	Barry Rush & Associates Pty Ltd
Roof Plan	A06 of A17	Rev B	29.11.2022	Barry Rush & Associates Pty Ltd
Elevations	A07 of A17	Rev B	29.11.2022	Barry Rush & Associates Pty Ltd
Sections	A08 of A17	Rev B	29.11.2022	Barry Rush & Associates Pty Ltd
Exterior Colour Schedule	A09 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Demolition Plan	A10 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Block Analysis Plan	A11 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Shadow Diagrams – Mid Winter	A12 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Views from the Sun Diagrams	A13 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Streetscape Perspectives	A14 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Areas of Excavation and Fill	A15 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Landscape Data Plan	A16 of A17	Rev A	23.03.2022	Barry Rush & Associates Pty Ltd
Cross Ventilation Diagram	A17 of A17	Rev A	08.12.2022	Barry Rush & Associates Pty Ltd
<b>Landscape Plans</b>				
Landscape Plan	LA1 Sheet 1	Rev E	07.12.2022	Greenland Design Pty Ltd
Landscape details and Specification	LA2 Sheet 2	Rev E	07.12.2022	Greenland Design Pty Ltd
<b>Civil/Stormwater Plans</b>				
Cover sheet & notes	CC210393C - C1 -	D	08.03.2023	ACOR Consulting Pty Ltd

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd.mm.yyyy]:	Prepared by:
	A			
Stormwater Management Plan	CC210393C C2 - A	D	08.03.2023	ACOR Consulting Pty Ltd
Stormwater Management Details Sheet No. 1	CC210393C C3 - A	D	08.03.2023	ACOR Consulting Pty Ltd
OSD Calculation Sheet and Maintenance Schedule	CC210393C C4 - A	D	08.03.2023	ACOR Consulting Pty Ltd
OSD Checklist – Sheet 1 of 2	CC210393C C5	D	08.03.2023	ACOR Consulting Pty Ltd
OSD Checklist Sheet 2 of 2	CC210393C C6	D	08.03.2023	ACOR Consulting Pty Ltd
Erosion & Sediment Control Plan	CC210393C C7	D	08.03.2023	ACOR Consulting Pty Ltd
Erosions and Sediment Control Notes and Detail	CC210393C C8	D	08.03.2023	ACOR Consulting Pty Ltd
Stormwater Quality Report Sheet 1 of 2	CC210393C C9	D	08.03.2023	ACOR Consulting Pty Ltd
Stormwater Quality Report Sheet 2 of 2	CC210393C C10	D	08.03.2023	ACOR Consulting Pty Ltd
<b>BASIX and NatHERS</b>				
BASIX	BASIX Certificate No 1275784M_04		31.05.2022	Building Sustainability Assessments
NatHERS Summary Certificate	Certificate No 0007711750		16.05.2022	Building Sustainability Assessments
<b>Supporting Reports</b>				
Arboricultural Impact Assessment	E314	C	10.06.2022	Creative Planning Solutions
BCA Design Compliance Assessment Report	P220035 (3)		06.06.2022	BCA Vision
Geotechnical Investigation and Acid Sulfate Soil Assessment	21/1342		May 2021	STS Geotechnics Pty Ltd
Waste Management Plan			02.06.2022	Barry Rush & Associates Pty Ltd
Traffic Impact Assessment	220214		June 2022	Apex Engineers
Acoustic Report			12.05.2022	DK Acoustics Pty Ltd
Access Report			15.03.2022	Accessibility Solutions
Flood Investigation Report	CC210393_FIA		17.03.2023	ACOR Consulting Pty Ltd

2. All building work is to be undertaken in accordance with the National Construction Code and referenced Australian Standards.
3. All commitments listed in the BASIX certificate and stamped plans shall be implemented.
4. All construction documentation and building work are to be certified in accordance with Section 6.28 of the *Environmental Planning and Assessment Act 1979*.
5. The land the subject of this determination shall be consolidated into a single lot. The plan of consolidation shall be lodged at the NSW Land Registry Services and shall be registered prior to the occupation of the development. A copy of the registered plan shall be provided to the Land & Housing Corporation.

## OPERATIONAL MATTERS

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

### Stormwater Run-off

6. Stormwater shall be collected within the site and conveyed in a pipeline to the appropriate gutter or drain under the control of City of Parramatta Council substantially in accordance with the approved concept stormwater drainage plans.

7. Alterations to the natural surface contours or surface absorption characteristics of the site shall not impede, increase or divert natural surface water runoff so as to cause a nuisance to adjoining property owners.
8. All driveways shall be graded in such a manner as to provide continuous surface drainage flow paths to the 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. Concrete vehicular crossings and laybacks shall be provided at the entrances / exits to the property at both frontages. The crossing and layback from Rose Crescent shall be constructed in accordance with City of Parramatta Council standard requirements for residential crossings. The crossing and layback from Bourke Street shall be constructed in accordance with Councils Standard Drawing numbers DS9 and DS10 for heavy duty vehicular crossings. Council shall be provided with plans for the crossings and laybacks together with the payment of any council inspection fees.
11. Particular care shall be taken in the location of vehicular crossings and/or laybacks to avoid poles, pits etc. The cost of any necessary adjustments to utility mains and services associated with the construction of the layback(s)/ driveway(s) shall be borne by the Land & Housing Corporation. Obsolete gutter layback(s) shall be constructed as kerb and gutter, foot-paving and grassed verge in accordance with City of Parramatta council's Standard Plan No. DS1. The reinstatement of kerb and footpath works must be completed prior to the occupation of the development.

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

12. Car parking spaces and driveway(s) shall be constructed of concrete or other approved hard surface materials. The car parking 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 shall be maintained during the entire period of the works and until all the disturbed areas are restored by turfing, paving or revegetation. Soil erosion and sediment control measures shall be designed in accordance with the guidelines set out in the Blue Book *Managing Urban Stormwater: Soils and Construction* (4th edition, Landcom, 2004).
14. An appropriately qualified person shall design any 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 shall be sited well clear of any easements affecting the site. The builder shall ascertain if any easements do exist and, and if they do, 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 E2.2a of the Building Code of Australia. Detectors and alarms shall comply with AS 3786 and AS 1670 and must be:
- i. connected to a permanent 240V power supply; and
  - ii. 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 shall be inspected by a suitably qualified person to identify any contaminated or hazardous material present. A proposal for remediation shall be prepared, which may include preparation of a Remedial Action Plan, and remediation shall be carried out in accordance with the proposal. A Validation Report, prepared in accordance with Environment Protection Authority requirements, shall be obtained from a qualified expert on completion of the remediation work to verify that the site is suitable for the intended residential use. A copy of the Validation Report shall be provided to the Land & Housing Corporation on completion of the remediation works.

### **Landscaping**

18. Landscaping shall be carried out substantially in accordance with the approved Landscape Plan(s) and maintained for a period of 12 months by the building contractor. City of Parramatta Council shall be consulted in relation to the planting of any street trees.
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 of the order to City of Parramatta Council and provide a copy to the Land & Housing Corporation.

### **Tree Removal**

20. Removal of trees within the boundaries of the site is to be carried out in accordance with the trees shown for removal on the approved landscape plan and Arboricultural Impact Assessment report and no other trees shall be removed without further approval(s).

### **Fencing**

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

### **Provision of Letterbox Facilities**

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 building 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.*

### **Disconnection of Services**

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

### **Demolition**

26. The builder shall notify the occupants of premises on either side, opposite and at the rear of the site a minimum of two days prior to demolition. Such notification shall be clearly written on an A4 size paper giving the date demolition will commence and be placed in the letterbox of every premise (including every unit in a multi-unit residential building or mixed use building). The demolition shall not commence prior to the date that is stated in the notice letter.
27. Prior to the demolition, a Work Plan shall be prepared by a competent person(s) in accordance with AS 2601 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, the precautions to be employed to minimise any dust nuisance and the disposal methods for hazardous materials.
28. 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.*

### **Utilities Service Provider Notification**

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

**Note:**

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

### **Council Notification**

30. City of Parramatta Council shall be advised by the building contractor in writing, of the date it is intended to commence work, including demolition. A minimum period of 5 working days notification shall be given.

### **Site Safety**

31. A sign shall 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 the telephone number on which that person may be contacted during and outside working hours, and
  - (c) stating that unauthorised entry to the site is prohibited.

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

**Note:**

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

32. 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 may 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.*

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

**Site Facilities**

34. 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 shall be a standard flushing toilet and shall be connected to a public sewer. If connection to a public sewer is not practicable, to an accredited sewerage management facility provided by City of Parramatta Council or if this is also not practicable to some other council approved management facility.
  - (b) Adequate refuse disposal methods and builders storage facilities. Builders' wastes, materials or sheds shall not be placed on any property other than that to which this activity relates.
35. Access to the site shall only be provided via an all-weather driveway on the property and shall not be provided from any other site.

**Protection of Trees**

36. Trees and other vegetation that are to be retained on site shall be protected prior to the commencement of works and for the duration of the construction period in accordance with the details provided in the Arboricultural Impact Assessment report.

**Waste Management**

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

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

*The following Identified Requirements are to be complied with prior to any construction works occurring on the site, excluding demolition.*

**Service Authority Clearances**

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

**Note:**

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

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

### **Stormwater Disposal**

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

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

*The following Identified Requirements are to be complied with whilst demolition and construction works are occurring on the site.*

#### **Landfill**

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

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

#### **Demolition**

48. Any existing structures identified for demolition shall be demolished prior to commencement of the construction of the activity.

49. Demolition shall be carried out in accordance with the appropriate provisions of AS 2601.
50. Where materials containing asbestos are to be removed, demolition shall be carried out by a licensed contractor(s) that has a current SafeWork NSW accreditation in asbestos removal.
51. Removal of asbestos-based thermal, or acoustic insulation such as sprayed asbestos and asbestos-based lagging and 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, 2<sup>nd</sup> Edition [NOHSC:2002 (2005)].
52. Hazardous and intractable waste, including all asbestos laden waste arising from the demolition process shall be removed and disposed of in accordance with the requirements of SafeWork NSW.
53. Documentary evidence, in the form of tip receipts from an approved Waste Management Facility, shall be obtained by the demolition contractor and submitted to the Land & Housing Corporation demonstrating the appropriate disposal of the asbestos waste.
54. Demolition procedures shall maximise the reuse and recycling of demolished materials in order to reduce the environmental impacts of waste disposal.
55. During demolition, the public footpath and the public road shall not be obstructed by any vehicles. The public road and footpath shall be swept (not hosed) clean of any material, including clay, soil and sand.
56. All vehicles leaving the site with demolition materials shall have their loads covered and vehicles shall not track soil and other material onto the public roads and footpaths. The footpath shall be suitably protected against damage when plant and vehicles access the site. All loading of vehicles with demolished materials shall occur on site.

#### **Survey Reports**

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

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

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

#### **Excavation & Backfilling**

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

#### **Pollution Control**

60. 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 former Department of Environment and Climate Change.
61. No fires shall be lit, or waste materials burnt, on the site.
62. No washing of concrete forms or trucks shall occur on the site.

63. Any contamination / spills on the site during construction works shall be actively managed and reported immediately to the appropriate regulatory authorities to minimise any potential damage to the environment.
64. Dust generation during demolition / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.
65. All vehicles transporting loose materials and travelling on public roads shall be secured (i.e. closed tail gate and covered) to minimise dust generation.
66. Non-recyclable waste and containers shall be regularly collected and disposed of at a licensed landfill or other disposal site in accordance with details set out in the final Waste Management Plan.

#### **Impact of Construction Works**

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

#### **Termite Protection**

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

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

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

#### **PRIOR TO OCCUPATION OF THE DEVELOPMENT**

*The following Identified Requirements are to be complied with prior to the occupation of the development.*

##### **General**

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

##### **Council Infrastructure Damage**

71. The cost of repairing any damage caused to City of Parramatta Council assets in the vicinity of the site as a result of demolition / construction works shall be met in full by the building contractor.

##### **Stormwater Drainage**

72. Prior to occupation, a Work As Executed Plan shall be prepared by the building contractor clearly showing all aspects of the constructed stormwater drainage system, including any on-site detention system. The plan shall demonstrate general compliance with the approved concept stormwater drainage plan(s) and shall include:
  - sufficient levels and dimensions to verify the constructed storage volumes; and

- location and surface levels of all pits; and
- invert levels of the internal drainage lines, orifice plates fitted and levels within the outlet control pits; and
- finished floor levels of all structures; and
- verification that any required trash screens have been installed; and
- locations and levels of any overland flow paths; and
- verification that any drainage lines are located wholly within easements, where applicable.

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

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

## **PART B – Additional Identified Requirements**

### **Specific Requirements for Seniors Housing**

73. The independent living units shall comply with the accessibility and useability standards referenced in section 85 and set out in Schedule 4 of State Environmental Planning Policy (Housing) 2021.

**Note:**

*This requirement does not apply to the provisions set out under sections 2, 7-13 and 15-20 of Schedule 4 for an independent living unit, or part of such a unit, that is located above the ground floor.*

74. Only the following kinds of people shall be accommodated in the approved development:
- (a) seniors or people who have a disability; or
  - (b) people who live within the same household with seniors or people who have a disability; or
  - (c) staff employed to assist in the administration and provision of services to the seniors housing development.

A restriction as to user shall be registered against the title of the property, prior to occupation, in accordance with Section 88E of the Conveyancing Act 1919 limiting the use of any accommodation to the kinds of people referred to above and that the dwellings cannot be subdivided.

**Note:**

*It should be noted that 'seniors', as defined in the Housing SEPP, are any of the following:*

- (a) people aged 60 or more years,
  - (b) people who are resident at a facility at which residential care (within the meaning of the Aged Care Act 1997 of the Commonwealth) is provided, and
  - (c) people who have been assessed as being eligible to occupy housing for aged persons provided by a social housing provider.
75. Pathway lighting shall be designed to provide a minimum of 20 lux at ground level and be located to avoid glare for pedestrians and adjacent dwellings.
76. Access to, and within, the site shall be provided in accordance with AS 1428.1 so that a person using a wheelchair can use common areas and common facilities associated with the activity.
77. A 1.5m wide concrete footpath across the site frontage, connecting to the existing footpath system in Bourke Street shall be constructed in accordance with City of Parramatta Council's specifications to provide an accessible pathway from the site to the nearest bus stop on Bourke Street.

**Note:**

*The responsible officer at City of Parramatta council shall be contacted regarding council's specifications and any necessary approvals.*

78. Entry doors to units shall to be provided with door viewers to enable residents to view approaches to their units without the need to open the door.

**Site Specific Requirements**

79. All works shall be supervised and recorded by a Project Arborist experienced in tree protection on construction sites. Supervision shall commence with installation of tree protection measures until completion of landscaping and removal of tree protection barriers. The Project Arborist shall supervise and monitor any excavation, machine trenching or compacted fill placement within the TPZ of retained trees throughout construction.
80. Tree Protection to be installed as shown on the Tree Location & Protection Plan Specification at Appendix 2 to the AIA and in accordance with Section 4.3 of AS4970-2009 and Appendix 5 to the Arboricultural Impact Assessment by Creative Planning Solutions dated 10 June 2022.
81. A detailed root mapping investigation is to be undertaken for Tree 1 (*Jacaranda mimosifolia*) by a suitably qualified Arborist with minimum AQF5 qualifications to identify the location and presence of tree roots to be impacted by the proposed building works and determine whether the proposed extent of hard surfacing requires modification to enable this tree to be retained in a healthy and viable condition following completion of construction. Should root mapping require adjustment to the hard surface treatments then this is to be documented by the building contractor and confirmed in the Crown Certification.

**Requirements Resulting from Council Comments**

82. A detailed survey of the stormwater easement and pipe system must be prepared by a registered surveyor. The survey is to include the pipe location relative to the easement, invert of the pipe, pipe diameter, and any existing pits that are proposed to be utilised. A copy of the detailed survey must be provided to the Crown Certifier prior to construction.
83. Full engineering construction details of the stormwater system, including OSD structures, pipe networks and calculations as per following points, shall be submitted for the approval of the Crown Certifier prior to release of the applicable Crown Certificate for any work on the site. This includes:
- a) The stormwater drainage detail design shall be prepared by a Registered Stormwater Design Engineer and shall be generally in accordance with the following Stormwater Plans approved by this consent and with Council's Stormwater Disposal Policy, Council's Design and Development Guidelines, The Upper Parramatta River Catchment Trust On Site Detention Hand book 3<sup>rd</sup> Edition, the relevant Australian Standards and the National Construction Code.
    - (i) "Stormwater Management Plan", Drawing No C1-C10 Issue D, dated 08/03/2023, prepared by ACOR consultants (CC) Pty Ltd.
  - b) A Site Storage Requirement of 470 m<sup>3</sup>/ha and a Permissible Site Discharge of 80 L/s/ha (when using 3<sup>rd</sup> edition of UPRCT's handbook)
  - c) Adequate grate(s) to be provided so the OSD tank storage area can be inspected from outside for silt and debris, and to ensure adequate cross ventilation within the tank. If any grates are sealed, suitably designed ventilation shall be provided.
  - d) The orifice shall be centred over the centre of the outlet.
  - e) The orifice shall be adjusted for the flowrate from the SFC to ensure the PSD for the site has not been exceeded. The SFC outlet (underdrain) shall drain directly to the overflow pit.
  - f) Certificate from registered structural engineer certifying the structural adequacy of the OSD tank structure.



84. SPEL Filters SF.29-EMC water quality treatment devices must be installed to manage surface runoff water to Bourke Street to satisfy section 3.3.6.1 of *Parramatta City Council Development Control Plan 2011*. Details of the proposed devices and their location must accompany the application for the applicable Crown Certificate to the satisfaction of the Crown Certifier.
85. Prior to the commencement of any works on site, the applicant must submit a Construction and Traffic Management Plan to the satisfaction of the Crown Certifier. The following matters must be specifically addressed in the Plan:
- a) Construction Management Plan for the Site. A plan view of the entire site and frontage roadways indicating:
    - (i) Dedicated construction site entrances and exits, controlled by a certified traffic controller, to safely manage pedestrians and construction related vehicles in the frontage roadways,
    - (ii) Turning areas within the site for construction and spoil removal vehicles, allowing a forward entry and egress for all construction vehicles on the site,
    - (iii) The locations of proposed Work Zones in the egress frontage roadways,
    - (iv) Location of any proposed crane standing areas,
    - (v) A dedicated unloading and loading point within the site for all construction vehicles, plant and deliveries,
    - (vi) Material, plant and spoil bin storage areas within the site, where all materials are to be dropped off and collected,
    - (vii) The provisions of an on-site parking area for employees, tradesperson and construction vehicles as far as possible,
    - (viii) A detailed description and route map of the proposed route for vehicles involved in spoil removal, material delivery and machine floatage and a copy of this route is to be made available to all contractors, and
    - (ix) A detailed description of locations that will be used for layover for trucks waiting to access the construction site.
  - b) Written concurrence from Council's Traffic and Transport Services in relation to installation of a proposed 'Works Zone' restriction in the egress frontage roadways of the development site.

Application fees and kerbside charges for 6 months (minimum) are to be paid in advance in accordance with the Council's Fees and Charges. The 'Works Zone' restriction is to be installed by Council once the applicant notifies Council in writing of the commencement date (subject to approval through Parramatta Traffic Committee processes). Unused fees for kerbside charges are to be refunded once a written request to remove the restriction is received by Council.

- c) Traffic Control Plan (s) for the site:
  - (i) All traffic control devices installed in the road reserve shall be in accordance with the NSW Transport Roads and Maritime Services publication 'Traffic Control Worksite Manual' and be designed by a person licensed to do so (minimum RMS 'red card' qualification) The main stages of the development requiring specific construction management measures are to be identified and specific traffic control measures identified for each.
  - (ii) Approvals shall be obtained from City of Parramatta Council for any temporary road closures or crane use from public property.
- d) Where applicable, the plan must address the following:
  - (i) Evidence of Roads and Maritime Services concurrence where construction access is provided directly or within 20 m of an Arterial Road.
  - (ii) A schedule of site inductions shall be held on regular occasions and as determined necessary to ensure all new employees are aware of the construction management obligations.
  - (iii) Minimising construction related traffic movements during school peak periods.

The Construction and Traffic Management Plan shall be prepared by a suitably qualified and experienced traffic consultant and be certified by this person as being in accordance with the requirements of the abovementioned documents and the requirements of this condition.

86. Prior to the applicable Crown Certificate, the building must be designed and certified by a registered structural engineer to ensure the building does not fail due to floodwater forces, debris and buoyancy effects from flooding in events up to the Probable Maximum Flood (PMF) from the easement.
87. Prior to the issue of the applicable Crown Certificate, the Crown Certifier shall ensure that no floor levels are below the PMF flood level of RL53 AHD, identified in the Flood Investigation Report (March 2023) and that appropriate flood mitigation controls are implemented to ensure that no flooding in the easement affects the development.
88. Foundations adjacent to the existing 450mm diameter drainage pipe, within the 2m wide drainage easement, must be constructed in accordance with Council's Code, "Foundation Requirements for Structures Adjacent to Council Stormwater Drainage Easements – Parramatta City Council Code E-3". The engineering details must accompany an application for the applicable Crown Certificate.
89. Driveway grades, including transitions, must comply with Australian Standard 2890.1 to prevent the underside of the vehicles scraping. Where the geometric change in grade exceeds 18%, the gradients of the driveway and ramps shall be checked using the method at Appendix C in AS2890.1:2004 and adjustments will be made to accommodate suitable transition lengths. Details are to be provided with the applicable Crown Certificate.
90. The landscaping works and fencing to be installed within the easement for drainage must be compatible with the overland flow function of the easement as described in the Flood Investigation Report by ACOR Consulting Pty Ltd dated 17.03.2023.
91. A 200mm wide grated drain, incorporating heavy duty removable galvanized grate is to be located within the site at the intersection of the driveway and Council's footway on Bourke Street to collect all surface water flowing down the driveway. The drainage line from the grated drain shall be connected to the street stormwater system, either separately or via the main site outlet.
92. An application for street numbering must be lodged with Council for approval, prior to the issue of the application Crown Certificate.

**Note:**

*Notification of all relevant authorities of the approved street numbers must be carried out by Council.*

93. An evacuation report and procedure shall be prepared by an appropriate consulting engineer. This report is to demonstrate how the occupants of the development will egress the site in the early stages of a storm event, together with how they will seek refuge in a peak stormwater event. The report shall be submitted to the Crown Certifier prior to the issue of the applicable Crown Certificate. A copy of the report shall be attached to the applicable Crown Certificate prior to occupation, and forwarded to Council for their records.

**Requirements Resulting from Adjoining Occupier Comments**

94. The building contractor is to contact the landowner of 24 Rose Crescent prior to ordering boundary fencing to ensure the fencing materials and colours are satisfactory.

## 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](http://www.1100.com.au) or by dialing 1100.

## Decision Statement

### SITE IDENTIFICATION

#### STREET ADDRESS

Unit/Street No.

26 and 69-73

Street or property name

Rose Crescent and Bourke Street

Suburb, town or locality

North Parramatta

Postcode

2151

Local Government Area(s)

City of Parramatta

Real property description (Lot and DP)

Lots 2, 3 & 4 in DP 215342

### ACTIVITY DESCRIPTION

Provide a description of the activity

Demolition of 3 existing bedsits containing a total of 13 dwellings and associated structures, removal of trees, and the construction of 14 independent living seniors housing units comprising 6 x one bedroom and 8 x two bedroom units, with associated landscaping and fencing, at-grade parking for 11 cars, and consolidation 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, 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 it was decided that the proposed seniors housing development will have economic and social benefits and any minor short-term impacts on the environment or surrounding properties can be appropriately mitigated.

- The proposed seniors housing development will assist LAHC in providing new, fit for purpose housing in the North Parramatta area which will assist in addressing the existing and growing demand for social housing in City of Parramatta local government area.

Mitigation Measures

- Mitigation measures are required to minimise or manage environmental impacts and are detailed throughout the REF and specifically within Section 7. 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 to ensure legislative compliance.

Signed  .....

