



# ACTIVITY DETERMINATION

Project No. BGV99

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

In this matter:

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

Signed.....

Dated.....

Yolanda Gil  
Acting Executive Director, Portfolio Strategy and Origination  
Housing Portfolio  
Homes NSW

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

19-23

6

Street or property name

Douglas Street

Neal Place

Suburb, town or locality

Wallsend

Postcode

2287

Local Government Area(s)

Newcastle

Real property description (Lot and DP)

Lots 58 & 59 in DP 35087

Lots C & D in DP 35096

## ACTIVITY DESCRIPTION

Provide a description of the activity

Demolition of existing dwellings and associated structures, tree removal, and the construction of a 2-storey residential flat building development containing 10 x 1-bedroom and 10 x 2-bedroom dwellings, with associated landscaping and fencing, parking for 9 cars and consolidation into a single lot.

<sup>1</sup> 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.....

Yolanda Gil  
Acting Executive Director, Portfolio Strategy and Origination  
Housing Portfolio  
Homes NSW

## SCHEDULE 1

### IDENTIFIED REQUIREMENTS

#### PART A – Standard Identified Requirements

#### THE DEVELOPMENT

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

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

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
<b>Architectural</b>				
Cover Sheet	000	01	08/12/2022	Sam Crawford Architects
Block Analysis Plan	101	01	08/12/2022	Sam Crawford Architects
Site Analysis Plan	102	01	08/12/2022	Sam Crawford Architects
Demolition Plan	103	01	08/12/2022	Sam Crawford Architects
Development Data	104	01	08/12/2022	Sam Crawford Architects
Site Plan	105	01	08/12/2022	Sam Crawford Architects
Ground Floor Plan	106	01	08/12/2022	Sam Crawford Architects
First Floor Plan	107	01	08/12/2022	Sam Crawford Architects
Roof Plan	108	01	08/12/2022	Sam Crawford Architects
Street Elevations	201	01	08/12/2022	Sam Crawford Architects
Elevations 1	202	01	08/12/2022	Sam Crawford Architects
Elevations 2	203	01	08/12/2022	Sam Crawford Architects
Short Sections	301	01	08/12/2022	Sam Crawford Architects
Long Sections	302	01	08/12/2022	Sam Crawford Architects
Shadow Diagrams	401	01	08/12/2022	Sam Crawford Architects
Solar Access 1	402	01	08/12/2022	Sam Crawford Architects
Solar Access 2	403	01	08/12/2022	Sam Crawford Architects
Solar Access 3	404	01	08/12/2022	Sam Crawford Architects
External Materials Palette	501	01	08/12/2022	Sam Crawford Architects

Activity Determination  
19-23 Douglas Street & 6 Neal Place, Wallsend

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
<b>Landscape</b>				
Landscape Ground Floor Design	3	08	18/03/2024	Place Design Group
Section AA	4	08	18/03/2024	Place Design Group
Section BB and CC	5	08	18/03/2024	Place Design Group
Planting Strategy	6	08	18/03/2024	Place Design Group
Planting Palette	7	08	18/03/2024	Place Design Group
Planting Schedule	8	08	18/03/2024	Place Design Group
Fencing Strategy	9	08	18/03/2024	Place Design Group
Indicative Materials and Furniture	10	08	18/03/2024	Place Design Group
Typical Landscape Details	11	08	18/03/2024	Place Design Group
Typical Landscape Details	12	08	18/03/2024	Place Design Group
<b>Civil/ Stormwater</b>				
Cover Sheet, Locality Plan and Schedule of Drawings	80822046-CI-0001	9	02/05/2024	Stantec
Civil Construction Notes	80822046-CI-0002	4	25/01/2023	Stantec
Stormwater Drainage Plan Ground Floor	80822046-CI-1101	8	02/05/2024	Stantec
Sedimentation and Erosion Control Plan	80822046-CI-1201	7	12/04/2024	Stantec
Cut and Fill Plan	80822046-CI-1301	4	14/02/2024	Stantec
WSUD Catchment Plan	80822046-CI-1401	1	12/04/2024	Stantec
Stormwater Details Sheet 1	80822046-CI-2101	5	12/04/2024	Stantec
Stormwater Details Pit Schedule	80822046-CI-2102	5	02/05/2024	Stantec
Stormwater Details Sheet 2 OSD Tank 1 Details	80822046-CI-2103	6	18/04/2024	Stantec
Stormwater Details Sheet 3 OSD Tank 2 Details	80822046-CI-2104	6	18/04/2024	Stantec
Stormwater Details Sheet 4 OSD Tank 3 Details	80822046-CI-2104	6	18/04/2024	Stantec
Stormwater Details Sheet 4 Typical ESK20 Detail	80822046-CI-2101	1	02/05/2024	Stantec
Sedimentation and Erosion Control Details	80822046-CI-2201	4	25/01/2023	Stantec
Driveway Vertical Clearance Details	80822046-CI-2301	2	28/03/2024	Stantec
Civil Works Details	80822046-CI-2302	1	21/03/2024	Stantec
<b>Survey</b>				
Detail Survey	NA	1	23/11/2018	RPS Australia East

Title / Name:	Drawing No / Document Ref	Revision / Issue:	Date [dd/mm/yyyy]:	Prepared by:
<b>BASIX</b>				
BASIX Certificate	1277667M_05	NA	23/04/2024	Northrop Consulting Engineers Pty Ltd
Nationwide house energy rating scheme – class 2 summary	0008336240	NA	28/03/2024	Northrop Consulting Engineers Pty Ltd
<b>Reports</b>				
Traffic Impact Assessment	21148	V06	27/04/2023	The Transport Planning Partnership
Arborist's Report	NA	NA	01/02/2024	Hunter Horticultural Services
Waste Management Plan	NA	NA	19/04/2023	Sam Crawford Architects
DA Access Review (Stage 5/Part 5)	NA	Final V3	09/02/2024	MGAC
Geotechnical Investigation and Acid Sulfate Soil (ASS) Assessment	18/3543	NA	26/11/2018	STS GeoEnvironmental
Design Compliance Assessment	P210198	1	22/05/2024	BCA Vision

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 as required by identified requirement No. 74 shall be implemented.
4. All construction documentation and building work is to be certified in accordance with Section 6.28 of the Environmental Planning and Assessment Act 1979.
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 and 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 Newcastle 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. A concrete vehicular crossing and layback shall be provided at the entrance/ exit to the property. The crossing and laybacks shall be constructed in accordance with City of Newcastle Council's standard requirements for residential crossings. Council shall be provided with plans for the crossing 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 laybacks / driveway shall be borne by the Land and Housing Corporation. Obsolete gutter laybacks shall be constructed as kerb in accordance with City of Newcastle Council's standards.

**Note:**

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

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

### **Site Works**

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

### **Building Siting**

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

### **Smoke Detection System(s)**

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:
  - i. be connected to a permanent 240V power supply; and
  - ii. be provided with a battery backup to activate the alarm unit in the event of failure of the permanent power supply.

### **Site Soil Contamination**

17. If the site is identified as being potentially affected by soil contamination, it 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 and Housing Corporation on completion of the remediation works.

### **Landscaping**

18. Landscaping shall be carried out substantially in accordance with the approved landscape plan(s) (as amended by identified requirement No. 75) and maintained for a period of 12 months by the building contractor. City of Newcastle 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 the Land and 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 Arborist's 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 are to be provided in accordance with Australia Post specifications.

### **Public Liability Insurance**

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

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

*The following Identified Requirements are to be complied with prior to any work commencing on the site, including demolition.*

### 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 **5** working 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 and 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. Hunter 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 Newcastle Council shall be advised 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 any site on which demolition or building work is being carried out:

- (a) showing the name, address and telephone number of the responsible Land and Housing Corporation officer for the work, and
- (b) showing the name of the principal contractor (if any) and a telephone number on which that person may be contacted outside working hours, and
- (c) stating that unauthorised entry to the work site is prohibited.

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

**Note:**

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

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

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

**Protection of Trees**

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 Arborist's Report.

**Waste Management**

37. A final Waste Management Plan shall be prepared and submitted to the Land and 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 the relevant water utility provider (e.g. Hunter Water), confirming service availability prior to work commencing.

**Note:**

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

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 to certify that satisfactory arrangements have been made to ensure the provision of underground gas services to each dwelling in the development shall be obtained prior to work commencing.

### **Stormwater Disposal**

42. Detailed stormwater drainage plans, substantially in accordance with the approved concept stormwater drainage plan(s), shall be prepared and submitted to the Land and Housing Corporation. Any on-site detention system shall be designed in accordance with the relevant catchment authority's requirements (eg the Upper Parramatta River Catchment Trust On-site Detention Handbook) and/or City of Newcastle Council's drainage code.

## **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**

43. Where site filling is necessary, a minimum of 95% standard compacting shall be achieved and certified by a NATA registered Soils Lab.
44. Land fill materials must satisfy the following requirements:
- i. be Virgin Excavated Natural Matter (VENM);

- ii. be free of slag, hazardous, contaminated, putrescible, toxic or radio-active matter; and
- iii. be free of industrial waste and building debris.

### Heritage

- 45. Historic and indigenous archaeological sites and relics are protected under the *Heritage Act 1977* and *National Parks and Wildlife Act 1974*, respectively. Should any relics be uncovered during the course of the approved works, work must cease immediately in the affected area. Subsequently, in cases where historical items have been uncovered, the Department of Climate Change, Energy the Environment and Water must be contacted.
- 46. 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 from the Department of Climate Change, Energy the Environment and Water.

### Demolition

- 47. Any existing structures identified for demolition shall be demolished prior to commencement of the construction of the activity.
- 48. Demolition shall be carried out in accordance with the appropriate provisions of AS 2601.
- 49. Where materials containing asbestos are to be removed, demolition shall be carried out by a licensed contractor(s) who have current SafeWork NSW accreditation in asbestos removal.
- 50. Removal of asbestos-based thermal or acoustic insulation, such as sprayed asbestos and asbestos-based lagging, including friable asbestos boards, shall be carried out in accordance with the National Occupational Health and Safety Commission's Code of Practice for the Safe Removal of Asbestos, 2<sup>nd</sup> Edition [NOHSC:2002 (2005)].
- 51. Hazardous or intractable wastes, including all asbestos laden waste, arising from the demolition process shall be removed and disposed of in accordance with the requirements of SafeWork NSW and the Department of Planning, Housing & Infrastructure.
- 52. 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 and Housing Corporation demonstrating the appropriate disposal of the asbestos waste.
- 53. Demolition procedures shall maximise the reuse and recycling of demolished materials in order to reduce the environmental impacts of waste disposal.
- 54. 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.
- 55. 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**

56. Survey reports shall be submitted by the building contractor to the Land and 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**

57. 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**

58. 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**

59. Any noise generated during the construction of the development shall not exceed the limits specified in the July 2009 Interim Construction Noise Guidelines, published by the former Department of Environment and Climate Change.
60. No fires shall be lit or waste materials burnt on the site.
61. No washing of concrete forms or trucks shall occur on the site.
62. Any contamination / spills on the site during construction works shall be actively managed and reported immediately to appropriate regulatory authorities to minimise any potential damage to the environment.
63. Dust generation during demolition / construction shall be controlled using regular control measures such as on site watering or damp cloth fences.
64. All vehicles transporting loose materials and travelling on public roads shall be secured (ie closed tail gate and covered) to minimise dust generation.
65. 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**

66. The NSW Land and Housing Corporation shall bear the cost of any necessary adjustments to utility mains and services.
67. 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

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

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

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

## PRIOR TO OCCUPATION OF THE DEVELOPMENT

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

### General

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

### Council Infrastructure Damage

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

### Stormwater Drainage

71. 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 Newcastle 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 and Housing Corporation and City of Newcastle Council.

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

### **72. Air Conditioning**

#### **Design and Installation**

Air conditioning units as illustrated on architectural plans must be designed, specified and installed to ensure that they comply with the requirements of the *Protection of the Environment Operations (Noise Control) Regulations 2017* and must not emit a noise that exceeds 5dB(A) above the ambient background noise level measured at any property boundary. Acoustic treatment may be required to ensure this is achieved.

Certification, from an appropriately qualified acoustic consultant, shall be provided at construction documentation stage that the air conditioning units can comply with this requirement.

Further certification, from an appropriately qualified acoustic consultant, shall be provided prior to occupation that the installed air conditioning units comply with this requirement.

#### **On-Going**

The use of any air-conditioning unit must comply with the requirements of the *Protection of the Environment Operations (Noise Control) Regulations 2017* and must not:

- (a) emit a noise that is audible within a habitable room in any adjoining residence (regardless of whether any door or window to that room is open):
  - (i) before 8.00 am and after 10.00 pm on any Saturday, Sunday or Public Holiday; or
  - (ii) before 7.00 am or after 10.00 pm on any other day;
- (b) emit a noise that exceeds 5dB(A) above the ambient background noise level measured at any property boundary.

### **73. Solar (photovoltaic electricity generating) energy system**

Where a solar energy system is proposed it must satisfy the following requirements:

- (a) the system is installed in accordance with the manufacturer's specifications or by a person who is accredited by the Clean Energy Council for the installation of photovoltaic electricity generating systems, and
- (b) the solar energy system must not reduce the structural integrity of any building to which the system is attached, and
- (c) the system must not involve mirrors or lenses to reflect or concentrate sunlight, and
- (d) the system must not protrude more than 0.5m from the wall or roof (as measured from the point of attachment), and
- (e) the system is installed no less than 3m from any adjoining property boundary.

Certification from an appropriately person shall be provided at construction documentation stage that the solar energy system/s are capable of complying with this requirement.

**74. NatHERS & BASIX Certificates/ stamped plans**

Updated BASIX and NatHERS Certificates and stamped plans to be prepared by an appropriately qualified person is to be provided at construction documentation stage detailing the inclusion of air conditioning and solar (photovoltaic electricity generating) energy system.

**Site Specific Requirements**

**75. Revised landscape plan**

A revised Landscape Plan shall be prepared at construction documentation stage to address the following:

- (a) delete the direct pathway from the car parking area to the common open space area unless the pathway can be made accessible,
- (b) access to the common open space area is to be from an accessible pathway,
- (c) a seat(s) is to be provided in the common open space area in an accessible location,
- (d) areas of turf are to be minimised or eliminated wherever possible to reduce ongoing maintenance,
- (e) trees within close proximity to buildings and major services are to be appropriately sized to avoid structural damage and reduce maintenance burden, and
- (f) the 4 proposed *Tristaniopsis laurina* (Water Gum) along the northern edge of the driveway are to be deleted.

**76. Balconies**

Balconies are to be appropriately sized to meet the *NSW Land and Housing Corporation Design Requirements*. Balconies to Unit 12 and Unit 15 shall be increased to provide a minimum area of 10m<sup>2</sup>.

**77. Additional privacy screening**

- Fixed privacy screen to be provided to the northern side of Unit 15 balcony
- Fixed privacy screen to be provided to the eastern side of Unit 20 balcony.

**78. Safety barrier**

A safety barrier around the car parking area is to be provided where necessary to satisfy the Australian Standards.

**Requirements resulting from Council Comments**

**79. Principal Private Open Space Unit 9—**

The western wall enclosing the Principal Private Open Space area of unit 9 shall be a minimum 1.5m in height above the finished level of the adjoining entry pathway.

**80. Rainwater tanks**

A mains water top-up system is to be installed to maintain a minimum water depth of 100mm within the rainwater tanks; or an electronically activated mechanical valve device installed to switch to mains water when the water level in the tank falls below the minimum depth.

**81. Bicycle hoop**

One bicycle hoop is to be provided within an external common open area.

**82. Conduit for EV charging**

Conduit is to be provided for future provision of an electric vehicle (EV) charger, in accordance with City of Newcastle Council's requirements.

**83. Kerb outlets for stormwater**

The design and construction of the 3 kerb outlets to Douglas Street are to be in accordance with Council's guidelines and design specifications.

**84. Bin carting route**

The pathway from the bin enclosure to the front property boundary to be widened to 1.8m.

**85. House numbering**

Prior to commencement of construction, the LAHC must submit a Street Numbering Application to City of Newcastle Council to enable the addressing allocation process to commence. The allocated addressing will be as per City of Newcastle's Addressing Allocation document and in accordance with the NSW Addressing Policy and the Australian/New Zealand Standard: Rural and Urban Addressing (AS/NZS 4819:2011).

**Requirements Resulting from Consideration of Adjoining Occupier Responses to Notification**

**86. Boundary fence with 24 Curry Street**

Provide 300mm lattice to the top of the metal fence at the common boundary with 24 Curry Street.

**Recommendation for Independent Assessor**

**87. Unit 19 Solar Access**

A skylight or other suitable alternative is to be installed to provide mid-winter solar access to the main living area of Unit 19.

**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	
<b>STREET ADDRESS</b>	
Unit/Street No	Street or property name
19-23 6	Douglas Street Neal Place
Suburb, town or locality	Postcode
Wallsend	2287
Local Government Area(s)	Real property description (Lot and DP)
Newcastle	Lots 58 & 59 in DP 35087 Lots C & D in DP 35096
ACTIVITY DESCRIPTION	
<b>Provide a description of the activity</b>	
Demolition of existing dwellings and associated structures, tree removal, and the construction of a 2-storey residential flat building development containing 10 x 1-bedroom and 10 x 2-bedroom dwellings, with associated landscaping and fencing, surface parking for 9 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 and supporting documentation, including advice from City of Newcastle Council a decision to proceed with the proposed activity has been made. This decision included consideration of the following:

### Significant Impact on the Environment

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

### Reasons for the Decision

- Following an assessment of the proposed activity and associated environmental impacts within the REF document it was decided that the proposed 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 development will assist in the provision of much needed social and affordable housing and assist in addressing the existing and growing demand for housing in the City of Newcastle local government area.

Mitigation Measures

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

Signed.....

Dated.....

Yolanda Gil  
Acting Executive Director, Portfolio Strategy and Origination. Housing Portfolio  
Homes NSW

# 19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287

LOT 58 DP 35087, LOT 59 DP 35087, LOT C DP35096, LOT D DP35096



## DRAWING LIST

<b>000 COVER PAGE</b>		
000	COVER SHEET	N.T.S.
<b>100 PLANS</b>		
101	BLOCK ANALYSIS PLAN	1:200
102	SITE ANALYSIS PLAN	1:200
103	DEMOLITION PLAN	1:200
104	DEVELOPMENT DATA	1:500
105	SITE PLAN	
106	GROUND FLOOR PLAN	1:100
107	FIRST FLOOR PLAN	1:100
108	ROOF PLAN	1:100
<b>200 ELEVATIONS</b>		
201	STREET ELEVATIONS	1:100
202	ELEVATIONS 1	1:100
203	ELEVATIONS 2	1:100
<b>300 SECTIONS</b>		
301	SHORT SECTIONS	1:100
302	LONG SITE SECTION	1:100
<b>400 SHADOW DIAGRAMS</b>		
401	SHADOW DIAGRAMS (PLAN)	1:300
402	SOLAR ACCESS	N.T.S.
403	SOLAR ACCESS	N.T.S.
404	SOLAR ACCESS	N.T.S.
<b>500 EXTERNAL FINISHES AND MATERIALS</b>		
501	EXT. MATERIALS PALETTE	N.T.S.

## 1. BASIX Preliminary Pathway

The following summary is the final review for the BASIX pathway based on the documents provided for architectural and building services design (AM2 Submission to LAHC) on 13.03.2022.

- 1.1 Water Efficiency**  
Water score required: 40%  
Current score: 40%
- Common Facilities:
    - 6000L RW Tank to collect rainwater from at least 900m2 of roof space to supply irrigation to at least 390m2 of common landscape and 490m2 of private landscape and all the toilets.
  - Dwellings:
    - Showerheads: 4-star WELS rated (>4.5 but <=6 L/min)
    - Kitchen Taps 6-star WELS rated
    - Bathroom Taps: 5-star WELS rated
    - Toilets: 4-star WELS rated
    - Clothes Washers: not specified
    - Dishwashers: not specified
    - No on-demand HW reticulation or diversion
- 1.2 Energy Efficiency**  
Energy score required: 40%  
Current score: 40%
- Common Facilities:
    - Central Solar PV system: 4.2kW peak
    - No Central hot water systems
    - No Central heating / Cooling systems
    - No common area clothes dryers or drying lines.
    - No mechanical ventilation for common lobby for Ground and First Floor and for Switch Room.
    - LED lights with manual switch on/off for Common Lobby for Ground and First Floor and for Switch Room.
  - Dwellings:
    - 5-Star Gas Instantaneous Hot Water System for individual dwellings
    - No Mechanical ventilation (i.e natural ventilation) for bathroom for units 1,11,3,13,9,19,20.
    - Individual fan ducted to roof or façade exhausts for bathroom for all other units.
    - Individual fan ducted to roof or façade exhausts for laundry, and kitchen for all units.
    - All Bathroom, Laundry, Kitchen exhausts are controlled by manual switch on/off.
    - Ceiling Fan with manual on/off for Living Room and Bedroom in all units.
    - No Individual Heating systems
    - Dedicated fluorescent or LED fittings for all internal rooms.
    - Electric cooktop and electric oven.
    - Dishwasher: not specified
    - Clothes Washer: not specified
    - Refrigerator and Clothes Dryer not specified.
    - Well Ventilated Fridge Space for all units (as per plans).
    - Private Outdoor Clothing line for Units 1-10
    - Indoor or sheltered clothes drying line (e.g. screened line on balcony or line over path) for Units 11-20
- 1.3 Thermal Comfort**  
Score required: Pass  
Current score: Pass

<b>External Walls</b>	Ground: Double Brick Cavity, R1.0 bulk insulation, plasterboard (as per elevations) Cavity Brick First Floor: Brick Veneer, R1.5 bulk insulation, plasterboard (as per elevations) Stud Wall with Fiber Cement Cladding, R1.0 bulk insulation, plasterboard (for lobby) Non-Cavity Plasterboard Brick Veneer
<b>External Wall Solar absorptance</b>	Alfresco Vino Brick (Dark - 0.85) - as per elevation Crushed Grey Brick (Medium - 0.50) - as per elevation FC cladding (Medium - 0.50) - as per elevation
<b>Internal Partitions</b>	Lightweight Construction - Plasterboard Stud Cavity Wall, No Insulation Cavity wall stud to plasterboard on single side
<b>Party Walls - walls to risers, shafts, neighbours</b>	Lightweight Construction - Plasterboard Stud Cavity Wall, No Insulation Stud, plasterboard
<b>Walls to naturally ventilated corridors</b>	Single Brick, Plasterboard Wall Brick, plasterboard
<b>Ceiling to Roof (ceiling to balcony)</b>	Plasterboard, R3.5 bulk insulation
<b>Roof construction</b>	Corrugated iron, No insulation, Skillion roof
<b>Roof Solar absorptance</b>	Solar Absorptance - 0.3 (light grey)
<b>Ground Floor construction</b>	Concrete Slab on ground
<b>Suspended Floor constructions</b>	Concrete Slab, Plasterboard
<b>Floor coverings</b>	Tiles in Dining, study, and living Tiles in wet areas (kitchen, laundry, toilet) Awnings, Casement - U-Value of 4.3 and SHGC of 0.47 (Sample: Aluminium B Double Glazed Air Fill High Solar Gain low-E-Clear)
<b>Window system performance</b>	Sliding, Fixed Windows- U-Value of 4.3 and SHGC of 0.53 (Sample: Aluminium B Double Glazed Air Fill High Solar Gain low-E-Clear) Glazed Sliding Doors- U-Value of 4.1 and SHGC of 0.52 (Sample: Aluminium B DG Argon Fill High Solar Gain low-E-Clear)
<b>Window operability</b>	Window operability according to the plans. Single Pane Awning windows on the ground floor have been modelled to 90% openness. The combination of Awning and fixed windows on the ground floor are modelled to 45% openness. Operable windows above 2m off the ground and not next to balconies or winter garden have been modelled to have a 10% openness in the models.
<b>Ceiling Penetrations</b>	Surface mounted LED lights. Weather seals for all exhausts and vents have been assumed in all models.



01 LOCATION PLAN (N.T.S.)



02 VIEW FROM DOUGLAS ST & NEAL PL: EXISTING

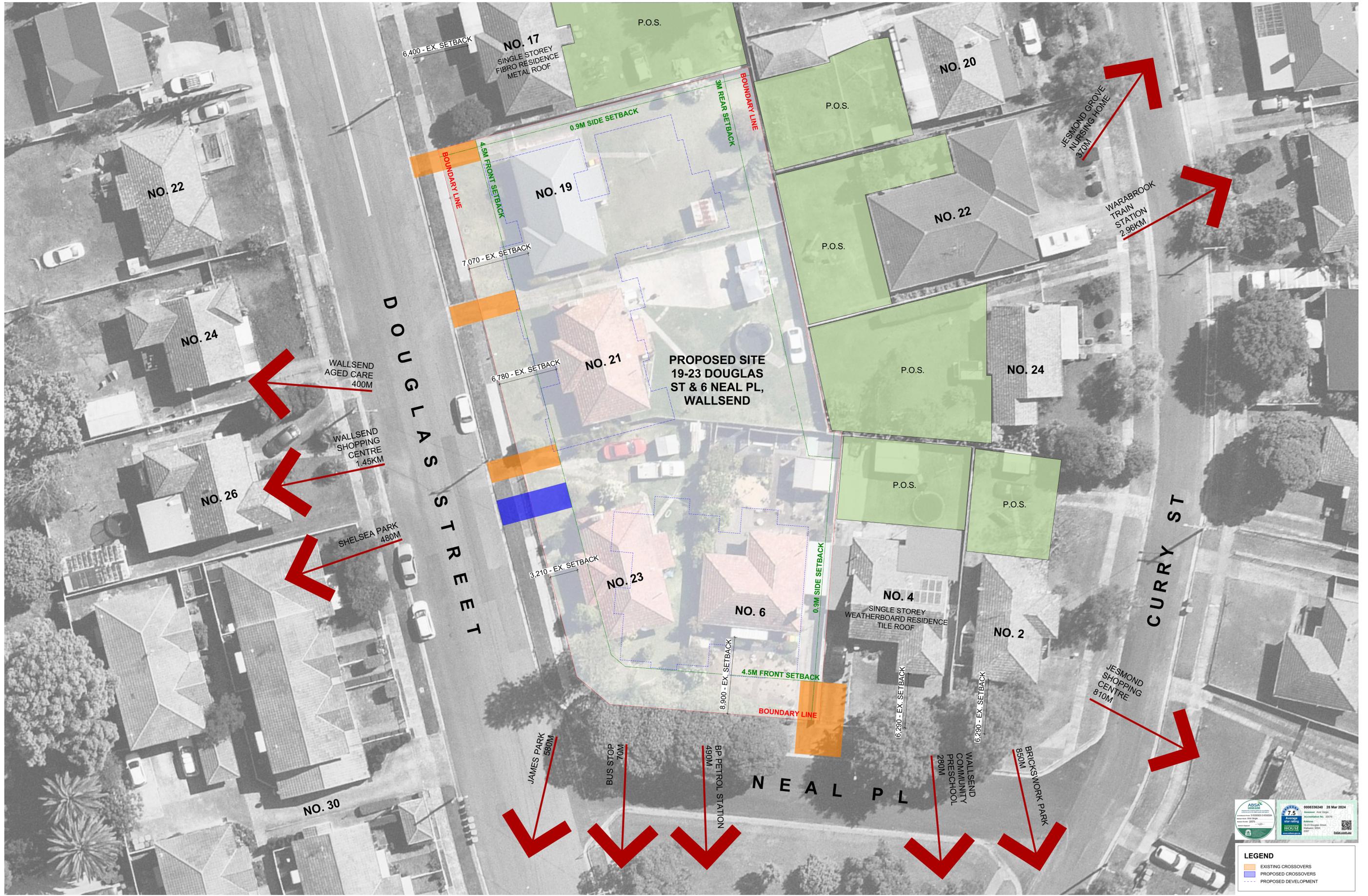


03 DOUGLAS ST & NEAL PL PERSPECTIVE

## CONSULTANTS LIST

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<b>CIVIL ENGINEER</b>	<b>Stantec</b> Level 9, 203 Pacific Highway, St Leonards 2065 P 02 9496 7700
<b>LANDSCAPE ARCHITECT</b>	<b>Place Design Group</b> 3b/830-832 Elizabeth St, Waterloo 2017 P 02 9290 3300
<b>ELECTRICAL, FIRE, HYDRAULIC, MECHANICAL, STRUCTURAL &amp; BASIX</b>	<b>Northrop Consulting Engineers</b> Level 1, 215 Pacific Highway Charlestown NSW P 02 4943 1777
<b>TRAFFIC ENGINEER</b>	<b>TTPP</b> 22-24 Atchison St, St Leonards 2065 P 02 8437 7800

## PART 5 SUBMISSION



**LEGEND**

- EXISTING CROSSOVERS
- PROPOSED CROSSOVERS
- PROPOSED DEVELOPMENT

**PART 5 SUBMISSION**

LOT 58/ DP 35087	NORTH POINT	SCALE @ A1	PROJECT NO.	STAGE	DRAWING NO.	REV
LOT 59/ DP 35087		1:200	21.27	AA	101	01
LOT 57/ DP 35096		SCALE @ A3	DRAWING TITLE			
		1:400	<b>BLOCK ANALYSIS PLAN</b>			

01/2024 E.C.T. P.L. 13/Mar/24

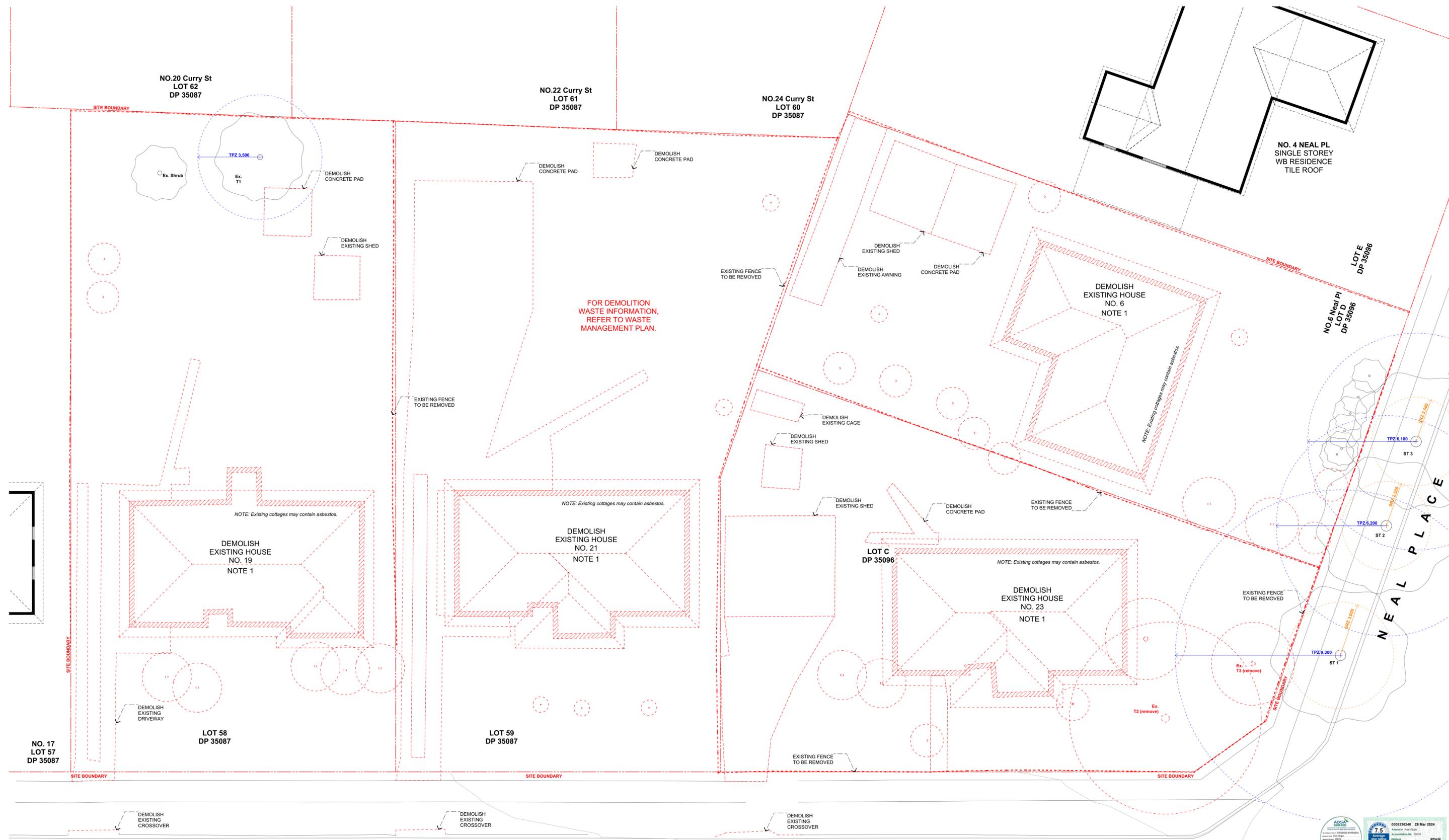
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 EMAIL: studio@samcrawfordarchitects.com.au WEB: samcrawfordarchitects.com.au  
 A/CN 165 400 587 Registered Architect Sam Crawford 6488

REV	APPD	DATE	CLIENT
01	SC	08-Dec-22	LAND & HOUSING CORPORATION (LAHC)
DESCRIPTION			PROJECT
AM2 SUBMISSION TO LAHC			<b>DOUGLAS ST &amp; NEAL PL</b>
			19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287

LOT 58/ DP 35087	NORTH POINT	SCALE @ A1	PROJECT NO.	STAGE	DRAWING NO.	REV
LOT 59/ DP 35087		1:200	21.27	AA	101	01
LOT 57/ DP 35096		SCALE @ A3	DRAWING TITLE			
		1:400	<b>BLOCK ANALYSIS PLAN</b>			





FOR DEMOLITION WASTE INFORMATION, REFER TO WASTE MANAGEMENT PLAN.

NOTE: Existing cottages may contain asbestos.

NO. 17 LOT 57 DP 35087

LOT 58 DP 35087

LOT 59 DP 35087

LOT C DP 35096

LOT E DP 35096

LOT D DP 35096

DOUGLAS STREET

NEAL PLACE



19 DOUGLAS STREET



21 DOUGLAS STREET



23 DOUGLAS STREET



6 NEAL PLACE

**NOTES**

NOTE 1:  
DEMOLISH SINGLE STOREY FIBRO RESIDENCE WITH TILED ROOF INCLUDING SLABS AND FOOTINGS.

DEMOLISH EXISTING TREE/SHRUB



Drawn: E.C.P. 13 Mar 24

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EMAIL studio@samcrawfordarchitects.com.au WEB samcrawfordarchitects.com.au  
ACN 165 409 587 Registered Architect Sam Crawford 6488

DESCRIPTION  
AMZ SUBMISSION TO LAHC

REV	APPD	DATE	CLIENT
01	SC	08-Dec-22	LAND & HOUSING CORPORATION (LAHC)

PROJECT  
**DOUGLAS ST & NEAL PL**  
19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287

LOT 58/ DP 35087	NORTH POINT	SCALE @ A1	PROJECT NO.	STAGE	DRAWING NO.	REV
LOT 59/ DP 35087		1:100	21.27	AA	103	01
LOT C/ DP35096		SCALE @ A3				
LOT D/ DP35096		1:200				

**PART 5 SUBMISSION**  
**DEMOLITION PLAN**



*Handwritten signature*



DOUGLAS STREET

**FENCE LEGEND**

- FN-1: BK-2 brick wall (800mm) with aluminium steel fence in Monument (400mm)
- FN-2: Aluminium steel fence in Monument (1200mm)
- FN-3: BK-1 brick wall (800mm) with aluminium steel fence in Monument (400mm)
- FN-4: BK-2 brick wall (1200mm) with aluminium steel fence in Monument (800mm)
- FN-5: Colourbond fence in Monument (1800mm)
- FN-6: Vehicle crash barrier fence (1100mm)
- FN-7: Aluminium steel fence in Monument (1500mm)
- FN-8: Aluminium steel fence in Monument (1500mm)

**BLOCK KEY**

**LEGEND**

AC	AIR CONDITIONER UNIT	FL	FIRE CEMENT CLADDING	LI	LINEN CUPBOARD	POS	PRIVATE OPEN SPACE	---	BOUNDARY	---	TREE PROTECTION ZONE	---	STORMWATER TO CIVIL END DOWNS
BA	BALUSTRADE	FR	FRESH FLOOR LEVEL	ME	MESH FENCING	RF	ROOF FINISH	---	VEHICULAR SIGNATURES	---	ACCESSIBLE CLEARANCES	---	DEEP SOIL
BR	BROOM CUPBOARD	FN	FIRE NUCLEUS PANEL	NEL	NON-FLUOROPOLYMER	RF	ROOFING	---	SETBACKS	---	DEMOLITION	---	GENERAL LANDSCAPE
CL	CLOSETLINE	GD	GAS METER	NM	NATURAL FINISH	RF	RETAINING WALL	---	VEHICULAR SIGNATURES	---	ACCESSIBLE CLEARANCES	---	DEMOLITION
CP	COMPARTMENT	GW	GAS WATER UNIT	OV	OVEN	RF	ROOF WATER TANK	---	VEHICULAR SIGNATURES	---	ACCESSIBLE CLEARANCES	---	DEMOLITION
ES	ELECTRIC METER	HW	HOT WATER UNIT	OP	OUTLET DETENTION	RF	ROOF WATER TANK	---	VEHICULAR SIGNATURES	---	ACCESSIBLE CLEARANCES	---	DEMOLITION
F	FENCE	LY	LAUNDRY	PR	PRINTERY	RF	ROOF WATER TANK	---	VEHICULAR SIGNATURES	---	ACCESSIBLE CLEARANCES	---	DEMOLITION
						RF	ROOF WATER TANK	---	VEHICULAR SIGNATURES	---	DEMOLITION		
						RF	ROOF WATER TANK	---	VEHICULAR SIGNATURES	---	DEMOLITION		

**AMZ SUBMISSION TO LAHC**

0008336240 28 Mar 2024

7.5

ABSAR

0008336240 28 Mar 2024

7.5

ABSAR

*Yalanda*



DOUGLAS STREET

BLOCK KEY

LEGEND

- 1 BED UNITS
- 2 BED UNITS
- WET AREA
- PAVING
- LANDSCAPE AREA
- HARDSCAPE AREA



PART 5 SUBMISSION

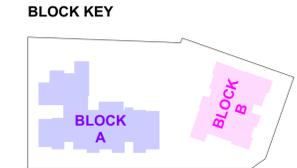
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DOUGLAS STREET

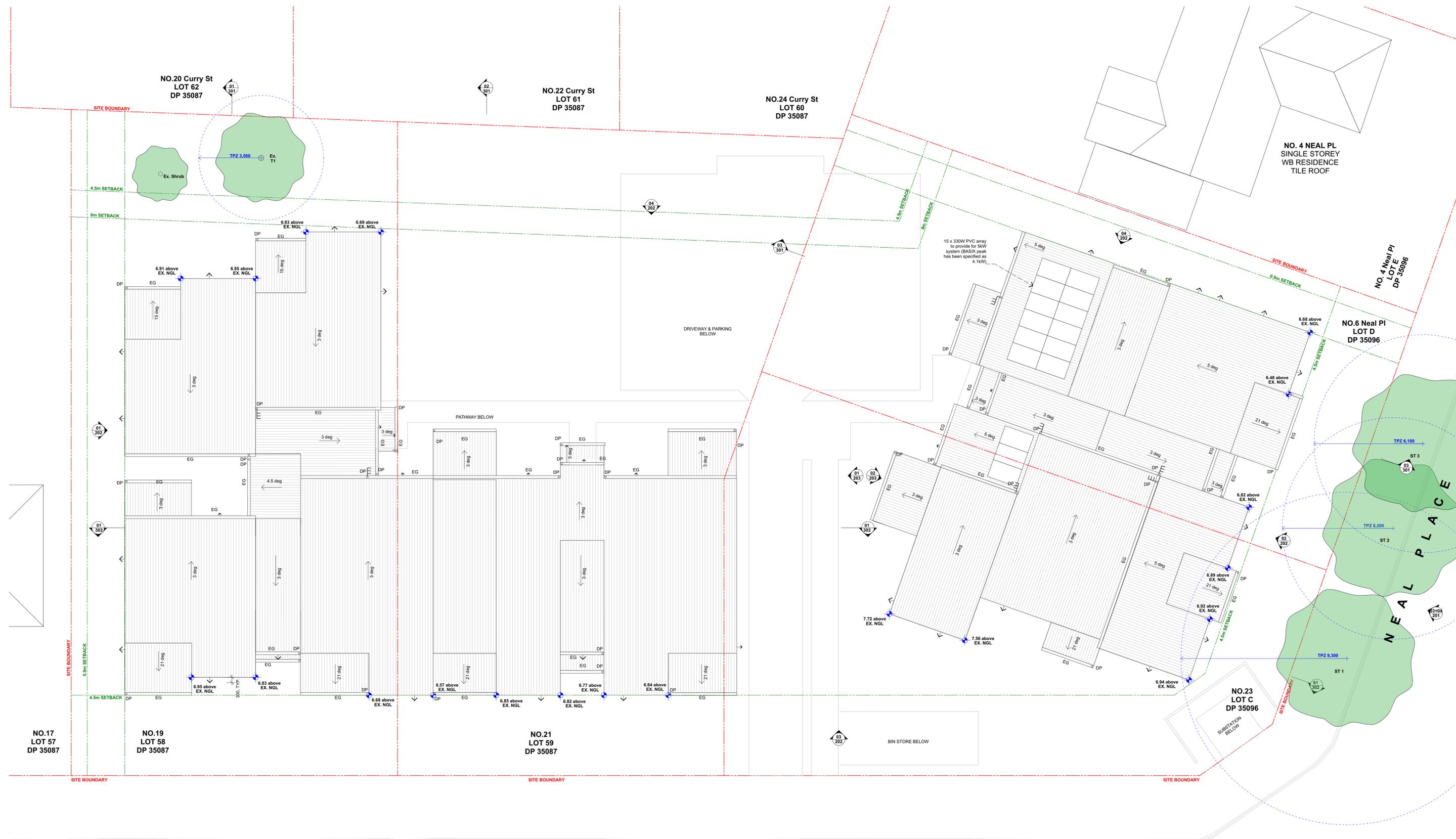
**LEGEND**

- 1 BED UNITS
- 2 BED UNITS
- WET AREA
- PAVING
- LANDSCAPE AREA
- HARDSCAPE AREA



**PART 5 SUBMISSION**

*Yalanda Pitt*



DOUGLAS STREET

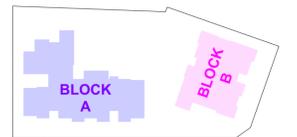
BLOCK KEY

**LEGEND**

- Rf-1 CORRUGATED METAL ROOF
- HEKA HOODS
- EAVES GUTTER AND DOWN PIPE
- DIMENSION AT MAX BUILDING HEIGHT TO NATURAL GROUND LEVEL

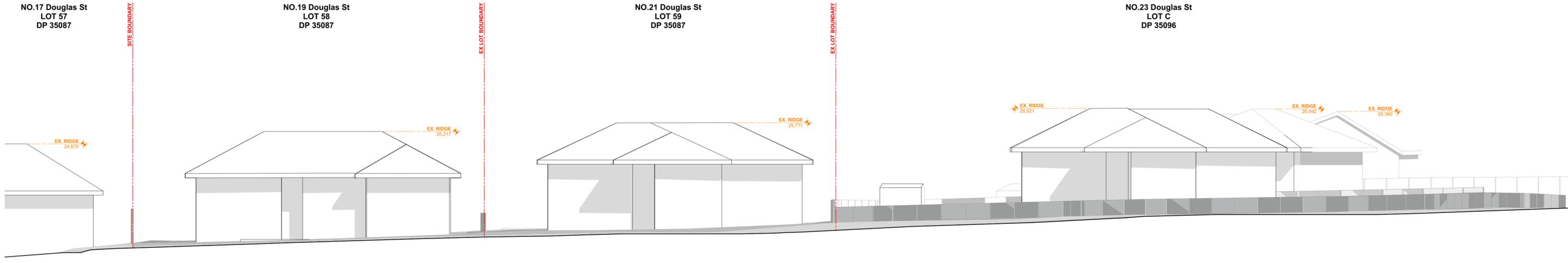
**LEGEND**

- 1 BED UNITS
- 2 BED UNITS
- WET AREA
- PAVING
- LANDSCAPE AREA
- HARDSCAPE AREA

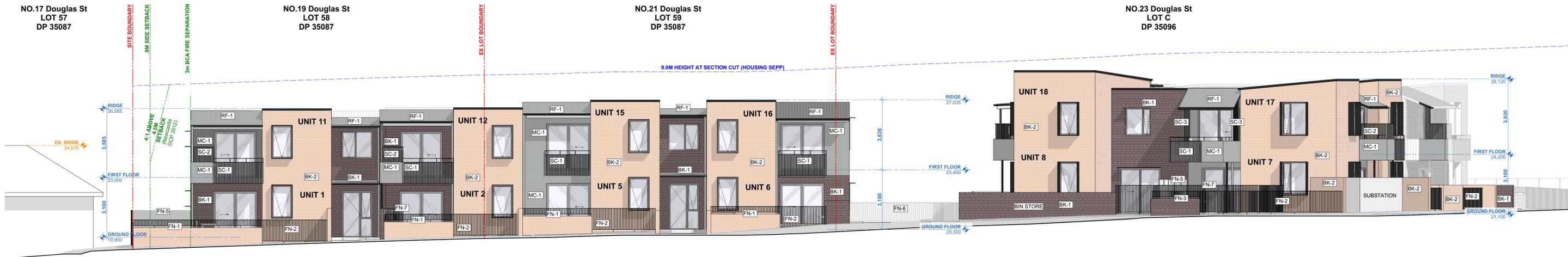


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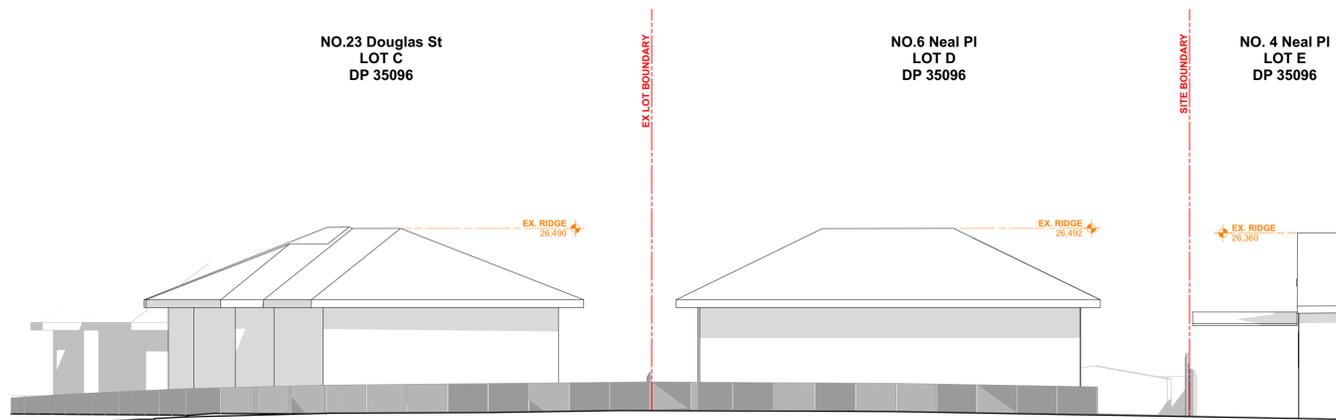
PART 5 SUBMISSION



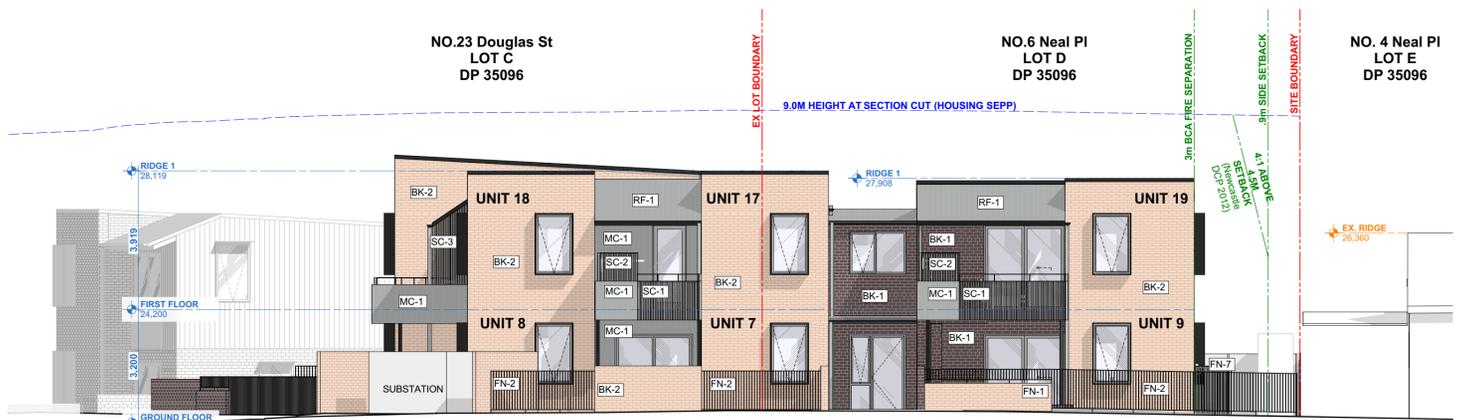
01 EXISTING STREET ELEVATION 1:100



02 PROPOSED DOUGLAS ST ELEVATION 1:100



03 EXISTING NEAL PL STREET ELEVATION 1:100

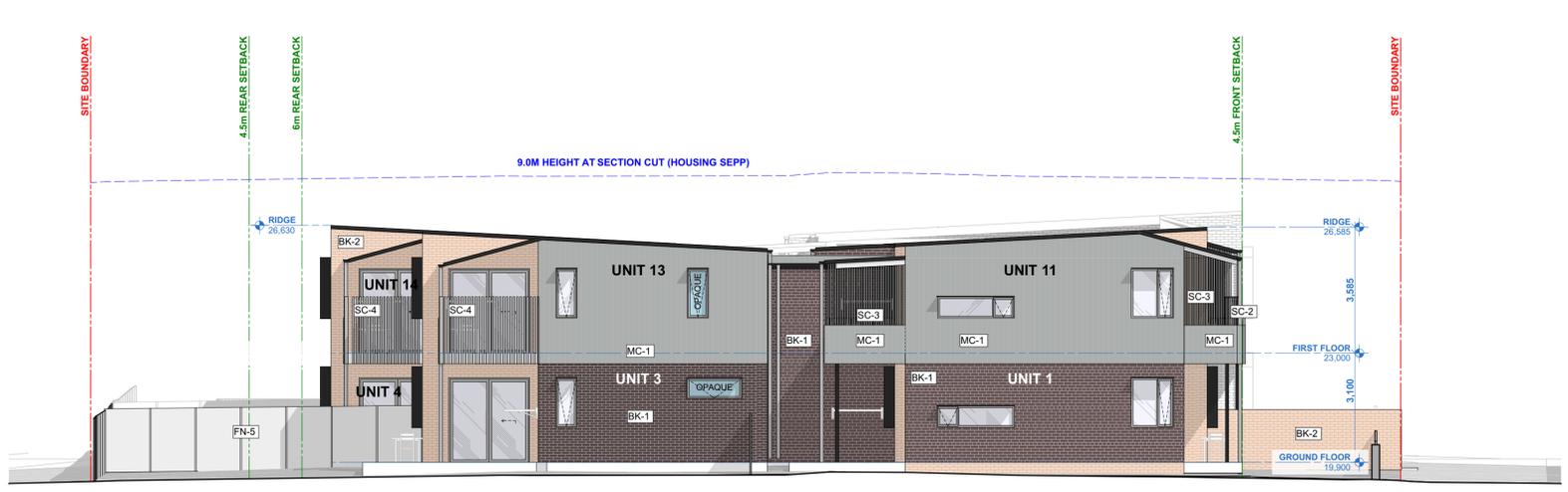


04 PROPOSED NEAL PL STREET ELEVATION 1:100

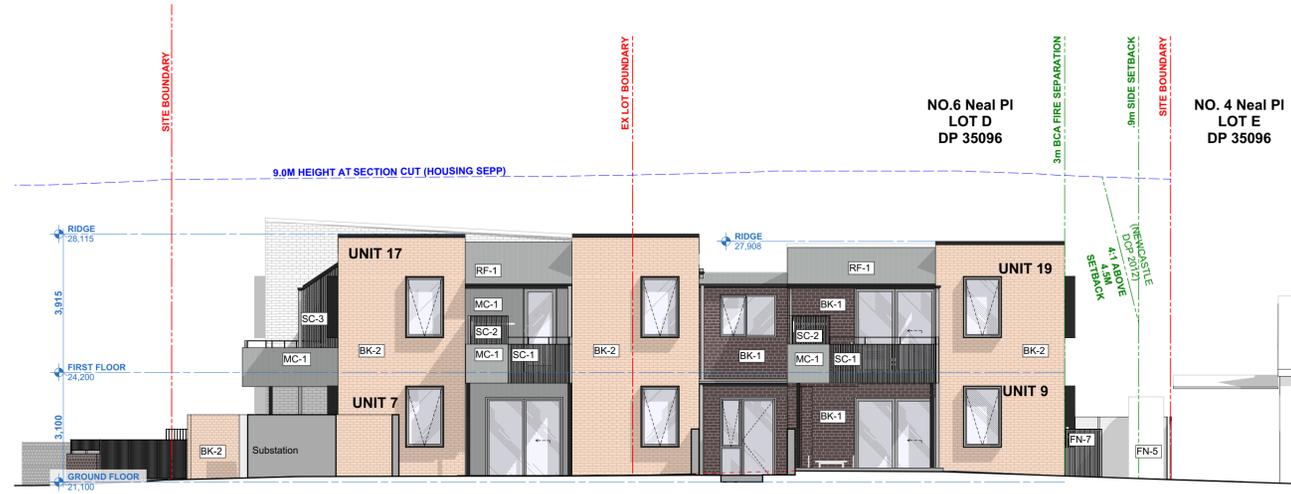
EXTERNAL FINISHES							
BK-1	WALLS BRICK - PGH BRICKS 'ALFRESCO VINO'	RF-1	ROOF CORRUGATED METAL ROOF - LYSAGHT CUSTOM ORB WINDSPRAY	FN-3	FENCING BRICK - PGH ALFRESCO 'VINO' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H	FN-6	FENCING CRASH BARRIER 1100H
BK-2	WALLS BRICK - PGH BRICKS 'BOTANICALS SANDALWOOD'	FN-1	FENCING BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H	FN-4	FENCING BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 1200H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 600H	FN-7	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1500H
MC-1	WALLS CORRUGATED METAL CLADDING - LYSAGHT CUSTOM ORB WINDSPRAY	FN-2	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1200H	FN-5	FENCING COLOURBOND FENCING 'MONUMENT' FINISH 1800H	FN-8	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1800H
						SC-1	SCREEN 1000MM HIGH OPEN BALUSTRADE
						SC-2	SCREEN ALUMINIUM VERTICAL BATTEN SCREEN 800H
						SC-3	SCREEN FULL HEIGHT ALUMINIUM VERTICAL BATTEN SCREEN
						SC-4	SCREEN ALUMINIUM VERTICAL BATTEN SCREEN 1600H
							CLEAR & OPAQUE GLASS REFER ELEVATIONS
							METAL FINISHES: FASCIA, GUTTER, DOWNPIPE, WINDOW HOODS, WINDOW FRAMES Refer A501 for details