Dated..... 9 August 2023

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



# SENIORS HOUSING DEVELOPMENT

## 26 ROSE CRESCENT AND 69-73 BOURKE STREET, NORTH PARRAMATTA

### LOTS 2, 3 & 4 in DP 215342

February 2022	BSA Reference: 18084
Building Sustainability Assessments	Ph: (02) 4962 3439
enquiries@buildingsustainability.net.au	www.buildingsustainability.net.au
<b>Important Note</b> The following specification was used to achieve the thermal performance values indicated on the Assessor Certificate. If the proposed construction varies to those detailed below then the Assessor and NatHERS certificates will no longer be valid. Assessments assume that the BCA provisions for building sealing & ventilation are complied with at construction. In NSW both BASIX & the BCA variations must be complied with, in particular the following: - Thermal construction in accordance with Vol 1 Section J1.2 or Vol 2 Part 3.12.1.1 - Thermal breaks for Class 1 dwellings in accordance with Part 3.12.1.2(c) & 3.12.1.4(d) - Floor insulation for Class 1 dwellings as per Part 3.12.1.5(a)(ii), (iii) & (e) or (c), (d) & (e) - Building sealing in accordance with Section J3 or Part 3.12.3.1 to 3.12.3.6.	
<b>Thermal Performance Specifications (does not apply to garage)</b>	
<b>External Wall Construction</b>	Added Insulation
Cavity Brick	R0.74 to inside face of masonry under plasterboard
Reverse Brick Veneer	R2.0
<b>Internal Wall Construction</b>	Added Insulation
Brick (internal to units)	none
Cavity Brick (common area walls)	R0.74 to inside face of masonry under plasterboard
Cavity Brick (party walls)	none
<b>Ceiling Construction</b>	Added Insulation
Plasterboard	R3.5 to ceilings adjacent to roof space
<b>Roof Construction</b>	Colour (Solar Absorptance) Added Insulation
Metal	Any Foil + R1.0 blanket
<b>Floor Construction</b>	Covering Added Insulation
Concrete	As drawn (if not noted default values used) None
<b>Windows</b>	Glass and frame type U value SHGC Range Area sq m
Performance glazing Type A	2.90 0.40 - 0.48 Units 1,3,5 only
Performance glazing Type B	2.90 0.46 - 0.56 Units 1,3,5 only
Performance glazing Type A	4.30 0.42 - 0.52 Units 2,4,6,9 only
Performance glazing Type B	4.30 0.48 - 0.58 Units 2,4,6,9 only
Performance glazing Type A	5.40 0.44 - 0.54 All other glazing
Performance glazing Type B	5.40 0.52 - 0.64 All other glazing
Type A windows are awning windows, bifolds, casements, tilt 'n' turn windows, entry doors, french doors Type B windows are double hung windows, sliding windows & doors, fixed windows, stacker doors, louvers	
<b>Skylights</b>	Glass and frame type U SHGC Area sq m Detail
U and SHGC values are according to AFRC. Alternate products may be used if the U value is lower & the SHGC is within the range specified	
<b>Shade elements</b>	(eaves, verandahs, awnings etc)
All shade elements modelled as drawn	
<b>Ceiling Penetrations</b>	(downlights, exhaust fans, flues etc)
Modelled as drawn and/or to comply with the ventilation and sealing requirements of the BCA	
Ducting is modelled at 150mm. No insulation losses from downlighting have been modelled.	
<b>Additional Notes</b>	
Nil	



#### LEGEND

AGL	ADJUSTABLE GLAZED LOUVRES	P	PANTRY
AN_AL	ANODISED ALUMINIUM	PR1	PAINTED RENDER COLOUR 1
BOE	BRICK ON EDGE	PR2	PAINTED RENDER COLOUR 2
BR	BROOM CUPBOARD	PVC	PHOTOVOLTAIC CELLS
CC	COLOURED CONCRETE COLOUR	R	ROBE
CL	CLOTHES LINE	REF	REFRIGERATOR LOCATION
CP	CONCRETE PAVING BROOM FINISH	RHD	RANGEHOOD
CPT	CARPET	RL	RELATIVE LEVEL
CT	CERAMIC TILE	RWT	RAINWATER TANK
DP	DOWNPIPE	S	KITCHEN SINK
F1	FENCE 1000mm HIGH METAL PALISADE FENCE	SB	STAIR BALUSTRADE
F2	FENCE 1800mm HIGH COLORBOND METAL FENCE	SC	STEEL COLUMN
F3	FENCE 1500/1800mm HIGH SLATTED METAL FENCE	SHR	SHOWER
FAL	FIXED ALUMINIUM LOUVRES	SMC	STANDING SEAM METAL CLADDING
FB1	FACE BRICK COLOUR 1	STC	STEEL TROWEL CONCRETE FINISH
FB2	FACE BRICK COLOUR 2	SWP	STORMWATER PIT
FCL	FINISHED CEILING LEVEL	T	LAUNDRY TUB
FFL	FINISHED FLOOR LEVEL	TOF	TOP OF FENCE
G	GATE	TOK	TOP OF KERB
GD	GRATED STRIP DRAIN	TOW	TOP OF WALL
HP	HOTPLATE	TOP	TOP OF PARAPET
HR	HANDRAIL	TPZ	TREE PROTECTION ZONE
HT	GARDEN HOSE TAP	UBO	UNDER BENCH OVEN
HWU	HOT WATER UNIT	VJ	VERTICAL JOINT
LB	LETTERBOXES - RECESSED INTO WALL	VTY	VANITY
LN	LINEN CUPBOARD	WA	SUN AWNING
MC	METAL CLADDING	WC	TOILET SUITE
MDR	METAL DECK ROOF	WM	WASHING MACHINE
MSB	MAIN SWITCH BOARD	WO	WALL OVEN
NBN	NBN CONNECTION		

#### DRAWING SCHEDULE

<b>ARCHITECTURAL</b>	REFERENCE No	
COVER SHEET	A01	B
SITE ANALYSIS PLAN	A02	A
EXISTING SITE PLAN	A03	A
SITE/ GROUND FLOOR PLAN	A04	B
FIRST FLOOR PLAN	A05	B
ROOF PLAN	A06	B
ELEVATIONS	A07	B
SECTIONS	A08	B
EXTERIOR COLOUR SCHEDULE	A09	A
DEMOLITION PLAN	A10	A
BLOCK ANALYSIS PLAN	A11	A
SHADOW DIAGRAMS MID WINTER	A12	A
VIEWS FROM SUN DIAGRAM	A13	A
STREETSCAPE PERSPECTIVES	A14	A
AREAS OF EXCAVATION AND FILL	A15	A
LANDSCAPE DATA PLAN	A16	A
CROSS VENTILATION DIAGRAM	A17	-
<b>CIVIL</b>		
COVER SHEET & NOTES	C1	C
STORMWATER MANAGEMENT PLAN	C2	C
STORMWATER MANAGEMENT DETAILS SHEET No1	C3	C
OSD CALCULATION SHEET & MAINTENANCE SCHEDULE	C4	C
OSD CHECKLIST SHEET 1 OF 2	C5	C
OSD CHECKLIST SHEET 2 OF 2	C6	C
EROSION & SEDIMENT CONTROL PLAN	C7	C
EROSION & SEDIMENT CONTROL NOTES & DETAILS	C8	C
STORMWATER QUALITY REPORT SHEET 1 OF 2	C9	C
STORMWATER QUALITY REPORT SHEET 2 OF 2	C10	C

#### DEVELOPMENT DATA

Job Reference	BGXWX
Locality / Suburb	North Parramatta
Street Address	26 Rose Crescent & 69-73 BOURKE Street
Lot & DP	Lots 2, 3 & 4 in DP 215342
Site Area	2228.7 m <sup>2</sup>
Existing Lots	3
Proposed GFA	1085 m <sup>2</sup>
No. of Dwellings	8 x 2 Bed + 6 x 1 Bed = 14 Dwellings

	Control		Requirement	Proposed
HEIGHT	Parramatta Council-LEP		9m	7.8m to top of roof
	Housing SEPP		9.5m	7.8m to top of roof
FSR	Parramatta Council-LEP		0.5:1	0.49:1 (1085 m <sup>2</sup> )
	Housing SEPP		0.5:1	0.49:1 (1085 m <sup>2</sup> )
PARKING	Housing SEPP		1 per 5 dwellings = 2.8	3 car spaces
	Housing SEPP	non accessible site	0.5 x (no. 1 Beds) = 3 1 x (no. 2 Beds) = 8 TOTAL 11 car spaces	11 car spaces (including 3 accessible)
SETBACK	Parramatta Council DCP	Street	5-7m Consistent with prevailing setback on the street.	Bourke St - 5.2min Rose Cr - 4.4 min
		Side	3m Except where buildings. primarily address side boundary then 4.5m	3m
		Rear	15% of the length of the site	n/a
LANDSCAPING	Housing SEPP		35 m <sup>2</sup> er Dwelling 490 m <sup>2</sup>	762 m <sup>2</sup>
DEEP SOIL	Housing SEPP		15 334 m <sup>2</sup> 65 at rear 217m <sup>2</sup>	342 m <sup>2</sup> 15.3 179 m <sup>2</sup> 52
SOLAR ACCESS	Housing SEPP		70% for 2hrs in Mid-Winter = 12	100%

LAHC\* - development data for LAHC new housing supply. For details refer to Current version of LAHC Design Requirements.  
GFA\* - gross floor area calculated as per the Housing SEPP  
AREA\* - dwelling floor area includes internal walls but excludes external walls  
POS\* - private open space

DWELLINGS					SOLAR ACCESS	
Number	Type*	Beds	Area (m <sup>2</sup> )	POS*	LIVING	POS
1	Ground	2	75	22	6 hr	4 hr
2	First	2	75	11	6 hr	6 hr
3	Ground	2	75	23	6 hr	4 hr
4	First	2	75	11	6 hr	6 hr
5	Ground	2	75	23	6 hr	4 hr
6	First	2	75	11	6 hr	6 hr
7	Ground	2	75	73	6 hr	4 hr
8	First	2	75	11	6 hr	6 hr
9	Ground	1	60	85	3 hr	3 hr
10	First	1	60	11	3 hr	2 hr
11	Ground	1	56	47	6 hr	4 hr
12	First	1	56	11	6 hr	6 hr
13	Ground	1	56	81	6 hr	4 hr
14	First	1	56	11	6 hr	6 hr

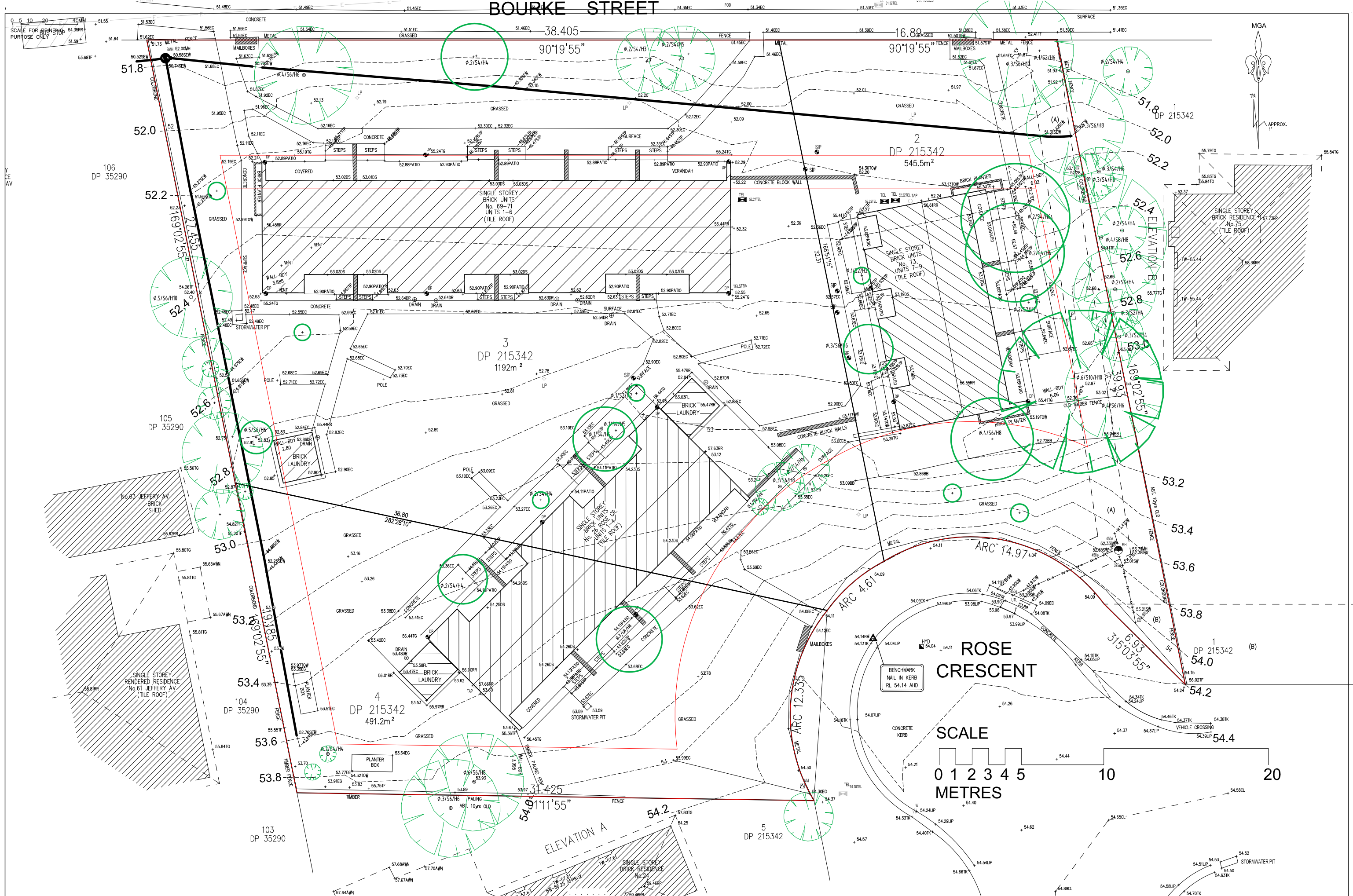




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A		23/03/22	DA PLAN ISSUE		REV		DATE	NOTATION/AMENDMENT		DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.																																	
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DETERMINED by the NSW Land and Housing Corporation on: 9 August 2023





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href="http://www.barryrush.com.au">www.barryrush.com.au</a></div>		<table><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td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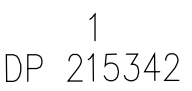






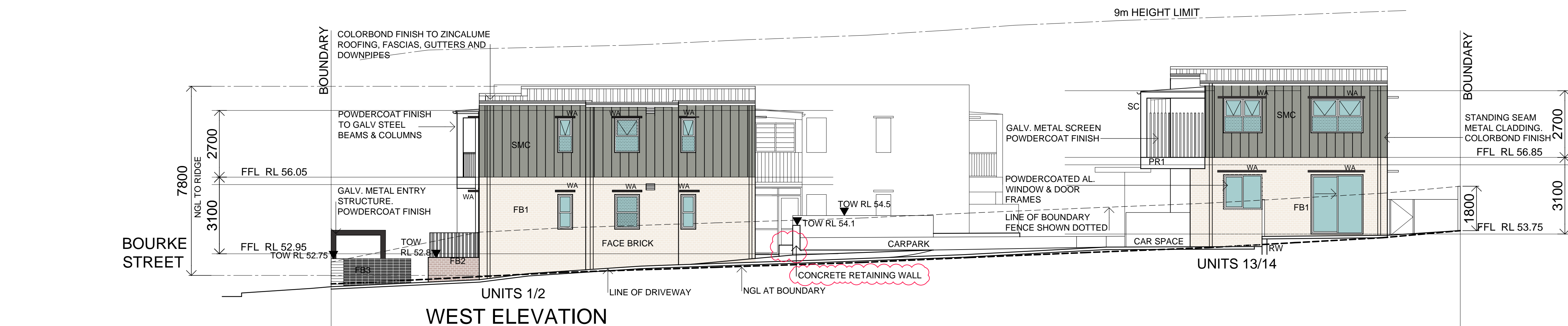
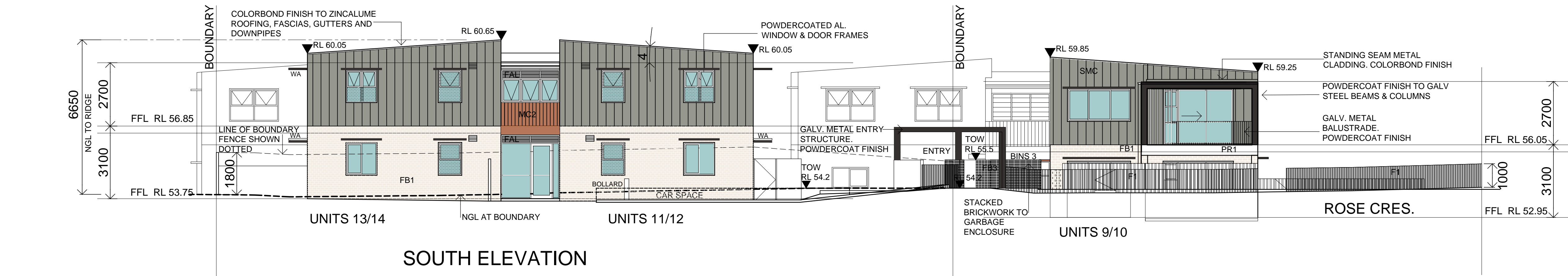
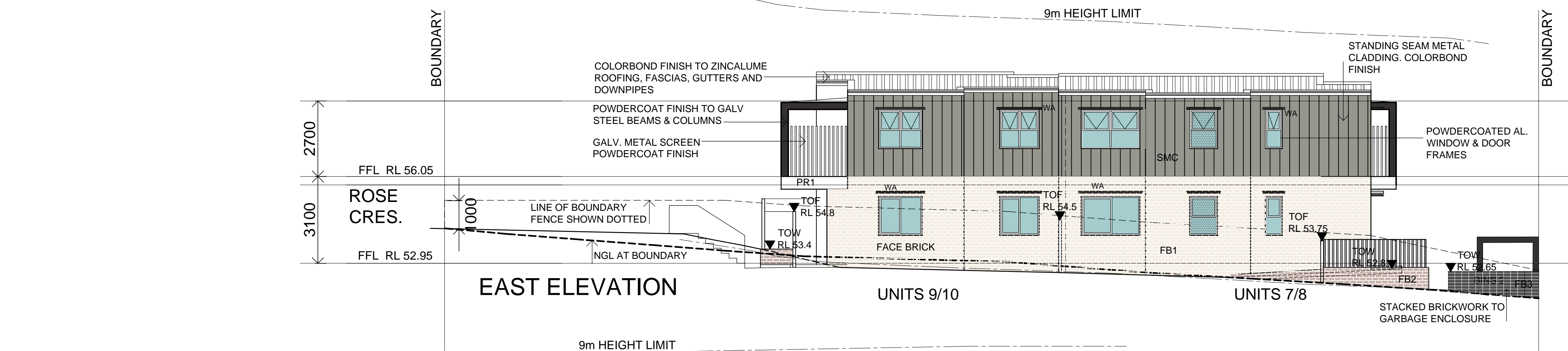
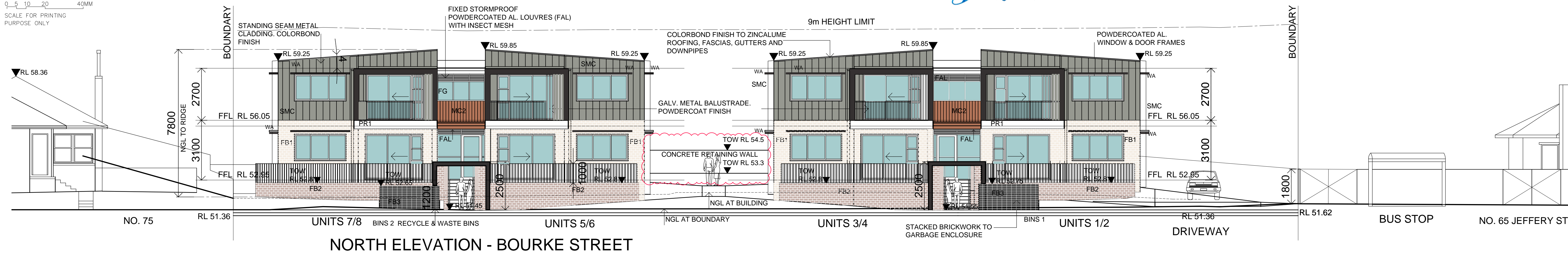
0007711750 16 May 2022  
Assessor: Gavin Chambers  
Accreditation No. DMV13/1491  
Address: 26 Rose Crescent 69-73  
Bourke Street, North  
Parramatta, NSW, 2151  
www.nathers.gov.au  
hstar.com.au







0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY



### LEGEND

AGL	ADJUSTABLE GLAZED LOUVRES
AN. AL.	ANODISED ALUMINIUM
BOE	BRICK ON EDGE
BR	BROOM CUPBOARD
CC	COLOURED CONCRETE COLOUR
CL	CLOTHES LINE
CP	CONCRETE PAVING BROOM FINISH
CPT	CARPET
CT	CERAMIC TILE
DP	DOWNPIPE
F1	FENCE 1000mm HIGH METAL PALISADE FENCE
F2	FENCE 1800mm HIGH COLORBOND METAL FENCE
F3	FENCE 1500/1800mm HIGH SLATTED METAL FENCE
FAL	FIXED ALUMINIUM LOUVRES
FB1	FACE BRICK COLOUR 1
FB2	FACE BRICK COLOUR 2
FCL	FINISHED CEILING LEVEL
FFL	FINISHED FLOOR LEVEL
G	GATE
GD	GRATED STRIP DRAIN
HP	HOTPLATE
HR	HANDRAIL
HT	GARDEN HOSE TAP
HWU	HOT WATER UNIT
LB	LETTERBOXES - RECESSED INTO WALL
LN	LINEN CUPBOARD
MC	METAL CLADDING
MDR	METAL DECK ROOF
MSB	MAIN SWITCH BOARD
NBN	NBN CONNECTION
P	PANTRY
PR1	PAINTED RENDER COLOUR 1
PVC	PHOTOVOLTAIC CELLS
R	ROBE
REF	REFRIGERATOR LOCATION
RHD	RANGEHOOD
RL	RELATIVE LEVEL
RW	RETAINING WALL
RWT	RAINWATER TANK
S	KITCHEN SINK
SB	STAIR BALUSTRADE
SC	STEEL COLUMN
SHR	SHOWER
SMC	STANDING SEAM METAL CLADDING
STC	STEEL TROWEL CONCRETE FINISH
SWP	STORMWATER PIT
T	LAUNDRY TUB
TOF	TOP OF FENCE
TOK	TOP OF KERB
TOW	TOP OF WALL
TPZ	TREE PROTECTION ZONE
UBO	UNDER BENCH OVEN
VJ	VERTICAL JOINT
VTY	VANITY
WA	SUN AWNING
WC	TOILET SUITE
WM	WASHING MACHINE
WO	WALL OVEN

■ DENOTES TRANSLUCENT  
GLAZING



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[www.barryrush.com.au](http://www.barryrush.com.au)

REV	DATE	NOTATION/AMENDMENT
B	29/11/22	DA AMENDMENTS
A	18/02/22	DA PLAN ISSUE
REV	DATE	NOTATION/AMENDMENT

DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.  
FIGURED DIMENSIONS TAKE PRECEDENCE.

ARCHITECT  
**BARRY RUSH & ASSOCIATES PTY LTD**  
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**GREENLAND DESIGN PTY LTD**  
PH (0403) 164 198

CIVIL  
**ACOR CONSULTANTS PTY LTD**  
PH (02) 4324 3499

HYDRAULIC CONSULTANT  
**MARLINE NEWCASTLE PTY LTD**  
PH (02) 4925 9300 FAX (02) 4926 3811

ELECTRICAL CONSULTANT  
**MARLINE NEWCASTLE PTY LTD**  
PH (02) 4925 9300 FAX (02) 4926 3811

BUSINESS PARTNER:

PROJECT:  
**SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342**

FILE:  
**ELEVATIONS**

STATUS: **DA**

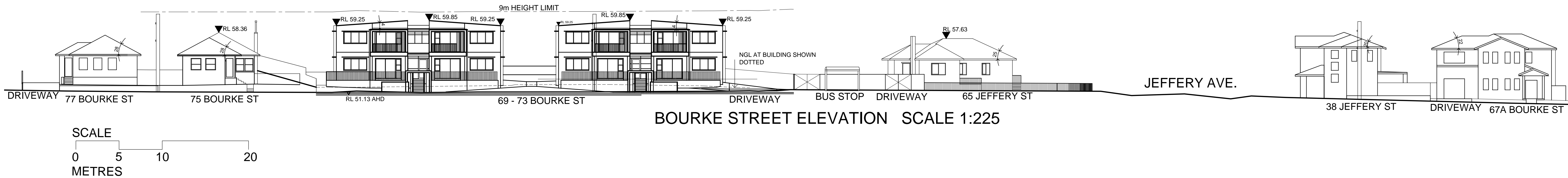
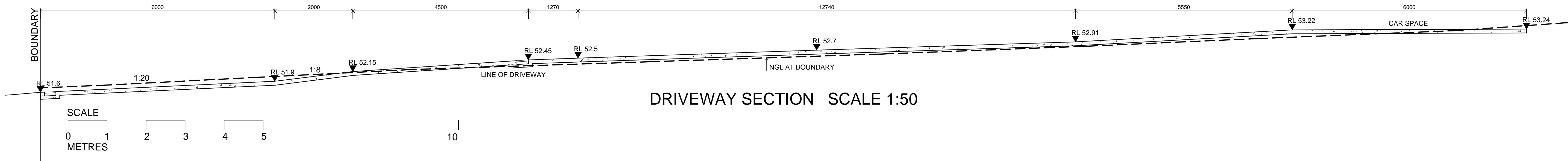
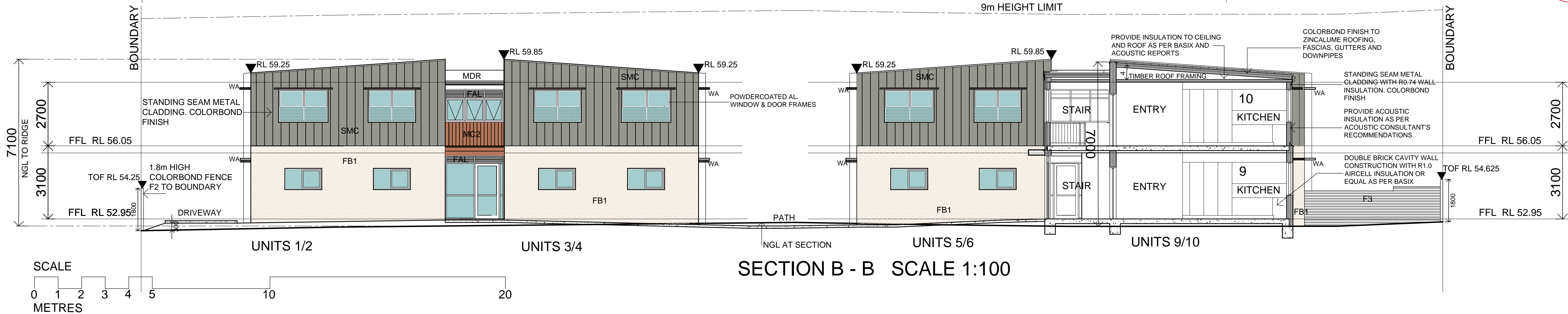
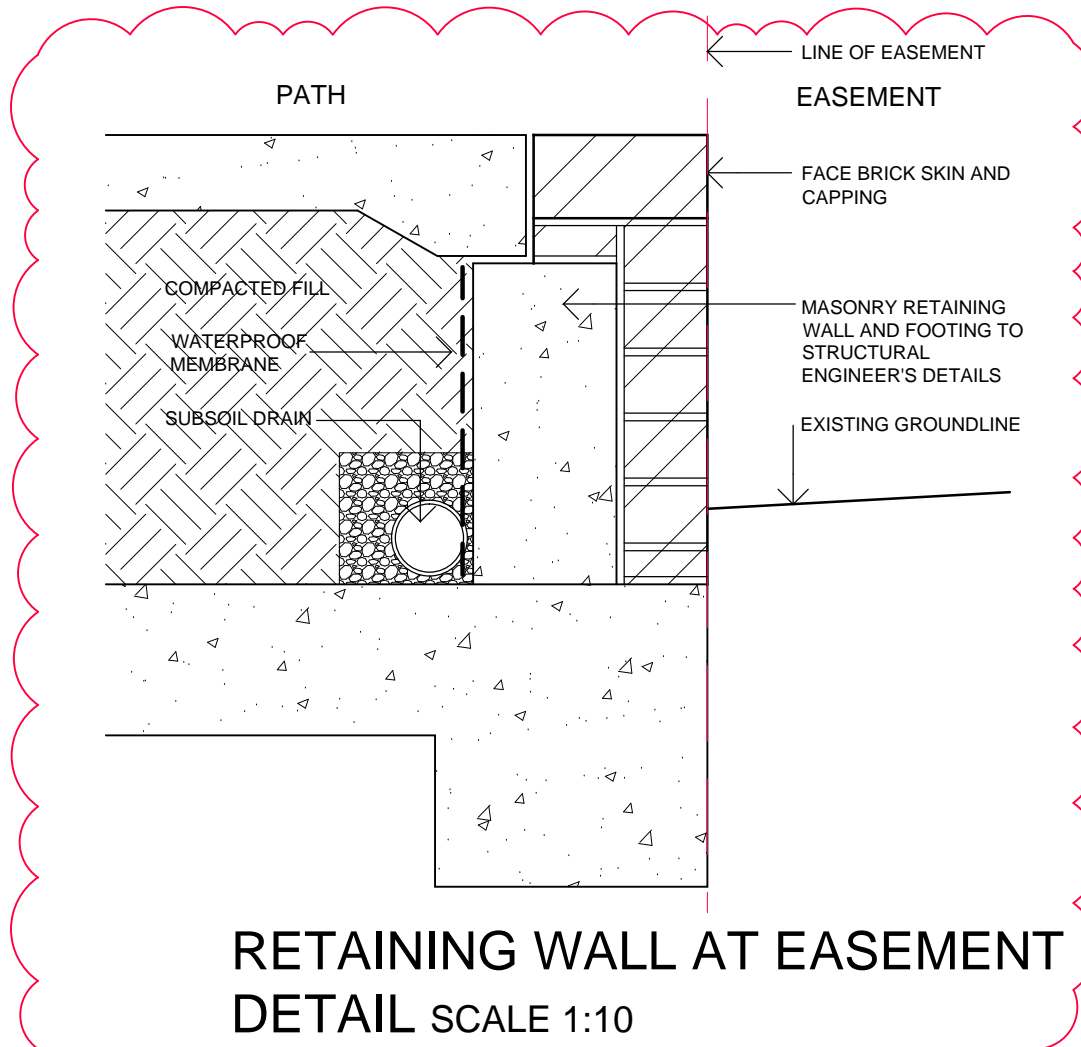
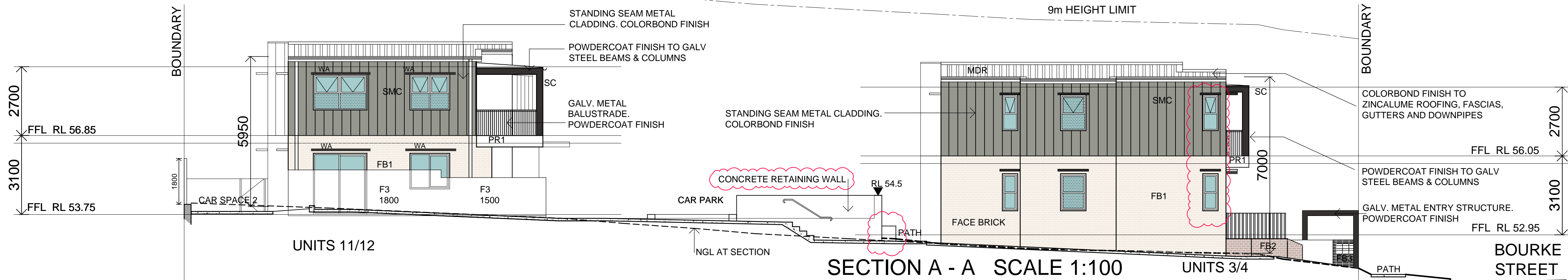
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STAGE: MB	DRAWN: BR	CHECKED: BR	FORWARDED ARCHITECT: BR

TYPE: **A** SHEET: **A07** REV: **B**



*Shah*

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PHONE No 1800 738 718  
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**Barry Rush & Associates Pty Ltd**  
Architects: Nominated Architect: Barry John Rush  
ARB Registration No 3753  
Suite 25A, 2 Beattie Street, Balmain, NSW  
Phone: (02) 9555 8029 Email: info@barryrush.com.au  
www.barryrush.com.au

REV	DATE	NOTATION/AMENDMENT
B	29/11/22	DA AMENDMENTS
A	18/02/22	DA PLAN ISSUE
REV	DATE	NOTATION/AMENDMENT

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ARCHITECT  
**BARRY RUSH & ASSOCIATES** PTY LTD  
PH (02) 8558 8029  
PROJECT MANAGER  
**LAND & HOUSING CORPORATION**  
PH (02) 8753 9000  
LANDSCAPE CONSULTANT  
**GREENLAND DESIGN** PTY LTD  
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CIVIL  
**ACOR CONSULTANTS** PTY LTD  
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HYDRAULIC CONSULTANT  
**MARLINE NEWCASTLE** PTY LTD  
PH (02) 4925 9300 FAX (02) 4926 3811  
ELECTRICAL CONSULTANT  
**MARLINE NEWCASTLE** PTY LTD  
PH (02) 4925 9300 FAX (02) 4926 3811

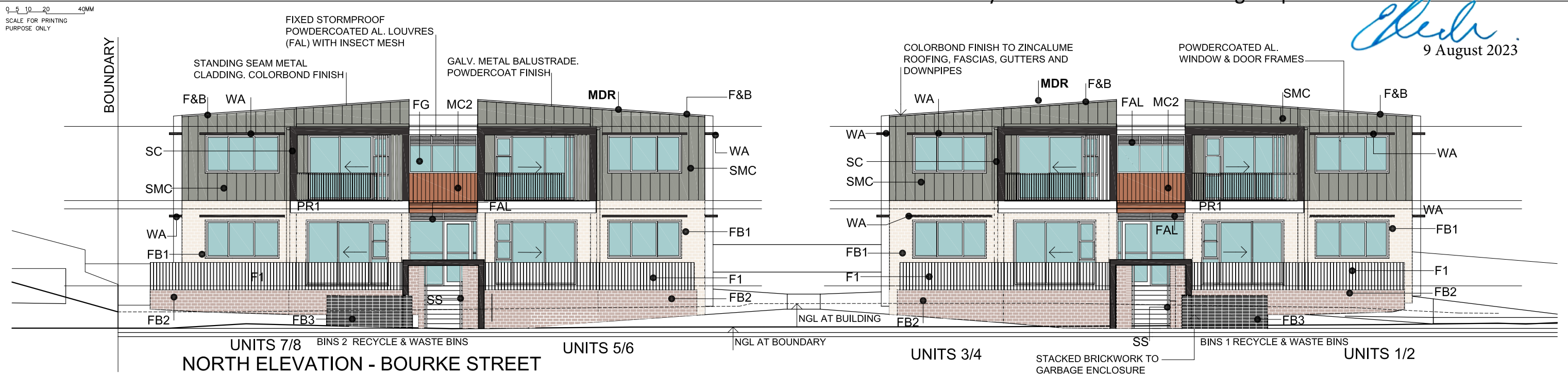
BUSINESS PARTNER:

PROJECT:  
SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342

FILE:  
DA A04e Plans elevations sections Rose Cr P Parramatta.dwg

STATUS: DA  
DATE: 2/05/22  
SCALE: VARIES  
STAGE: MB  
TYPE: A  
SHEET: A08  
PLOTED: 29/11/2022 5:11 PM

PROJECT NO: BGXWX  
CHECKED: BR  
REVIEWED: BR  
PROJECT NO: BGXWX  
PROJECT NO: BGXWX  
PROJECT NO: BGXWX



## FINISHES SCHEDULE

CODE	LOCATION		DESCRIPTION	COLOUR
MDR	ROOFING/ GUTTER/ DOWNPIPE/		METAL DECK ROOFING	BASALT
	FASCIA & BARGE		METAL	BASALT
FB1	WALLS		FACE BRICK	BOWRAL CHILLINGHAM WHITE
FB2	LOW SITE WALLS		FACE BRICK	BOWRAL MURRAY GREY
FB3	ENTRY STRUCTURES & GARBAGE		FACE BRICK	PGH BLACK BEAUTY
SMC	WALLS		METAL WALL CLADDING STANDING SEAM	BASALT
MC2	STAIR WALLS		COLORBOND WALL CLADDING	TERRAIN
SC	BALCONY STRUCTURE		METAL POWDERCOATED	MONUMENT
PR1	BALCONYS		OFF-FORM CONCRETE SKIM COAT RENDER + GRANOSITE SMOOTH PAINT	WATTYL ASTOR WHITE
WA	WINDOW AWNINGS		METAL POWDERCOATED	MONUMENT
AL	WINDOWS, DOORS & AL LOUVRES		POWDERCOATED ALUMINIUM	MONUMENT
SS	HANDRAILS		STAINLESS STEEL	SS MATT
AWNING OVER ENTRY	AWNING ABOVE ENTRIES		COLORBOND	TERRAIN
FC1	BALCONY LINING & SOFFIT		PAINTED FIBER CEMENT SHEETING	WATTYL ASTOR WHITE
F1	FENCE		1200 OR 1800 HIGH VERTICAL SLATTED METAL FENCING TO DETAIL	DULUX MONUMENT
F2	FENCE		1800 HIGH COLORBOND METAL FENCE	DULUX SHALE GREY
F3	FENCE		1500 HIGH SLATTED METAL FENCE	DULUX SHALE GREY



9 August 2023

**DEMOLITION NOTES:**

- 

A photograph of a single-story brick building with a covered porch and stairs, surrounded by greenery. The building has a red brick facade and a white roof. There are concrete steps leading up to the porch, which is supported by white pillars. The building is surrounded by lush green trees and bushes. A white fence is visible in the foreground.

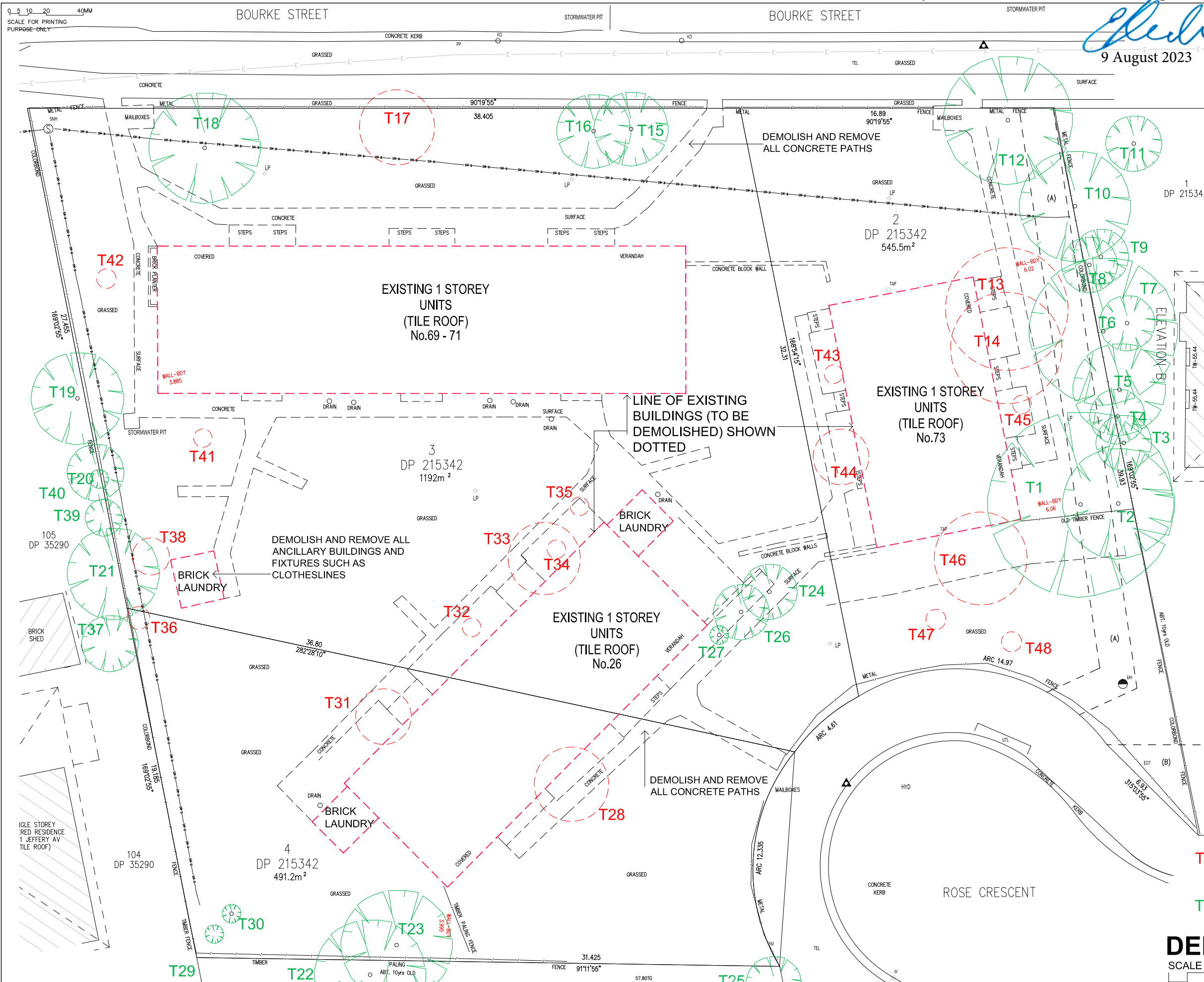
T28  TREE TO BE REMOVED

**T23**  **TREE TO BE RETAINED AND PROTECTED**  
**REFER ARBORIST REPORT**

## SCALE (METRES)



FILE: <b>DEMOLITION PLAN</b>		DATE: <b>DA</b>	
DATE: <b>02/05/22</b>		SCALE: <b>1:100</b>	PROJ: <b>-</b>
PAGE: <b>1</b>		DRAWN: <b>LP</b>	CHECKED: <b>BR</b>
PROJECT NO: <b>BGXWX</b>		FOUNDED ARCHITECT <b>BR</b>	
FILE: <b>DA Rose Cr N Parramatta Feb2022 Cover demo</b>	PLOTTED: <b>02/05/2022 11:33 AM</b>	TYPE: <b>A</b>	SHEET: <b>A10</b>
		REV: <b>A</b>	



			ARCHITECT <b>BARRY RUSH &amp; ASSOCIATES</b> PTV L
			PH (02) 9555 8028
			PROJECT MANAGER <b>LAND &amp; HOUSING CORPORATION</b>
			PH (02) 8753 9000
A	23/03/22	DA PLAN ISSUE	
REV	DATE	NOTATION/AMENDMENT	LANDSCAPE CONSULTANT <b>GREENLAND DESIGN</b> PTV LTD
DO NOT SCALE DRAWINGS - CHECK ALL DIMENSIONS ON SITE. RELEVANT DIMENSIONS TAKE PRECEDENCE			

ARCHITECT	<b>BARRY RUSH &amp; ASSOCIATES</b> PTY LTD
	PH (02) 9555 8028
PROJECT MANAGER	<b>LAND &amp; HOUSING CORPORATION</b>
	PH (02) 8753 9000
LANDSCAPE CONSULTANT	<b>GREENLAND DESIGN</b> PTY LTD
	PH 0403 164 198

TD	<p><b>CIVIL</b></p> <p><b>ACOR CONSULTANTS PTY LTD</b> PH (02) 4324 3499</p>
I	<p><b>HYDRAULIC CONSULTANT</b></p> <p><b>MARLINE NEWCASTLE PTY LTD</b> PH (02) 4925 9300 FAX (02) 4926 3811</p>
	<p><b>ELECTRICAL CONSULTANT</b></p> <p><b>MARLINE NEWCASTLE PTY LTD</b> PH (02) 4925 9300 FAX (02) 4926 3811</p>

	BUSINESS PARTNER

PROJECT:  
SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342

TITLE: <b>DEMOLITION PLAN</b>
----------------------------------

FILE:	PLOTTED:
DA Rose Cr N Parramatta Feb2022 Cover demo est.IMG	2/2/2022 11:33 AM

STATUS: DA			
DATE: 02/05/22	SCALE: 1:100	PROJ.: -	PROJECT No. BGXWX
STAGE:	DRAWN: LP	CHECKED: BR	NOMINATED ARCHITECT <i>BR</i>
TYPE: <b>A</b>	SHEET: <b>A10</b>		REV: <b>A</b>



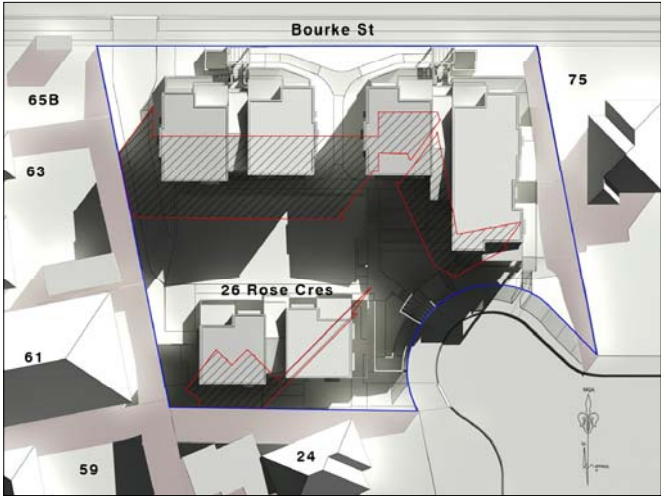


 <div>LOCKED BAG 5022 PARRAMATTA NSW 2124 PHONE No 1800 738 718 <a href="https://www.dple.nsw.gov.au/land-and-housing-corporation">https://www.dple.nsw.gov.au/land-and-housing-corporation</a></div>		 <div><b>Barry Rush &amp; Associates Pty Ltd</b> Architects, Nominated Architect: Barry John Rush ARS Registration No 3753 Suite 25A, 2 Beattie Street, Balmain, NSW Phone: (02) 9555 8028 Email: <a href="mailto:info@barryrush.com.au">info@barryrush.com.au</a> <a href="http://www.barryrush.com.au">www.barryrush.com.au</a></div>		<table><tr><td>ARCHITECT</td><td>BARRY RUSH &amp; ASSOCIATES PTY LTD PH (02) 9555 8028</td></tr><tr><td>PROJECT MANAGER</td><td>LAND &amp; HOUSING CORPORATION PH (02) 9753 9000</td></tr><tr><td>LANDSCAPE CONSULTANT</td><td>GREENLAND DESIGN PTY LTD PH 0403 164 198</td></tr></table>		ARCHITECT	BARRY RUSH & ASSOCIATES PTY LTD PH (02) 9555 8028	PROJECT MANAGER	LAND & HOUSING CORPORATION PH (02) 9753 9000	LANDSCAPE CONSULTANT	GREENLAND DESIGN PTY LTD PH 0403 164 198	<table><tr><td>ENV.</td><td>ACOR CONSULTANTS PTY LTD PH (02) 4324 3499</td></tr><tr><td>HYDROLOGICAL CONSULTANT</td><td>MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811</td></tr><tr><td>ELECTRICAL CONSULTANT</td><td>MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811</td></tr></table>		ENV.	ACOR CONSULTANTS PTY LTD PH (02) 4324 3499	HYDROLOGICAL CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811	ELECTRICAL CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811			BUSINESS PARTNER:		PROJECT: SENIORS DEVELOPMENT 26 ROSE CRESCENT AND 69-73 BOURKE STREET NORTH PARRAMATTA LOTS 2, 3 & 4 in DP 215342		TITLE: BLOCK ANALYSIS PLAN		STATUS: DA	
ARCHITECT	BARRY RUSH & ASSOCIATES PTY LTD PH (02) 9555 8028																												
PROJECT MANAGER	LAND & HOUSING CORPORATION PH (02) 9753 9000																												
LANDSCAPE CONSULTANT	GREENLAND DESIGN PTY LTD PH 0403 164 198																												
ENV.	ACOR CONSULTANTS PTY LTD PH (02) 4324 3499																												
HYDROLOGICAL CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811																												
ELECTRICAL CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4925 9300 FAX (02) 4926 3811																												
DATE: 2/05/22		DA PLAN ISSUE		DATE: 2/05/22		SCALE: A11		PROJECT NO: BGXWXX		DATE: 2/05/22																			
REV: A		NOTATION/AMENDMENT		DATE: 2/05/22		DRAWN: MB		CHECKED: BR		DATE: 2/05/22																			
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.						TYPE: A		SHEET: A11		REV: A																			

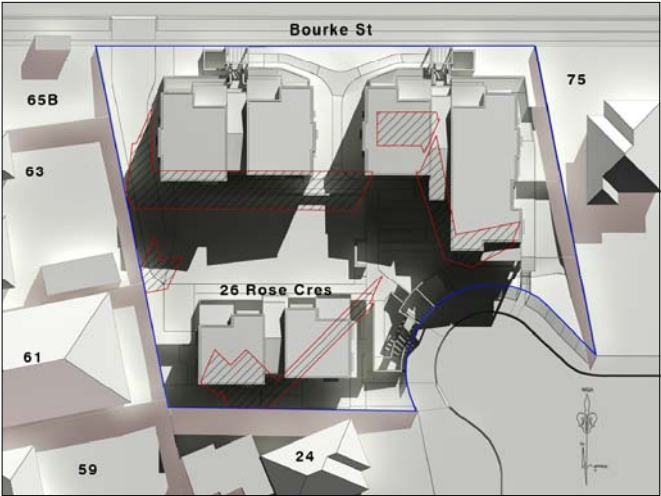
DETERMINED by the NSW Land and Housing Corporation on:

9.August 2023





9AM 21ST JUNE



10AM 21ST JUNE



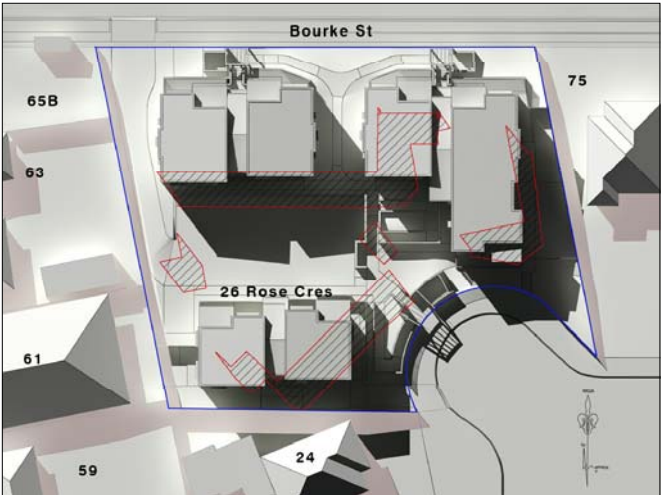
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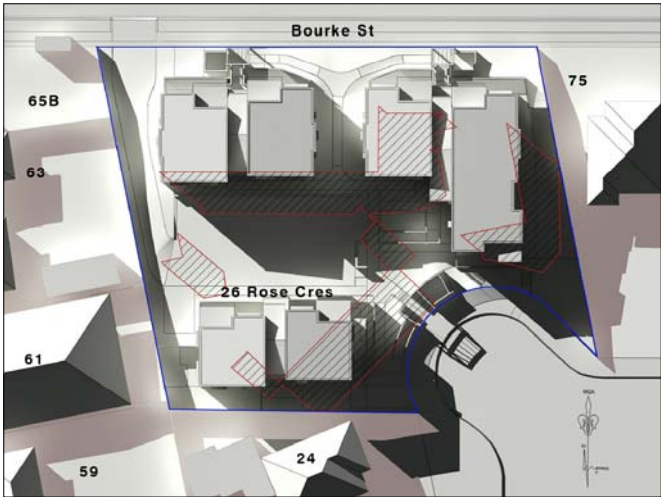
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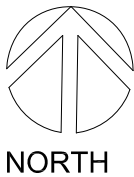
1PM 21ST JUNE



2PM 21ST JUNE



3PM 21ST JUNE



LEGEND:

- Grey area indicates shadows cast by proposed development
- Shadows cast by existing buildings on site
- Pink area indicates shadows cast by neighboring properties



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Architects, Nominated Architect: Barry John Rush  
ARB Registration No 3753  
Suite 25A, 2 Beattie Street, Balmain, NSW  
Phone: (02) 9555 8028 Email: [info@barryrush.com.au](mailto:info@barryrush.com.au)  
[www.barryrush.com.au](http://www.barryrush.com.au)

REV	DATE	NOTATION/AMENDMENT
A	23/03/22	DA PLAN ISSUE

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ARCHITECT	BARRY RUSH & ASSOCIATES PTY LTD PH (02) 9555 8028
PROJECT MANAGER	LAND & HOUSING CORPORATION PH (02) 8753 9000
LANDSCAPE CONSULTANT	GREENLAND DESIGN PTY LTD PH 0403 184 198

CIVIL	ACOR CONSULTANTS PTY LTD PH (02) 4324 3499
HYDRAULIC CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4825 9300 FAX (02) 4926 3811
ELECTRICAL CONSULTANT	MARLINE NEWCASTLE PTY LTD PH (02) 4825 9300 FAX (02) 4926 3811

BUSINESS PARTNER:

PROJECT:  
SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342

TITLE:  
SHADOW DIAGRAMS  
MID WINTER

FILE:  
PLOTTED:

STATUS: DA

DATE	SCALE	PROJ.	PROJECT NO.
2/05/22	N.T.S.	-	BGXWX
DRAWN	CHECKED	DESIGNED/REVISED	REV.
A	A12	BR	A

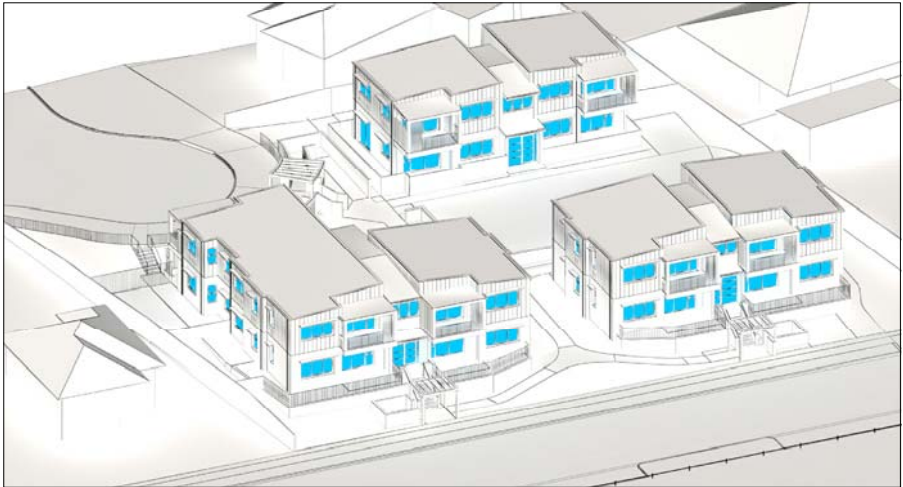


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*John*



9AM 21ST JUNE



10AM 21ST JUNE



11AM 21ST JUNE



12NOON 21ST JUNE



1PM 21ST JUNE



2PM 21ST JUNE



3PM 21ST JUNE



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[www.barryrush.com.au](http://www.barryrush.com.au)

REV	DATE	NOTATION/AMENDMENT
A	23/03/22	DA PLAN ISSUE
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ARCHITECT <b>BARRY RUSH &amp; ASSOCIATES</b> PTY LTD PH (02) 9555 8028
PROJECT MANAGER <b>LAND &amp; HOUSING CORPORATION</b> PH (02) 8753 9000
LANDSCAPE CONSULTANT <b>GREENLAND DESIGN</b> PTY LTD PH 0403 184 198

CIVIL CONSULTANT <b>ACOR CONSULTANTS</b> PTY LTD PH (02) 4924 3409
HYDRAULIC CONSULTANT <b>MARLINE NEWCASTLE</b> PTY LTD PH (02) 4925 9300 FAX (02) 4928 3811
ELECTRICAL CONSULTANT <b>MARLINE NEWCASTLE</b> PTY LTD PH (02) 4925 9300 FAX (02) 4928 3811

BUSINESS PARTNER:

PROJECT:  
**SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA**  
LOTS 2, 3 & 4 in DP 215342

TITLE:  
**VIEWS FROM SUN DIAGRAM**

FILE:  
A12-A14 SHADOWS 3D.dwg

PLOTTED:  
14/02/2022 11:30 AM

STATUS: DA

DATE 2/05/22	SCALE N.T.S.	PROJ. -	PROJECT NO. BGXWX
DRAWN MB	CHECKED BR	DESIGNED/ARCHITECT <i>BR</i>	REV. A



*[Handwritten Signature]*

0 5 10 20 40MM  
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BOURKE STREET - STREETSCAPE PERSPECTIVE



ROSE CRESCENT - STREETSCAPE PERSPECTIVE



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REV	DATE	NOTATION/AMENDMENT
A	23/03/22	DA PLAN ISSUE
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.		