PART 5 SUBMISSION



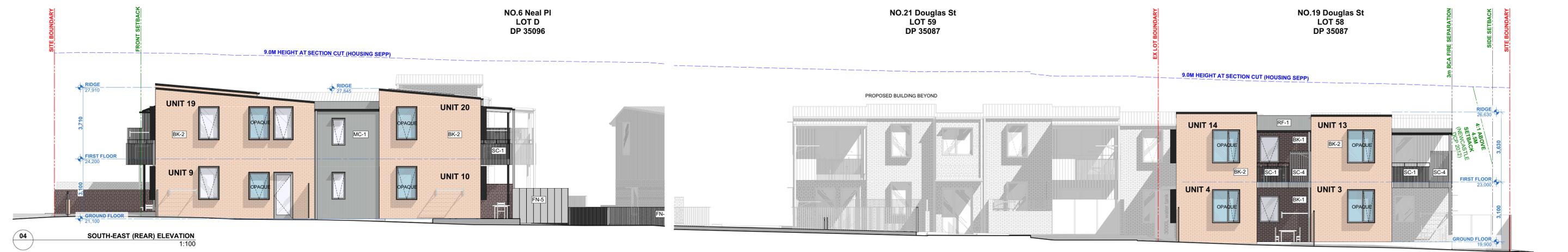
01 NORTH ELEVATION UNIT 1, 11, 3, 13, 4 + 14  
1:100



02 SOUTH ELEVATION UNIT 7, 17, 9 + 19  
1:100

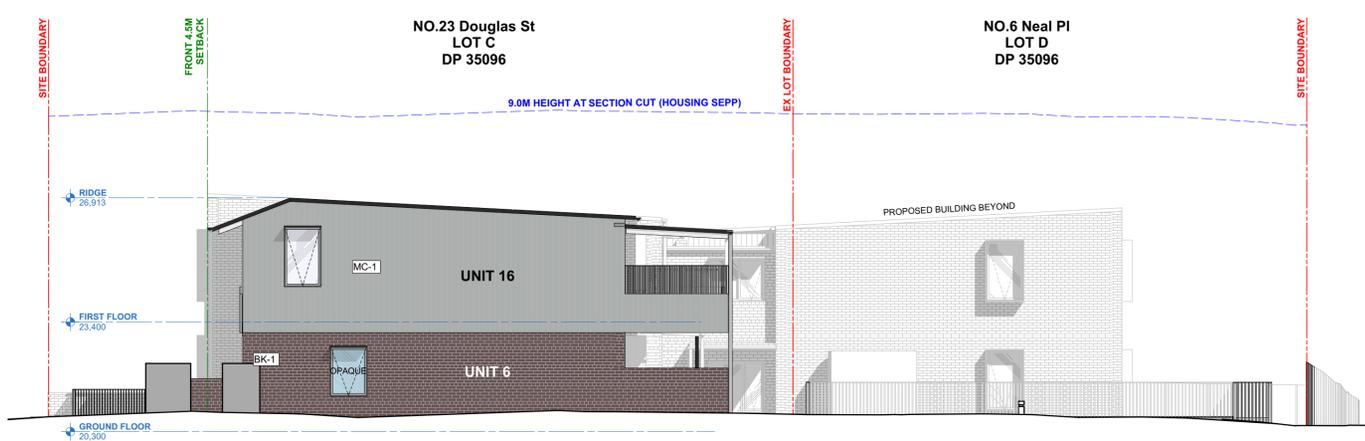


03 WEST (STREET) ELEVATION  
1:100

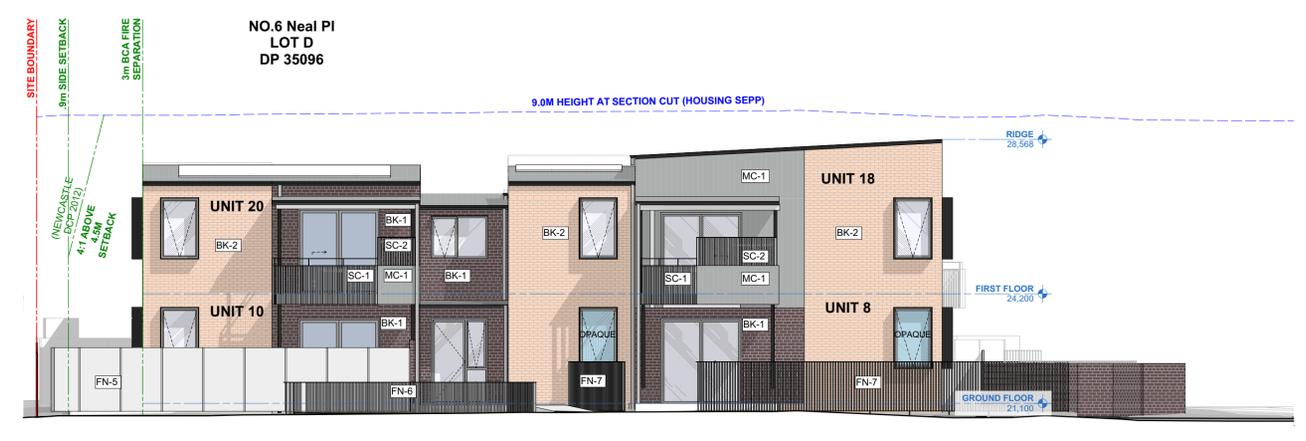


04 SOUTH-EAST (REAR) ELEVATION  
1:100

EXTERNAL FINISHES		ROOF		FENCING		FENCING		SCREEN		SCREEN		SCREEN		METAL FINISHES	
BK-1	WALLS BRICK - PGH BRICKS 'ALFRESCO VINO'	RF-1	CORRUGATED METAL ROOF - LYSAGHT CUSTOM ORB WINDSPRAY	FN-3	FENCING BRICK - PGH ALFRESCO 'VINO' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H	FN-6	FENCING CRASH BARRIER 1100H	SC-1	SCREEN 1000MM HIGH OPEN BALUSTRADE	SC-4	SCREEN ALUMINIUM VERTICAL BATTEN SCREEN 1600H	CLEAR & OPAQUE GLASS REFER ELEVATIONS		METAL FINISHES: FASCIA, GUTTER, DOWNPIPE, WINDOW HOODS, WINDOW FRAMES REFER A5011 for details	
BK-2	WALLS BRICK - PGH BRICKS 'BOTANICALS 'SANDALWOOD''	FN-1	FENCING BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H	FN-4	FENCING BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 1200H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 600H	FN-7	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1500H	SC-2	SCREEN ALUMINIUM VERTICAL BATTEN SCREEN 800H						
MC-1	WALLS CORRUGATED METAL CLADDING - LYSAGHT CUSTOM ORB WINDSPRAY	FN-2	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1200H	FN-5	FENCING COLOURBOND FENCING 'MONUMENT' FINISH 1800H	FN-8	FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1800H	SC-3	SCREEN FULL HEIGHT ALUMINIUM VERTICAL BATTEN SCREEN Refer A5011 for details						



01 SOUTH ELEVATION UNIT 4, 14  
1:100



02 NORTH ELEVATION 8, 10 + 20  
1:100

EXTERNAL FINISHES

- WALLS**  
BK-1 BRICK - PGH BRICKS 'ALFRESCO' VINO
- WALLS**  
BK-2 BRICK - PGH BRICKS 'BOTANICALS' SANDALWOOD'
- WALLS**  
MC-1 CORRUGATED METAL CLADDING - LYSAGHT CUSTOM ORB WINDSPRAY
- ROOF**  
RF-1 CORRUGATED METAL ROOF- LYSAGHT CUSTOM ORB WINDSPRAY
- FENCING**  
FN-1 BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H
- FENCING**  
FN-2 ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1200H
- FENCING**  
FN-3 BRICK - PGH ALFRESCO 'VINO' UP TO 800H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 400H
- FENCING**  
FN-4 BK-2 BRICK - PGH BOTANICALS 'SANDALWOOD' UP TO 1200H + ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 600H
- FENCING**  
FN-5 COLOURBOND FENCING 'MONUMENT' FINISH 1800H
- FENCING**  
FN-6 FENCING CRASH BARRIER 1100H
- FENCING**  
FN-7 ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1500H
- FENCING**  
FN-8 FENCING ALUMINIUM SLAT FENCE 'MONUMENT' FINISH 1800H
- SCREEN**  
SC-1 1000MM HIGH OPEN BALUSTRADE
- SCREEN**  
SC-2 ALUMINIUM VERTICAL BATTEN SCREEN 800H
- SCREEN**  
SC-3 FULL HEIGHT ALUMINIUM VERTICAL BATTEN SCREEN
- SCREEN**  
SC-4 ALUMINIUM VERTICAL BATTEN SCREEN 1600H
- CLEAR & OPAQUE GLASS**  
REFER ELEVATIONS
- METAL FINISHES:** FASCIA, GUTTER, DOWNPIPE, WINDOW HOODS, V  
Refer A501 for details

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EMAIL: studio@samcrawfordarchitects.com.au WEB: samcrawfordarchitects.com.au TELEPHONE: +61 2 9519 9800  
ACN 165 409 587 Registered Architect Sam Crawford 6488

DESCRIPTION  
AMZ SUBMISSION TO LAHC

REV	APPD	DATE	CLIENT
D1	SC	08-Dec-22	LAND & HOUSING CORPORATION (LAHC)

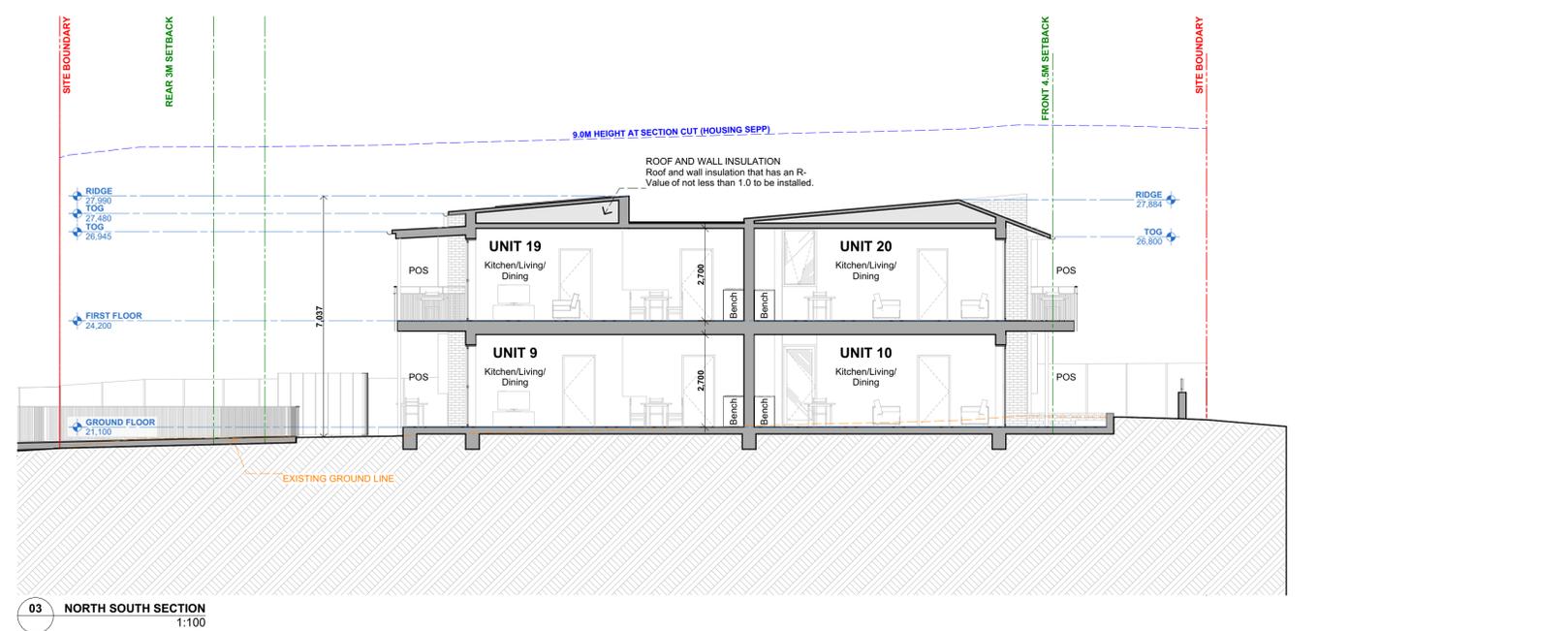
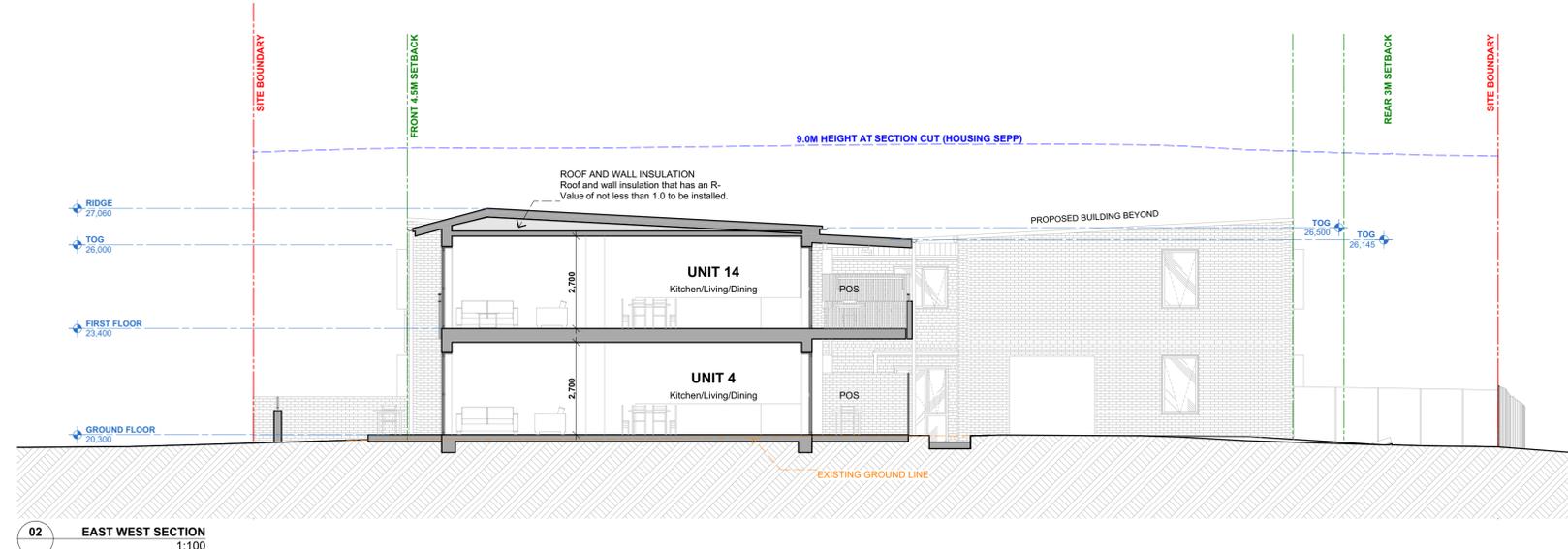
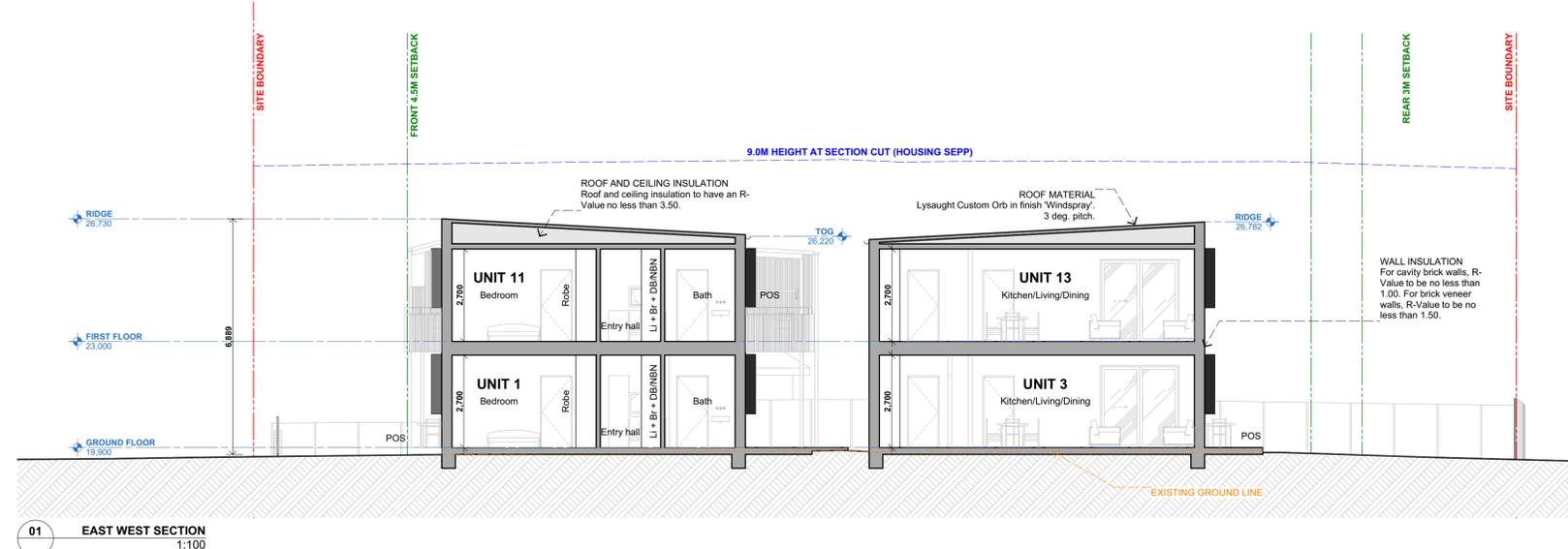
LOT 58/ DP 35087	LOT 59/ DP 35087	LOT 62/ DP35096	LOT D/ DP35096
SCALE @ A1 1:100	SCALE @ A2 1:100	SCALE @ A3 1:200	SCALE @ A4 1:200

PART 5 SUBMISSION

PROJECT NO.	STAGE	DRAWING NO.	REV
21.27	AA	203	01

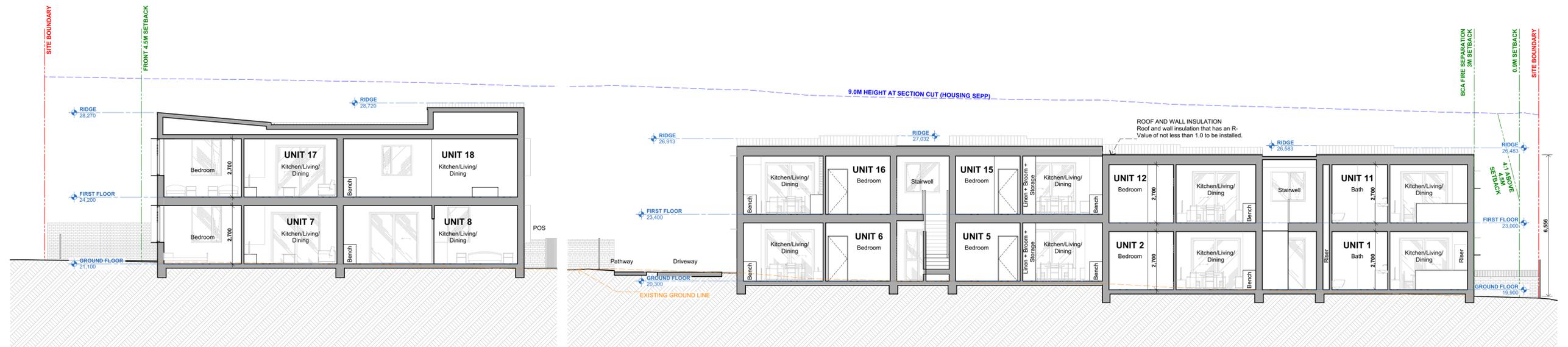
ELEVATIONS 2





**PART 5 SUBMISSION**

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				01	SC	08-Dec-22				SCALE @ A2				
				DRAWING TITLE <b>DOUGLAS ST &amp; NEAL PL</b> 19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287						SCALE @ A3 1:200				



Printed: E:\CD\24\_17\_Mar\_24

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 A/CN 165 400 567 Nominated Architect Sam Crawford 6488



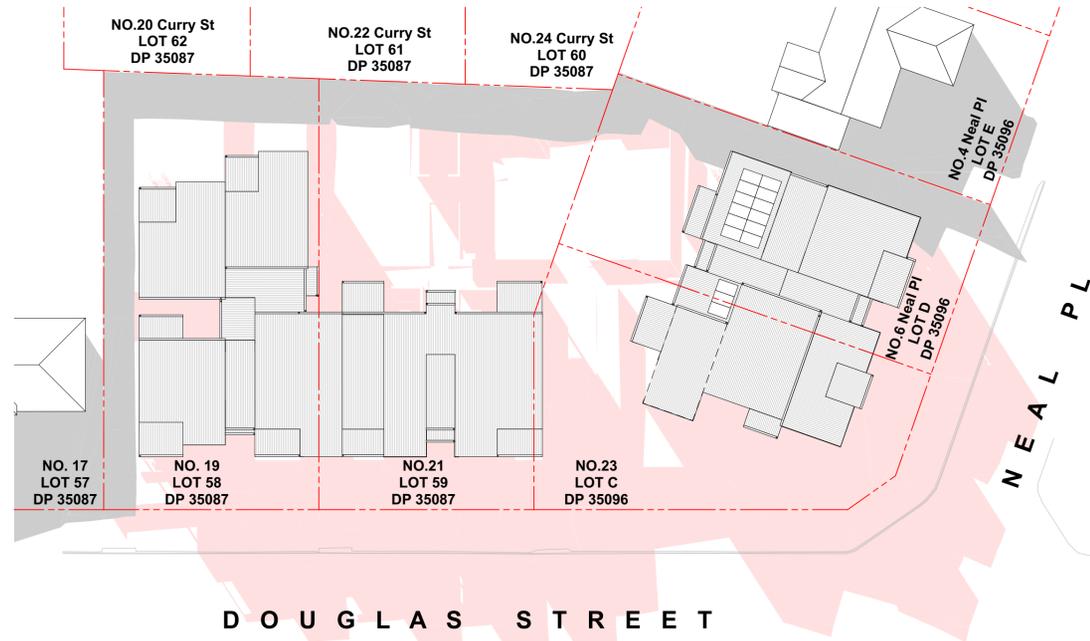
REV	APPD	DATE	CLIENT
D1	SC	08-Dec-22	LAND & HOUSING CORPORATION (LAHC)

PROJECT	LOT 58/ DP 35087	NORTH POINT	SCALE @ A1	PROJECT NO.	STAGE	DRAWING NO.	REV
LAND & HOUSING CORPORATION (LAHC)	LOT 58/ DP 35087 LOT 57/ DP35096 LOT 57/ DP35096		1:100	21.27	AA	302	01
<b>DOUGLAS ST &amp; NEAL PL</b>			SCALE @ A3				
19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287			1:200				