ARCHITECT <b>BARRY RUSH &amp; ASSOCIATES</b> PTY LTD PH (02) 9555 8028
PROJECT MANAGER <b>LAND &amp; HOUSING CORPORATION</b> PH (02) 8763 9000
LANDSCAPE CONSULTANT <b>GREENLAND DESIGN</b> PTY LTD PH 0403 164 198

CIVIL CONSULTANT <b>ACOR CONSULTANTS</b> PTY LTD PH (02) 4924 3499
HYDRAULIC CONSULTANT <b>MARLINE NEWCASTLE</b> PTY LTD PH (02) 4925 5500 FAX (02) 4926 3811
ELECTRICAL CONSULTANT <b>MARLINE NEWCASTLE</b> PTY LTD PH (02) 4925 5500 FAX (02) 4926 3811

BUSINESS PARTNER:

PROJECT:  
SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342

TITLE:  
STREETSCAPE PERSPECTIVES

FILE:  
A12-A14 SHADOWS 3D.dwg

PLOTTED:  
14/02/2022 11:30 AM

STATUS: DA

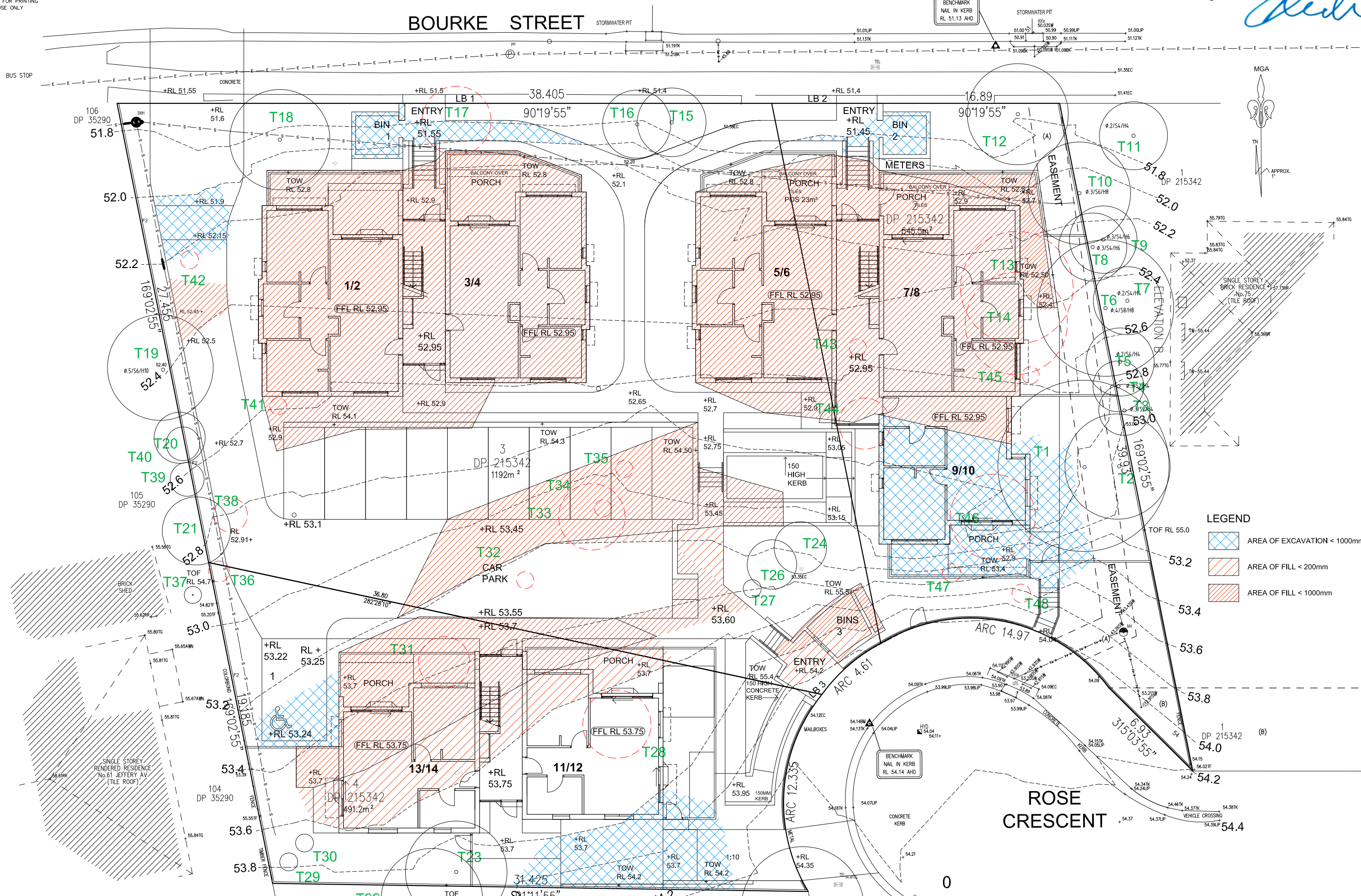
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STAGE:	DRAWN: MB	CHECKED: BR	FORWARDED SUBJECT: <i>BR</i>
TYPE: A	SHEET: A14	REV: A	



*John*

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BOURKE STREET



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REV	DATE	NOTATION/AMENDMENT
A	23/03/22	DA PLAN ISSUE
DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.		

ARCHITECT  
**BARRY RUSH & ASSOCIATES PTY LTD**  
PH (02) 9555 8028  
PROPOSED DEVELOPER  
**LAND & HOUSING CORPORATION**  
PH (02) 9753 9000  
LANDSCAPE CONSULTANT  
**GREENLAND DESIGN PTY LTD**  
PH 0403 164 198

CIVIL  
**ACOR CONSULTANTS PTY LTD**  
PH (02) 4324 3489  
ELECTRICAL CONSULTANT  
**MARLINE NEWCASTLE PTY LTD**  
PH (02) 4925 9300 FAX (02) 4926 3811  
BUSINESS PARTNER  
**MARLINE NEWCASTLE PTY LTD**  
PH (02) 4925 9300 FAX (02) 4926 3811

PROJECT:  
**SENIORS DEVELOPMENT  
26 ROSE CRESCENT AND  
69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 in DP 215342**

TITLE:  
**AREAS OF EXCAVATION  
AND FILL**

DATE:  
2/05/22  
SCALE:  
1:100  
DRAWN:  
LP  
PLOTTED:  
04/02/2022 11:57 AM  
DA cut & fill plan Rose Cr N Parramatta Dec2021

STATUS:	DA	PROJ:	BGXWX	PROJ NO:	
DATE:	2/05/22	CHECKED:	BR	REV:	A
SCALE:	1:100	DRAWN:	LP	SHEET:	A15
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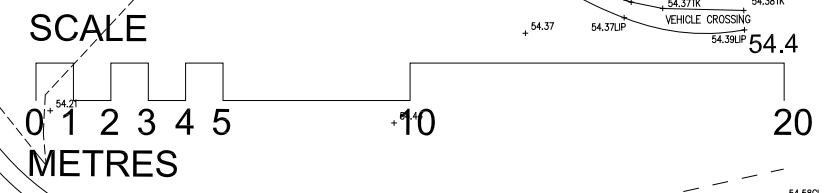


0 5 10 20 40MM  
SCALE FOR PRINTING  
PURPOSE ONLY

LEGEND:

- 1 BED UNIT
- 2 BED UNIT
- PRIVATE LANDSCAPE AREA
- COMMON LANDSCAPE AREA with table reference
- DEEP SOIL ZONE with AREA
- PAVERS ON COMPACTED FILL
- TILES
- EXISTING TREE
- TREE TO BE REMOVED
- TPZ TREE PROTECTION ZONE
- TREE NUMBER. REFER TO ARBORIST REPORT
- AREA OF ENCROACHMENT INTO TREE PROTECTION ZONE. REFER ARBORIST REPORT FOR % DATA

DEEP SOIL ZONE	
FRONT:	199 <sup>2</sup>
REAR:	179 <sup>2</sup>
TOTAL:	342m <sup>2</sup>
PRIVATE LANDSCAPE AREA	
UNIT 1	8m <sup>2</sup>
UNIT 3	9m <sup>2</sup>
UNIT 5	9m <sup>2</sup>
UNIT 7	41m <sup>2</sup>
UNIT 9	66m <sup>2</sup>
UNIT 11	13m <sup>2</sup>
UNIT 13	55m <sup>2</sup>
TOTAL	201m <sup>2</sup>
COMMON LANDSCAPED AREA:	
a - 54m <sup>2</sup>	i - 4m <sup>2</sup>
b - 70m <sup>2</sup>	j - 2m <sup>2</sup>
c - 37m <sup>2</sup>	k - 78m <sup>2</sup>
d - 41m <sup>2</sup>	l - 53m <sup>2</sup>
e - 45m <sup>2</sup>	m - 86m <sup>2</sup>
f - 40m <sup>2</sup>	n - 21m <sup>2</sup>
g - 5m <sup>2</sup>	o - 12m <sup>2</sup>
h - 13m <sup>2</sup>	
TOTAL:	561m <sup>2</sup>





SECTION OF COOL  
ER BREEZE

OF BREEZE  
UGH DWELLING

ROSE  
CRESCENT

Architectural section drawing of Units 11/12. The drawing shows a two-story unit with a car space below. The upper floor includes a Kitchen/Dining area, a Living area, and a Deck. The lower floor includes a Kitchen/Dining area, a Living area, and a Patio. A path leads from the car park to the unit. The drawing is labeled 'UNITS 11/12' and 'NGL AT SECTION'.

Diagram illustrating the orientation of a house with a gabled roof, showing the relationship between the roof's slope and the cardinal directions (N, S, E, W) and the resulting wind and sun exposure.

- North (N):** The top of the diagram, labeled with a large 'N'.
- South (S):** The bottom of the diagram, labeled with a large 'S'.
- East (E):** The right side of the diagram, labeled with a large 'E'.
- West (W):** The left side of the diagram, labeled with a large 'W'.
- Wind Directions:**
  - WINTER WIND:** Indicated by a curved arrow pointing from the South towards the North.
  - COOL SUMMER BREEZE:** Indicated by a curved arrow pointing from the East towards the West.
- Sun Exposure:**
  - WINTER SUN:** Indicated by a small circle near the North direction.
  - SUMMER SUN:** Indicated by a small circle near the South direction.

0 1 2 3 4 5 10 20  
METRES





- LEGEND**
- Existing trees to be retained  
Refer Arborist Report
  - Tree Protection Zone with 1.8m high chainwire mesh panels  
Refer appendix 6 of Arborist Report
  - Existing trees to be removed  
Refer Arborist Report
  - Proposed native tree plantings
  - Proposed shrub plantings
  - Concrete path pavement
  - Proposed garden bed
  - Proposed turfed area
  - Concrete garden edge



LOCKED BAG 5022  
PARRAMATTA NSW 2124  
PHONE No 1800 738 718  
<https://www.dpie.nsw.gov.au/land-and-housing-corporation>

NOMINATED ARCHITECT:  
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LANDSCAPE CONSULTANT  
**GREENLAND DESIGN PTY LTD**  
PH (0403) 164 198

PROJECT:  
**SENIORS DEVELOPMENT**  
26 ROSE CRESCENT AND 69-73 BOURKE STREET  
NORTH PARRAMATTA  
LOTS 2, 3 & 4 IN DP 215342

TITLE:  
**LANDSCAPE PLAN**

STATUS:  
DA  
DATE:  
07/12/2022  
SCALE:  
1:100  
PROJ:  
-  
PROJECT NO:  
BGXWX  
DRAWN:  
CL  
CHECKED:  
GD  
REVIEWED:  
E  
TYPE:  
LA  
SHEET:  
1 of 2

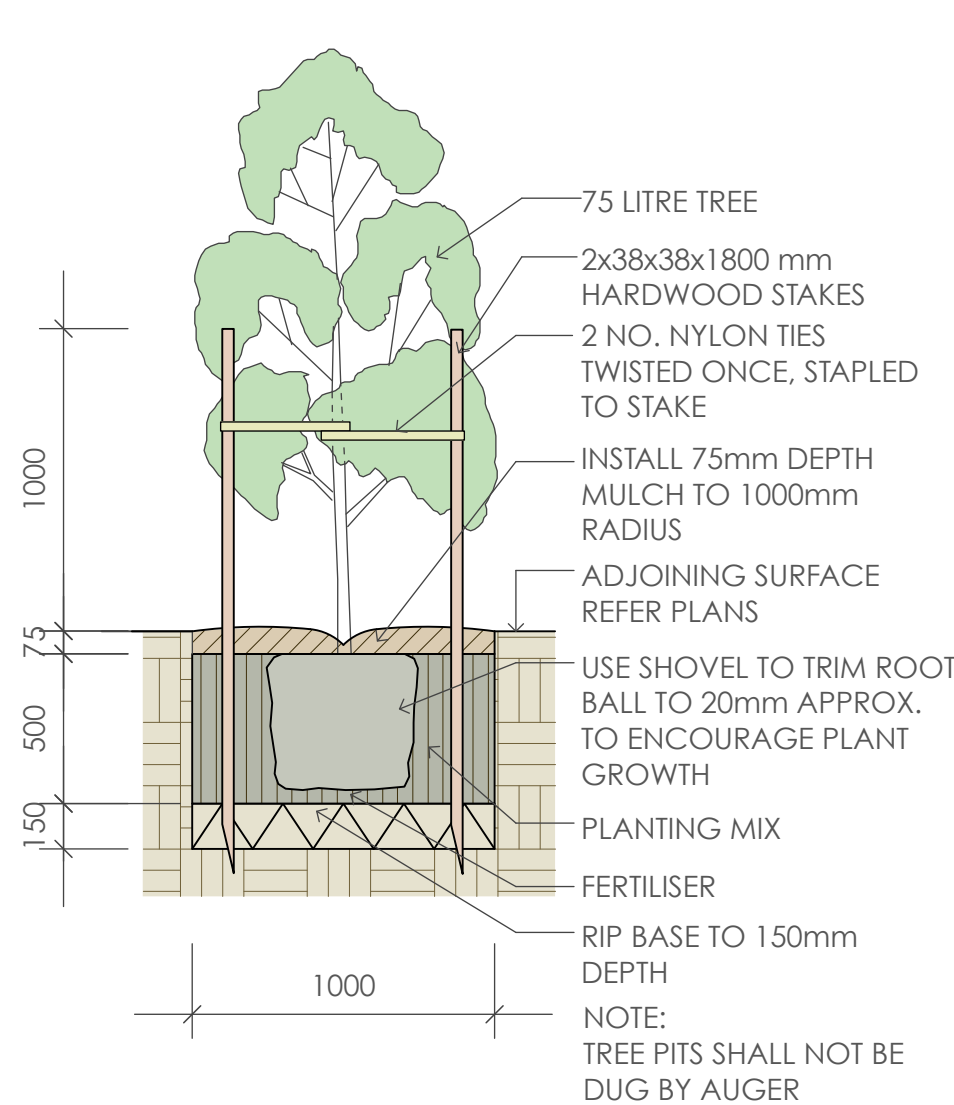
FILE:  
2509

DO NOT SCALE DRAWINGS. CHECK ALL DIMENSIONS ON SITE.  
FIGURED DIMENSIONS TAKE PRECEDENCE.

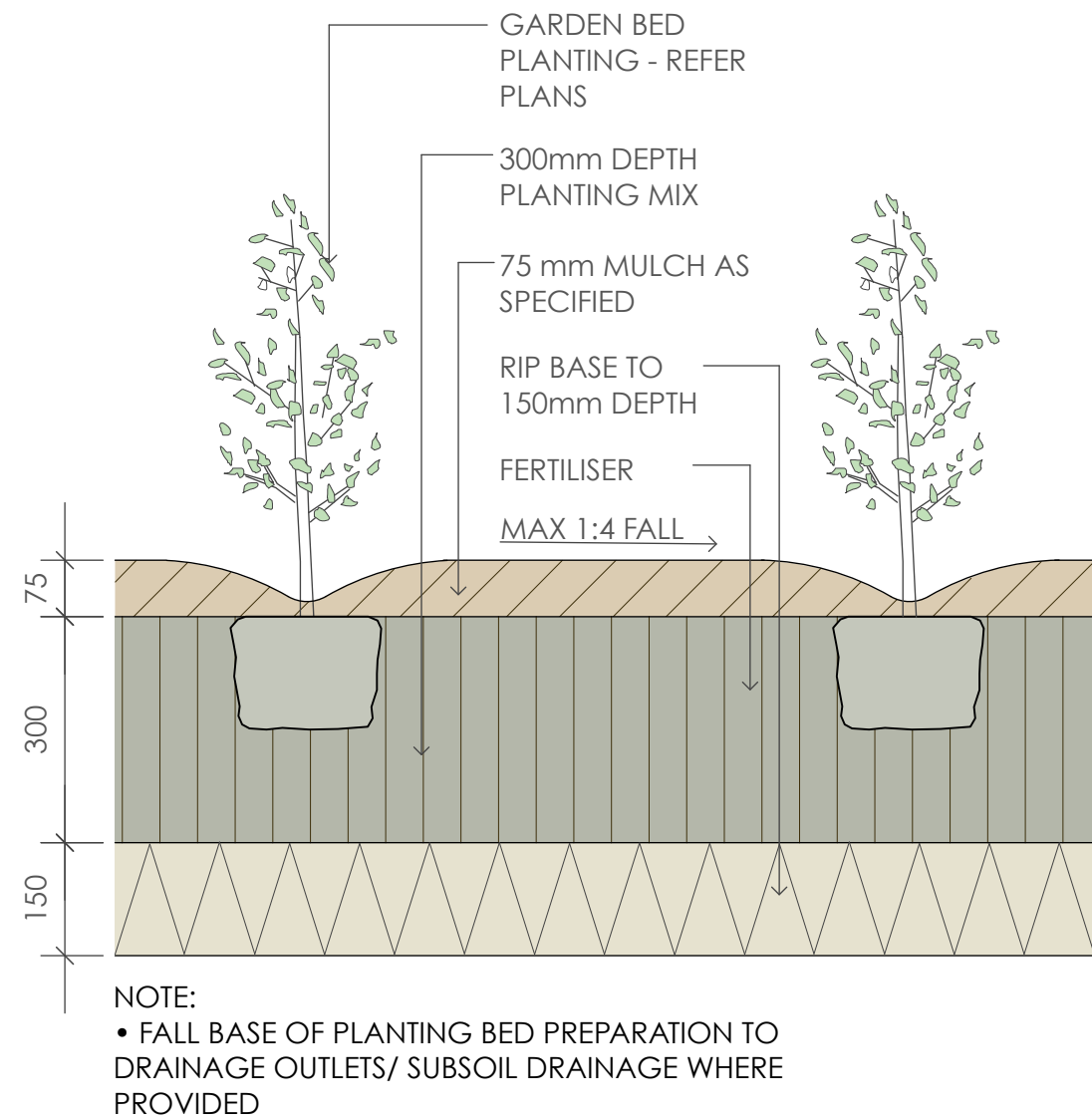
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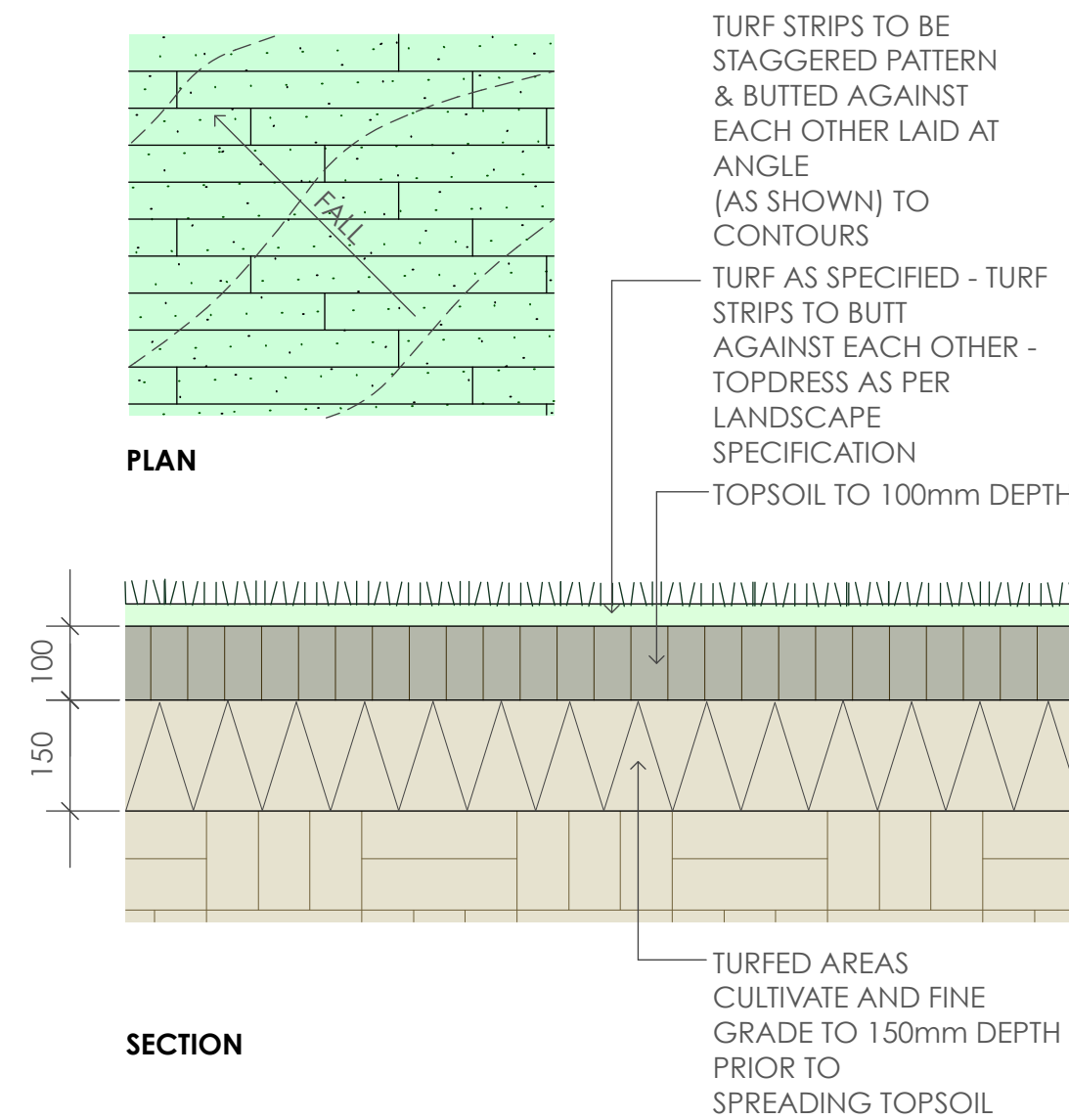
*John*