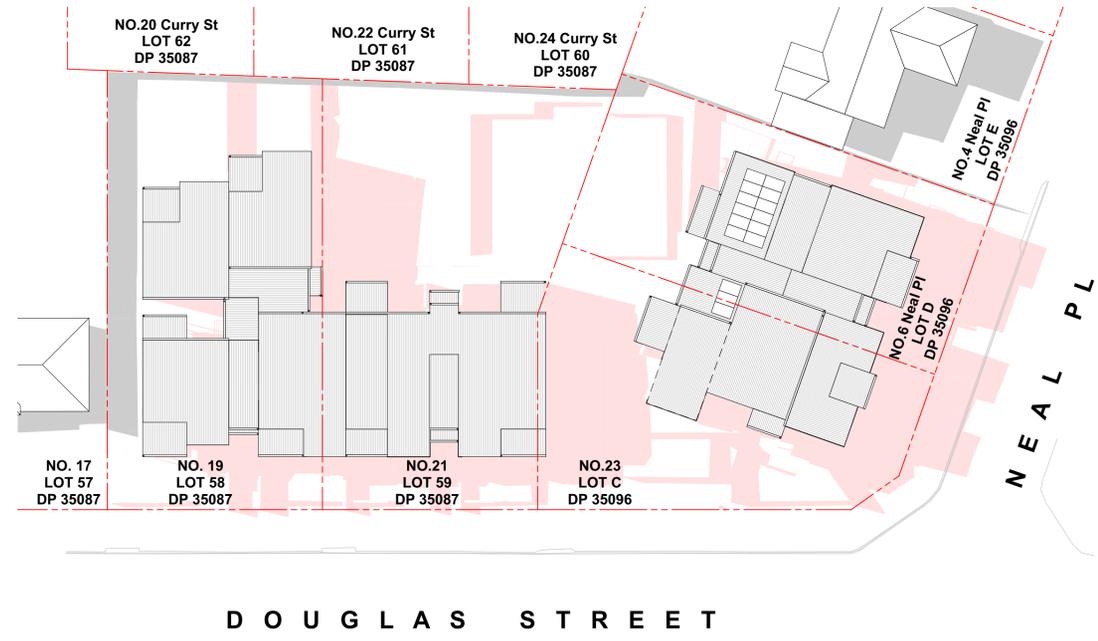


**PART 5 SUBMISSION**

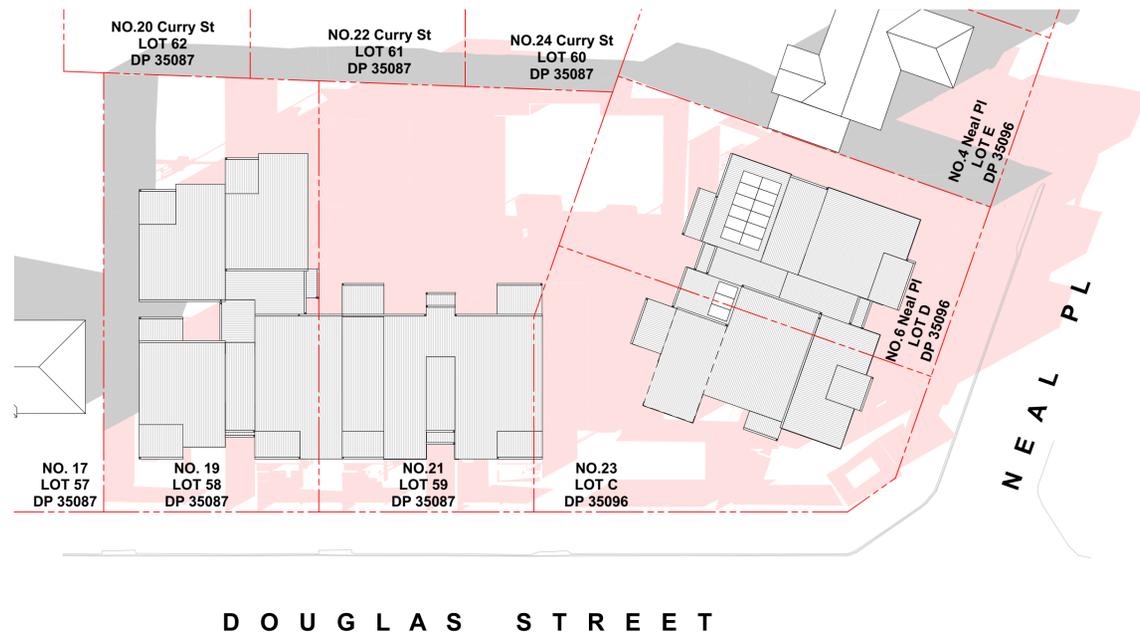
**LONG SITE SECTION**



01 JUN 21 9AM  
1:300



02 JUN 21 12PM  
1:300



03 JUN 21 3PM  
1:300

**LEGEND**

- SHADOWS CAST BY EXISTING STRUCTURES
- SHADOWS CAST BY PROPOSED DWELLING

Drawing: E-CO-014 - 13-Mar-24

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ACN 165 495 587 Registered Architect Sam Crawford 6488

DESCRIPTION  
AMZ SUBMISSION TO LAHC

REV	APPD	DATE
D1	SC	08-Dec-22

CLIENT  
LAND & HOUSING CORPORATION (LAHC)  
PROJECT  
**DOUGLAS ST & NEAL PL**  
19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287

LOT 58/ DP 35087  
LOT 59/ DP 35087  
LOT 61/ DP35087  
LOT 60/ DP35096



NORTH POINT

SCALE @ A1  
1:300  
SCALE @ A3  
1:600

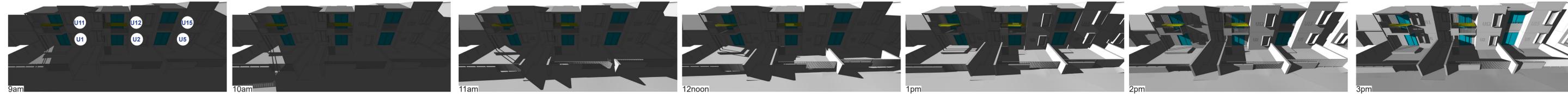
PROJECT NO. | STAGE | DRAWING NO. | REV  
21.27 | AA | 401 | 01

**PART 5 SUBMISSION**  
**SHADOW DIAGRAMS (PLAN)**



0008336240 28 Mar 2024  
Address: Alec Craig  
Accreditation No. 20179  
Address:  
19-23 Douglas Street,  
Wallsend NSW  
2287  
Contact:  
Sam Crawford  
02 9519 8800  
www.samcra.com.au

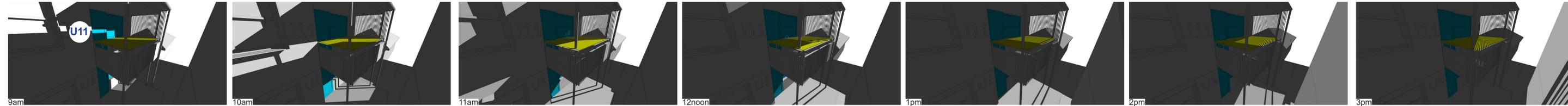
Units 1/11, 2/12, and 5/15 - front



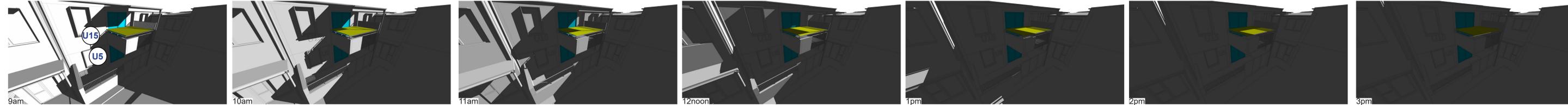
Units 1/11 - north



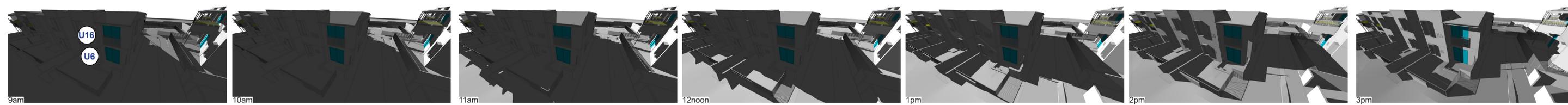
Unit 11 - rear



Unit 5/15 - rear



Unit 6/16 - front



Unit 6/16 rear



SOLAR ACCESS AT 21 JUNE

	9am - 10am		10am to 11am		11am - 12noon		12noon - 1pm		1pm - 2pm		2pm - 3pm	
	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living
Unit 1	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Unit 2	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Unit 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Unit 5	No	No	No	No	No	No	No	No	No	No	No	No
Unit 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No
Unit 7	No	No	No	No	No	No	Yes	No	No	No	Yes	Yes
Unit 8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 9	Yes	No	Yes	No	No	No	No	No	No	No	No	No
Unit 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Unit 11	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes
Unit 12	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Unit 13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Unit 15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
Unit 16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
Unit 17	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Unit 18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 19	No	No	No	No	No	No	No	No	No	No	No	No
Unit 20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table legend

Green highlight indicate both external POS and Living space gets 1 hour of sun  
 Units in red highlight indicates a unit which receives no sun  
 Units in green highlight indicates a unit which receives minimum 3 hours of sun to both their external POS and Living Space between 9am to 3pm in mid-winter

Summary

14 / 20 units receive minimum 3 hours of sun to both their external POS and Living Space between 9am to 3pm  
 2 / 20 units do not receive any sun at all

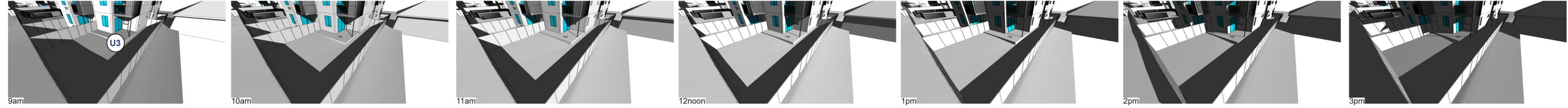
**3D VIEW LEGEND**

- GLAZING TO LIVING ROOMS
- 1F PRIVATE OPEN SPACES

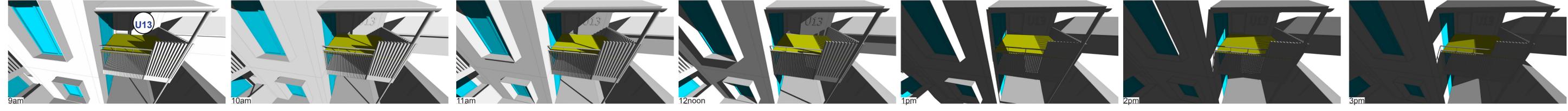
Approved: E.C.P. 2024 13 Mar 24

**NORTH BLOCK "A" - UNITS 1/11, 2/12, 3/13, 4/14, 5/15, 6/16 (CONTINUED)**

**Unit 3**



**Unit 13**

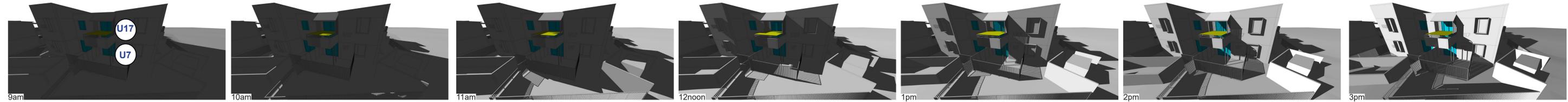


**Units 4/14**

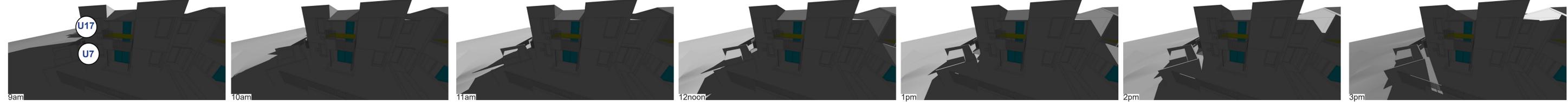


**SOUTH BLOCK "B" - UNITS 7/17, 8/18, 9/19, 10/20**

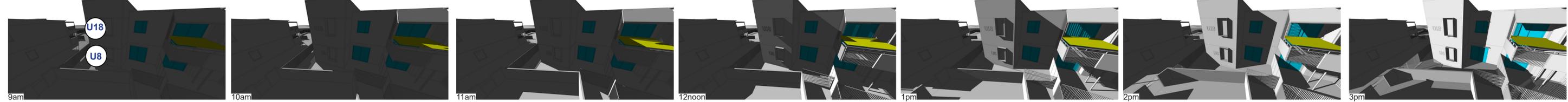
**Unit 7/17 - west**



**Unit 7/17 - south**



**Unit 8/18 - west**



**SOLAR ACCESS AT 21 JUNE**

	9am - 10am		10am to 11am		11am - 12noon		12noon - 1pm		1pm - 2pm		2pm - 3pm	
	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living
Unit 1	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Unit 2	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Unit 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Unit 5	No	No	No	No	No	No	No	No	No	No	No	No
Unit 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No
Unit 7	No	No	No	No	No	No	Yes	No	Yes	No	Yes	Yes
Unit 8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 9	Yes	No	Yes	No	No	No	No	No	No	No	No	No
Unit 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Unit 11	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes
Unit 12	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Unit 13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Unit 15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
Unit 16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
Unit 17	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Unit 18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 19	No	No	No	No	No	No	No	No	No	No	No	No
Unit 20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

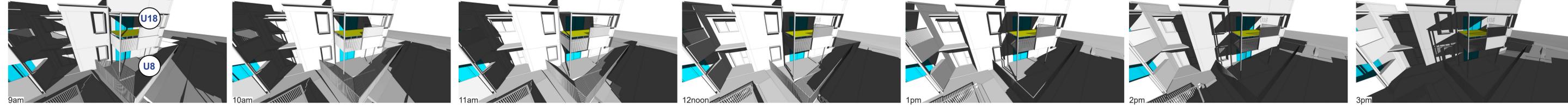
**3D VIEW LEGEND**

- GLAZING TO LIVING ROOMS
- 1F PRIVATE OPEN SPACES

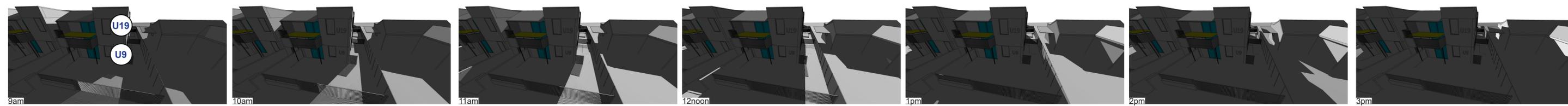
**Table legend**  
 Green highlight indicate both external POS and Living space gets 1 hour of sun  
 Units in red highlight indicates a unit which receives no sun  
 Units in green highlight indicates a unit which receives minimum 3 hours of sun to both their external POS and Living Space between 9am to 3pm in mid-winter

**Summary**  
 14 / 20 units receive minimum 3 hours of sun to both their external POS and Living Space between 9am to 3pm  
 2 / 20 units do not receive any sun at all

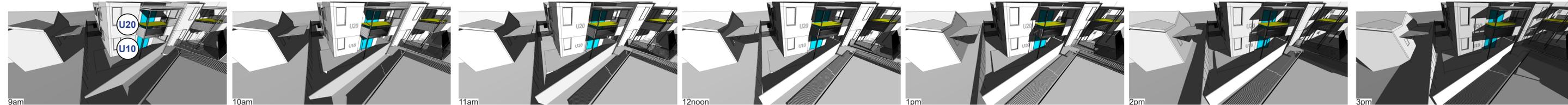
Unit 8/18 - north



Units 9/19



Units 10/20



**3D VIEW LEGEND**

- GLAZING TO LIVING ROOMS
- 1F PRIVATE OPEN SPACES

SOLAR ACCESS AT 21 JUNE

	9am - 10am		10am to 11am		11am - 12noon		12noon - 1pm		1pm - 2pm		2pm - 3pm	
	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living	POS	Living
Unit 1	No	No	Yes	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes
Unit 2	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes
Unit 3	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 4	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No
Unit 5	No	No	No	No	No	No	No	No	No	No	No	No
Unit 6	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	Yes	No
Unit 7	No	No	No	No	No	No	Yes	No	Yes	No	Yes	Yes
Unit 8	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 9	Yes	No	Yes	No	No	No	No	No	No	No	No	No
Unit 10	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	Yes
Unit 11	Yes	Yes	Yes	No	Yes	No	No	No	Yes	Yes	Yes	Yes
Unit 12	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
Unit 13	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 14	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Unit 15	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
Unit 16	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No	No	No
Unit 17	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Unit 18	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Unit 19	No	No	No	No	No	No	No	No	No	No	No	No
Unit 20	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table legend

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 2 / 20 units do not receive any sun at all

Drawn: E.C.P. 21/03/24 13:40:24

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---	--	---	---------------------------------------	--	---	--	---	--	---------------------------------	---

PART 5 SUBMISSION

**MATERIALS LEGEND**

**BK - 1 / FN - 3 (PARTIAL)**  
PGH Brick Alfresco - Vino

**BK - 2 / FN - 1 (PARTIAL)**  
PGH Brick Pure Velvets - Crushed Grey

**MC - 1**  
Lysaght Custom Orb in 'Windspray'.

**RF - 1**  
Lysaght Custom Orb in 'Windspray'. Steel Columns, Fascia, Gutter, Downpipe to be in 'Windspray'.

**ALUMINIUM WINDOW FRAMES & AWNING HOODS (HEKA HOODS OR SIMILAR)**  
Medium grey

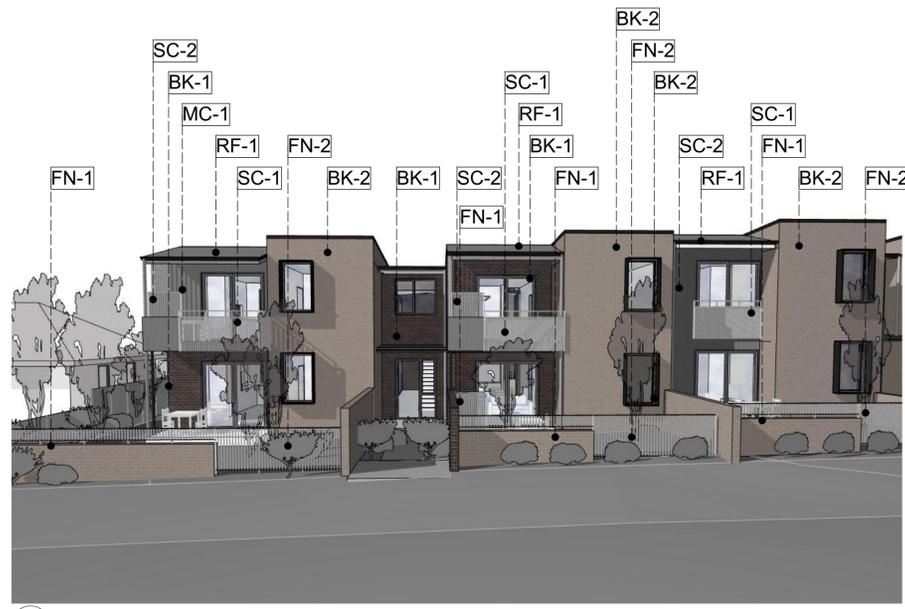
**FN-1:** BK-2 brick wall (800mm) with aluminium slat fence in Monument (400mm)  
**FN-2:** Aluminium slat fence in Monument (1200mm)  
**FN-3:** BK-1 brick wall (800mm) with aluminium slat fence in Monument (400mm)  
**FN-4:** BK-2 brick wall (1200mm) with aluminium slat fence in Monument (600mm)

**FN-5:** Colourbond fence in 'Monument' (1800mm)

**FN-6:** Vehicle crash barrier fence (1100mm)

**FN-7:** Aluminium slat fence in Monument (1500mm)  
**FN-8:** Aluminium slat fence in Monument (1800mm)

**SC-1 through SC-4**  
Aluminium batten privacy screen in 'Shale Grey' or similar finish



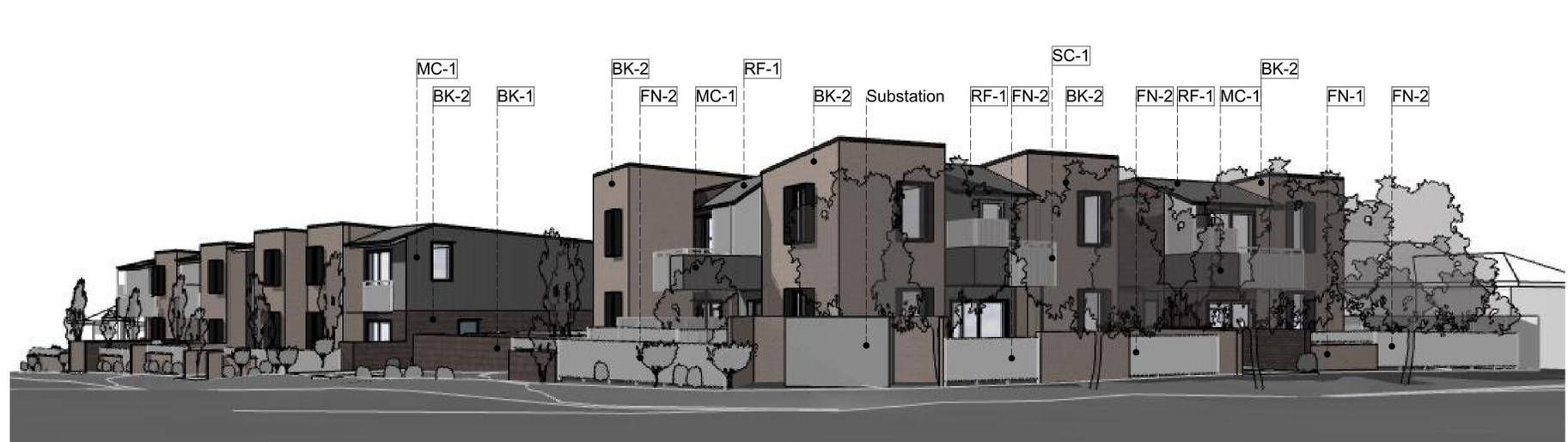
02 Douglas St at No. 19



03 Douglas St at No. 21



04 Douglas St at No. 23



05 Site Perspective



06 Neal Place

Drawing: E.C.P. P/L 13 Mar 24

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TELEPHONE +612 9519 8800  
EMAIL: studio@samcrawfordarchitects.com.au WEB: samcrawfordarchitects.com.au  
ACN 165 405 587 Registered Architect Sam Crawford 6488

DESCRIPTION  
AMZ SUBMISSION TO LAHC

REV	APPD	DATE	CLIENT
01	SC	08-Dec-22	LAND & HOUSING CORPORATION (LAHC)

LOT 58/ DP 35087  
LOT 59/ DP 35087  
LOT 62/ DP35096  
LOT 63/ DP35096

NORTH POINT  
SCALE @ A1  
N.T.S.  
SCALE @ A3  
N.T.S.

PROJECT NO. 21.27  
STAGE AA  
DRAWING TITLE  
EXT. MATERIALS PALETTE

PROJECT NO. 501  
REV 01

DOUGLAS ST & NEAL PL  
19-23 DOUGLAS STREET & 6 NEAL PLACE, WALLSEND NSW 2287

000938240 28 Mar 2024  
Assessor: Ane Stijn  
Assessment No. 2023  
Address: 19-23 Douglas Street, Wallsend NSW, 2287  
7.5  
HOUSING  
ABSAC  
7.5  
HOUSING

*Halenda Gil*

place  
design  
group.



**LAHC WALLSEND - DOUGLAS STREET  
19-23 DOUGLAS STREET & 6 NEIL PLACE  
DEVELOPMENT APPLICATION**

Prepared for

**LAND AND HOUSING CORPORATION**

**MARCH 2024**



Australia  
China  
South East Asia

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Report title	LAHC Wallsend, Douglas Street
Prepared for	Land And Housing Corporation
Authors	Anna McFarlane
Revision number	08
Revision issue date	March 2024
Approved	Nick Ison
Reason for revision	N/A

Disclaimer: This report has been prepared in accordance with the scope of services described in the contract or agreement between Place Design Group Pty Ltd ACN 082 370063 and the Client. The report relies upon data, surveys, measurements and results taken at or under the particular times and conditions specified herein. Any findings, conclusions or recommendations only apply to the aforementioned circumstances and no greater reliance should be assumed or drawn by the Client. Furthermore, the report has been prepared solely for use by the Client and Place Design Group accepts no responsibility for its use by other parties.

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# LANDSCAPE GROUND FLOOR DESIGN

## LEGEND

- - - Site Extent
- Existing Tree - Retained
- Existing Tree - Removed
- + Proposed Trees
- Concrete Paving
- Steppers
- Turf
- Shrubs + Ground covers (Mix 1)
- Shrubs + Ground covers (Mix 2)
- Shrubs + Ground covers (Mix 3)
- Hedge Planting (Mix 4)
- Shrubs + Ground covers (Mix 5)
- Decomposed Granite
- Stormwater Pit
- Underground OSD Tank
- 01 Street frontage feature tree
- 02 Plant hedging and screening
- 03 Bench seating
- 04 Proposed bin store location
- 05 Screen hedge to car park
- 06 Potential substation location
- 07 Vehicle Access - Entry and exit
- 08 Community Garden
- 09 600mm raised concrete planters at building entrance
- 10 Deco granite Access Paths



# SECTION AA

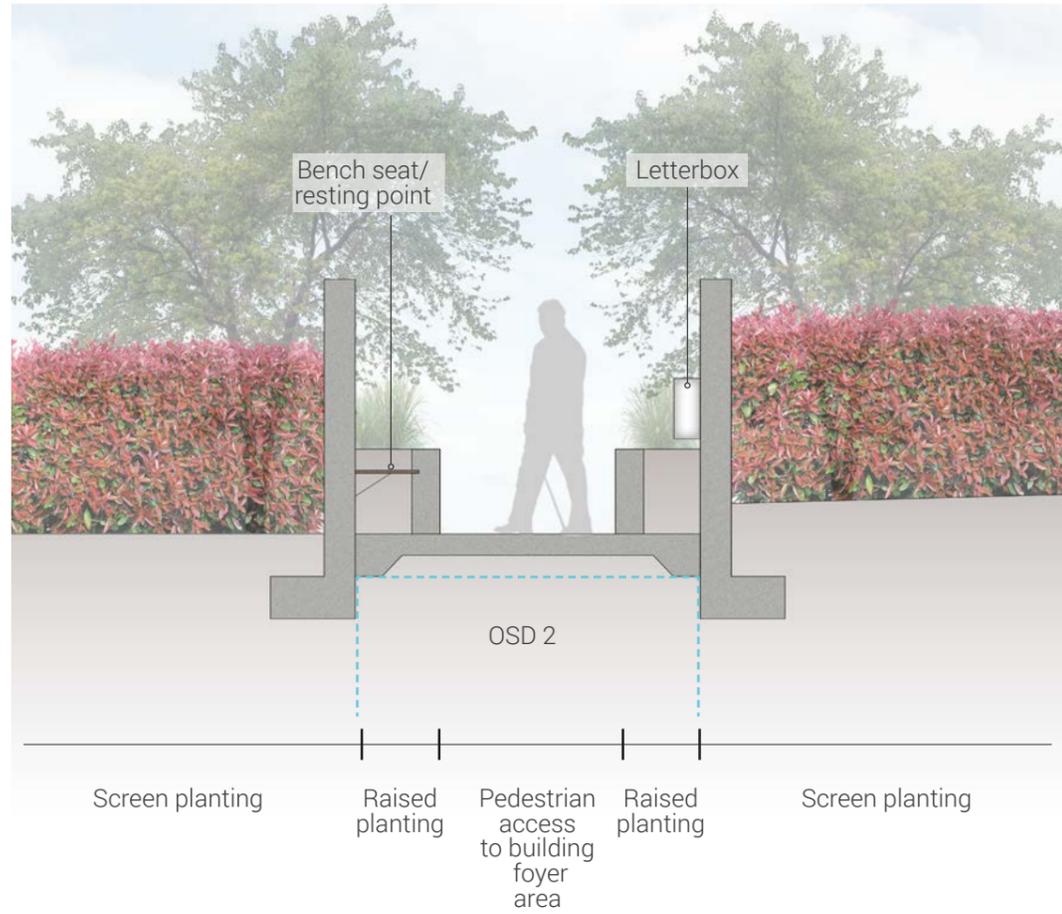


Refer to Landscape Ground Floor Design (pg3) for section locations.

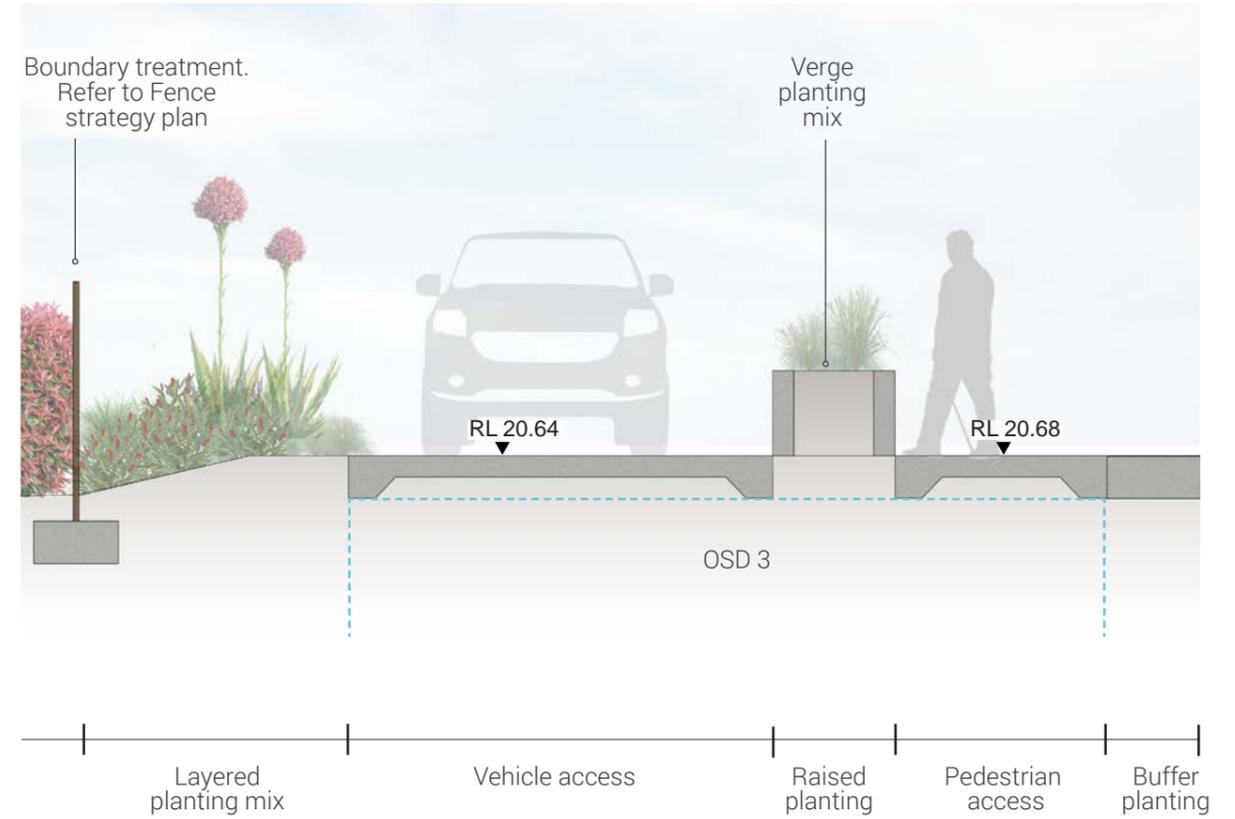
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# SECTION BB AND CC

## SECTION BB



## SECTION CC



Refer to Landscape Ground Floor Design (pg3) for section locations.

# PLANTING STRATEGY

## LEGEND

- - - Site Extents
  - Existing Tree - Retained
  - Existing Tree - Removed
  - Backhousia citriodora*
  - Elaeocarpus eumundi*
  - Lagerstroemia indica*
  - Magnolia 'Little Gem'*
  - Malus ioensis 'plena'*
  - Melaleuca styphelioides*
  - Pittosporum angustifolium*
  - Tristaniopsis laurina*
- 
- Mix 1
  - Mix 2
  - Mix 3
  - Mix 4
  - Mix 5
  - Turf



# PLANTING PALETTE

## MIX 1



*Callistemon viminalis*



*Callistemon 'White Anzac'*



*Melaleuca 'Claret Tops'*



*Myoporum parvifolium*

## MIX 2



*Liriope muscari 'Just Right'*



*Lomandra 'Tanika'*



*Ozothamnus diosmifolius 'Coral Flush'*



*Gazania tomentosa*



*Phormium 'Bronze Baby'*

## MIX 3



*Liriope muscari 'Just Right'*



*Pandorea pandorana 'Flat White'*



*Dianella caerulea*



*Doryanthes excelsa*



*Syzygium australe*

## MIX 5



*Alpinia caerulea 'Atherton'*



*Atriplex nummularia*



*Chamelaucium uncinatum*



*Microseris lanceolata*



*Lomandra longifolia*



*Prostanthera incisa*



*Salvia rosmarinus*



*Viola hederacea*

## TREES



*Backhousia citriodora*



*Elaeocarpus eumundi*



*Lagerstroemia indica*



*Magnolia 'Little Gem'*



*Malus ioensis 'plena'*



*Melaleuca styphelioides*



*Pittosporum angustifolium*



*Tristaniopsis laurina*

## MIX 4

# PLANTING SCHEDULE

SYM	Botanical Name	Common Name	Mature HxW	Pot Size	Spacing /m2	Qty
<b>TREES</b>						
BC	Backhousia citriodora	Lemon Myrtle	20m x 5m	100L	As shown	1
EE	Elaeocarpus eumundi	Native Quandong Tree	25m x 6m	100L	As shown	7
LI	Lagerstroemia indica	Crepe Myrtle	8m x 6m	100L	As shown	5
ML	Magnolia 'Little Gem'	Magnolia 'Little Gem'	4m x 2.5m	100L	As shown	13
MI	Malus ioensis 'plena'	Crab Apple	6m x 5m	100L	As shown	1
MS	Melaleuca styphelioides	Prickly Paperbark	15m x 3m	100L	As shown	4
PA	Pittosporum angustifolium	Weeping Pittosporum	8m x 5m	100L	As shown	2
TL	Tristaniopsis laurina	Water Gum	12m x 6m	100L	As shown	10
<b>Mix 1</b>						
Cv	Callistemon viminalis	Weeping Bottlebrush	9m x 5m	150mm	1.5	32
Cwa	Callistemon 'White Anzac'	Bottlebrush 'White Anzac'	1.5m x 3m	150mm	1.5	32
Mct	Melaleuca 'Claret Tops'	Honey Myrtle	1.2m x 1m	150mm	1.5	32
Mp	Myoporum parvifolium	Boobialla	0.3m x 3m	150mm	1.5	32
<b>Mix 2</b>						
Gt	Gazania tomentosa	Silver Leaf Gazania	0.3m x 1.5m	150mm	8	166
Lm	Liriope muscari 'Just Right'	Lilyturf	0.5m x 0.5m	150mm	6	125
LI	Lomandra 'Tankia'	Mat Rush	0.6m x 0.65m	150mm	6	125
Od	Ozothamnus diosmifolius 'Coral Flush'	Rice Flower	2m x 1m	150mm	6	125
Pb	Phormium 'Bronze Baby'	Dwarf New Zealand Flax	1m x 1m	150mm	6	125
<b>Mix 3</b>						
Dc	Dianella caerulea	Blue Flax-lily	1m x 2m	150mm	4	134
De	Doryanthes excelsa	Gynea Lily	4m x 3m	200mm	2	67
Lm	Liriope muscari 'Just Right'	Just Right	0.5m x 0.5m	150mm	6	200
Pp	Pandorea pandorana 'Flat White'	Wonga Wonga Vine	3m x 0.6m	150mm	4	134
<b>Mix 4</b>						
Sa	Syzygium australe	Brush Cherry	6m x 3m	200mm	1.5	446
<b>Mix 5</b>						
Ac	Alpinia caerulea 'Atherton'	Native Ginger	2m x 1m	200mm	4	57
An	Atriplex nummularia	Salt Bush	3m x 5m	150mm	4	57
Cu	Chamelaucium uncinatum	Geraldton Wax Flower	5m x 6m	200mm	2	28
LI	Lomandra longifolia	Mat Rush	1.2m x 1m	150mm	4	57
MI	Microseris lanceolata	Yam Daisy	0.3m x 0.3m	150mm	8	112
Pi	Prostanthera incisa	Native Thyme	3m x 3m	150mm	4	57
Sr	Salvia rosmarinus prostratus	Creeping Rosemary	0.3m x 2m	150mm	6	84
Vh	Viola hederacea	Native Violet	0.2m x 1m	150mm	8	112
<b>TURF</b>						
-	Stenotaphrum secundatum	Buffalo	-	-	-	285m2

# FENCING STRATEGY

## LEGEND

- Fence Type 1: 400mm aluminium slats over 800 BK-2 brick wall  
 Height: 1200mm total
- Fence Type 2: Aluminum Slats  
 Height: 1200mm
- Fence Type 3: 400mm aluminium slats over 800 BK-1 brick wall  
 Height: 1200mm
- Fence Type 4: 600mm aluminium slats over 1200mm brick wall  
 Height: 1800mm
- Fence Type 5: colorbond solid fence  
 Height: 1800mm
- Fence Type 6: Vehicle Crash Barrier  
 Height: 1100mm
- Fence Type 7: Aluminium slats  
 Height: 1500mm
- Fence Type 8: Aluminium slats  
 Height: 1800mm



NEAL PLACE

# INDICATIVE MATERIALS AND FURNITURE



Colorbond steel fence. Colour: Monument  
2356mm (L) x 1800mm (H)

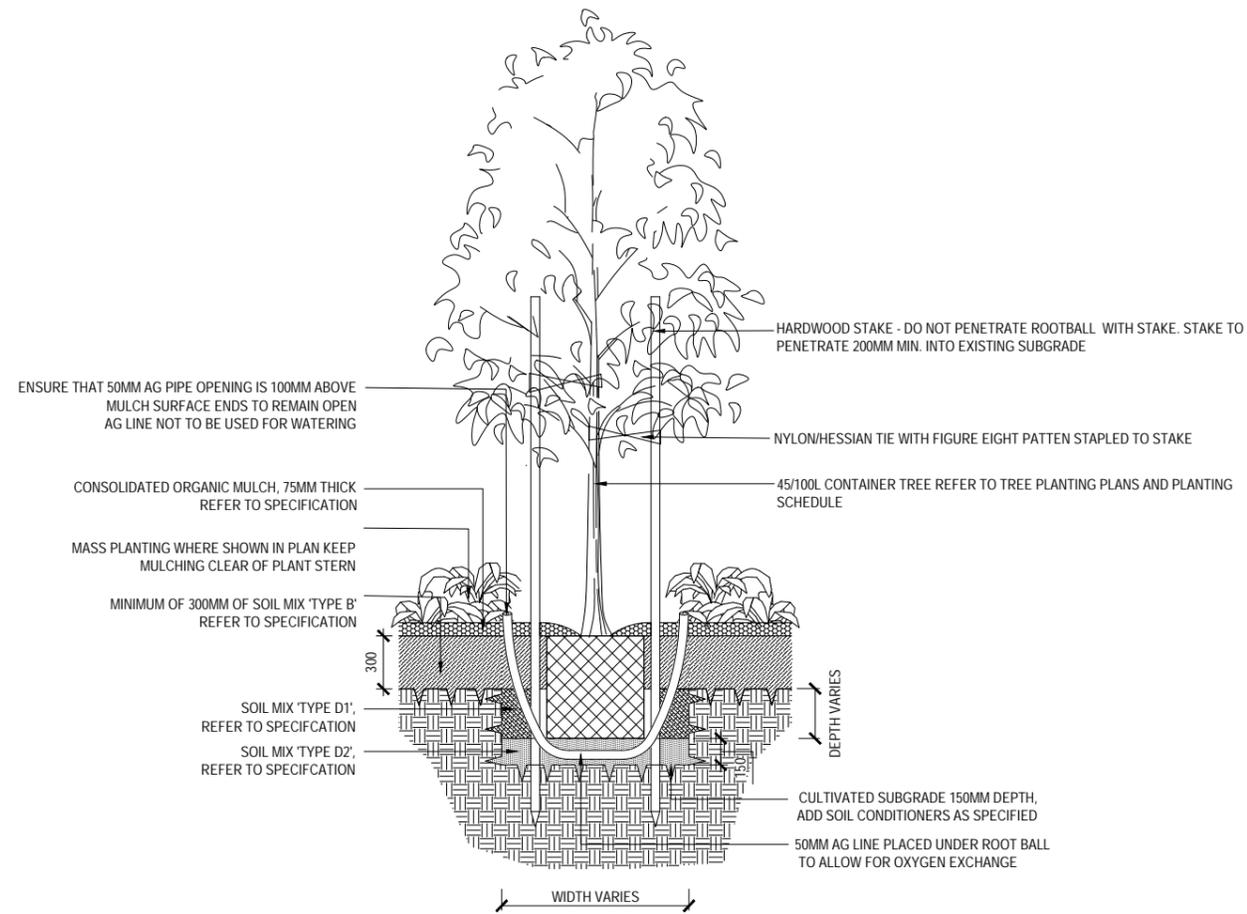


Aluminium slat fence. Colour: Monument  
1200mm (H)



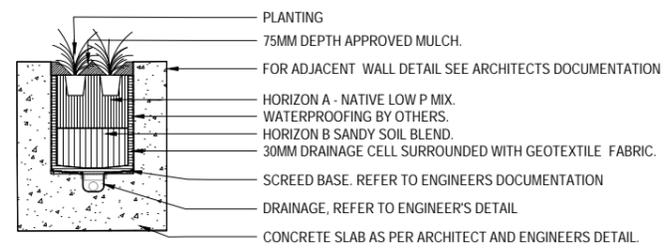
Concrete Pavers. Type and Colour to be confirmed

# TYPICAL LANDSCAPE DETAILS

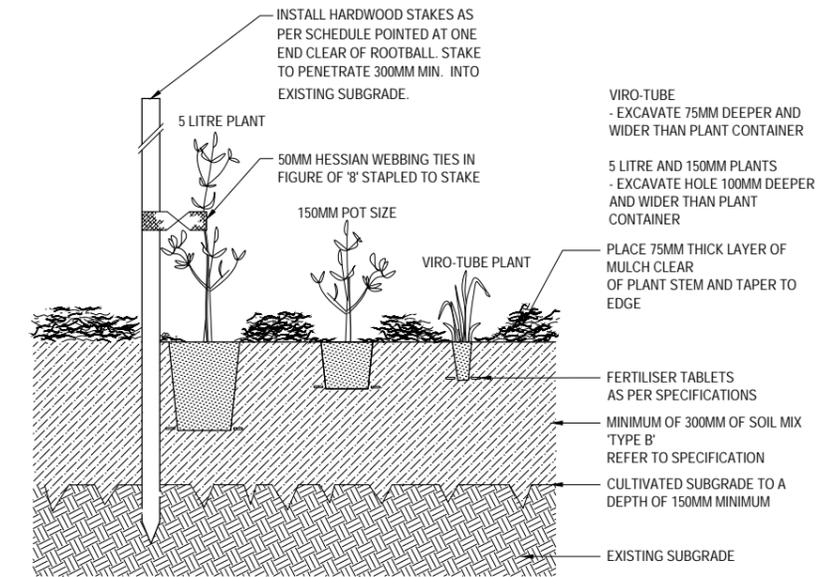
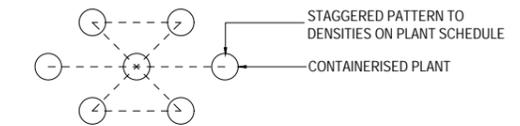


NOTE: TREE PLANTING HOLE DIMENSIONS ACCORDING TO CONTAINER SIZE: WIDTH MIN. 3X ROOT BALL DIAMETER (MIN. 820 / 1100 / 1400mm FOR 45/75/100L CONTAINERS) AND DEPTH MIN. 150mm BELOW ROOT BALL DEPTH.

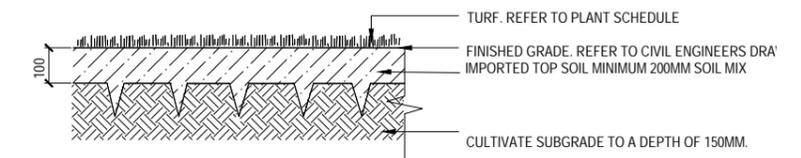
01 TREE IN MASS PLANTING SCALE 1:20



02 CONCRETE PLANTER WALL DETAIL SCALE 1:20



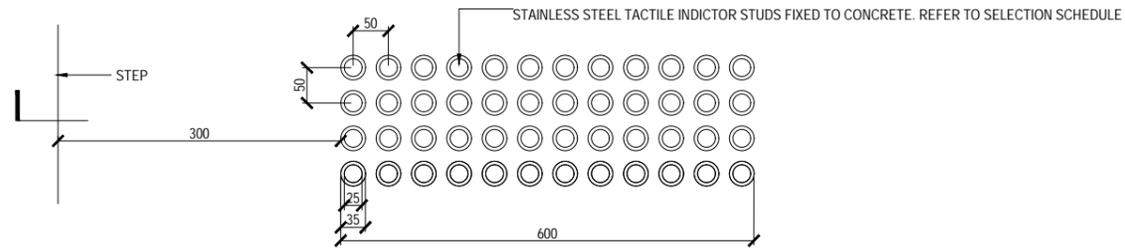
03 TYPICAL MASS PLANTING SCALE 1:20



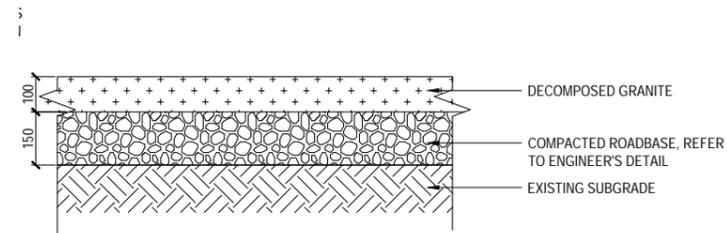
**GENERAL NOTES:**  
 REGULARLY REMOVE WEED GROWTH THROUGHOUT PLANTED AND MULCHED AREAS DURING THE COURSE OF PROJECT CONSTRUCTION.  
 LIGHTLY TAMP OR ROLL SURFACE OF TURF AFTER INSTALLATION TO ENSURE THAT TURF ROOTS ARE IN CONTACT WITH TOPSOIL.  
 TURF ON LOW SIDE OF ANY PATH OR EDGE TO FINISH 10MM BELOW FINISHED PATH/EDGE LEVEL.

04 TYPICAL TURF DETAIL SCALE 1:10

# TYPICAL LANDSCAPE DETAILS



05 TYPICAL TACTILE INDICATOR DETAIL  
SCALE 1:20



06 TYPICAL DECOMPOSED GRANITE DETAIL  
SCALE 1:20



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DATE PLOTTED: 2 May, 2024 4:49 PM BY: DE PASQUALE, PHILIP

LAHC & SAMCRAWFORD ARCHITECTS

# PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287

## COVER SHEET, LOCALITY PLAN AND SCHEDULE OF DRAWINGS



INDICATIVE AREA OF WORKS

LOCALITY PLAN  
N.T.S

SCHEDULE OF DRAWINGS	
DRAWING No.	DESCRIPTION
	GENERAL
80822046-CI-0001	COVER SHEET, LOCALITY PLAN AND SCHEDULE OF DRAWINGS
80822046-CI-0002	CIVIL CONSTRUCTION NOTES
	PLANS AND SCHEDULES
80822046-CI-1101	STORMWATER DRAINAGE PLAN GROUND FLOOR
80822046-CI-1201	SEDIMENTATION AND EROSION CONTROL PLAN
80822046-CI-1301	CUT AND FILL PLAN
80822046-CI-1401	WSUD CATCHMENT PLAN
	STANDARD DETAILS
80822046-CI-2101	STORMWATER DETAILS SHEET 1
80822046-CI-2102	STORMWATER PIT SCHEDULE
80822046-CI-2103	STORMWATER DETAILS SHEET 2 - OSD TANK 1 DETAILS
80822046-CI-2104	STORMWATER DETAILS SHEET 3 - OSD TANK 2 DETAILS
80822046-CI-2105	STORMWATER DETAILS SHEET 4 - OSD TANK 3 DETAILS
80822046-CI-2106	STORMWATER DETAILS SHEET 4 - TYPICAL ESK20 DETAIL
80822046-CI-2201	SEDIMENTATION AND EROSION CONTROL DETAILS
80822046-CI-2301	DRIVEWAY VERTICAL CLEARANCE DETAILS
80822046-CI-2302	CIVIL WORKS DETAILS

XREFs: CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-0001.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
9	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB
8	28/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
7	08/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
6	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	G.M.	K.P.	C.F.



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Drawn	Date	Status
A.L.	JAN 2023	
Checked	Date	
R.O.	JAN 2023	
Designed	Date	
A.L.	JAN 2023	
Verified	Date	
R.O.	JAN 2023	
Approved		

**FOR APPROVAL**  
NOT TO BE USED FOR CONSTRUCTION PURPOSES

Datum	Scale	Size
AHD	AS SHOWN	A1

Drawing Number	Revision
80822046-CI-0001	9

DATE PLOTTED: 12 April 2024 8:51 AM BY: DE PASQUALE, PHILIP

**GENERAL CIVIL NOTES**

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS, SPECIFICATIONS, STANDARDS, LOCAL GOVERNMENT ORDINANCES AND ADDITIONAL WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT.
- THE INFORMATION CONTAINED ON THESE DRAWINGS IS FOR CIVIL ENGINEERING PURPOSES ONLY.
- ALL DISCREPANCIES THAT COULD RESULT IN CHANGES TO THE CIVIL DETAILS SHALL BE REFERRED TO THE CIVIL ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
- THE CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS AND ANY DISCREPANCY SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT. DIMENSIONS SHALL NOT BE OBTAINED (INCLUSIVE OF ELECTRONIC COPIES) BY SCALING FROM THE DRAWINGS.
- ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETRES U.N.O.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THE SAFETY AND STABILITY OF NEW AND EXISTING STRUCTURES, TEMPORARY STRUCTURES, EXCAVATIONS, SHORING AND THE LIKE DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER FORTY EIGHT (48) HOURS BEFORE ANY SITE INSPECTION IS REQUIRED.
- ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT AUSTRALIAN STANDARDS AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.
- ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH ALL WORKCOVER REQUIREMENTS AND OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS.
- ALL PROPRIETARY PRODUCTS AND APPROVED EQUIVALENTS NOTED ON THE DRAWINGS SHALL BE SUPPLIED AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.
- SUBSTITUTIONS OF NOMINATED PRODUCTS AND MATERIALS SHALL ONLY OCCUR IF APPROVED BY STANTEC. NO SUBSTITUTIONS SHALL BE MADE OR SIZES OF STRUCTURAL MEMBERS VARIED WITHOUT OBTAINING THE APPROVAL OF THE ENGINEER. THE APPROVAL OF A SUBSTITUTION FROM THE ENGINEER SHALL NOT BE AN AUTHORISATION FOR AN EXTRA EXPENSE CLAIM. ANY EXTRA COST INVOLVED SHALL BE TAKEN UP WITH THE SUPERINTENDENT BEFORE THE WORK COMMENCES.
- NO CHANGES SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
- CONSTRUCTION FROM THESE DRAWINGS AND ASSOCIATED CONSULTANTS' DRAWINGS SHALL NOT COMMENCE UNTIL APPROVED BY THE LOCAL AUTHORITIES AND PRINCIPAL CERTIFYING AUTHORITY.
- CONTRACTOR IS NOT TO ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS OR PROPERTIES WITHOUT THE PERMISSION OF THE OWNERS AND SUPERINTENDENT.
- THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL WHICH COMPLIES WITH AS1742.3 - 2018. A COPY OF THE PLAN SHOWING LAYOUT OF PROPOSED TRAFFIC CONTROL FOR THE COMMENCEMENT OF WORK AND CERTIFIED BY A SUITABLY QUALIFIED PERSON IS TO BE SUBMITTED TO COUNCIL PRIOR TO COMMENCEMENT OF ANY WORK. FURTHER PLANS ARE TO BE SUBMITTED IF WORK SITE ALTERS.
- ANY QUANTITIES GIVEN ARE FOR GUIDANCE ONLY.

**STORMWATER DRAINAGE NOTES**

- STORMWATER DRAINAGE SHALL BE GENERALLY IN ACCORDANCE WITH AS3500.3-2018.
- PIPES Ø675mm AND LARGER SHALL BE CLASS 3 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS U.N.O. IN ACCORDANCE WITH ASINZS3725-2007.
- PIPES Ø375mm TO Ø600mm SHALL BE CLASS 2 APPROVED SPIGOT AND SOCKET REINFORCED CONCRETE PIPES WITH RUBBER RING JOINTS U.N.O. IN ACCORDANCE WITH ASINZS3725-2007.
- PIPES UP TO AND INCLUDING Ø300mm SHALL BE uPVC DWV (GRADE CLASS SN8) U.N.O. IN ACCORDANCE WITH ASINZS1260-2017. ENLARGERS, CONNECTIONS, TAPERS, JUNCTIONS ETC TO BE PREFABRICATED PURPOSE MADE FITTINGS WITH SOLVENT WELDED JOINTS.
- SUBSOIL PIPES AND FITTINGS TO BE PERFORATED PLASTIC IN ACCORDANCE WITH AS2439.1-2007. LAY PIPES ON FLOOR OF TRENCH WITH MINIMUM 1% GRADE AND OVERLAY WITH FILTER MATERIAL EXTENDING TO WITHIN 200mm OF SURFACE. PROVIDE FILTER FABRIC OF PERMEABLE POLYPROPYLENE BETWEEN FILTER MATERIAL AND TOPSOIL.
- HEAVY DUTY uPVC PIPES TO BE IN ACCORDANCE WITH ASINZS1254-2010 MAY BE USED WITHIN ALLOTMENTS.
- EQUIVALENT STRENGTH FIBROUS REINFORCED CONCRETE (F.R.C.) AND/OR HIGH DENSITY POLYETHYLENE (H.D.P.E.) MAY BE USED SUBJECT TO APPROVAL BY THE SUPERINTENDENT.
- CONTRACTOR TO SUPPLY AND INSTALL ALL FITTINGS AND SPECIALS INCLUDING VARIOUS PIPE ADAPTORS TO ENSURE PROPER CONNECTION BETWEEN DISSIMILAR PIPEWORK.
- ALL CONNECTIONS TO EXISTING DRAINAGE PITS SHALL BE MADE IN A TRADESMAN-LIKE MANNER AND THE INTERNAL WALL OF THE PIT AT THE POINT OF ENTRY SHALL BE CEMENT RENDERED TO ENSURE A SMOOTH FINISH WITH NO PROTRUSIONS.
- BEDDING MATERIAL SHALL BE TYPE H2 U.N.O. FOR PIPES NOT UNDER PAVEMENTS, AND TYPE HS2 FOR PIPES UNDER PAVEMENTS IN ACCORDANCE WITH ASINZS3725-2007.
- ALL PIPES ARE TO BE UNIFORMLY SUPPORTED ALONG THE LENGTH OF THE BARREL BY SUITABLE FILL MATERIAL. PIPES WITH SOCKETS SHALL BE LAID WITH RECESSES IN BEDDING MATERIAL TO ENSURE PIPES DO NOT BEAR ON THEIR SOCKETS.
- MINIMUM GRADE TO STORMWATER LINES TO BE 1% U.N.O.
- ANY PIPES OVER 16% GRADE SHALL HAVE CONCRETE BULKHEADS AT ALL JOINTS.
- CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
- PROVIDE 3m LENGTH OF Ø100mm SUBSOIL DRAINAGE LINE OR 200mm 'NYLEX' STRIP DRAIN SURROUNDED WITH 150mm OF 20mm BLUE METAL OR GRAVEL, AND WRAPPED IN 'BIDUM' A24 GEOTEXTILE FILTER FABRIC OR APPROVED EQUIVALENT, AT INVERT OF EACH INCOMING UPSTREAM PIPE TRENCH ON EACH PIT.
- ALL STORMWATER DRAINAGE LINES UNDER PROPOSED BUILDING SLABS TO BE uPVC PRESSURE PIPE GRADE 6. ENSURE ALL VERTICALS AND DOWNPIPES ARE uPVC PRESSURE PIPE, GRADE 6 FOR A MIN OF 3.0m IN HEIGHT.
- WHERE SUBSOIL DRAINAGE LINES PASS UNDER FLOOR SLABS AND VEHICULAR PAVEMENTS, UNSLOTTED uPVC DWV (GRADE CLASS SN8) PIPE SHALL BE USED.
- UNLESS NOTED OTHERWISE ON THE PLANS, PROVIDE THE FOLLOWING MINIMUM COVER TO ALL STORMWATER PIPES:  
UNDER LANDSCAPE & PAVEMENT - 300mm  
UNDER ROAD (TRAFFIC) - 600mm
- REFER TO ASINZS3725-2007 TABLE B1 FOR REQUIRED FILL DEPTHS ABOVE PIPE BARREL PRIOR TO USE OF COMPACTION MACHINERY OR TRAVERSING OF PIPES BY GENERAL SITE EQUIPMENT. THE CONTRACTOR IS TO ENSURE COMPACTION EQUIPMENT IS APPROPRIATE FOR THE PIPE CLASS USED. WHERE WORKING METHODS REQUIRE HIGHER CLASS PIPE, THE CONTRACTOR SHALL REFER TO AS3725-2007 TO DETERMINE THE APPROPRIATE PIPE CLASS. PROPOSED CHANGES TO PIPE CLASS SHALL BE REVIEWED BY STANTEC PRIOR TO INSTALLATION.
- BACKFILL PIPE TRENCHES WITH SANDY LOAM OR APPROVED GRANULAR BACKFILL TO MINIMUM COVER ABOVE THE PIPE. WHERE THE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO PAVEMENT SUBGRADE WITH SAND OR APPROVED GRAVEL SUB-BASE COMPACTED IN 150mm LAYERS TO 98% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75).
- FOR ALL IN-SITU CONCRETE ELEMENTS REFER TO CIVIL CONCRETE NOTES FOR CONCRETE STRENGTH AND COVER.
- PRECAST CONCRETE PITS MAY BE INSTALLED IN LIEU OF CAST IN-SITU PITS, WHEN PIPE JUNCTIONS ARE ACCOMMODATED WITHIN THE OVERALL DIMENSIONS OF THE PIT, AND APPROVED BY STANTEC.
- PITS DEEPER THAN 1200mm, MEASURED FROM TOP OF GRATE TO INVERT OF PIT, SHALL HAVE STEP IRONS INSTALLED IN ACCORDANCE WITH THE LOCAL OR STATUTORY AUTHORITY REQUIREMENTS.
- ACCESS COVERS AND GRATES TO BE INSTALLED IN ACCORDANCE WITH AS3996-2019.
- ALL GRATES IN PAVEMENTS TO BE CYCLE SAFE AND WHERE IN ROADWAYS TRAFFICABLE HEAVY DUTY.
- ALL BOX CULVERTS SHALL BE STRUCTURALLY DESIGNED BY THE MANUFACTURER AND DELIVERED TO SITE AS FIT FOR PURPOSE.
- AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
- ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN ARE TO BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDENT/ENGINEER FOR FURTHER DIRECTIONS.