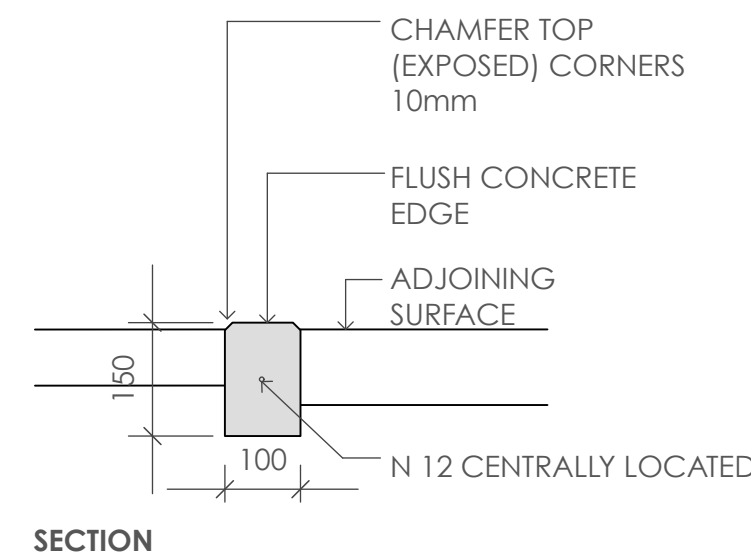
1 75 Litre Tree Planting  
scale 1:25



2 Planting Bed Detail  
scale 1:10



3 Turfing  
scale as shown



4 Concrete Edge  
scale 1:10

Plant Schedule							
ID	Qty	Common Name	Botanical Name	Size	Mature Height	Mature Spread	Native (N)
<b>Trees</b>							
CalKing	8	Bottlebrush	Callistemon 'Kings Park Special'	75Litre	3 - 6m	2.0 - 3.5m	N
GorAxi	6	Gordonia	Gordonia axillaris	75Litre	4 - 6m	3.5 - 6m	
SteSin	3	Firewheel Tree	Stenocarpus sinuatus	75Litre	15 - 20m	5 - 10m	N
Trilus	5	Water Gum	Tristanopsis laurina 'Luscious'	75Litre	6 - 8m	3.5 - 6m	N
WatGre	7	Green Avenue	Waterhouseia 'Green Avenue'	75Litre	13 - 15m	6 - 10m	N
<b>Shrubs</b>							
AcaGree	57	Green Mist	Acacia cognata 'Green Mist'	200mm	1.0 - 1.5m	0.8 - 1.0m	N
AlpCae	54	Native Ginger	Alpinia caerulea	200mm	0.9 - 1.5m	0.9 - 1.2m	N
CalEnd	29	Scarlet Bottlebrush	Callistemon citrinus 'Endavour'	200mm	3 - 5m	2.0 - 3.5m	N
CalAll	25	All Aglow Bottle Brush	Callistemon 'All Aglow'	200mm	1.5 - 2.0m	1.0 - 1.5m	N
CalLit	49	Little John	Callistemon 'Little John'	200mm	0.9 - 1.5m	0.9 - 1.2m	N
CorAlb	65	White Correa	Correa alba	200mm	0.9 - 1.5m	0.9 - 1.2m	N
CosEve	17	Evening Glow Mirror Plant	Coprosma 'Evening Glow'	200mm	1.2 - 1.5m	0.9 - 1.2m	N
DorExc	25	Gymea Lily	Doryanthes excelsa	200mm	1.5 - 2m	1.2 - 2.0m	N
GreHon	19	Honey Gem Grevillea	Grevillea 'Honey Gem'	200mm	3.0 - 4.0m	2.0 - 3.0m	N
SyzRes	69	Resilience Lily Pilly	Syzygium 'Resilience'	200mm	2 - 3m	1.2 - 2.0m	N
WesFru	7	Jervis Gem	Westringia fruticosa 'Jervis Gem'	200mm	0.8 - 1.2m	0.8 - 1.2m	N
<b>Ground Covers</b>							
LomSha	211	Shara Mat Rush	Lomandra longifolia 'Shara'	150mm	0.45 - 0.55m	0.5 - 0.6m	N
DicEme	106	Emerald Falls Dichondra	Dichondra 'Emerald Falls'	150mm	0.0 - 0.3m	0.9 - 1.2m	N
DiaTas	79	Flax Lily	Dianella tasmanica 'Tasred'	150mm	0.4 - 0.5m	0.4 - 0.5m	N
CasCou	84	Cousin It	Casuarina 'Cousin It'	150mm	0.10 - 0.15m	0.8 - 1.0m	N
SenTri	32	Trident Blue	Senecio Trident Blue	150mm	0.2 - 0.3m	0.5 - 1.0m	N
DiaBla	9	Flax Lily	Dianella tasmanica 'Blaze'	150mm	0.4 - 0.5m	0.4 - 0.6m	N
HypGol	27	Gold Nugget	Hymenoporum flavum 'Gold Nugget'	150mm	0.10 - 0.15m	0.8 - 1.0m	N
MyoYar	152	Carpet Spreading Myoporum	Myoporum parvifolium 'Yareena'	150mm	0.05 - 0.1m	0.8 - 1.0m	N
HarMee	86	Meema	Hardenbergia violacea 'Meema'	150mm	0.4 - 0.6m	1.5 - 2.0m	N
PenRub	122	Purple Fountain Grass	Pennisetum 'Rubrum'	150mm	1 - 1.5m	0.5 - 0.9m	N
JunUsi	214	Tussock Rush	Juncus usitatus	150mm	0.5 - 0.7m	0.8 - 1.0m	N
DiaLit	51	Spreading Flax Lily	Dianella revoluta 'Little Rev'	150mm	0.3 - 0.45m	0.3 - 0.6m	N
BanBir	45	Birthday Candle	Banksia spinulosa 'Birthday Candle'	150mm	0.45 - 0.6m	0.9 - 1.2m	N
GrePoor	89	Royal Mantle Grevillea	Grevillea 'Poorinda Royal Mantle'	150mm	0 - 0.1m	2.0 - 3.0m	N

#### SPECIFICATION NOTES

##### PLANTING MATERIALS

###### Planting Mix:

Planting mix for tree pit backfill shall be "Organic Garden Mix" consisting of  
50% Black Soil  
20% Coarse Sand  
30% Organic Material

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

###### Mulch:

Mulch to garden bed:

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

Spread mulch so that after settling, it is:

- smooth and evenly graded between design surface levels;
- flush with adjacent finished levels;
- of the required depths (75mm); and
- sloped towards the base of plant stems in plantation beds, but not in contact with the stem (not closer than 50mm in the case of gravel mulches).

Place after the preparation of the planting bed, planting and all other work.

###### Plant Material:

All plant material must be true to the species. No substitutes will be allowed. All plants shall be free of fungus and insect damage. All plants shall be healthy, well shaped, not soft or force grown and not root bound.

Plants are available from **Andreasens Green** wholesale nursery, contact Darren (02) 8777 4713, email darren@andreasengreen.com.au or approved equivalent.

###### Turfed areas:

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

All new turfed area shall have a minimum 150mm depth of weed free top soil, placed and levelled prior to turfing.

#### PREPARATION AND HARDWORKS

##### Excavating for Spot Planting

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

##### Staking

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

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

##### Concrete Edge

MATERIALS: Concrete to be off white colour.

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

#### MAINTENANCE / PLANT ESTABLISHMENT

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

Maintenance shall consist of the following works:

- Follow a daily watering programme to be approved by Superintendent. Water all plants individually, twice per week or when necessary to ensure constant plant growth. Water all turf and native grassed areas, twice per week.
- Apply appropriate weed control sprays and hand weed as required to maintain planting areas, native grassing bed areas, turfed areas, paved areas, and tree pits in turf free of weed or rogue grass growth.
- Regularly tidy and top up mulch and trim edges to prevent spill over onto paved / grassed areas.
- Spray to control pests and diseases.
- Replace plants, which fail with plants of a similar size and quality as originally specified to approval of Superintendent. Costs of replacement shall be the responsibility of the Contractor. Replacement planting will be undertaken within 2 weeks of identification of dead material or instruction be the Superintendent.
- Report any incidence of plants stolen or destroyed by vandalism.
- Adjust stakes and ties to plants as necessary. Ensure that strangulation of plants does not occur.
- Prune and shape plants as directed or where necessary.
- Make good any defects or faults arising out of defective workmanship or materials.
- Fertilise lawn areas to maintain healthy growth.
- Make good any erosion or soil subsidence, which may occur including soft areas in pathways.
- Mow lawn to maintain neat healthy growth.
- A final inspection shall be made by the Superintendent before handover. Any items requiring rectification shall be repaired before the works are finally approved, and retention moneys released.

#### NOTE:

- All finished levels are to be verified by Contractor on site.
- All landscape works be in strict accordance with Council's landscape code and guidelines
- This plan to be used in conjunction with all other submitted architectural, hydraulics and engineering drawing where applicable.

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

NOMINATED ARCHITECT:

**Barry Rush & Associates Pty Ltd**

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Phone: (612) 9555 8028 Fax: (612) 9810 0161  
Email: info@barryrush.com.au  
www.barryrush.com.au

E	07/12/2022	DA
D	02/05/2022	DA
C	21/03/2022	DA
B	16/02/2022	DA
A	20/01/2022	SKETCH
REV	DATE	NOTATION/AMENDMENT
DO NOT SCALE DRAWINGS, CHECK ALL DIMENSIONS ON SITE. FIGURED DIMENSIONS TAKE PRECEDENCE.		

ARCHITECT	<b>BARRY RUSH &amp; ASSOCIATES PTY LTD</b> PH (02) 9555 8028
PROJECT MANAGER	<b>LAND &amp; HOUSING CORPORATION</b> PH (02) 8753 8900
LANDSCAPE CONSULTANT	<b>GREENLAND DESIGN PTY LTD</b> PH 0403 164 198

PROJECT:	<b>SENIORS DEVELOPMENT</b> 26 ROSE CRESCENT AND 69-73 BOURKE STREET NORTH PARRAMATTA LOTS 2,3 & 4 IN DP 215342
----------	---

TITLE:	<b>LANDSCAPE DETAILS AND SPECIFICATION</b>
FILE:	2509

STATUS:	DA	SCALE:	1:100	PROJ:	-	PROJECT NO:	BGXWX
DATE:	07/12/2022	DRAWN:	CL	CHECKED:	GD	LANDSCAPE ARCH	
SPEC:	DA	SHEET:	2 of 2	REV:	E		



LOCKED BAG 5022  
PARRAMATTA NSW 2124  
PHONE No 1800 738 718  
https://www.dpie.nsw.gov.au/and-and-housing-corporation







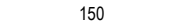








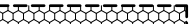







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# PROPOSED DEVELOPMENT

## (No.26) ROSE CRESCENT & (No. 69-73) BOURKE STREET, NORTH PARRAMATTA

### STORMWATER MANAGEMENT PLANS

LEGEND	
	DENOTES ON-SITE DETENTION TANK
	DENOTES ON-SITE RETENTION TANK
	DENOTES DWELLING FOOTPRINT
	DENOTES 100mm DIA. STORMWATER/SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
	DENOTES 100mm DIA. FULLY SEALED RAINWATER SYSTEM PIPE U.N.O.
	DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES RISING MAIN AND PIPE DIA. U.N.O.
	DENOTES SUBSOIL DRAINAGE LINE AND DIA. WRAPPED IN GEOFABRIC U.N.O.
	DENOTES DOWNPIPE
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL FOR SYSTEM FLUSHING PURPOSES
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN
	DENOTES ABSORPTION TRENCH
	NON RETURN VALVE
	PUMP
	STOP VALVE (ISOLATION VALVE)
	240v REQUIRED
	DENOTES LEVEL OF INLET /OUTLET OF STORMWATER PIPE. NOTE: UNLESS NOTED OTHERWISE, THE BASE OF THE PIT IS THE SAME AS THE PIPE INLET/OUTLET.

DIAL BEFORE YOU DIG



IMPORTANT: THE CONTRACTOR IS TO MAINTAIN A CURRENT SET OF "DIAL BEFORE YOU DIG" DRAWINGS ON SITE AT ALL TIMES.

GENERAL NOTES	
1.	THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS. WHERE DISCREPANCIES ARE FOUND ACOR CONSULTANTS (CC) MUST BE CONTACTED IMMEDIATELY FOR VERIFICATION
2.	WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES
3.	SUBSOIL DRAINAGE SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL ENGINEER. SUBSOIL DRAINAGE SHALL NOT BE CONNECTED INTO THE STORMWATER SYSTEM IDENTIFIED ON THESE PLANS UNLESS APPROVED BY ACOR CONSULTANTS (CC)

STORMWATER CONSTRUCTION NOTES	
1.	ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500 (CURRENT EDITION) AND THE REQUIREMENTS OF THE LOCAL COUNCIL'S POLICIES AND CODES
2.	THE MINIMUM SIZES OF THE STORMWATER DRAINS SHALL NOT BE LESS THAN DN90 FOR CLASS 1 BUILDINGS AND DN100 FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY
3.	THE MINIMUM GRADIENT OF STORMWATER DRAINS SHALL BE 1%, UNLESS NOTED OTHERWISE
4.	COUNCIL'S TREE PRESERVATION ORDER IS TO BE STRICTLY ADHERED TO. NO TREES SHALL BE REMOVED UNTIL PERMIT IS OBTAINED
5.	PUBLIC UTILITY SERVICES ARE TO BE ADJUSTED AS NECESSARY AT THE CLIENT'S EXPENSE
6.	ALL PITS TO BE BENCHED AND STREAMLINED. PROVIDE STEP IRONS FOR ALL PITS OVER 1.2m DEEP
7.	MAKE SMOOTH JUNCTION WITH ALL EXISTING WORK
8.	VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION
9.	SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATIONS AND ARE NOT GUARANTEED COMPLETE NOR CORRECT. IT IS THE CLIENT & CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PRIOR TO CONSTRUCTION
10.	ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY ACOR CONSULTANTS (CC) PRIOR TO THEIR COMMENCEMENT

RAINWATER RE-USE SYSTEM NOTES	
1.	RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
2.	TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF: 2.1. PERMANENT AIR GAP 2.2. BACKFLOW PREVENTION DEVICE
3.	NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN WATER SUPPLY
4.	AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
5.	PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL
6.	ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE
7.	PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN
8.	ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED
9.	PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS/NZS3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2648) OR FOR ABOVE GROUND PIPES BY USING ADHESIVE PIPE MARKERS (MADE IN ACCORDANCE WITH AS1345)
10.	EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319
11.	ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY

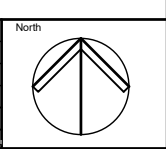
PARRAMATTA COUNCIL REQUIREMENTS	
1.	SITE AREA (m²) ..... 2229
2.	ON-SITE DETENTION REFER TO SHEET C4 FOR THE UPPER PARRAMATTA RIVER CATCHMENT TRUST ON-SITE DETENTION DRAINAGE CALCULATIONS
3.	RAINWATER REUSE PROVIDE RAINWATER REUSE TANK AS REQUIRED BY BASIX. RAINWATER REUSE VOLUME PROVIDED = 30m³ .
4.	SITE DISCHARGE TO EXISTING STORMWATER PIT IN BOURKE STREET, REFER TO SHEET C2.
5.	DESIGN HAS BEEN PREPARED IN ACCORDANCE WITH PARRAMATTA COUNCIL DESIGN & DEVELOPMENT GUIDELINES, UPPER PARRAMATTA RIVER CATCHMENT TRUST, AR&R AND AS/ANZS 3500

SHEET INDEX	
COVER SHEET & NOTES	SHEET C1
STORMWATER MANAGEMENT PLAN	SHEET C2
STORMWATER MANAGEMENT DETAILS SHEET No.1	SHEET C3
OSD CALCULATION SHEET & MAINTENANCE SCHEDULE	SHEET C4
OSD CHECKLIST SHEET 1 OF 2	SHEET C5
OSD CHECKLIST SHEET 2 OF 2	SHEET C6
EROSION & SEDIMENT CONTROL PLAN	SHEET C7
EROSION & SEDIMENT CONTROL NOTES & DETAIL SHEET	SHEET C8
STORMWATER QUALITY REPORT SHEET 1 OF 2	SHEET C9
STORMWATER QUALITY REPORT SHEET 2 OF 2	SHEET C10

DEVELOPMENT APPLICATION ISSUE  
NOT FOR CONSTRUCTION

DRAWINGS MUST BE PRINTED IN COLOUR

D	UPDATED TO SUIT COUNCILS COMMENTS	08.03.23	RH	BK
C	UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN & COUNCILS COMMENTS	08.12.22	RH	BK
B	UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN	27.04.22	RH	BK
A	ISSUED FOR DEVELOPMENT APPROVAL	07.02.22	RH	BK
Issue	Description	Date	Drawn	Approved



Client  
**BARRY RUSH & ASSOCIATES**  
PTY LTD

Architect



**ACOR Consultants (CC) Pty Ltd**  
Platinum Building, Suite 2.01, 4 Ilya Avenue  
ERINA NSW 2250, Australia  
T +61 2 4324 3499

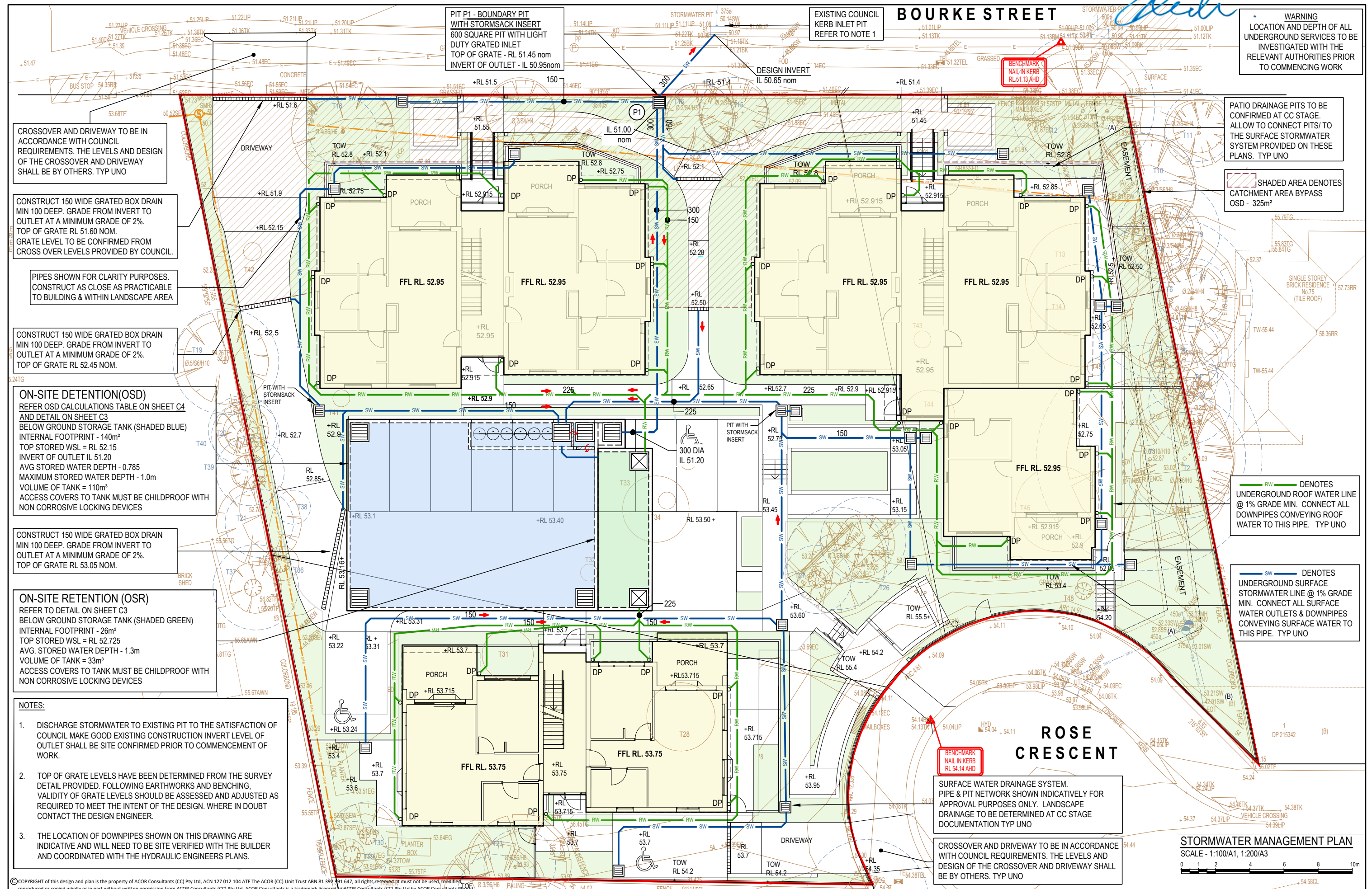


ENGINEERS | MANAGERS | INFRASTRUCTURE PLANNERS | DEVELOPMENT CONSULTANTS

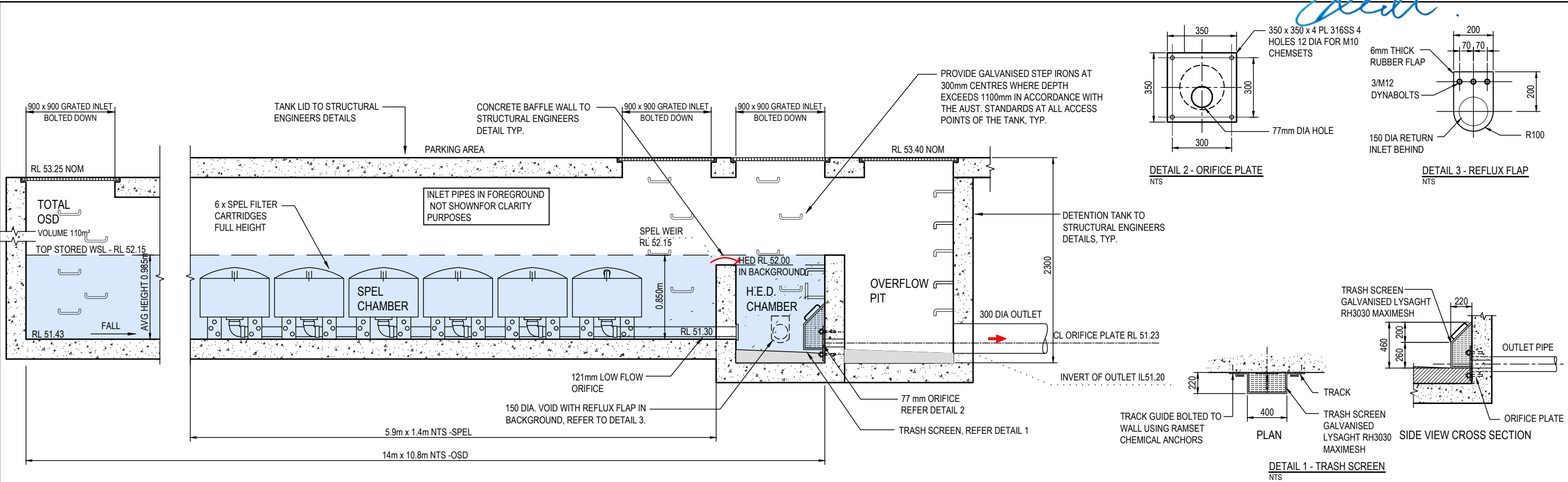
Project  
**PROPOSED RESIDENTIAL DEVELOPMENT**  
(No. 26) ROSE CRESCENT &  
(No. 69-73) BOURKE STREET  
NORTH PARRAMATTA

Drawing Title COVER SHEET & NOTES				
Drawn RH	Date NOV 21	Scale AS NOTED	A1 Q.A. Check BAK	Date 07.02.22
Designed BK	Project No. <b>CC210393</b>	Dwg. No. C1	Issue D	





*Chad*

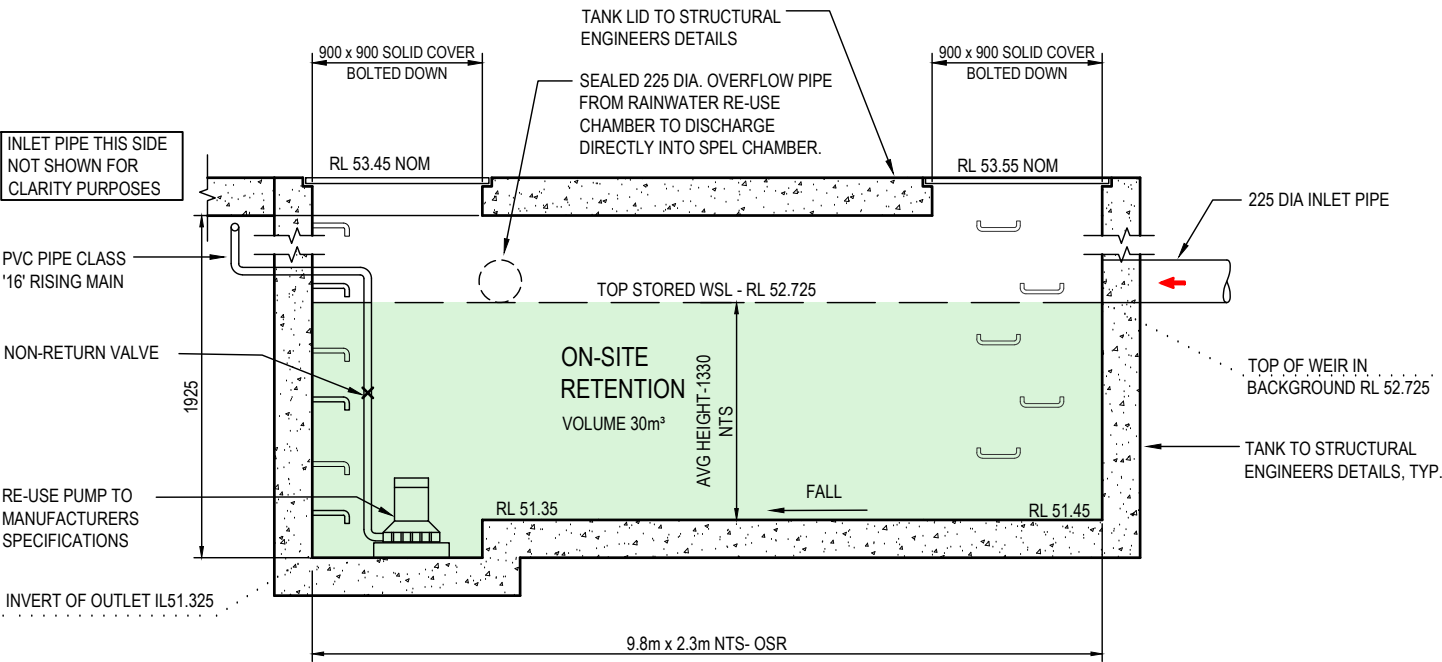


OSD TANK SECTION  
SCALE 1 : 20 @ A1 & 1:50@ A3



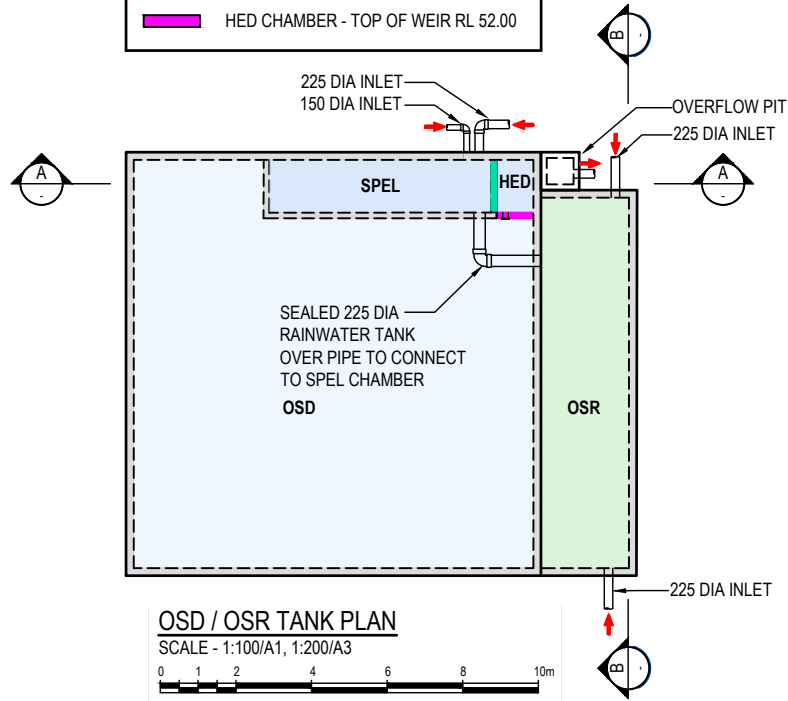
PROVIDE CONFINED SPACE SIGNAGE  
AT ENTRY POINTS INTO TANK.

OSD TANK WALL LEGEND	
	FULL HEIGHT WALL
	SPEL CHAMBER - TOPOF WEIR RL 52.15
	HED CHAMBER - TOP OF WEIR RL 52.00



OSR TANK SECTION  
SCALE 1 : 20 @ A1 & 1:50@ A3

RAINWATER REUSE TO BE  
USED FOR IRRIGATION PURPOSES



OSD / OSR TANK PLAN  
SCALE - 1:100/A1, 1:200/A3

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D UPDATED TO SUIT COUNCILS COMMENTS				08.03.23	RH	BK	<div>North</div> 	Client <b>BARRY RUSH &amp; ASSOCIATES</b> PTY LTD	Architect	<div><b>ACOR</b> CONSULTANTS</div> <div>ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS</div>	ACOR Consultants (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499	Project <b>PROPOSED RESIDENTIAL DEVELOPMENT</b> (No. 26) ROSE CRESCENT & (No. 69-73) BOURKE STREET NORTH PARRAMATTA	Drawing Title <b>STORMWATER MANAGEMENT DETAILS SHEET No.1</b>	Drawn RH	Date NOV 21	Scale AS NOTED	A1 BAK	Q.A. Check BAK	Date 07.02.22	Designed BK	Project No. <b>CC210393</b>	Dwg. No. <b>C3</b>	Issue <b>D</b>
C UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN & COUNCILS COMMENTS				08.12.22	RH	BK																	
B UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN				27.04.22	RH	BK																	
A ISSUED FOR DEVELOPMENT APPROVAL				07.02.22	RH	BK																	
Issue	Description	Date	Drawn	Approved																			
<div><div>0</div><div>North arrow</div><div>100m</div></div>																							



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This page last updated June 2004      B.1-1      On-Site Stormwater Detention Handbook

Form B1<sup>1</sup>

DRAINAGE DESIGN SUMMARY

SUB/DA

No. \_\_\_\_\_

Project: CC210393

Location: 26 ROSE CRESCENT & 69-73 BOURKE STREET

Designec 334 RH

Company: ACOR CONSULTANTS (CC) Pty. Ltd

Phone: (02) 4324 3499

SITE AREA 0.2229 ha

\*See Section 3.4.3 for dual occupancy

[A]

Upstream catchment draining through site

= 0 ha

[AA]

See Section 4.1.3 for assessment of external flows.

Basic storage volume 470 x [A] 0.2229

= 104.76 m<sup>3</sup>

[B]

Basic Discharge =0.08 x [A] 0.2229

= 0.0178 m<sup>3</sup>/s

[C]

Area of site drained to storage

= 0.1899 ha

[D]

(Must be as much as possible and not be less than 85% of the total site without written Council approval).

[D]/[A] + [ 0.1899 ]/[ 0.2229 ] x 100

= 85 %

[E]

Storage per ha. Of contributing area = [B]/[D]

= 551.67

[F]

Enter volume/PSD adjustment chart (Fig 5.1) using [F], and Read new PSD in litres/second/ha (l/s/ha).

= 64.83 l/s/ha

[G]

Determine PSD = [G] x [D] 64.83 x 0.1899

= 12.31 l/s

[H]

Maximum head to orifice center

= 0.92 m

[K]

Weir flow to storage  $Q^{Weir}=CL(H^{Weir})^{1.5}$  ∴H<sup>Weir</sup>

= 0.16 m

[I]

Select orifice diameter:  $d=(0.464\times Q/\sqrt{h})^{0.5}=(0.464\times[H]/\sqrt{[K]})^{0.5}$

= 0.077 m

[J]

Maximum discharge

= 12.31 l/s

[L]

Head for high early discharge

= 0.77 m

[M]

High early discharge  $\{[L]\times\sqrt{[M]/[K]}\}$  (min 75% of [L])

= 11.26 l/s

[N]

Approximate mean discharge = ([L] + [N])/2

= 11.79 l/s

[P]

Average discharge/ha = [P]/[D] = 11.79 / 0.1899

= 62.07 l/s/ha

[Q]

Enter volume/PSD adjustment chart (Fig 5.1) using [Q]

And read off final storage volume per hectare

= 569.50 m<sup>3</sup>/ha

[R]

Determine final SSR = [R] x [D] = 569.50 x 0.1899

= 108 m<sup>3</sup>

[S]

Primary storage proportion = [S] x \_\_\_\_\_ %

\_\_\_\_\_ m<sup>3</sup>

[T]

Secondary storage proportion = [S] x \_\_\_\_\_ %

\_\_\_\_\_ m<sup>3</sup>

[U]

Tertiary storage proportion = [S] x \_\_\_\_\_ %

\_\_\_\_\_ m<sup>3</sup>

[V]

Check [T] + [U] + [V] = [S]

\_\_\_\_\_ m<sup>3</sup>

<sup>1</sup> Revised for third edition to include flow from upstream and revised by pass flows

Upper Parramatta River Catchment Trust

OSD STORMWATER MAINTENANCE SCHEDULE

MAINTENANCE ACTION	FREQUENCY	RESPONSIBILITY	PROCEDURE
<b>Drainage Control Pit (DCP)</b>			
Inspect and remove any blockage of orifice	Six monthly	Owner	Remove grate and screen to inspect orifice. See plan for location of DCP
Check attachment of orifice plate to wall of pit (gaps less than 5mm)	Annually	Maintenance Contractor	Remove grate and screen. Ensure plate mounted securely, tighten fixings if required. Seal gaps as required.
Check orifice diameter correct and retains sharp edge	Five yearly	Maintenance Contractor	Compare diameter to design (see Work-As-Executed) and ensure edge is not pitted or damaged
Inspect screen and clean	Six monthly	Owner	Remove grate and screen if required to clean it.
Check attachment of screen to wall of pit	Annually	Maintenance Contractor	Remove grate and screen. Ensure screen fixings secure. Repair as required
Check screen for corrosion	Annually	Maintenance Contractor	Remove grate and examine screen for rust or corrosion, especially at corners or welds.
Inspect flap valve and remove any blockage	Six monthly	Owner	Remove grate. Ensure flap valve moves freely and remove any blockages or debris.
Check attachment of flap valve to wall of pit	Annually	Maintenance Contractor	Remove grate. Ensure fixings of valve are secure
Check flap valve seals against wall of pit	Annually	Maintenance Contractor	Remove grate. Fill pit with water and check that flap seals against side of pit with minimal leakage.
Inspect overflow weir and remove any blockage	Six monthly	Maintenance Contractor	Remove grate and open cover to ventilate underground storage if present. Ensure weir clear of blockages.
Inspect DCP walls (internal and external, if appropriate) for cracks or spalling	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect DCP sump and remove any sediment / sludge	Six monthly	Owner	Remove grate and screen. Remove sediment / sludge build-up and check orifice and flap valve clear.
Inspect grate for damage or blockage	Six monthly	Owner	Check both sides of grate for corrosion (especially corners and welds) damage or blockage.
Inspect return pipe from storage and remove any blockage	Six monthly	Maintenance Contractor	Remove grate and screen. Ventilate underground storage if present. Check orifice and remove any blockages in outlet pipe. Flush outlet pipe to confirm it drains freely. Check for sludge / debris on upstream side of return line.
<b>Storage</b>			
Inspect pit and remove any sediment / sludge in pit	Six monthly	Maintenance Contractor	Remove grate and screen. Remove sediment / sludge build-up.
Inspect internal tank walls (and external, if appropriate) for cracks or spalling	Annually	Maintenance Contractor	Remove grate to inspect internal walls. Repair as required. Clear vegetation from external walls if necessary and repair as required.
Inspect and remove any debris / litter / mulch etc. blocking grates	Six monthly	After storm event	Remove blockages from grate and check if pit blocked.
Inspect tank storage are and remove debris / mulch / litter etc. likely to block screens / grates.	Six monthly	Maintenance Contractor	Remove debris and floatable material likely to be carried to grates.
Compare storage volume to volume approved (Rectify if loss > 5%)	Annually	Maintenance Contractor	Compare actual storage available with Work-as-Executed plans. If volume loss is greater than 5%, arrange for reconstruction to replace the volume lost. Council to be notified of the proposal.
Inspect storages for subsidence near pits.	Annually	Maintenance Contractor	Check along drainage lines and at pits for subsidence likely to indicate leakages.



*[Handwritten signature]*

ON-SITE DETENTION CHECKLIST - SHEET 1 OF 2

This page last updated December 1999 B.9-1 On-site Stormwater Detention Handbook

B9. OSD DETAILED DESIGN SUBMISSION

This form is to be completed by the stormwater designer and submitted to Council together with the design plan/s and any necessary attachments.

PROJECT ADDRESS: 26 ROSE CRESCENT & 69-73 BOURKE STREET, PARRAMATTA

PROJECT APPLICANT: BARRY RUSH & ASSOCIATES PTY LTD

OSD DESIGNER DETAILS:

Company Name: ACOR CONSULTANTS (CC) PTY LTD

Address: SUITE 2.01, 4 ILYA AVENUE, ERINA NSW 2250

Telephone No.: (02) 43243499

Fax No:

Accreditation organisation:

Accreditation Reference:

Name and signature of designer: BRUCE KENNY

(Print Name)

Date: 07.02.22

Items submitted: \*\*

- OSD Design Plan/s Yes / No
- OSD Detailed Design Checklist Yes / No
  - Attachment A: Flood Affection Information Yes / No
  - Attachment B: External Catchment Assessment Yes / No
  - Attachment C: On-line System Calculations Yes / No
  - Attachment D: Overflow and Surge Pathway Calculations Yes / No
  - Attachment E: Site Drainage Calculations Yes / No
  - Attachment F: Outlet Hydraulic Assessment Yes / No
  - Attachment G: Site Storage Details Yes / No
  - Attachment H: Drainage Design Summary Sheet Yes / No

COUNCIL REVIEW DETAILS:

Council Review Officer's Name:

Review officer's comments:

Signature of Review Officer:

Date:

\*\* The above items are to be submitted in a single bound form — a 'loose leaf' format is unacceptable.

Upper Parramatta River Catchment Trust

This page last updated December 1999 B.9-2 On-site Stormwater Detention Handbook

OSD DETAILED DESIGN CHECKLIST

ITEM	DESIGNER		COUNCIL REVIEW	
	YES	NO	YES	NO
1. A Stormwater Concept Plan (SCP) has been approved previously (refer Section 4.1)		✓		
2. The site (whole or partly) is defined as floodprone in a 100 year event If YES, see Plan No. .... in Attachment A		✓		
2(a) Has any floodplain storage been lost? If YES, see Plan No. .... in Attachment A	N/A			
2(b) Has the floodprone area been excluded from the OSD calculations?	N/A			
2(c) Is the OSD system performance adversely affected by the 100 year flood level?	N/A			
3. Is there an external catchment draining into the site? If YES, see Plan No. .... and calculations of 100 year ARI flow in Attachment B		✓		
4. The location and extent of any floodway/flowpath has been determined, (refer Sections 4.1.3 & 4.2.2) If YES, see Plan No. .... and accompanying 100 year event hydraulic calculations in Attachment B. Buildings are not inundated (and have the required freeboard) nor are flows concentrated on an adjoining property (refer Sections 4.1.3, 4.2.7 & 4.2.9)	N/A			
5. The detailed design submission is consistent with the approved SCP	✓			
6. Are there any conditions on the development approval that may affect the drainage design (for example, trees to be retained)?				
7. The detailed design submission addresses the drainage-related conditions of the development approval				
8. A site layout plan with accompanying ground levels/contours which extend into adjoining properties is submitted If YES, see Plan No. ....	✓			
9. Have other constraints, e.g. easements, services, been defined? If YES, see Plan No. ....				
10. How many OSD storage systems are there? ...ONE.....				
11. Are the storage system/s off-line (refer Section 4.2.6)? If NO, see alternative calculations included in Attachment C	✓			
12. State the type of discharge control device (i.e. orifice or .....)? Where the device is not an orifice, has specific Trust approval been obtained?				
13. The area of the site to be drained by each OSD storage has been determined, (refer Section 4.2.2) If YES, see Plan No. ....	✓			
If YES, the uncommanded site percentage is ...15% (to be less than 25%, refer Section 4.1.4 unless specific approval has been granted).				
14. The plan/s identify the maximum water levels, and the levels and locations of each storage's discharge point (refer Section 4.2.2) If YES, see Plan No. C2 & C3	✓			
15. The location of overflow structures and surcharge pathways have been determined, (refer Sections 4.2.2 & 4.2.9) If YES, see Plan No. C2 ..... and calculations in Attachment D	✓			
Buildings are not inundated nor are flows concentrated on an adjoining property (refer Sections 4.2.7 & 4.2.9)	✓			
16. The drainage plans have been checked for consistency against the Architectural and landscaping plans	✓			
17. A maintenance schedule has been prepared (ref Section 4.2.10)	✓			

Upper Parramatta River Catchment Trust

D					UPDATED TO SUIT COUNCILS COMMENTS		08.03.23		RH		BK		North	
C					UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN & COUNCILS COMMENTS		08.12.22		RH		BK			
B					UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN		27.04.22		RH		BK			
A					ISSUED FOR DEVELOPMENT APPROVAL		07.02.22		RH		BK			
Issue		Description			Date		Drawn		Approved					

Client		Architect	
BARRY RUSH & ASSOCIATES PTY LTD		 ACOR CONSULTANTS (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499  ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS	

Project		Drawing Title	
PROPOSED RESIDENTIAL DEVELOPMENT (No. 26) ROSE CRESCENT & (No. 69-73) BOURKE STREET NORTH PARRAMATTA		OSD CHECKLIST SHEET 1 OF 2	
Drawn RH		Date NOV 21	
Scale AS NOTED		A1	
Q.A. Check BAK		Date 07.02.22	
Designed BK		Project No. CC210393	
Dwg. No. C5		Issue D	



ON-SITE DETENTION CHECKLIST - SHEET 2 OF 2

This page last updated December 1999 B.9-3 On-site Stormwater Detention Handbook

Where there is more than one OSD system, Questions 18 to 26 are to be answered separately for each OSD storage system.

OSD Storage system identifier.....

ITEM	DESIGNER		COUNCIL REVIEW	
	YES	NO	YES	NO
18. The design explicitly shows how all the drained area grades to the storage, including roof gutter overflows (refer Section 6.2)	✓			
If YES, see Plan No. ....				
If NO, see calculations in Attachment E showing how all drainage system components (including all roof gutters, downpipes, collecting pits and pipe systems, etc) have 100 year ARI capacities with 50% blockage factor				
19. The invert level of storage is not less than ground level (or top of kerb) at point of connection to external stormwater system	✓			
If YES, see Plan No. ....				
If NO, see explanatory notes in Attachment F				
20. The discharge control pit design is consistent with the principles shown in Figures 4.3, 7.10 and/or 7.11	✓			
20(a) The DCP has an open grating type lid (for ease of inspection)	✓			
20(b) The DCP minimum dimensions are consistent with Section 4.2.3				
20(c) The floor of the DCP has a localised sump adjacent to the orifice with level at least 150 mm below the return pipe, (refer Section 4.2.8)	✓			
20(d) The return pipe from the storage is at least 150 mm in diameter (refer Section 4.2.8)	✓			
20(e) The return pipe flap valve is consistent with Figure 4.3	✓			
20(f) If an orifice control is specified, is it consistent with the requirements set out in Section 4.2.3?	✓			
If YES, see: Plan No. C2 & C3 for stainless steel plate specification, thickness and fixing to pit wall				
20(g) The overflow weir is fitted with a basket (refer Section 6.3). There is a surface grate above the basket to facilitate inspection and maintenance				
20(h) The high early discharge (HED) characteristics are consistent with the requirements set out in Section 4.2.3	✓			
If YES, see: Plan No. C2 & C3 for height of discharge to storage relative to permissible site discharge (PSD)				
Accompanying weir calculations in Attachment E				
Plan No. .... showing majority of site drainage system connecting to the DCP & the volume of the DCP is small compared to the volume of the storage				
20(i) The screen design is consistent with Section 4.2.5	✓			
If YES, see: Plan No. C2 & C3 for screen type, area and orientation				
Plan No. C2 & C3 for fabrication note re aperture orientation				
Plan No. C2 & C3 for fixing and handle details				
Plan No. C2 & C3 showing how all inflows to the DCP are on the upstream side of the screen protecting the orifice				
20(j) The outlet pipe from the DCP has a capacity at least twice the PSD (refer Section 4.2.4)	✓			
If YES, see calculations in Attachment E				

Upper Parramatta River Catchment Trust

This page last updated December 1999 B.9-4 On-site Stormwater Detention Handbook

ITEM	DESIGNER		COUNCIL REVIEW	
	YES	NO	YES	NO
21. If an above ground/landscaped storage is specified, answer Q21(a) to Q21(g), otherwise move to Q22.				
21(a) The first 10%-20% of storage is provided in an area able to tolerate frequent inundation(refer Section 4.2.7)				
21(b) Where the depth of ponding exceeds 600 mm, consideration has been given to whether there are steep drops, and/or a need for steps or 'walk-in' 'walk-out' batters, etc. when deciding if fencing and/or warning signs are required (Refer Sections 4.2.7 & 6.2)				
21(c) The landscaping treatment within the storage area is such that it does not limit storage volumes or provide a significant source of debris loading				
21(d) The minimum surface slope is consistent with Section 4.2.7				
21(e) Subsoil drainage is provided in areas subject to frequent ponding and around the outlet (refer Section 4.2.7)				
21(f) If the design includes a retaining wall, has it been structurally checked?				
21(g) Does the system have the correct storage?				
If YES, see stage-storage calculations in Attachment G				
22. If a driveway/car-park storage is specified, answer Q22(a) to Q22(c), otherwise move to Q23				
22(a) The maximum depth is less than or equal to 200mm (refer Section 4.2.7)				
22(b) The minimum transverse slope is 0.7% (refer Section 4.2.7)				
22(c) The system has the correct storage				
If YES, see stage-storage calculations in Attachment G				
23. If a structural/underground storage is specified, answer Q 23(a) to Q 23(f), otherwise move to Q24	✓			
23(a) The dimensions of openings are consistent with Section 4.2.8	✓			
23(b) The storage floor has a minimum slope of 0.7% (refer Section 4.2.8)	✓			
23(c) There are sufficient access points for flushing purposes (refer Section 4.2.8)	✓			
23(d) There are sufficient grated openings for ventilation purposes (refer Section 4.2.8)	✓			
23(e) All access points have light weight covers	✓			
23(f) The system has the correct storage	✓			
If YES, see stage-storage calculations in Attachment G				
24. The distribution of storage minimises inconvenience (refer Section 5.1.4)	✓			
25. The Drainage Design Summary sheet has been completed (refer Appendix B1)	✓			
If YES, see completed sheet in Attachment H				
26. The Drainage Design Summary sheet details are consistent with the design plans	✓			

Upper Parramatta River Catchment Trust

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D					UPDATED TO SUIT COUNCILS COMMENTS		08.03.23		RH		BK		North	
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Issue		Description			Date		Drawn		Approved					

Client		Architect	
BARRY RUSH & ASSOCIATES PTY LTD		 ACOR CONSULTANTS (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499  ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS	

Project	
PROPOSED RESIDENTIAL DEVELOPMENT (No. 26) ROSE CRESCENT & (No. 69-73) BOURKE STREET NORTH PARRAMATTA	

Drawing Title			
OSD CHECKLIST SHEET 2 OF 2			
Drawn	Date	Scale	A1
RH	NOV 21	AS NOTED	BAK
Q.A. Check	Date		
BAK	07.02.22		
Designed	Project No.	Dwg. No.	Issue
BK	CC210393	C6	D



**EROSION & SEDIMENT LEGEND**

① INSTALL SEDIMENT FENCING REFER DETAIL SD 6-8, SHEET C8. WHERE UNDER CANOPY AREAS OF TREES TO BE RETAINED, FENCING NOT TO BE DUG INTO THE GROUND BUT INSTEAD ATTACHED TO GROUND BY TIGHTLY PACKED SANDBAGS.

② NEW CROSSOVER & LAYBACK TO BE UTILISED FOR SITE ACCESS UNTIL REASONABLE COMPLETION OF CONSTRUCTION WORKS

③ STOCKPILE IN ACCORDANCE WITH DETAIL SD 4-1, REFER TO SHEET C8

④ WASTE STORAGE AREA PROVIDE SOLID AND LIQUID WASTE RECEPTACLE BINS

⑤ BARRIER FENCING OR UTILISE EXISTING BOUNDARY FENCE

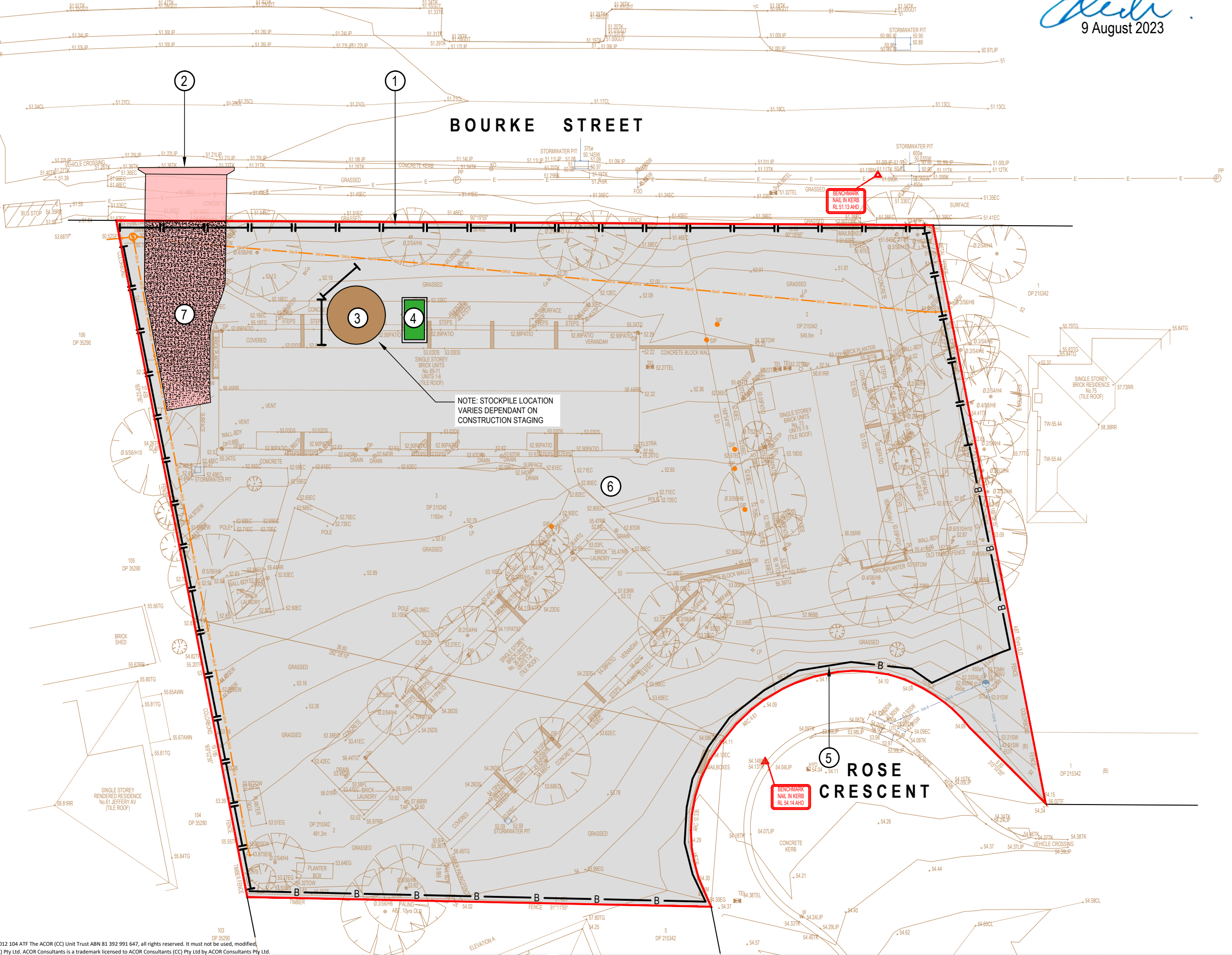
⑥ PROPOSED DISTURBED AREA

⑦ SITE ACCESS PROVIDE LARGE COARSE DIA AGGREGATE OR RECYCLED CONCRETE. IN ACCORDANCE WITH DETAIL SD 6-14, SHEET C8

**NOTES:**

1. PROVIDE PROTECTION TO DRAINAGE PITS FOLLOWING PIT INSTALLATION. REFER TO DETAIL 6-12 ON SHEET C8.

2. TREE BARRIERS REQUIRED IN ACCORDANCE WITH THE ARBORISTS REPORT



**EROSION & SEDIMENT CONTROL PLAN**  
SCALE - 1:125/A1, 1:250/A3

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D					UPDATED TO SUIT COUNCILS COMMENTS		08.03.23		RH		BK		<div>North</div>		<div>Client</div> <div>BARRY RUSH &amp; ASSOCIATES</div> <div>PTY LTD</div>				<div>Architect</div> <div>ACOR CONSULTANTS (CC) Pty Ltd</div> <div>Platinum Building, Suite 2.01, 4 Ilya Avenue</div> <div>ERINA NSW 2250, Australia</div> <div>T +61 2 4324 3499</div> <div></div> <div>ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS</div>				<div>Project</div> <div>PROPOSED RESIDENTIAL DEVELOPMENT</div> <div>(No. 26) ROSE CRESCENT &amp;</div> <div>(No. 69-73) BOURKE STREET</div> <div>NORTH PARRAMATTA</div>				<div>Drawing Title</div> <div>EROSION &amp; SEDIMENT CONTROL PLAN</div> <table><tr><td>Drawn</td><td>Date</td><td>Scale</td><td>A1</td><td>G.A. Check</td><td>Date</td></tr><tr><td>RH</td><td>NOV 21</td><td>AS NOTED</td><td></td><td>BAK</td><td>07.02.22</td></tr><tr><td>Designed</td><td>Project No.</td><td>Dwg. No.</td><td colspan="3">Issue</td></tr><tr><td>BK</td><td>CC210393</td><td>C7</td><td colspan="3">D</td></tr></table>						Drawn	Date	Scale	A1	G.A. Check	Date	RH	NOV 21	AS NOTED		BAK	07.02.22	Designed	Project No.	Dwg. No.	Issue			BK	CC210393	C7	D		
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*Handwritten signature*

9 August 2023

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

- THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT.
- CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUIDELINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", DEPT OF HOUSING, 1998 (BLUE BOOK).
- ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN REDUCING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.