**EROSION AND SEDIMENT CONTROL NOTES**

- ALL WORKS SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH:
  - LOCAL AUTHORITY REQUIREMENTS
  - EPA REQUIREMENTS
  - NSW DEPARTMENT OF HOUSING MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION", 4th EDITION, MARCH 2004 (THE BLUE BOOK).
- EROSION AND SEDIMENT CONTROL DRAWINGS AND NOTES ARE PROVIDED FOR THE WHOLE OF THE WORKS. SHOULD THE CONTRACTOR STAGE THESE WORKS THEN THE DESIGN MAY REQUIRE TO BE MODIFIED. VARIATIONS TO THESE DETAILS MAY REQUIRE TO BE APPROVED BY THE RELEVANT AUTHORITIES. THE EROSION AND SEDIMENT CONTROL PLAN SHALL BE IMPLEMENTED AND ADOPTED TO MEET THE VARYING SITUATIONS AS WORK ON SITE PROGRESSES.
- MINIMISE THE AREA OF SITE BEING DISTURBED AT ANY ONE TIME.
- THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONTROL OF EROSION AND SEDIMENTATION AND THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE LOCATED AS DOCUMENTED OR AS OTHERWISE DIRECTED BY THE SUPERINTENDENT.
- ALL SOIL AND WATER CONTROL MEASURES ARE TO BE PUT BACK IN PLACE AT THE END OF EACH WORKING DAY AND MODIFIED TO BEST SUIT SITE CONDITIONS.
- PREVENT SITE RUNOFF ENTERING NEWLY CONSTRUCTED STORMWATER PITS UNLESS SEDIMENT FENCES ARE ERECTED AROUND THEM.
- MAINTAIN ALL STORMWATER PIPES AND PITS CLEAR OF DEBRIS AND SEDIMENT. INSPECT STORMWATER SYSTEM AND CLEAN OUT AS REQUIRED PARTICULARLY FOLLOWING EACH STORM EVENTS.
- MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES, ENSURING THEY ARE IN GOOD WORKING ORDER AND OPERATE EFFECTIVELY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED PARTICULARLY FOLLOWING EACH STORM EVENTS.
- WHERE PRACTICAL, THE SOIL EROSION HAZARDS ON THE SITE ARE TO BE KEPT AS LOW AS POSSIBLE AND WORKS SHOULD BE UNDERTAKEN IN THE FOLLOWING SEQUENCE TO MINIMISE THE RISKS:
  - INSTALL A SEDIMENT FENCE ALONG THE BOUNDARIES AS SHOWN ON PLAN. REFER DETAIL.
  - CONSTRUCT STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA AT THE LOCATION SHOWN ON THE DRAWINGS OR AS DETERMINED BY SUPERINTENDENT/ENGINEER. REFER DETAIL.
  - INSTALL ANY SEDIMENT BASINS AND SEDIMENT TRAPS AS SHOWN ON DRAWINGS. REFER DETAIL.
  - UNDERTAKE SITE DEVELOPMENT WORKS IN ACCORDANCE WITH THE ENGINEERING PLANS. WHERE POSSIBLE, PHASE DEVELOPMENT SO THAT LAND DISTURBANCE IS CONFINED TO AREAS OF WORKABLE SIZE.
- DURING WINDY WEATHER, LARGE, UNPROTECTED AREAS WILL BE KEPT MOIST (NOT WET) BY SPRINKLING WITH WATER TO KEEP DUST UNDER CONTROL.
- CONTROL WATER FROM UPSTREAM OF THE SITE SUCH THAT IT DOES NOT ENTER THE DISTURBED SITE.
- ALL CONSTRUCTION VEHICLES SHALL ENTER THE SITE VIA THE TEMPORARY CONSTRUCTION ENTRY/EXIT.
- ALL VEHICLES LEAVING THE SITE SHALL BE CLEANED AND INSPECTED BEFORE LEAVING.
- STOCKPILES ARE NOT TO BE LOCATED IN ROADWAYS, WITHIN 2 METRES OF HAZARD AREAS OR DRAINAGE PITS, INCLUDING LIKELY AREAS OF CONCENTRATED OR HIGH VELOCITY FLOWS SUCH AS WATERWAYS, WHERE THEY ARE BETWEEN 2 AND 5 METRES FROM SUCH AREAS. SPECIAL SEDIMENT CONTROL MEASURES SHOULD BE TAKEN TO MINIMISE POSSIBLE SCOUR AND EROSION TO DOWNSLOPE WATERS, E.G. THROUGH INSTALLATION OF SEDIMENT FENCING.
- ANY SAND USED IN THE CONCRETE CURING PROCESS (SPREAD OVER THE SURFACE) WILL BE REMOVED AS SOON AS POSSIBLE AND WITHIN 10 WORKING DAYS FROM PLACEMENT.
- WATER WILL BE PREVENTED FROM ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS IT IS RELATIVELY SEDIMENT FREE. I.E. THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR ANY LIKELY SEDIMENT HAS BEEN FILTERED THROUGH AN APPROVED STRUCTURE OR DEVICE.
- TEMPORARY SOIL AND WATER MANAGEMENT STRUCTURES WILL BE REMOVED ONLY AFTER THE LANDS THEY ARE PROTECTING ARE REHABILITATED.
- ACCEPTABLE RECEPTACLES WILL BE PROVIDED FOR CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHINGS, LIGHTWEIGHT WASTE MATERIALS AND LITTER.
- ANY EXISTING TREES WHICH FORM PART OF THE FINAL LANDSCAPING PLAN WILL BE PROTECTED FROM CONSTRUCTION ACTIVITIES BY:
  - PROTECTING THEM WITH BARRIER FENCING OR SIMILAR MATERIALS INSTALLED OUTSIDE THE DRIP LINE
  - ENSURING THAT NOTHING IS NAILED TO THEM
  - PROHIBITING PAVING, GRADING, SEDIMENT WASH OR PLACING OF STOCKPILES WITHIN THE DRIP LINE EXCEPT UNDER THE FOLLOWING CONDITIONS.
  - ENCROACHMENT ONLY OCCURS ON ONE SIDE AND NO CLOSER TO THE TRUNK THAN EITHER 1.5 METRES OR HALF THE DISTANCE BETWEEN THE OUTER EDGE OF THE DRIP LINE AND THE TRUNK, WHICH EVER IS THE GREATER
  - A DRAINAGE SYSTEM THAT ALLOWS AIR AND WATER TO CIRCULATE THROUGH THE ROOT ZONE (E.G. A GRAVEL BED) IS PLACED UNDER ALL FILL LAYERS OF MORE THAN 300mm DEPTH
  - CARE IS TAKEN NOT TO CUT ROOTS UNNECESSARILY NOR TO COMPACT THE SOIL AROUND THEM.
- FINAL SITE LANDSCAPING WILL BE UNDERTAKEN AS SOON AS POSSIBLE AND WITHIN 20 WORKING DAYS FROM COMPLETION OF CONSTRUCTION ACTIVITIES.
- ANY REVEGETATED AREAS WHICH FAIL TO ESTABLISH WITHIN THREE MONTHS MUST BE RE-SOWN.

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Rev.	Date	Description	Des.	Verif.	Appd.
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.



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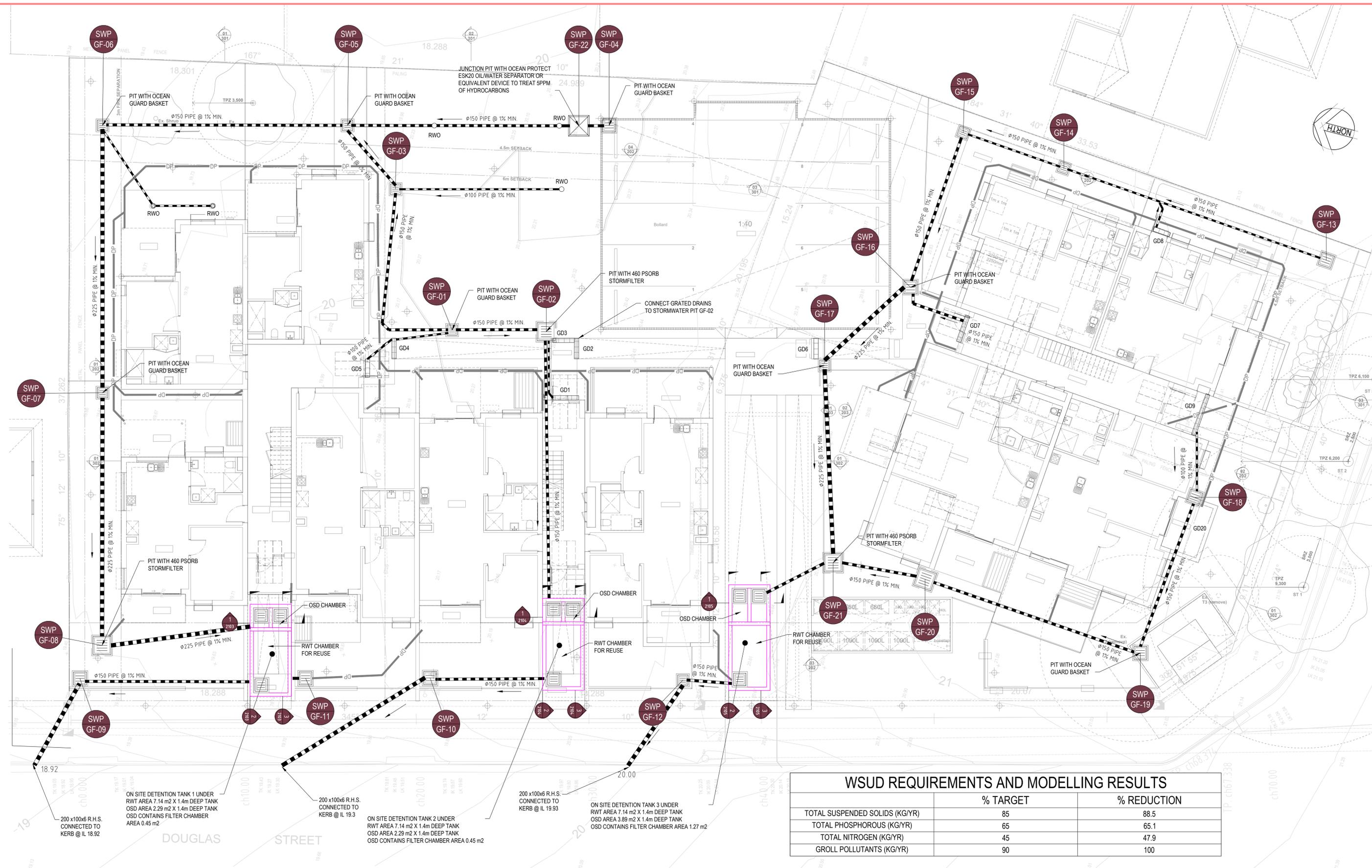
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Drawn A.L.	Date JAN 2023	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O.	Date JAN 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN 2023	Status <b>FOR APPROVAL</b> NOT TO BE USED FOR CONSTRUCTION PURPOSES
Verified R.O.	Date JAN 2023	Datum AHD
Approved		Scale N/A
		Size A1
		Drawing Number 80822046-CI-0002
		Revision 4

DATE PLOTTED: 9 May, 2024 2:21 PM BY: DE PASQUALE, PHILIP



### WSUD REQUIREMENTS AND MODELLING RESULTS

	% TARGET	% REDUCTION
TOTAL SUSPENDED SOLIDS (KG/YR)	85	88.5
TOTAL PHOSPHOROUS (KG/YR)	65	65.1
TOTAL NITROGEN (KG/YR)	45	47.9
GROLL POLLUTANTS (KG/YR)	90	100

XREFs: X-GROUND FLOOR: X-survey  
CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-1101.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
8	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB
7	22/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
6	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
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Checked: R.O.	Date: JAN 2023	Project: PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed: A.L.	Date: JAN 2023	Title: STORMWATER DRAINAGE PLAN GROUND FLOOR
Verified: R.O.	Date: JAN 2023	
Approved:		

Status: <b>FOR APPROVAL</b>	Scale: 1:100	Size: A1
Datum: AHD	Revision: 8	
Drawing Number: 80822046-CI-1101		



DATE PLOTTED: 12 April 2024 10:21 AM BY: DE PASQUALE, PHILIP

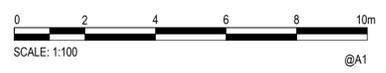


LEGEND			
	CUT BETWEEN 1.5m AND 2.0m		FILL LESS THAN 0.25m
	CUT BETWEEN 1.0m AND 1.5m		FILL BETWEEN 0.25m AND 0.5m
	CUT BETWEEN 0.5m AND 1.0m		FILL BETWEEN 0.5m AND 1.0m
	CUT BETWEEN 0.25m AND 0.5m		FILL BETWEEN 1.0m AND 1.5m
	CUT LESS THAN 0.25m		

CUT VOLUME = -248.17m<sup>3</sup>  
 FILL VOLUME = 141.28m<sup>3</sup>  
 BALANCE = -106.89m<sup>3</sup>

XREFs: X-GROUND FLOOR; X-SURVEY; X-CUT AND FILL  
 CAD File: C:\Users\depasquale\OneDrive - Stantec\Documents\80822046-CI-1301.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
4	14/02/2024	COORDINATION ISSUE	PDP	JMB	JMB
3	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
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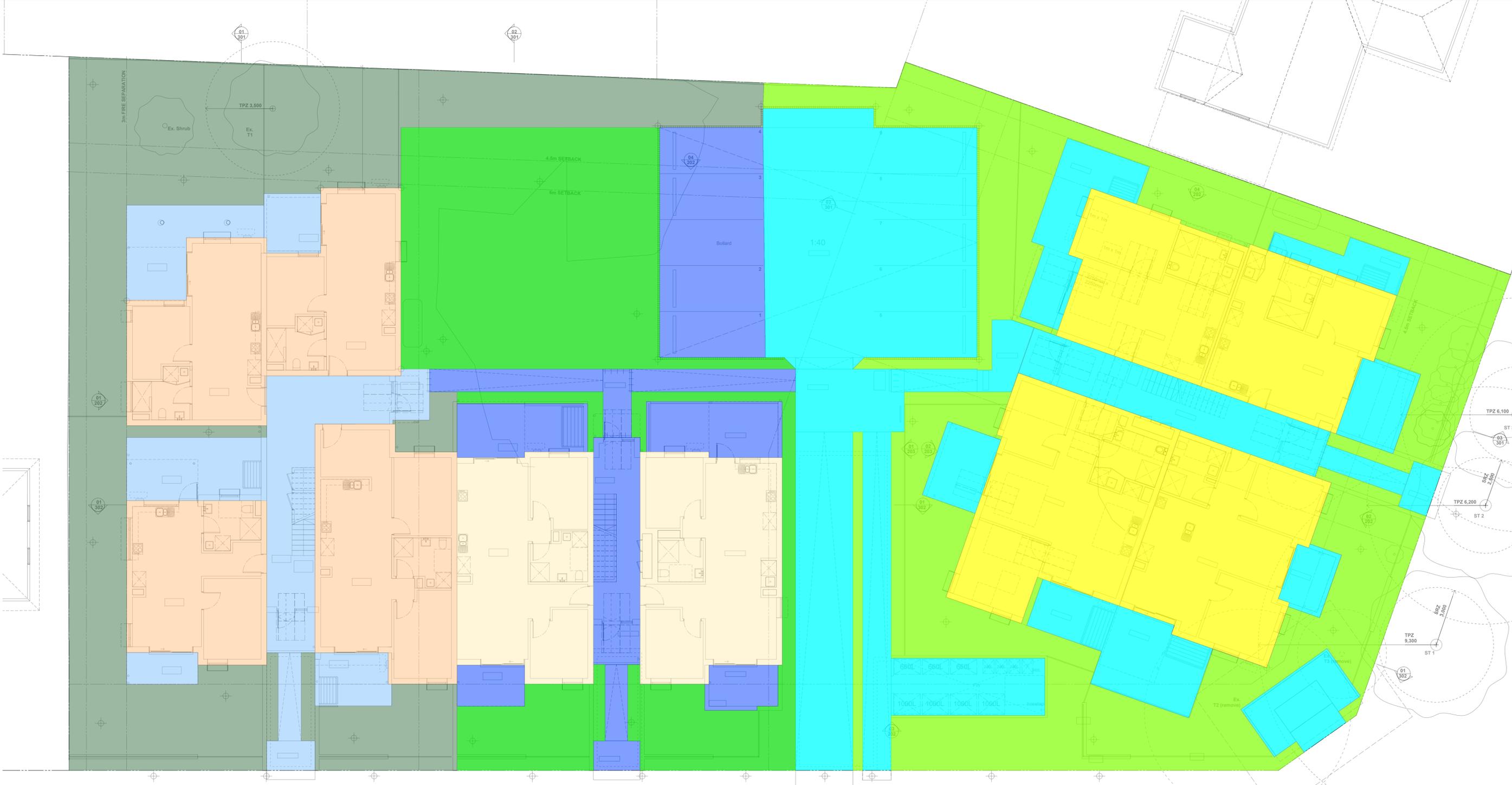
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Checked	Date	Project
R.O.	JAN 2023	PROPOSED DEVELOPMENT AT
Designed	Date	19-23 DOUGLAS STREET AND 6 NEAL PLACE
A.L.	JAN 2023	WALLSEND 2287
Verified	Date	Title
R.O.	JAN 2023	CUT AND FILL PLAN
Approved		

Datum	Scale	Size
AHD	1:100	A1
Drawing Number	Revision	
80822046-CI-1301	4	

Status: **FOR APPROVAL**  
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**WSUD CATCHMENT PLAN COLOUR KEY**

OSD 1	OSD 2	OSD 3
HARDSTAND = 0.013 Ha	HARDSTAND = 0.018 Ha	HARDSTAND = 0.045 Ha
ROOF = 0.027 Ha	ROOF = 0.017 Ha	ROOF = 0.030 Ha
LANDSCAPE = 0.035 Ha	LANDSCAPE = 0.026 Ha	LANDSCAPE = 0.035 Ha

XREFs: X-GROUND FLOOR: X:survey  
 CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street WallSEND\80822046-CI-1401.dwg

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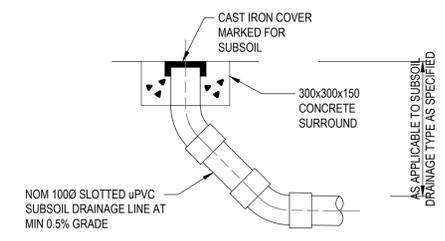
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JMB	APR' 2024	PROPOSED DEVELOPMENT AT
Designed	Date	19-23 DOUGLAS STREET AND 6 NEAL PLACE
JMB	APR' 2024	WALLSEND 2287
Verified	Date	Title
JMB	APR' 2024	WSUD CATCHMENT PLAN
Approved		

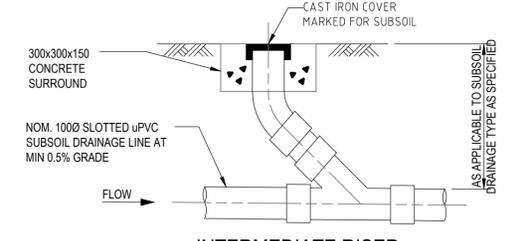
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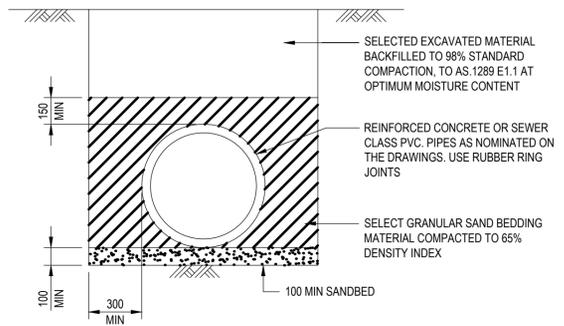
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**HIGH END RISER**  
 N.T.S.

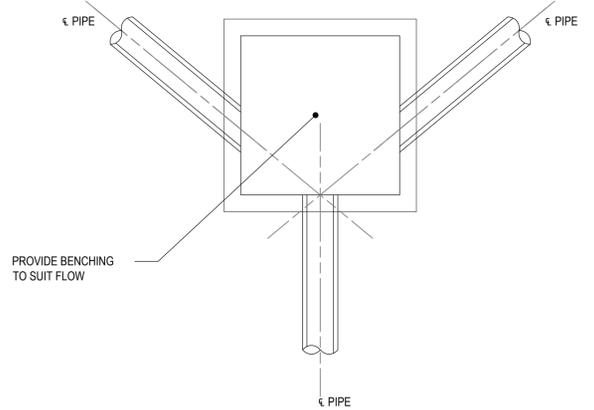


**INTERMEDIATE RISER**  
 N.T.S.  
 (TYPICAL AT 25m INTERVALS UNLESS OTHERWISE NOTED ON PLAN)

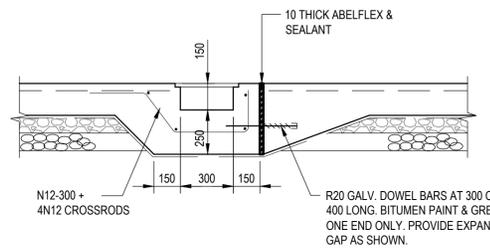


**TYPICAL PIPE LAYING DETAIL U.N.O.**

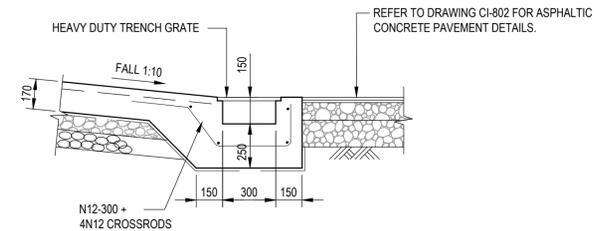
NOTE:  
 ALLOW TO BUILD 1000 AG DRAIN IN THE LAST 3.0m OF DRAINAGE PIPE, UPSTREAM OF ALL DRAINAGE PITS.



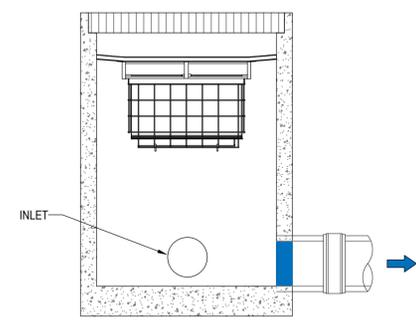
**JUNCTION PIT SET OUT DETAILS**  
 N.T.S.