LAND DISTURBANCE INSTRUCTIONS

- DISTURBANCE TO BE NO FURTHER THAN 5 (PREFERABLY 2) METRES FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON APPROVED PLANS. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METRES THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON-SITE. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ENTRY TO LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
- WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE:
  - INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN.
  - CONSTRUCT THE STABILISED SITE ACCESS.
  - CONSTRUCT DIVERSION DRAINS AS REQUIRED.
  - INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KERB INLETS.
  - INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DROP INLET PITS.
  - CLEAR SITE AND STRIP AND STOCKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN.
  - UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS ENSURING THAT ROOF AND/OR PAVED AREA STORMWATER SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE.
  - GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 20 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
  - REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
- ENSURE THAT SLOPE LENGTHS DO NOT EXCEED 80 METRES WHERE PRACTICABLE. SLOPE LENGTHS ARE DETERMINED BY SILTATION FENCING AND CATCH DRAIN SPACING.
- ON COMPLETION OF MAJOR WORKS LEAVE DISTURBED LANDS WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST WITH KEYING TOPSOIL LATER.

SITE MAINTENANCE INSTRUCTIONS

- THE SITE SUPERINTENDENT WILL INSPECT THE SITE AT LEAST WEEKLY AND AT THE CONCLUSION OF EVERY STORM EVENT TO:
  - ENSURE THAT DRAINS OPERATE PROPERLY AND TO EFFECT ANY NECESSARY REPAIRS.
  - REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5 METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS AND PAVED AREAS.
  - REMOVE TRAPPED SEDIMENT WHENEVER THE DESIGN CAPACITY OF THAT STRUCTURE HAS BEEN EXCEEDED.
  - ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND TO INITIATE UPGRADING OR REPAIR AS NECESSARY.
  - CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS. MAKE ONGOING CHANGES TO THE PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS ON THE WORK-SITE OR ELSEWHERE IN THE CATCHMENT.
  - MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.
- THE SITE SUPERINTENDENT WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:
  - THE VOLUME AND INTENSITY OF ANY RAINFALL EVENTS.
  - THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS.
  - THE CONDITION OF VEGETATION AND ANY NEED TO IRRIGATE.
  - THE NEED FOR DUST PREVENTION STRATEGIES.
  - ANY REMEDIAL WORKS TO BE UNDERTAKEN.THE LOGBOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF THE WORKS.

SEDIMENT CONTROL INSTRUCTIONS

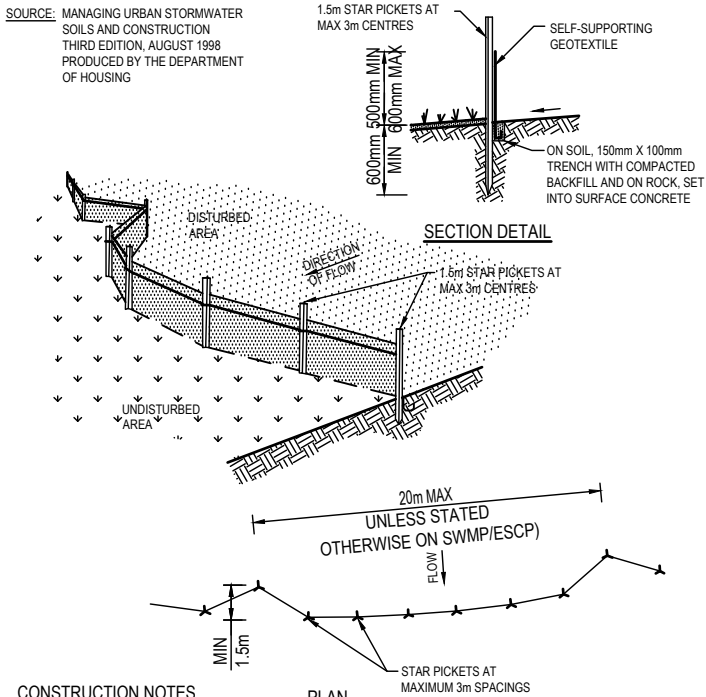
- SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
- SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE.
- TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- ACCESS TO SITES SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

SOIL EROSION CONTROL INSTRUCTIONS

- EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED, THAN:
  - 2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES
  - 2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES.
  - 3(H):1(V) WHERE SLOPE LENGTH BETWEEN 16 AND 20 METRES.
  - 4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES.
- ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR ARI, TIME OF CONCENTRATION STORM EVENT.
- WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5-1 OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
- STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.1 (60% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
- ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
- FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER: JAPANESE MILLET 20 KG/HA AND OATS 20 KG/HA.
- PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.
- REVEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER CROPS SHOULD BE USED.

WASTE CONTROL INSTRUCTIONS

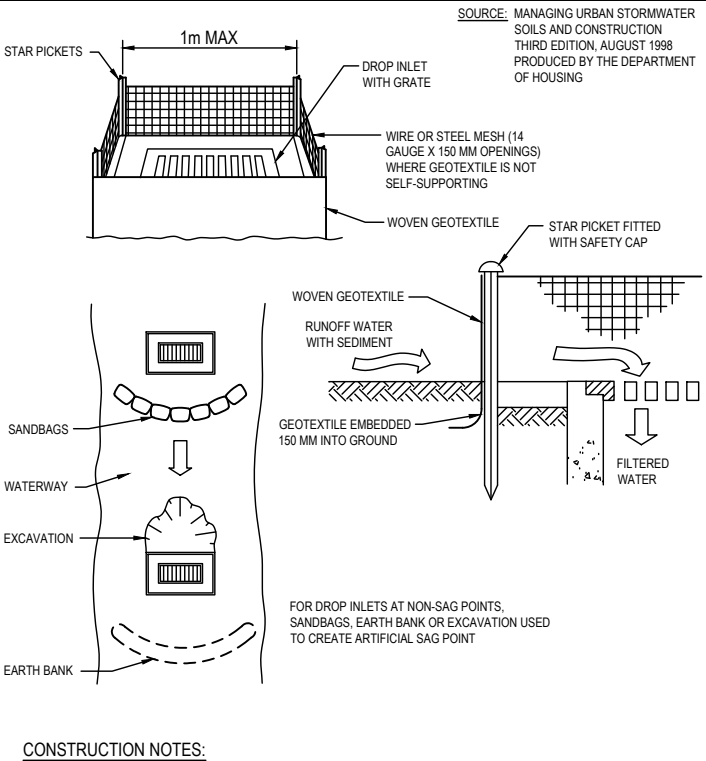
- ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
- ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
- ALL SITE STAFF AND SUB-CONTACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
- ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
- PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.



- CONSTRUCTION NOTES:
- CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
  - DRIVE 1.5 METRE LONG STAR PICKETS INTO GROUND, 3 METRES APART.
  - DIG A 150 MM DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
  - BACKFILL TRENCH OVER BASE OF FABRIC.
  - FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
  - JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150 MM OVERLAP.

SEDIMENT FENCE

SD 6-8

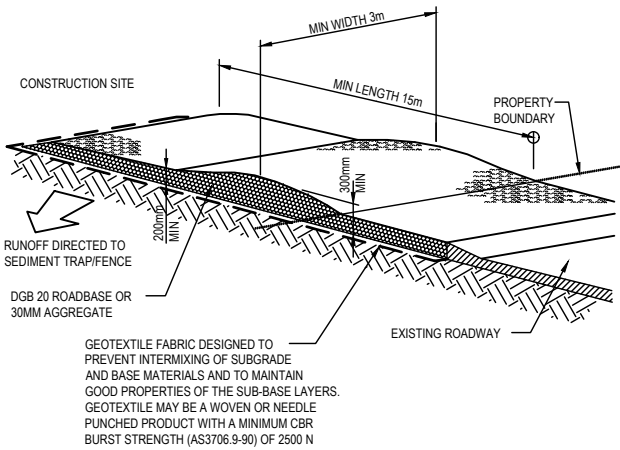


- FABRICATE A SEDIMENT BARRIER FROM GEOTEXTILE OR STRAW BALES.
- SUPPORT GEOTEXTILE WITH MESH TIED TO POSTS AT 1 METRE CENTRES.
- DO NOT COVER INLET WITH GEOTEXTILE.
- CONSTRUCTION DETAILS ARE SIMILAR TO TYPICAL SEDIMENT FENCING DETAIL.

GEOTEXTILE INLET FILTER

SD 6-12

SOURCE: MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION THIRD EDITION, AUGUST 1998 PRODUCED BY THE DEPARTMENT OF HOUSING

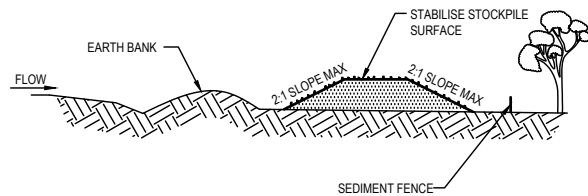


- STRIP TOPSOIL AND LEVEL SITE.
- COMPACT SUBGRADE.
- COVER AREA WITH NEEDLE-PUNCHED GEOTEXTILE.
- CONSTRUCT 200MM THICK PAD OVER GEOTEXTILE USING ROADBASE OR 30MM AGGREGATE. MINIMUM LENGTH 15M OR TO BUILDING ALIGNMENT. MINIMUM WIDTH 3 METRES.
- CONSTRUCT HUMP IMMEDIATELY WITHIN BOUNDARY TO DIVERT WATER TO A SEDIMENT FENCE OR OTHER SEDIMENT TRAP.

STABILISED SITE ACCESS

SD 6-14

SOURCE: MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION THIRD EDITION, AUGUST 1998 PRODUCED BY THE DEPARTMENT OF HOUSING



- LOCATE STOCKPILE AT LEAST 5 METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
- CONSTRUCT ON THE CONTOUR AS A LOW, FLAT, ELONGATED MOUND.
- WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METERS IN HEIGHT.
- REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP.
- CONSTRUCT EARTH BANK (STANDARD DRAWING 5-2) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (STANDARD DRAWING 6-7) 1 TO 2 METRES DOWNSLOPE OF STOCKPILE.

STOCKPILES

SD 4-1

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Issue					Description		Date		Drawn		Approved	
D					UPDATED TO SUIT COUNCILS COMMENTS		08.03.23		RH		BK	
C					UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN & COUNCILS COMMENTS		08.12.22		RH		BK	
B					UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN		27.04.22		RH		BK	
A					ISSUED FOR DEVELOPMENT APPROVAL		07.02.22		RH		BK	
Issue					Description		Date		Drawn		Approved	
1					1cm at full size							

Client				Architect			
BARRY RUSH & ASSOCIATES				ACOR CONSULTANTS			
PTY LTD				ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS			

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Drawing Title				Erosion & Sediment Control Notes & Details			
Drawn		Date		Scale		A1	
RH		NOV 21		AS NOTED		Q.A. Check	
Designed		Project No.		Dwg. No.		Date	
BK		CC210393		C8		07.02.22	
						Issue	
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*[Handwritten Signature]*

# STORMWATER QUALITY REPORT

## 1 INTRODUCTION

A CATCHMENT BASED WATER QUALITY MODEL WAS DEVELOPED TO ASSESS THE STORMWATER RUNOFF QUALITY IN ACCORDANCE WITH THE WATER SENSITIVE URBAN DESIGN (WSUD) REQUIREMENTS OF PARRAMATTA DEVELOPMENT CONTROL PLAN PART 3.3.6 AND APPENDIX 7. IN THIS REGARD WE REFER TO THE PRESCRIBED TARGETS TABLED FOLLOWING:

TABLE 1 - STORMWATER POLLUTANT REDUCTION TARGETS

STORMWATER POLLUTANT	REDUCTION TARGETS
GROSS POLLUTANT	90%
TOTAL SUSPENDED SOLIDS (TSS)	85%
TOTAL PHOSPHORUS (TP)	60%
TOTAL NITROGEN (TN)	45%

## 2 STUDY METHODOLOGY

THE OBJECTIVES OF THIS REPORT ARE TO:

- ASSESS THE RUNOFF QUALITY FOR THE UNTREATED POST DEVELOPED SCENARIO AND IDENTIFY STORMWATER QUALITY CONTROLS LIKELY TO IMPACT ON RUNOFF QUALITY.
- ASSESS THE STORMWATER QUALITY FOR THE POST DEVELOPED SCENARIO INCLUDING THE MEASURES PROPOSED TO MEET THE POLLUTANT REMOVAL TARGETS .

THE REPORT IS BASED ON THE APPLICATION OF MUSIC SOFTWARE (MODEL FOR URBAN STORMWATER IMPROVEMENT CONCEPTUALISATION). IN THIS REGARD THE MODEL IS DEFINED AS FOLLOWS:

- A STORMWATER QUALITY MODEL TO CONVERT RAINFALL AND EVAPOTRANSPIRATION INTO RUNOFF.
- ESTIMATION OF STORMWATER FLOW AND POLLUTION GENERATION BY SIMULATING THE PERFORMANCE OF STORMWATER TREATMENT DEVICES INDIVIDUALLY AND AS PART OF A TREATMENT TRAIN.

THE MODEL DEFINES WATER QUALITY PROFILES FOR BOTH TREATED AND UNTREATED POST DEVELOPED SCENARIOS. THE TREATED POST DEVELOPED MODEL INCLUDES PARAMETERS WHICH REPRESENT THE WATER QUALITY MEASURES.

## 3 STORMWATER QUALITY MODELLING

### 3.1 GENERAL

THE FOLLOWING PARAMETERS WERE ASSESSED FOR THE HYDROLOGICAL MODELLING ASSOCIATED WITH THE CATCHMENT.

- RAINFALL/RUNOFF AND EVAPOTRANSPIRATION.
- SUB CATCHMENT DIVERSIONS.
- LAND USE (PERVIOUS AND IMPERVIOUS)

### 3.2 RAINFALL/RUNOFF AND EVAPOTRANSPIRATION

THE MUSIC MODEL WAS FORCED WITH 6 MINUTE RAINFALL DATA FROM THE PARRAMATTA NORTH (MASONS DRIVE) GAUGE (ID 066124) FOR THE PERIOD 25 DECEMBER 1984 TO 30 DECEMBER 2007.

DAILY AVERAGE PET VALUES WERE NOT AVAILABLE FOR STATION ID 066124 AND WERE SOURCED FROM THE BUREAU OF METEOROLOGY FOR THE NEIGHBOURING PROSPECT RESERVOIR GAUGE (ID 067019). THE DETAILS ARE SUMMARISED IN TABLE 3.1 AND 3.2

TABLE 3.1 - DETAILS OF DAILY RAINFALL DATA			
STATION	NAME	PERIOD	TIMESTEP
066124	PARRAMATTA NORTH (MASONS DRIVE)	25/12/1984-30/12/2007	6 min

TABLE 3.2 - SUMMARY OF POTENTIAL EVAPOTRANSPIRATION (PET)					
JAN	FEB	MAR	APR	MAY	JUN
170.5	131.6	120.9	87	62	48
JUL	AUG	SEP	OCT	NOV	DEC
51	77.5	108	136.4	155	173.6

### 3.3 CATCHMENT DEFINITION

THE POST DEVELOPED CATCHMENT CHARACTERISTICS ARE IDENTIFIED IN TABLE 3.3.

TABLE 3.3 - POST DEVELOPMENT SUB CATCHMENT DETAILS			
SUB CATCHMENT ID	SUB CATCHMENT AREA (ha)	% IMPERVIOUS AREA	% PERVIOUS AREA
ROOF TO RWT	0.074	100	0
DRIVEWAY AND PARKING TO OSD	0.035	100	0
DRIVEWAY BYPASSING OSD	0.005	100	0
AREA TO OSD	0.059	70	30
AREA BYPASSING OSD	0.035	70	30

WE NOTE THAT THE AREA WITHIN THE DRAINAGE EASEMENT ALONG THE SITE'S EASTERN BOUNDARY HAS BEEN EXCLUDED FROM THE WATER QUALITY ASSESSMENT.

## 4 MUSIC MODEL

THE MUSIC MODEL IS BASED ON A 6 min RAINFALL-RUNOFF MODEL IN CONJUNCTION WITH REPRESENTATIVE BASEFLOW AND STORMFLOW EVENT MEAN CONCENTRATIONS (EMCs).

### 4.1 WATER QUALITY PARAMETERS

THE ADOPTED VALUES OF VARIOUS MUSIC RAINFALL AND RUNOFF PARAMETERS IN ACCORDANCE WITH NSW MUSIC MODELLING GUIDELINES 2015 FOR MEDIUM CLAY ARE SUMMARISED IN TABLE 4.1.

TABLE 4.1 - ADOPTED MUSIC RAINFALL/RUNOFF PARAMETERS	
PARAMETER	VALUE
IMPERVIOUS AREA PROPERTIES	
RAINFALL THRESHOLD (mm/DAY)	1.5 (0.3 ROOFS)
PERVIOUS AREA PROPERTIES	
SOIL STORAGE CAPACITY (mm)	94
SOIL INITIAL STORAGE (% OF CAPACITY)	25
FIELD CAPACITY (mm)	70
INFILTRATION CAPACITY COEFFICIENT - a	135
INFILTRATION CAPACITY EXPONENT - b	4
GROUNDWATER PROPERTIES	
INITIAL DEPTH (mm)	10
DAILY RECHARGE RATE (%)	10
DAILY BASEFLOW RATE (%)	10
DAILY DEEP SEEPAGE RATE (%)	0

D					UPDATED TO SUIT COUNCILS COMMENTS			08.03.23	RH	BK	North	Client  <b>BARRY RUSH &amp; &amp; ASSOCIATES</b>  PTY LTD	Architect   <b>ACOR CONSULTANTS (CC) Pty Ltd</b> Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499 	Project  <b>PROPOSED RESIDENTIAL DEVELOPMENT</b> (No. 26) ROSE CRESCENT & (No. 69-73) BOURKE STREET NORTH PARRAMATTA	Drawing Title <b>STORMWATER QUALITY REPORT SHEET 1 OF 2</b>		
C					UPDATED TO SUIT THE LATEST ARCHITECTURAL PLAN & COUNCILS COMMENTS			08.12.22	RH	BK							
B					NIL ISSUE			-	-	-							
A					NIL ISSUE			-	-	-							
Issue					Description			Date	Drawn	Approved							
																	

4.1 WATER QUALITY PARAMETERS CONT.

STORMWATER QUALITY IS CHARACTERISED USING EVENT MEAN CONCENTRATION (EMCs) UNDER STORM AND BASE FLOW CONDITIONS. THE VALUE OF WATER QUALITY PARAMETERS ADOPTED IN THIS STUDY IS SUMMARISED IN TABLE 4.2

TABLE 4.2 - ADOPTED MUSIC WATER QUALITY PARAMETERS							
LAND-USE CATEGORY		Log <sub>10</sub> TSS (mg/L)		Log <sub>10</sub> TP (mg/L)		Log <sub>10</sub> TN (mg/L)	
		STORM FLOW	BASE FLOW	STORM FLOW	BASE FLOW	STORM FLOW	BASE FLOW
RESIDENTIAL	MEAN	2.15	1.20	-0.60	-0.85	0.30	0.11
	STD DEV	0.32	0.17	0.25	0.19	0.19	0.12
GENERAL URBAN	MEAN	2.20	1.10	-0.45	-0.82	0.42	0.32
	STD DEV	0.32	0.17	0.25	0.19	0.19	0.12
ROOFS	MEAN	1.30	1.10	-0.89	-0.82	0.30	0.32
	STD DEV	0.32	0.17	0.25	0.19	0.19	0.12

4.2 STORMWATER TREATMENT MEASURES

THE PROPOSED STORMWATER TREATMENT MEASURES INCLUDED IN THE POST DEVELOPED MODEL ARE AS FOLLOWS:

- 30,000 LITRE RAINWATER TANK (REUSE FOR IRRIGATION)
- 6 x SPELFILTERS (FULL HEIGHT)
- 3 x STORMSACKS

THE SCHEMATIC LAYOUT FOR THE POST DEVELOPED MUSIC MODEL IS DEPICTED IN FOLLOWING FIGURE 1

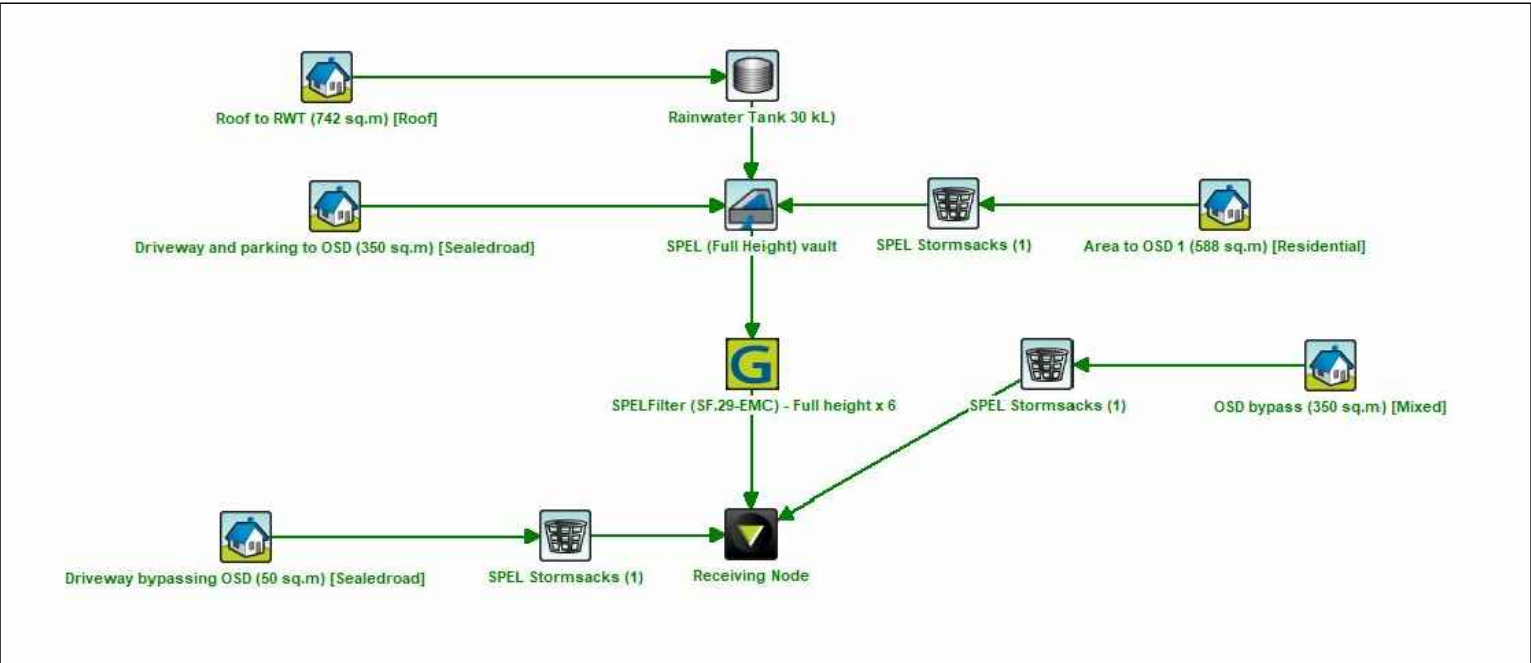


FIGURE 1 - MUSIC MODEL SCHEMATIC

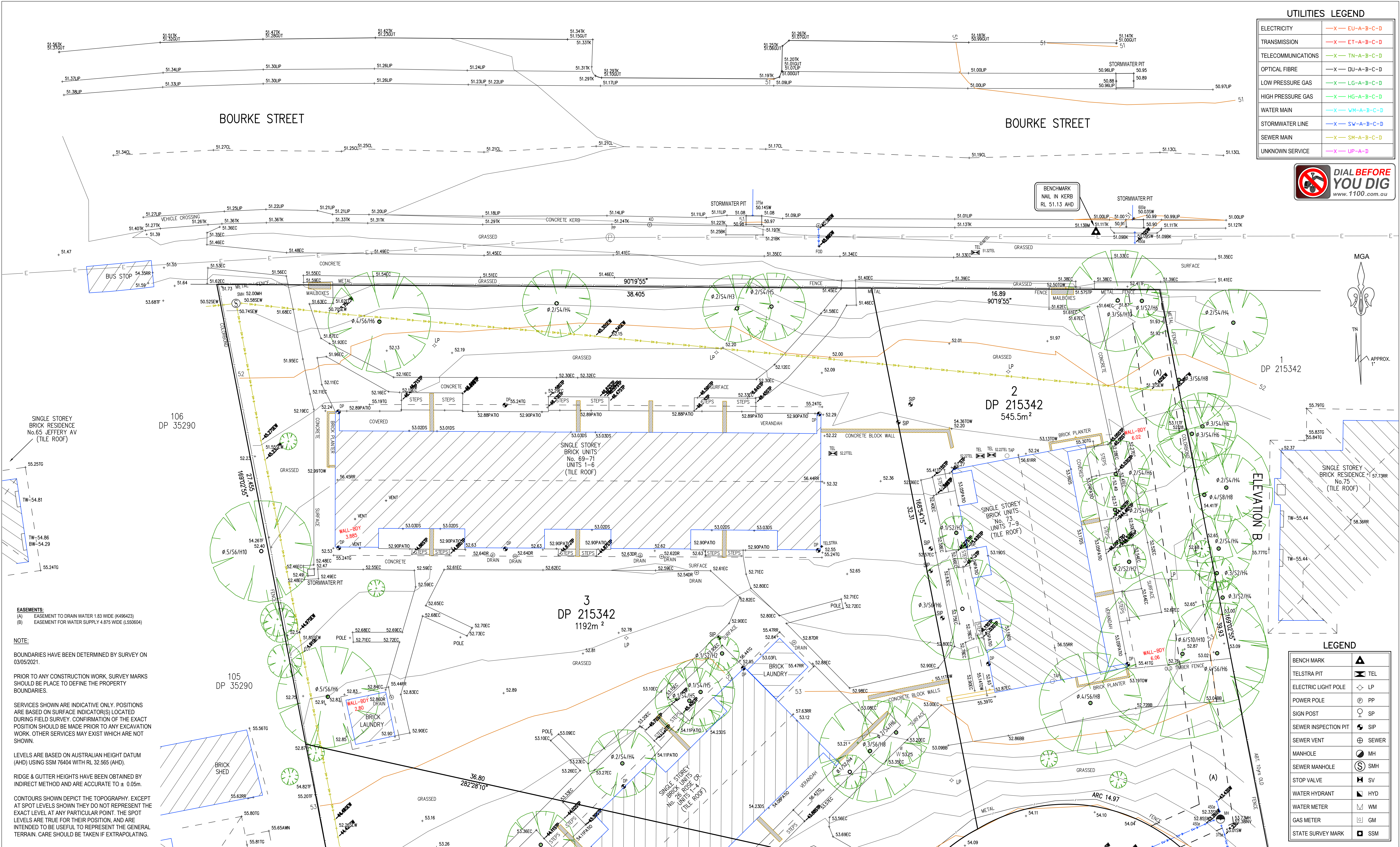
5 RESULTS & CONCLUSION

BASED ON THE FOREGOING AND THE RESULTS DEPICTED IN TABLE 5.1, THE PROPOSED STORMWATER QUALITY TREATMENT MEASURES MEET THE REQUIRED TARGETS OF THE CITY OF PARRAMATTA. REFER TO CC210393\_20221025.SQZ AS PREPARED BY ACOR CONSULTANTS (CC) PTY LTD FOR FURTHER INFORMATION.