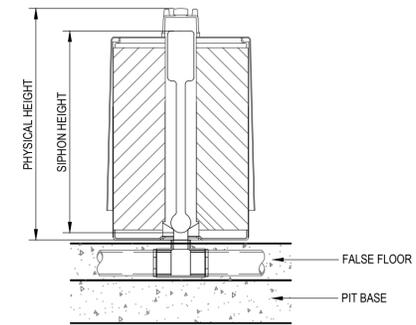
**GRADED DRAIN DETAIL**  
 SCALE 1:20



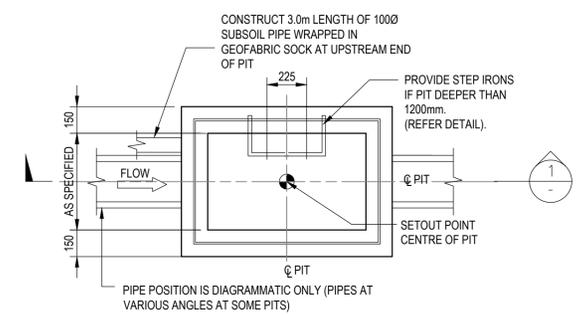
**GRADED DRAIN DETAIL AT ENTRY ROAD**  
 SCALE 1:20



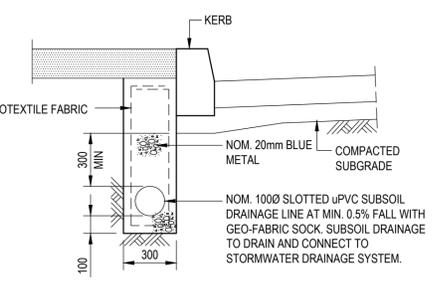
**PIT OCEAN GUARD FILTER BASKET**  
 STANDARD PIPE FLOW CONFIGURATION  
 SCALE 1:20



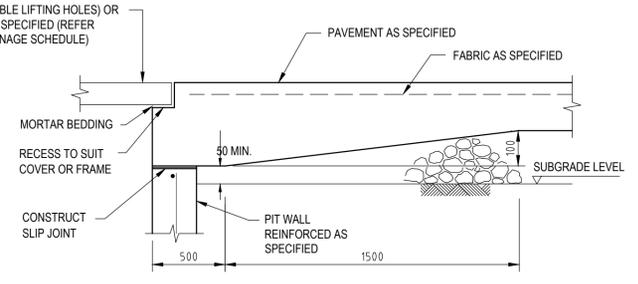
**STANDARD 460 PSORB STORMFILTER**  
 CARTRIDGE DETAIL  
 SCALE NTS



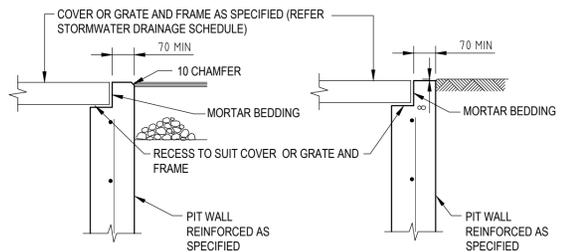
**PLAN**  
 NTS



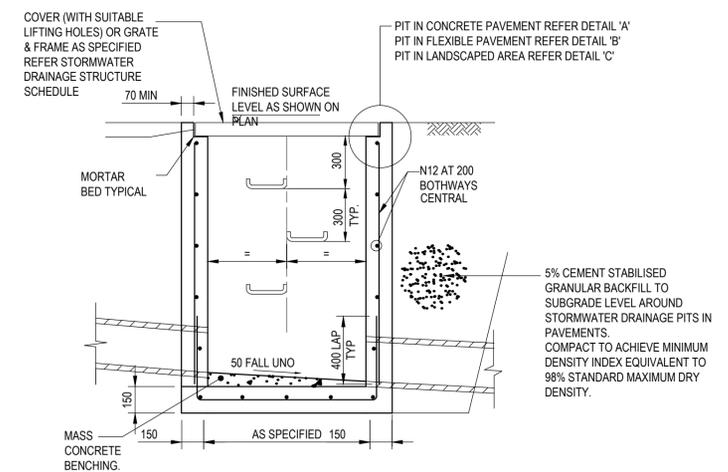
**DETAIL "A"**  
 N.T.S.



**DETAIL "B"**  
 SCALE 1:10



**DETAIL "C"**  
 SCALE 1:10



**SECTION 1**  
 SCALE 1:20  
**SURFACE INLET/JUNCTION PIT (SIP/JP)**

**SUBSOIL DRAINAGE LINE IN LANDSCAPED AREAS ADJACENT TO ROADS**

**PIT EDGE TREATMENT FOR STORMWATER DRAINAGE AND OTHER SERVICES PITS IN ROAD PAVEMENTS AND LANDSCAPED AREAS**

XREFs: CAD File: C:\Users\shilpa\OneDrive - Douglas Street Wallsend\0822046-CI-2101.dwg

Rev	Date	Description	Des.	Verif.	Appd.
5	12/04/2024	COORDINATION ISSUE		PDP	JMB
4	25/01/2023	COORDINATION ISSUE		A.L.	R.O.
3	26/09/2022	AM2 ISSUE		G.M.	C.F.
2	17/08/2022	DRAFT 70% ISSUE		G.M.	C.F.
1	10/02/2021	PRELIMINARY ISSUE		K.P.	C.F.

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A.L.	JAN 2023	LAHC & SAMCRAWFORD ARCHITECTS
Checked	Date	Project
R.O.	JAN 2023	PROPOSED DEVELOPMENT AT
Designed	Date	19-23 DOUGLAS STREET AND 6 NEAL PLACE
A.L.	JAN 2023	WALLSEND 2287
Verified	Date	Title
R.O.	JAN 2023	STORMWATER DETAILS
Approved		SHEET 1

Status	FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Datum	AHD
Scale	AS SHOWN
Size	A1
Drawing Number	80822046-CI-2101
Revision	5

Handwritten signature

DATE PLOTTED: 2 May 2024 4:22 PM BY: DE PASQUALE, PHILIP

STORMWATER PIT SCHEDULE								
SWP No.	PIT COVER LEVEL RL.	PIT INVERT LEVEL IL.	DEPTH (mm)	INTERNAL PIT SIZE	PIT TYPE	COVER TYPE	COVER CLASS	REMARKS
GF-1	20.20	19.75	450	450X450	SIP	GRATE	C	
GF-2	20.28	19.69	590	900X900	SIP	GRATE	C	
GF-3	20.10	19.66	440	450X450	SIP	GRATE	B	
GF-4	20.40	19.76	640	600X600	SIP	GRATE	D	
GF-5	20.00	19.61	390	450X450	SIP	GRATE	B	
GF-6	19.85	19.47	380	450X450	SIP	GRATE	B	
GF-7	19.85	19.32	530	450X450	SIP	GRATE	B	
GF-8	19.60	19.18	420	900X900	SIP	GRATE	B	
GF-9	19.42	18.97	450	600X600	SIP	GRATE	B	
GF-10	20.10	19.39	710	600X600	SIP	GRATE	B	
GF-11	19.80	19.13	670	600X600	SIP	GRATE	B	
GF-12	20.30	20.00	300	450X450	SIP	GRATE	B	
GF-13	21.23	20.57	660	600X600	SIP	GRATE	B	
GF-14	20.90	20.41	490	450X450	SIP	GRATE	B	
GF-15	20.85	20.35	500	450X450	SIP	GRATE	B	
GF-16	21.00	20.26	740	600X600	SIP	GRATE	B	
GF-17	20.70	20.20	500	450X450	SIP	GRATE	C	
GF-18	21.05	20.34	710	600X600	SIP	GRATE	B	
GF-19	21.050	20.240	810	600X600	SIP	GRATE	B	
GF-20	21.050	20.110	940	900X900	SIP	GRATE	B	
GF-21	20.842	19.962	880	600X600	SIP	GRATE	B	
GF-22	20.380	19.580	800	900x900	JIP	CONCRETE	D	

XREFs: CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\8082046-CI-2102.dwg

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5	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB
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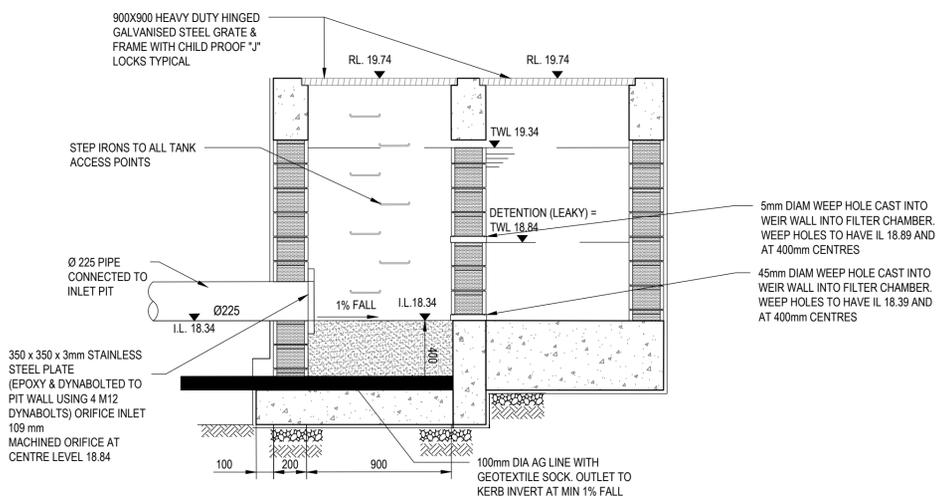
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Drawn	A.L.	Date	JAN 2023
Checked	R.O.	Date	JAN 2023
Designed	A.L.	Date	JAN 2023
Verified	R.O.	Date	JAN 2023
Approved			

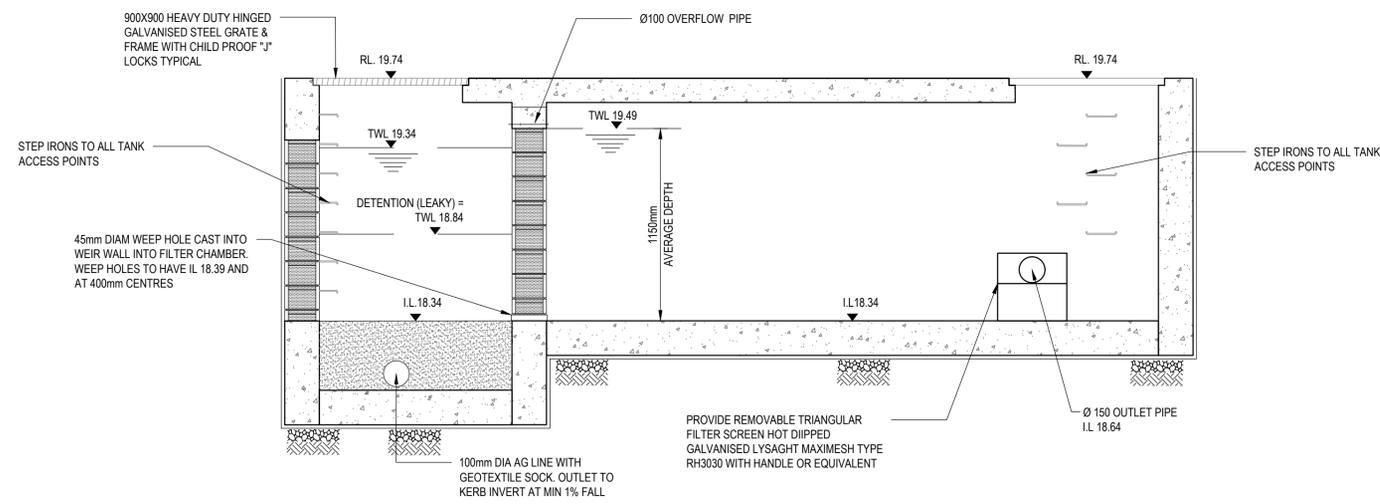
Client	LAHC & SAMCRAWFORD ARCHITECTS
Project	PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLESEND 2287
Title	STORMWATER DETAILS PIT SCHEDULE

Status	FOR APPROVAL		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	Scale	N/A
Size			A1
Drawing Number	8082046-CI-2102		Revision
		5	

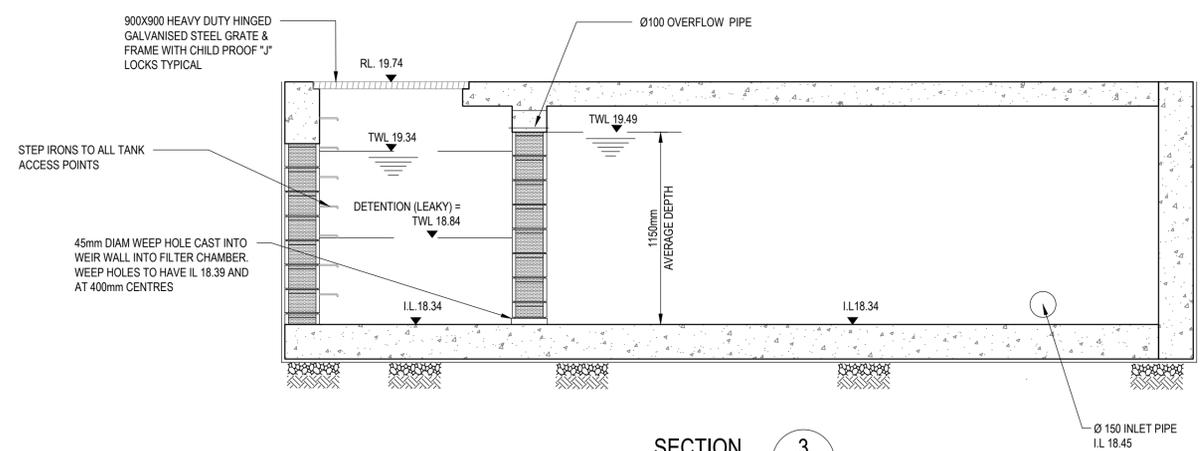
DATE PLOTTED: 18 April 2024 3:33 PM BY: DE PASQUALE, PHILIP



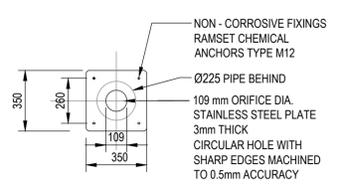
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NOT TO SCALE  
2103



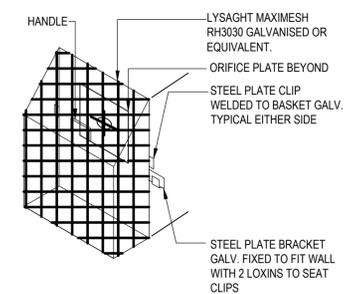
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NOT TO SCALE  
2103



SECTION 3  
NOT TO SCALE  
2103



ORIFICE PLATE DETAIL - OSD  
N.T.S.



TRASH SCREEN DETAIL  
N.T.S.



STEP IRON DETAIL  
N.T.S.

OSD SYSTEM DESIGN 1 PARAMETER  
AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06  
STORMWATER GUIDELINES, MINIMUM STORAGE  
REQUIRED FOR:

SITE AREA = 24,219m<sup>2</sup>  
IMPERVIOUS AREA = 1533.7m<sup>2</sup> = 63.32% IMPERVIOUS.

RWT STORAGE REQUIRED FOR SITE = 30 m<sup>3</sup>  
OSD STORAGE REQUIRED FOR SITE = 11.8 m<sup>3</sup>  
PSD 5 MIN 5 YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m<sup>3</sup>  
OSD STORAGE PROVIDED IN THIS TANK = 3.21m<sup>3</sup>

OSD TANK DETAIL  
TOP WATER LEVEL = 19.34  
DEPTH OF WATER = 1.0m  
TANK AREA = 2.29 m<sup>2</sup> INCLUDING 0.454m<sup>2</sup> OF FILTER  
CHAMBER  
ORIFICE DIAMETER = 109mm

XREFS: CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2103.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
6	18/04/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

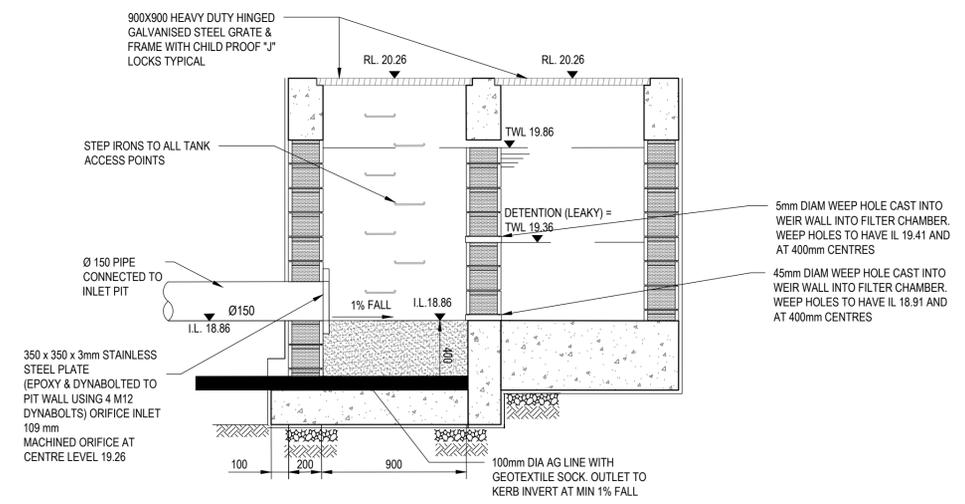
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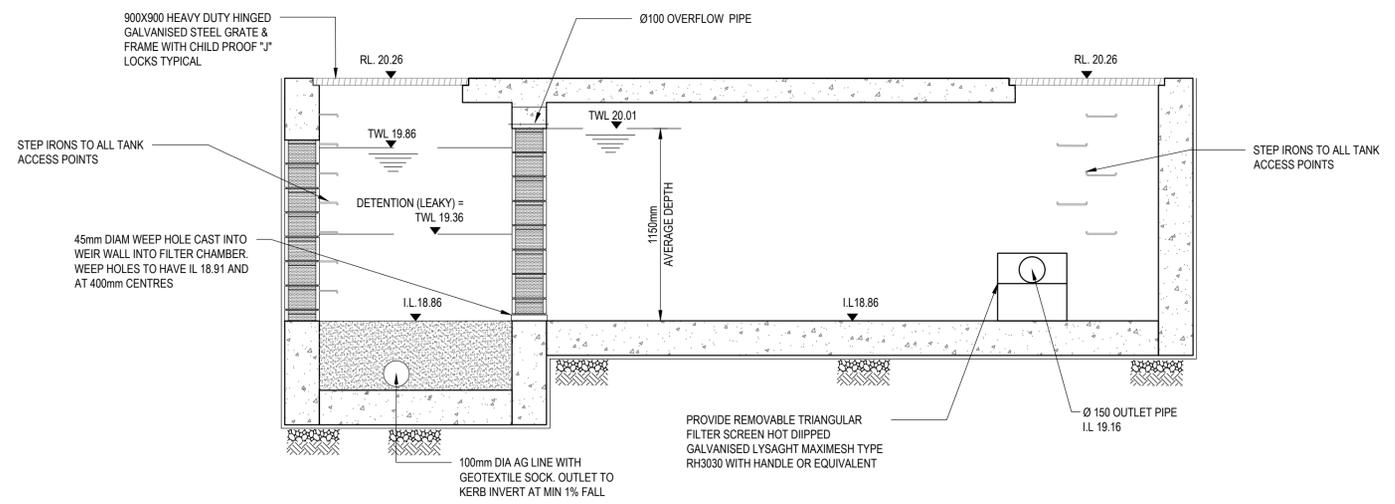
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Checked R.O.	Date JAN 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN 2023	Title STORMWATER DETAILS SHEET 2 OSD TANK 1 DETAILS
Verified R.O.	Date JAN 2023	Status <b>FOR APPROVAL</b> NOT TO BE USED FOR CONSTRUCTION PURPOSES
Approved		Drawing Number 80822046-CI-2103

Datum AHD	Scale AS SHOWN	Size A1
Drawing Number 80822046-CI-2103	Revision 6	

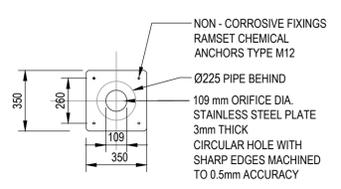
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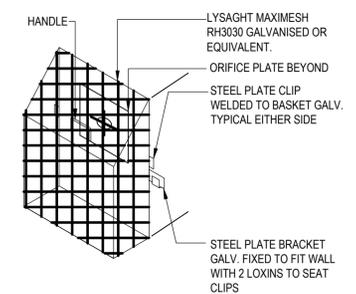
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2104



SECTION 2  
NOT TO SCALE  
2104



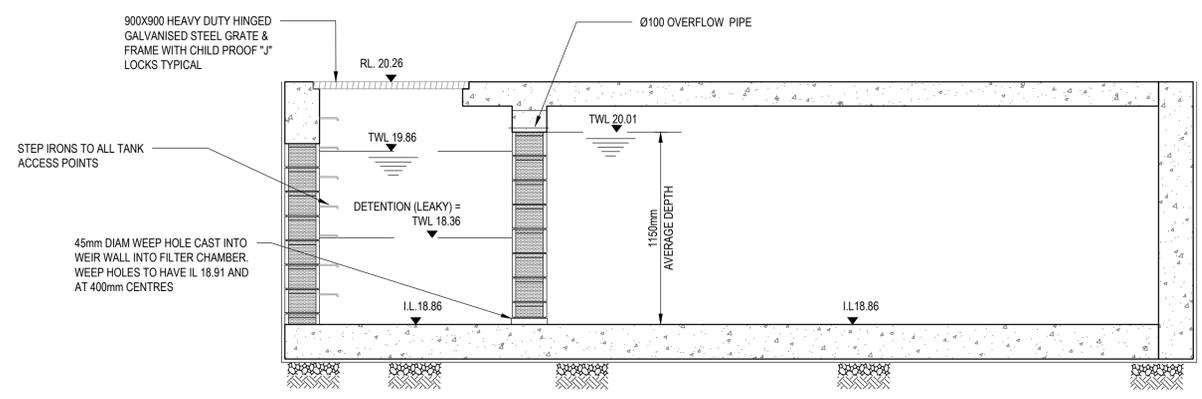
ORIFICE PLATE DETAIL - OSD  
N.T.S.



TRASH SCREEN DETAIL  
N.T.S.



STEP IRON DETAIL  
N.T.S.



SECTION 3  
NOT TO SCALE  
2104

OSD SYSTEM DESIGN 2 PARAMETER AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06 STORMWATER GUIDELINES, MINIMUM STORAGE REQUIRED FOR:

SITE AREA = 2421.9m<sup>2</sup>  
 IMPERVIOUS AREA = 1533.7m<sup>2</sup> = 63.32% IMPERVIOUS.

RWT STORAGE REQUIRED FOR SITE = 30 m<sup>3</sup>  
 OSD STORAGE REQUIRED FOR SITE = 11.8 m<sup>3</sup>  
 PSD 5 MIN 5YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m<sup>3</sup>  
 OSD STORAGE PROVIDED IN THIS TANK = 3.21m<sup>3</sup>

OSD TANK DETAIL  
 TOP WATER LEVEL = 19.34  
 DEPTH OF WATER = 1.0m  
 TANK AREA = 2.29 m<sup>2</sup> INCLUDING 0.454m<sup>2</sup> OF FILTER CHAMBER  
 ORIFICE DIAMETER = 109mm

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6	18/04/2024	COORDINATION ISSUE	PDP	JMB	JMB
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4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

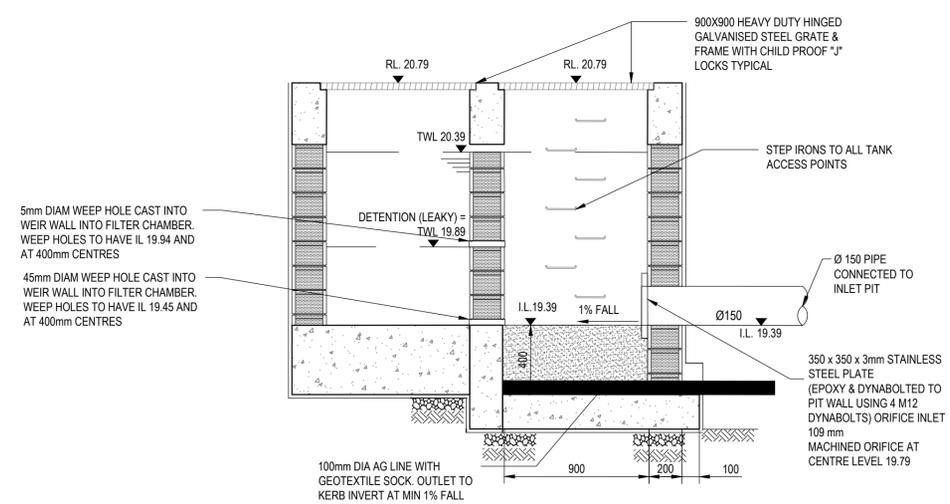
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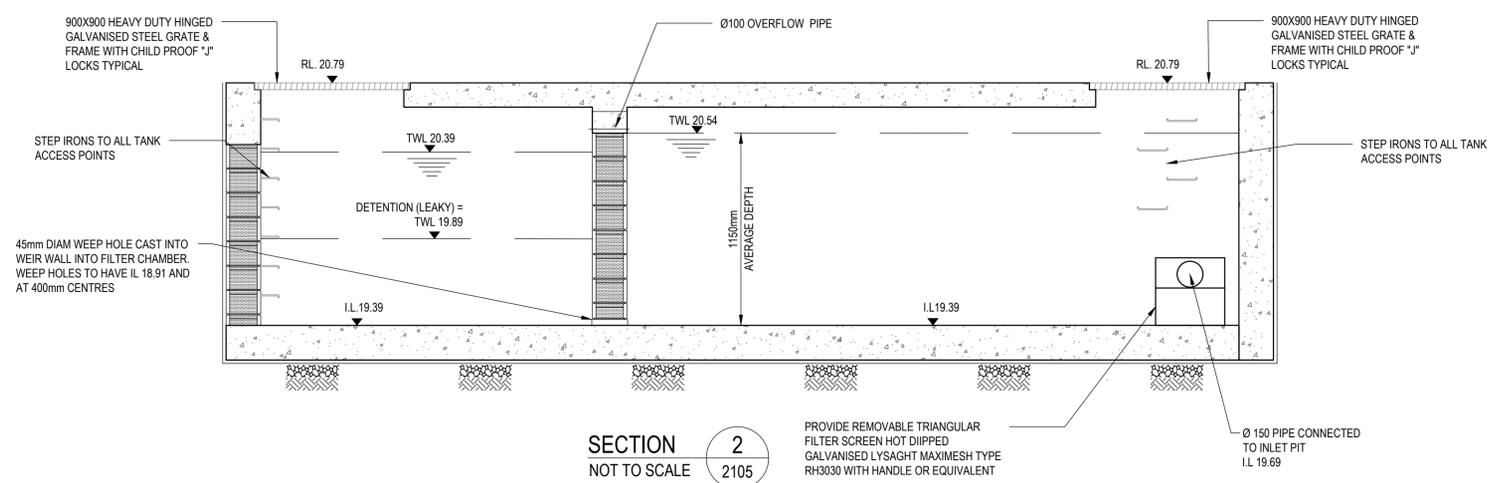
Drawn A.L.	Date JAN 2023	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O.	Date JAN 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN 2023	Title STORMWATER DETAILS SHEET 3 OSD TANK 2 DETAILS
Verified R.O.	Date JAN 2023	
Approved		

Status <b>FOR APPROVAL</b>	Scale AS SHOWN	Size A1
Drawing Number 80822046-CI-2104	Revision 6	

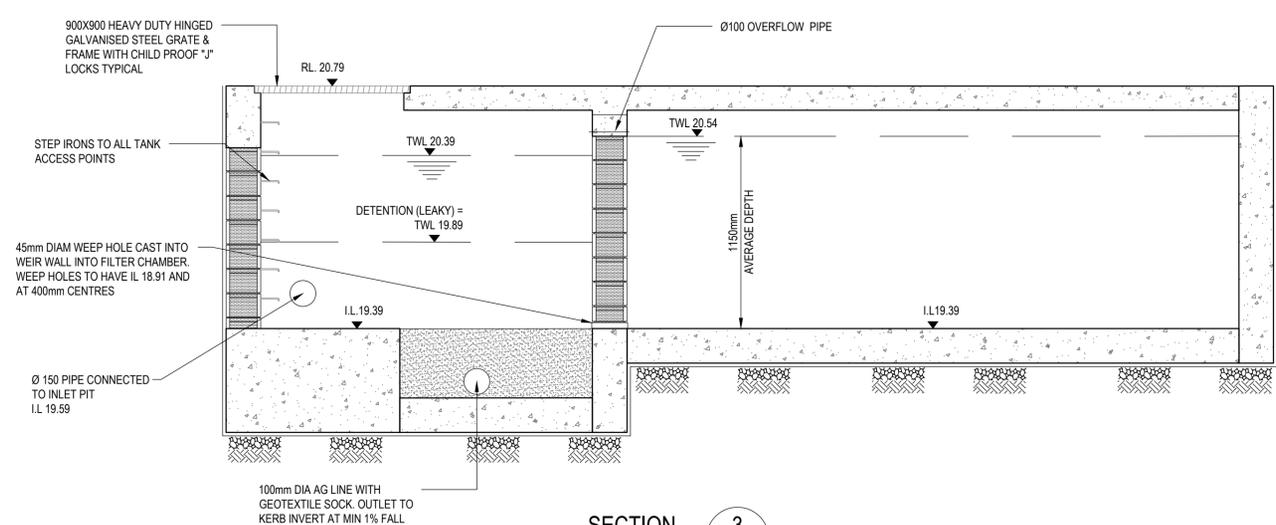
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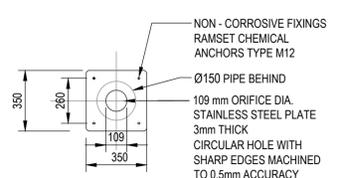
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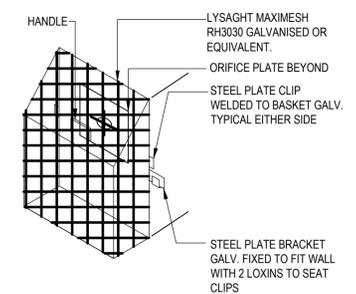
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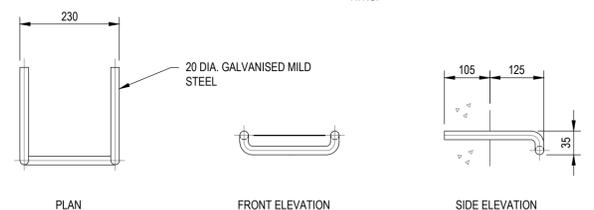
SECTION 3  
NOT TO SCALE



ORIFICE PLATE DETAIL - OSD  
N.T.S.



TRASH SCREEN DETAIL  
N.T.S.



STEP IRON DETAIL  
N.T.S.

OSD SYSTEM DESIGN 3 PARAMETER  
AS PER THE NEWCASTLE CITY COUNCIL SECTION 7.06  
STORMWATER GUIDELINES, MINIMUM STORAGE  
REQUIRED FOR:

SITE AREA = 24,219m<sup>2</sup>  
IMPERVIOUS AREA = 1533.7m<sup>2</sup> = 63.32 % IMPERVIOUS.

RWT STORAGE REQUIRED FOR SITE = 30 m<sup>3</sup>  
OSD STORAGE REQUIRED FOR SITE = 11.8 m<sup>3</sup>  
PSD 5 MIN 5 YEAR ARI = 23 L/s

RWT STORAGE PROVIDED IN THIS TANK = 10m<sup>3</sup>  
OSD STORAGE PROVIDED IN THIS TANK = 5.45m<sup>3</sup>

OSD TANK DETAIL  
TOP WATER LEVEL = 20.39  
DEPTH OF WATER = 1.0m  
TANK AREA = 3.89 m<sup>2</sup> INCLUDING 1.265m<sup>2</sup> OF FILTER  
CHAMBER  
ORIFICE DIAMETER = 109mm

XREFS: CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2105.dwg

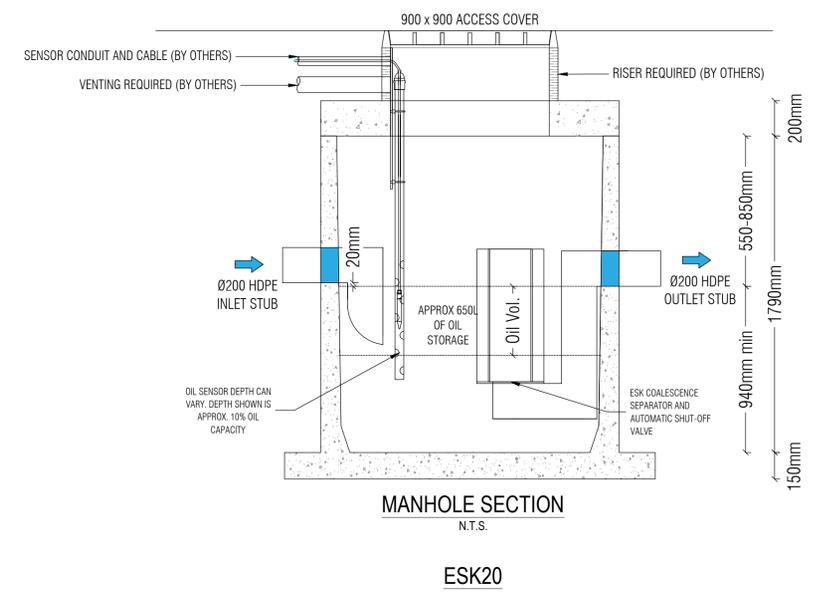
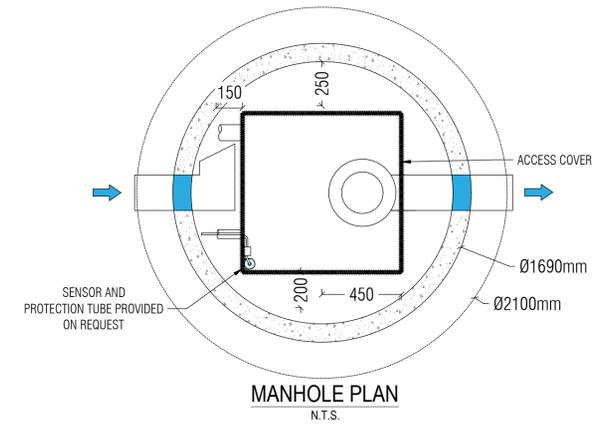
Rev.	Date	Description	Des.	Verif.	Appd.
6	18/04/2024	COORDINATION ISSUE	PDP	JMB	JMB
5	30/11/2023	COORDINATION ISSUE	PDP	JMB	JMB
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
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2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

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Drawn A.L.	Date JAN '2023	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O.	Date JAN '2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN '2023	Title STORMWATER DETAILS SHEET 4 OSD TANK 3 DETAILS
Verified R.O.	Date JAN '2023	
Approved		

Status <b>FOR APPROVAL</b>	Scale AS SHOWN	Size A1
Datum AHD	Drawing Number 80822046-CI-2105	Revision 6



### ESK DESIGN NOTES

THE ESK IS A PASSIVE HIGH EFFICIENCY COALESCING SEPARATOR THAT REMOVES FREE OIL FROM CONTAMINATED STORMWATER RUNOFF AND HAS A BUILT-IN SHUTOFF VALVE TO PREVENT SPILLS AND STORAGE CAPACITY EXCESS EXITING THE DEVICE. THE DEVICE IS IDEALLY SUITED FOR SITES WHERE SPECIFIC EFFLUENT TARGETS ARE SPECIFIED, OR FOR SITES WHERE REMOVAL OF OIL AND GREASE IS THE GREATEST CONCERN E.G. FUEL STATION, AROUND TRANSFORMERS, CAR SERVICING WORKSHOPS, ETC. IT IS TYPICALLY SIZED TO REMOVE OIL DROPLETS AS SMALL AS 10 MICRONS AND ACHIEVE AN EFFLUENT CONCENTRATION OF 5MG/L OR LESS.

### SITE SPECIFIC DATA REQUIREMENTS

STRUCTURE ID	XXX
TREATMENT FLOW RATE	20L/S
CATCHMENT AREA	XXX
HYDROCARBON SPECIFIC GRAVITY (SG)	0.85 OR LESS
PEAK FLOW RATE (L/s)	XXX
MINIMUM OIL STORAGE (L)	650
EXTERNAL INLET/OUTLET PIPE SIZE	DIA.200

PIPE DATA:	I.L. / R.L.	MATERIAL	DIAMETER
INLET PIPE #1	XXX	HDPE	200
OUTLET PIPE	XXX	HDPE	200
ACCESS COVER LEVEL (RL)	XXX	N/A	N/A
PIPE CONNECTIONS	BY OTHERS		

### GENERAL NOTES:

- OCEAN PROTECT TO PROVIDE ALL MATERIAL AND TANK PENETRATIONS UNLESS NOTED OTHERWISE.
- FOR SITE SPECIFIC DRAWING WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR OCEAN PROTECT CONSULTANT VIA [www.OCEANPROTECT.com.au](http://www.OCEANPROTECT.com.au), or 1300 354 722.
- PRECAST STRUCTURE TO BE CONSTRUCTED BY OCEAN PROTECT IN ACCORDANCE WITH AS3600.
- STRUCTURE AND ACCESS COVERS DESIGNED TO MEET AUSTRROADS T44 LOAD RATING WITH 0.0m TO 2.0m FILL MAXIMUM (CLASS D).
- THE STRUCTURE THICKNESS MEASUREMENTS SHOWN ARE FOR REPRESENTATIONAL PURPOSES ONLY.
- DEVICE IS TO CONTAIN A COALESCENCE SEPARATION COLUMN TOGETHER WITH AUTOMATIC OUTFLOW CLOSURE VALVE THAT ACTIVATES WHEN THE LIMIT OF OIL STORED IN THE SEPARATOR IS REACHED.
- ESK SYSTEM IS DESIGNED AS A CLASS1 COALESCENCE SEPARATOR AS PER BNES858-1:2002.
- OIL ALARM INCLUDED AS REQUESTED

### INSTALLATION NOTES:

- SIZE AND CLASS OF PIPE OR SQUARE KNOCKOUT SIZE TO BE SPECIFIED ON DRAWING BY CLIENT / CONTRACTOR.
- ADDITIONAL RISERS TO BE PROVIDED BY CONTRACTOR (IF REQUIRED)
- ANY BACKFILL DEPTH, SUB-BASE, AND OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS SHALL BE SPECIFIED BY THE ENGINEER OF RECORD.
- CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE STRUCTURE
- CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
- CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPES.
- CONTRACTOR TO TAKE APPROPRIATE MEASURES TO PROTECT DEVICE FROM CONSTRUCTION-RELATED EROSION RUNOFF.

Rev.	Date	Description	Des.	Verf.	Appd.
1	02/05/2024	COORDINATION ISSUE	PDP	JMB	JMB

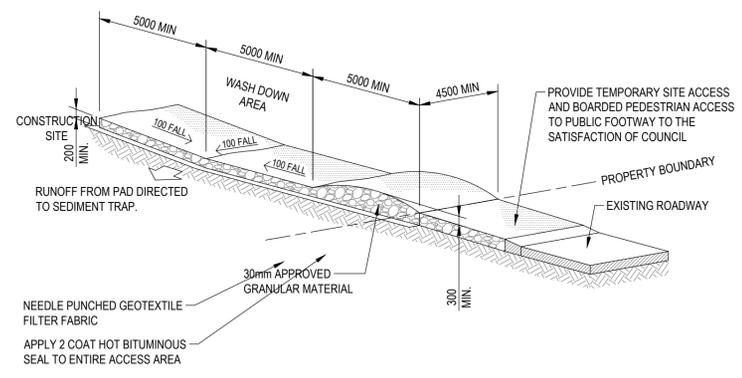
**samcrawfordarchitects**  
 Level 2, 17 Federation Rd, Newtown, Australia NSW 2042  
 TELEPHONE +612 9519 6800  
 EMAIL [studio@samcrawfordarchitects.com.au](mailto:studio@samcrawfordarchitects.com.au) WEB [samcrawfordarchitects.com.au](http://samcrawfordarchitects.com.au)  
 ACN 165 409 567 Nominated Architect Sam Crawford 6498

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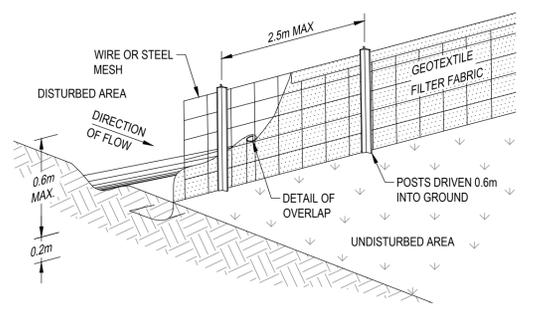
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Drawn A.L.	Date JAN' 2023	Client LAHC & SAMCRAWFORD ARCHITECTS
Checked R.O.	Date JAN' 2023	Project PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Designed A.L.	Date JAN' 2023	Status <b>FOR APPROVAL</b> NOT TO BE USED FOR CONSTRUCTION PURPOSES
Verified R.O.	Date JAN' 2023	Datum AHD
Approved	Date JAN' 2023	Scale AS SHOWN
Title STORMWATER DETAILS SHEET 4 TYPICAL ESK20 DETAIL		Size A1
Drawing Number 80822046-CI-2101		Revision 1

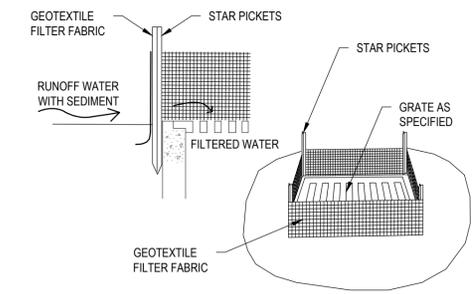
DATE PLOTTED: 12 April 2024 10:21 AM BY: DE PASQUALE, PHILIP



**STABILISED SITE ACCESS AND TRUCK WASH DOWN AREA**  
NTS



**SEDIMENT FENCE**  
NTS



**GEOTEXTILE FILTER PIT SURROUND**  
NTS

XREFs: CAD File: C:\Users\depasquale\OneDrive - Stantec\Documents\19-23 Douglas Street WallSEND\8082046-CI-2201.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
4	25/01/2023	COORDINATION ISSUE	A.L.	R.O.	R.O.
3	26/09/2022	AM2 ISSUE	G.M.	C.F.	C.F.
2	17/08/2022	DRAFT 70% ISSUE	G.M.	C.F.	C.F.
1	10/02/2021	PRELIMINARY ISSUE	K.P.	K.P.	C.F.

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ACN 165 409 567 Nominated Architect Sam Crawford 6498

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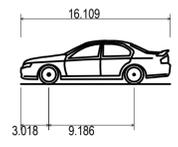
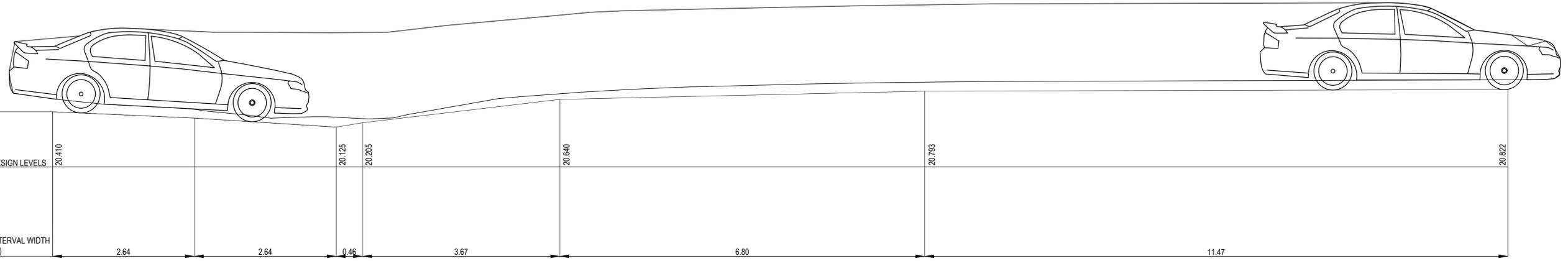
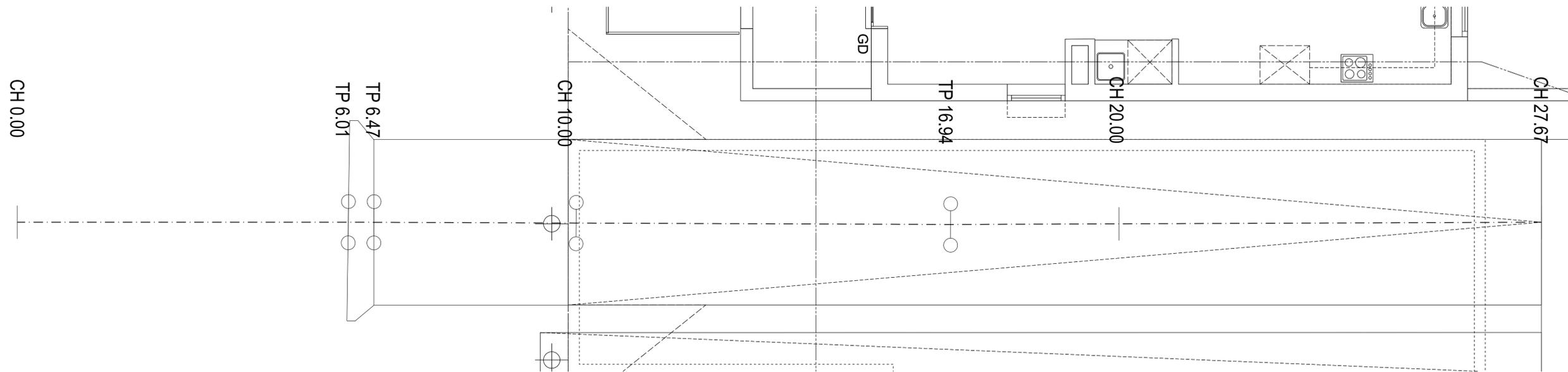
Drawn	A.L.	Date	JAN' 2023
Checked	R.O.	Date	JAN' 2023
Designed	A.L.	Date	JAN' 2023
Verified	R.O.	Date	JAN' 2023
Approved		Date	

Client	LAHC & SAMCRAWFORD ARCHITECTS
Project	PROPOSED DEVELOPMENT AT 19-23 DOUGLAS STREET AND 6 NEAL PLACE WALLSEND 2287
Title	SEDIMENTATION AND EROSION CONTROL DETAILS

Status	<b>FOR APPROVAL</b>		
NOT TO BE USED FOR CONSTRUCTION PURPOSES			
Datum	AHD	Scale	AS SHOWN
Size		Size	A1
Drawing Number	8082046-CI-2201		Revision
			4

*Handwritten signature*

DATE PLOTTED: 12 April 2024 10:22 AM BY: DE PASQUALE, PHILIP



<b>B85 Vertical Clearance (2004)</b>	
Overall Length	16.109ft
Overall Width	6.135ft
Overall Body Height	4.662ft
Min Body Ground Clearance	0.521ft
Track Width	5.807ft
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	18.865ft

XREFS: X-GROUND FLOOR: X-GROUND FLOOR-VERT-CLEARANCE  
CAD File: C:\Users\depasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2301.dwg

Rev.	Date	Description	Des.	Verif.	Appd.
2	28/03/2024	COORDINATION ISSUE		PDP	JMB JMB
1	08/03/2024	COORDINATION ISSUE		PDP	JMB JMB

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EMAIL studio@samcrawfordarchitects.com.au WEB samcrawfordarchitects.com.au  
ACN 165 409 567 Nominated Architect Sam Crawford 6498

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Drawn	Date	Client
P.D.	MAR 2024	LAHC & SAMCRAWFORD ARCHITECTS
Checked	Date	Project
J.B.	MAR 2024	PROPOSED DEVELOPMENT AT
Designed	Date	19-23 DOUGLAS STREET AND 6 NEAL PLACE
P.D.	MAR 2024	WALLSEND 2287
Verified	Date	Title
J.B.	MAR 2024	DRIVEWAY VERTICAL CLEARANCE DETAILS
Approved		

Status		Scale		Size	
FOR APPROVAL		AS SHOWN		A1	
Drawing Number		Revision			
80822046-CI-2301		2			

NOT TO BE USED FOR CONSTRUCTION PURPOSES

DATE PLOTTED: 12 April 2024 10:22 AM BY: DE PASQUALE, PHILIP

**UPRIGHT KERB AND GUTTER**  
 SCALE 1:50

**TYPICAL LAYBACK AND CROSSING SECTION**  
 SCALE 1:30

**NOTES:**

1. THE APPLICANT / CONTRACTOR MUST OBTAIN DRIVEWAY APPROVAL.
2. DRIVEWAY GRADES ARE TO BE DESIGNED IN ACCORDANCE WITH COUNCIL'S DRIVEWAY APPROVAL LETTER AND THE AUSTRALIAN STANDARD AS2890.1.
3. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH COUNCIL'S DRIVEWAY APPROVAL LETTER AND SPECIFICATION FOR CONSTRUCTION OF VEHICULAR CROSSINGS.
4. CROSSINGS ARE TO BE CONSTRUCTED IN PLAIN CONCRETE WITH A BROOM FINISH AND ALL EDGES TO BE BEVELED (5-10mm).
5. ALTERNATIVE TREATMENTS / MATERIALS SUCH AS PATTERNED OR COLORED CONCRETE, EXPOSED AGGREGATE AND STENCILING, MAY BE CONSIDERED. STAMPED CONCRETE, ASPHALTIC CONCRETE AND SEALER ARE NOT PERMITTED.
6. CONCRETE STRENGTH TO BE 25Mpa AT 28 DAYS.
7. PARALLEL AND TRANSVERSE TOOL JOINTS TO BE PROVIDED AT MAXIMUM SPACING OF 3000mm.
8. EXPANSION JOINTS TO BE PROVIDED AGAINST ALL EXISTING CONCRETE PAVING (REFER TO STANDARD DRAWING A1400 FOR SPECIFICATIONS).
9. LAYBACK WIDTH MAY BE REDUCED TO 150mm AND LAYBACK HEIGHT REDUCED TO 80mm, ON LOW LEVEL FOOTWAYS, WITH APPROVAL OF COUNCIL. ASSESSMENT MUST FIRST BE UNDERTAKEN TO DETERMINE RISK OF STORMWATER OVERTOPPING THE LAYBACK.
10. DRIVEWAY CROSSINGS TO BE SQUARE (90°) TO THE KERB LINE. VARIATIONS WILL ONLY BE ALLOWED IN EXCEPTIONAL CIRCUMSTANCES AND MUST BE APPROVED BY COUNCIL.
11. GRADIENT OVER LAST 600mm AT BOUNDARY MAY BE INCREASED AS NOTED TO ASSIST WITH ACCESS, WHERE APPROVED BY COUNCIL - EXCEPT IN COMMERCIAL / SHOPPING PRECINCTS AND FULL WIDTH FOOTWAYS.
12. ANY ALTERATIONS WITHIN THE PROPERTY ARE THE OWNERS RESPONSIBILITY.
13. IN COMMERCIAL / SHOPPING PRECINCTS WITH FULL WIDTH FOOTWAY PAVING THE CROSS FALL OVER THE LAST 1800mm TO THE PROPERTY BOUNDARY MAY BE INCREASED FROM THE RECOMMENDED 1 IN 40 GRADE TO MATCH THE EXISTING FOOTWAY CROSS FALL; UP TO A MAXIMUM OF 1 IN 16.5 (6.0%).
14. INDUSTRIAL CROSSINGS MUST HAVE A "NORMAL" FOOTWAY PROFILE. HIGH LEVEL OR LOW LEVEL PROFILES ARE NOT PERMITTED.
15. HEIGHT OF BULL NOSE MAY BE INCREASED IN EXCEPTIONAL CIRCUMSTANCES TO AID VEHICULAR ACCESS (RANGE 25-50mm) WITH THE APPROVAL OF COUNCIL. BULL NOSE MAY BE DELETED ON RESIDENTIAL DRIVEWAYS ONLY, WHERE THE OWNER ADVISES THE DRIVEWAY IS TO BE USED FOR WHEELCHAIR ACCESS.
16. THE DRIVEWAY PROFILE MUST INCORPORATE A 1200 WIDE SECTION AT A GRADE OF 1:40 (EVEN WHERE THERE IS NO FOOT PAVING) TO FACILITATE FUTURE FOOTWAY PAVING CONSTRUCTION.

SLAB THICKNESS, REINFORCEMENT & WIDTH			
CROSSING TYPE	MINIMUM THICKNESS (mm)	MINIMUM REINFORCEMENT	CROSSING WIDTH (▲ REFER TO NOTE)
RESIDENTIAL SINGLE	100	SL72 TOP - 40 COVER	2500 MIN - 3000 MAX
RESIDENTIAL DOUBLE	100	SL72 TOP - 40 COVER	2500 MIN - 4500 MAX
COMMERCIAL	150	SL82 TOP - 40 COVER	3000 MIN - 6000 MAX
INDUSTRIAL	150	SL82 TOP - 40 COVER	AS APPROVED - 4000 MIN

▲ DENOTES WIDTHS MAY BE VARIED WHERE SPECIFIED IN DEVELOPMENT APPROVAL OR BY THE CITY OF NEWCASTLE PRIVATE WORKS COORDINATOR

2	GENERAL REVISION	19.08.15	T.J.A.
1	GENERAL REVISION	05.07.14	T.J.A.
0	CONSTRUCTION	27.04.14	T.J.A.
No.	AMENDMENT DETAILS	DATE	INITIALS

AS ORIGINAL THIS SHEET WAS PREPARED IN COLOUR AND WILL BE INCOMPLETE IF COPIED

SCALE	AS SHOWN	APPROVED	THE CITY OF NEWCASTLE	HCC PLAN No.	A1300	SHEET No.	1 OF 4 SHEETS
COORDINATE SYSTEM:	HEIGHT DATUM AND	SIGNED	DRIVEWAY CROSSING STANDARD DESIGN DETAILS	AMENDMENT No.			

NOTES:  
 1. REFER TO THE CITY OF NEWCASTLE DRAWING NO. A1300 DRIVEWAY CROSSING STANDARD DESIGN DETAILS.

XREFS: CAD File: C:\Users\dpasquale\OneDrive - Stantec\Douglas Street Wallsend\80822046-CI-2302.dwg

1	21/03/2024	COORDINATION ISSUE	PDP	JMB	JMB
Rev.	Date	Description	Des.	Verf.	Appd.

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Drawn	Date	Client
P.D.	MAR'2024	LAHC & SAMCRAWFORD ARCHITECTS
Checked	Date	Project
J.B.	MAR'2024	PROPOSED DEVELOPMENT AT
Designed	Date	19-23 DOUGLAS STREET AND 6 NEAL PLACE
P.D.	MAR'2024	WALLSEND 2287
Verified	Date	Title
J.B.	MAR'2024	CIVIL WORKS DETAILS
Approved		

Status	FOR APPROVAL
NOT TO BE USED FOR CONSTRUCTION PURPOSES	
Datum	AHD
Scale	AS SHOWN
Size	A1
Drawing Number	80822046-CI-2302
Revision	1