TABLE 5.1 - TREATMENT TRAIN EFFECTIVENESS

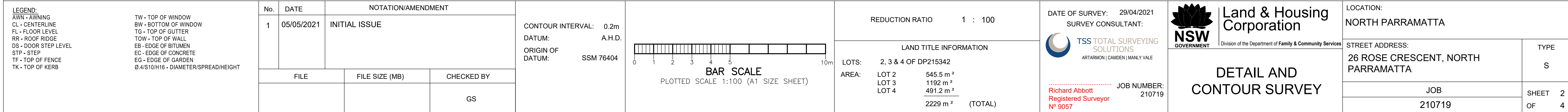
Treatment Train Effectiveness - Receiving Node			
	Sources	Residual Load	% Reduction
Flow (ML/yr)	1.47	1.08	26.6
Total Suspended Solids (kg/yr)	227	32.3	85.8
Total Phosphorus (kg/yr)	0.458	0.148	67.8
Total Nitrogen (kg/yr)	3.42	1.31	61.7
Gross Pollutants (kg/yr)	39.7	0.000266	100



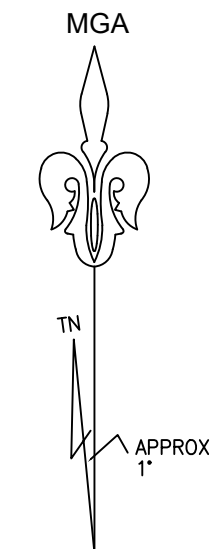


<div>LEGEND:</div> <div>AWN - AWNING CL - CENTERLINE FL - FLOOR LEVEL RR - ROOF RIDGE DS - DOOR STEP LEVEL STP - STEP TF - TOP OF FENCE TK - TOP OF KERB</div> <div>TW - TOP OF WINDOW BW - BOTTOM OF WINDOW TG - TOP OF GUTTER TOW - TOP OF WALL EB - EDGE OF BITUMEN EC - EDGE OF CONCRETE EG - EDGE OF GARDEN Ø.4/S10/H16 - DIAMETER/SPREAD/HEIGHT</div>		<table><tr><th>No.</th><th>DATE</th><th>NOTATION/AMENDMENT</th></tr><tr><td>1</td><td>05/05/2021</td><td>INITIAL ISSUE</td></tr></table>		No.	DATE	NOTATION/AMENDMENT	1	05/05/2021	INITIAL ISSUE	<div>CONTOUR INTERVAL: 0.2m</div> <div>DATUM: A.H.D.</div> <div>ORIGIN OF DATUM: SSM 76404</div>		<div><div></div><div>01234510m</div><div>BAR SCALE</div><div>PLOTTED SCALE 1:100 (A1 SIZE SHEET)</div></div>		<div>REDUCTION RATIO 1 : 100</div> <div>LAND TITLE INFORMATION</div> <div>LOTS: 2, 3 &amp; 4 OF DP215342</div> <div>AREA: LOT 2 545.5 m<sup>2</sup> LOT 3 1192 m<sup>2</sup> LOT 4 491.2 m<sup>2</sup> 2229 m<sup>2</sup> (TOTAL)</div>		<div>DATE OF SURVEY: 29/04/2021</div> <div>SURVEY CONSULTANT: TSS TOTAL SURVEYING SOLUTIONS ARTARMON   CAMDEN   MAINLY VALE</div> <div>Richard Abbott Registered Surveyor N° 9057</div> <div>JOB NUMBER: 210719</div>		<div><div>NSW GOVERNMENT</div><div>Land &amp; Housing Corporation</div><div>Division of the Department of Family &amp; Community Services</div></div> <div>DETAIL AND CONTOUR SURVEY</div>		<div>LOCATION: NORTH PARRAMATTA</div> <div>STREET ADDRESS: 26 ROSE CRESCENT, NORTH PARRAMATTA</div> <div>JOB 210719</div> <div>TYPE S</div> <div>SHEET 1 OF 4</div>	
No.	DATE	NOTATION/AMENDMENT																			
1	05/05/2021	INITIAL ISSUE																			









Datum : 54.00		GRASS		CONCRETE DRIVEWAY		BITUMEN DRIVEWAY		GRASS								
Grade Line	-0.329%	9.375%	-0.287%	0.631%	3.495%	1.276%	-12.330%	1.717%	19.674%	-0.582%	2.009%	0.530%	1.423%	1.428%	0.208%	
Elevation	54.36	54.35	54.51	54.49	54.51	54.68	54.76	54.70	54.75	54.82	54.79	55.05	55.10	55.27	55.42	55.43
Chainage	0.000	2.701	4.333	10.788	14.781	19.601	26.006	26.559	29.475	29.868	35.451	48.179	58.681	70.149	80.748	87.815



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Datum : 55.00				CON	
Grade Line		GRASS	CONCRETE	PATH	
		6.836%	-0.755%	6.295%	
				-2.736%	
Elevation	55.81	56.58	56.55		57.19
Chainage	97.419	108.683	112.954		123.177
					123.671

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[illegible]

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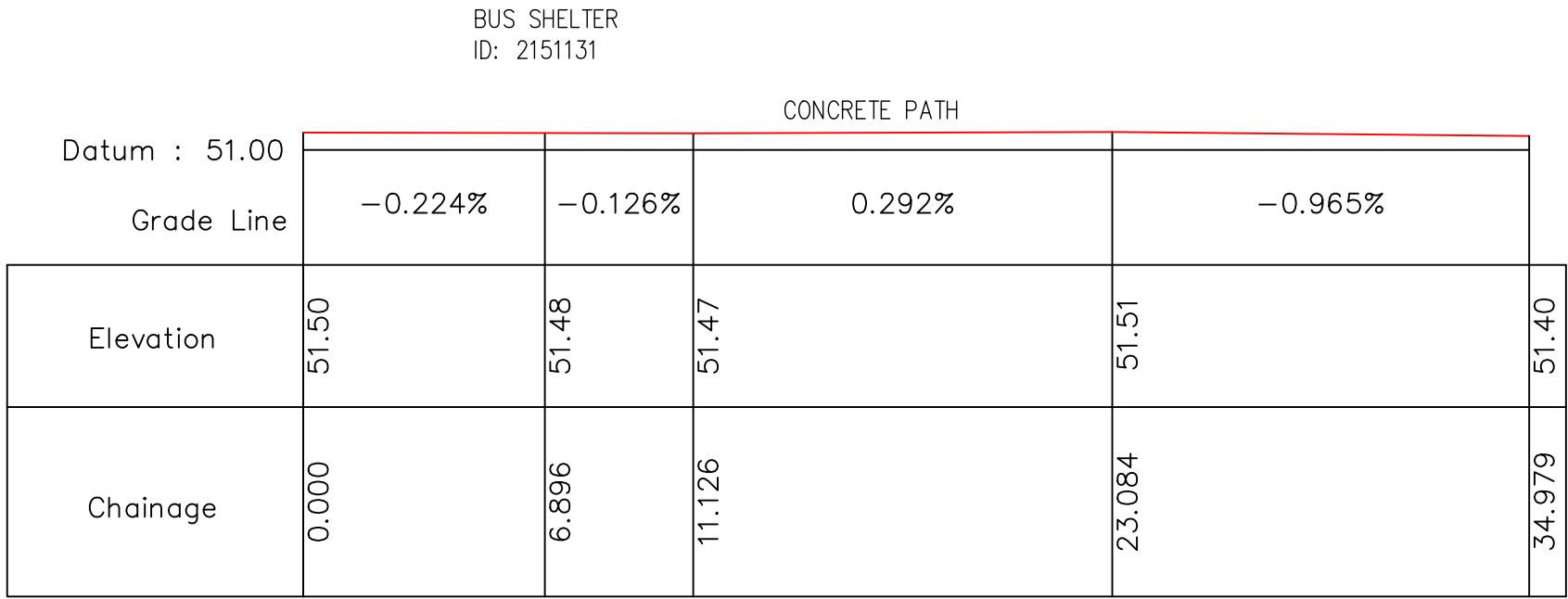
No.			DATE			NOTATION/AMENDMENT			No.			DATE			NOTATION/AMENDMENT			CONTOUR INTERVAL: DATUM: A.H.D. ORIGIN OF DATUM: SSM76404 100 YEAR FLOOD RL:  RECOMMENDED MINIMUM FLOOR RL:  SOURCE OF FLOOD INFO:						SEE INDIVIDUAL SCALES			DATE OF SURVEY: 23/04/2021 SURVEY CONSULTANT:  TSS TOTAL SURVEYING SOLUTIONS ARTARMON   CAMDEN   MANLY VALE			 Land & Housing Corporation Division of the Department of Family & Community Services			LOCATION  NORTH PARRAMATTA					
																								LAND TITLE INFORMATION						DRAWING TITLE			STREET ADDRESS  26 ROSE CRESCENT			TYPE		
									FILE			FILE SIZE (MB)			CHECKED BY									LOTS: 2,3,4 PLAN NOS : D.P. 215342 OTHER: AREA:			LONGITUDINAL SECTIONS			JOB 210719			SHT. 3 OF 4					



*John*

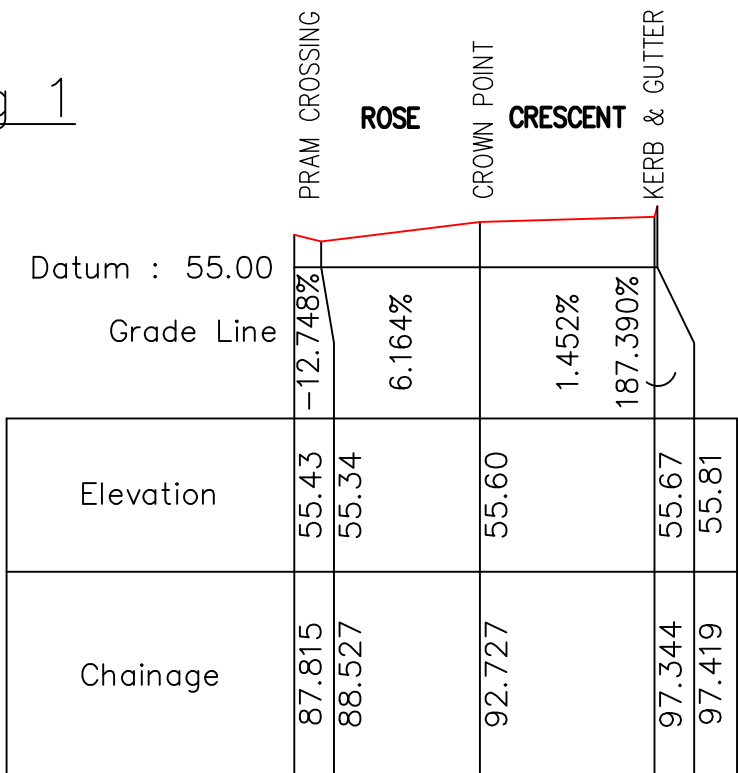
,9 August 2023

Long Section 4



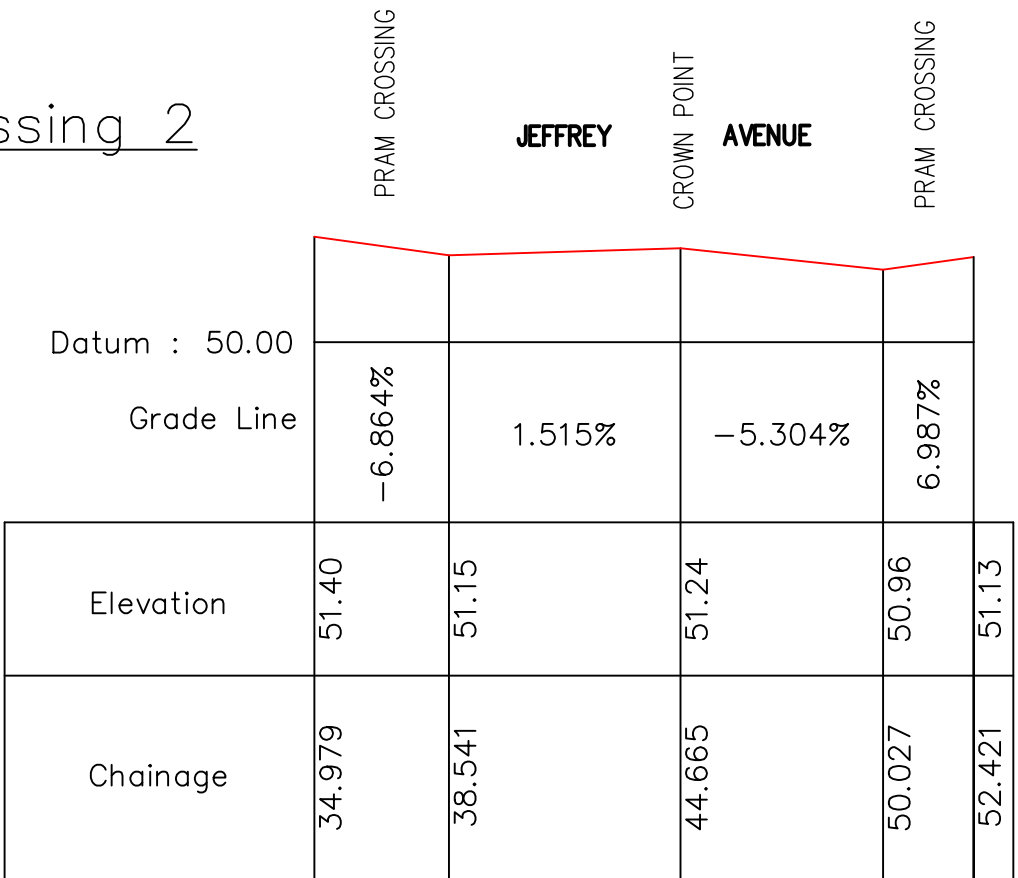
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Crossing 1



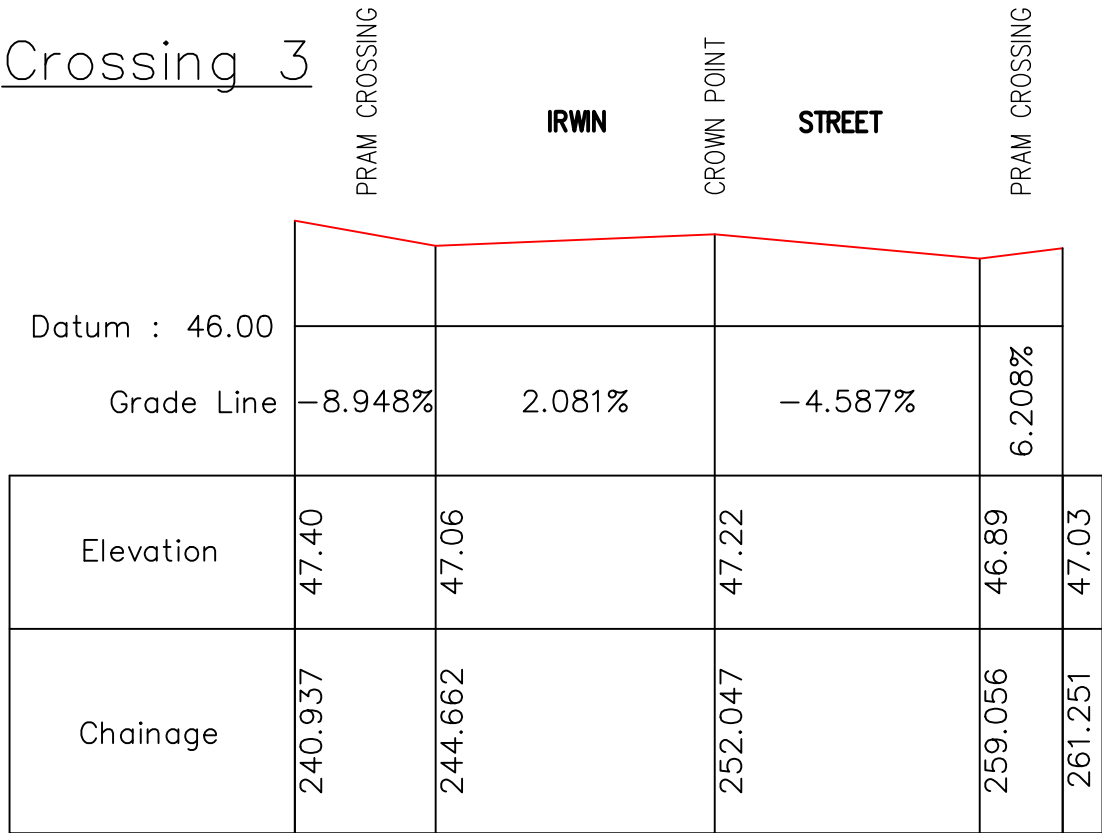
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Crossing 2



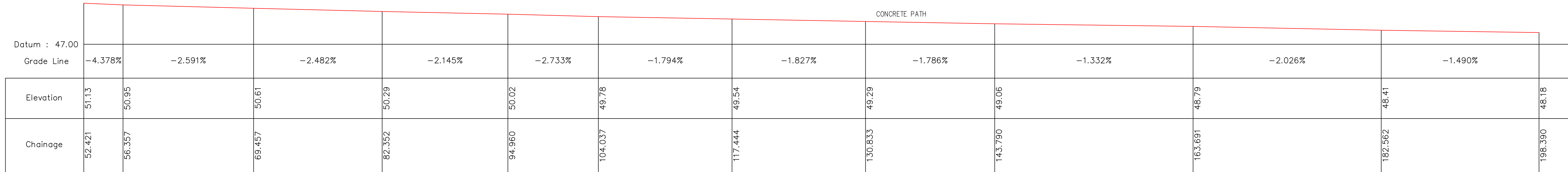
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Vertical Scale 1 : 100

Crossing 3



Horizontal Scale 1 : 200  
Vertical Scale 1 : 100

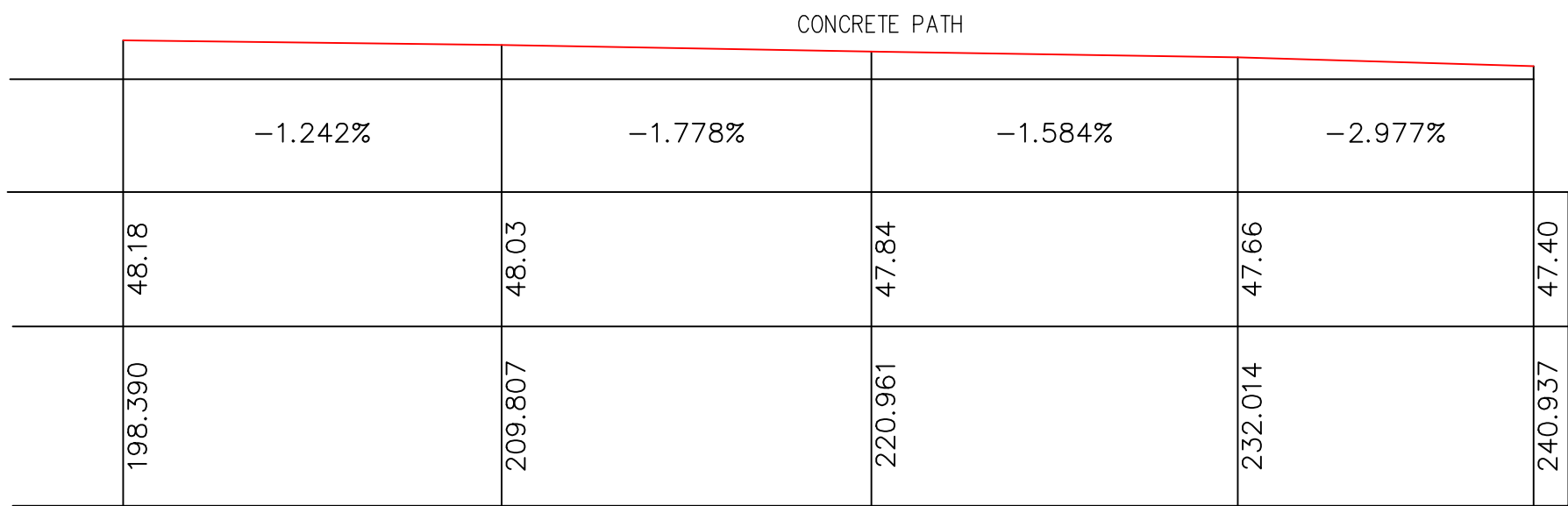
Long Section 5



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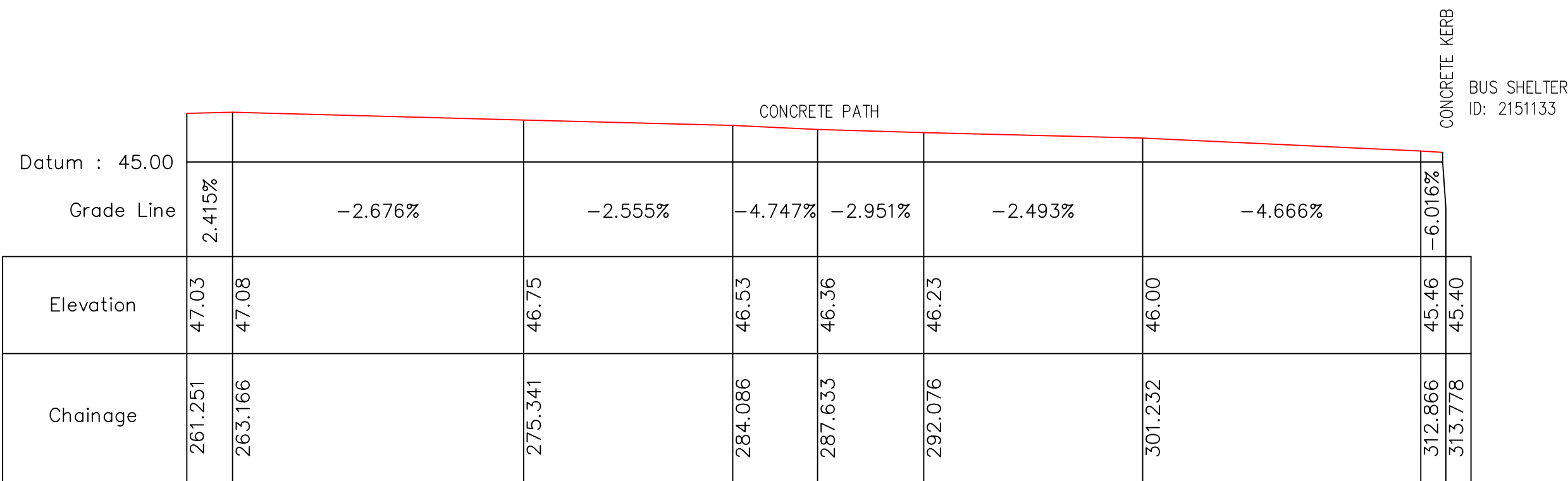
CONTINUED BELOW

Long Section 5





CONTINUED

Long Section 6



Horizontal Scale 1 : 200  
Vertical Scale 1 : 200

CONCRETE KERB  
BUS SHELTER  
ID: 2151133

No. DATE			NOTATION/AMENDMENT			No. DATE			NOTATION/AMENDMENT			CONTOUR INTERVAL: DATUM: A.H.D. ORIGIN OF DATUM: SSM76404 100 YEAR FLOOD RL:  RECOMMENDED MINIMUM FLOOR RL:  SOURCE OF FLOOD INFO:		SEE INDIVIDUAL SCALES	LAND TITLE INFORMATION  LOTS: 2,3,4  PLAN NOS : D.P. 215342  OTHER:  AREA:	DATE OF SURVEY: 23/04/2021 SURVEY CONSULTANT:   TSS TOTAL SURVEYING SOLUTIONS ARTARMON   CAMDEN   MANLY VALE	 Land & Housing Corporation <small>Division of the Department of Family &amp; Community Services</small>	LOCATION  NORTH PARRAMATTA				
									STREET ADDRESS  26 ROSE CRESCENT									TYPE				
			FILE			FILE SIZE (MB)			CHECKED BY									JOB  210719			SHT. 4 OF 4	