

## TRAFFIC IMPACT AND PARKING ASSESSMENT

PROPOSED RESIDENTIAL FLAT BUILDING (HOMES NSW)

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

Samana Blue Engineering Pty Ltd NSW + QLD 3/55 Pyrmont Bridge Rd, PYRMONT NSW 2009 PO Box 604 Moffat Beach, QLD 4551 info@samanablue.com +61 88 042 994



#### **Document Information**

**Project:** Proposed Residential Flat Building

**Report Reference:** 2023049tipaD

**Certified For Issue:** Stefan Koebsch MIEAust NER RPEQ APEC Engineer IntPE(Aus)

#### **Document Control:**

Revision	Issue Date	Author	Reviewer
Α	03 Nov 2023	SK	S Koebsch NER
В	25 October 2024	SK	S Koebsch NER
С	6 December 2024	SK	S Koebsch NER
D	27 June 2025	SK	S Koebsch NER

**COPYRIGHT:** The concepts and information contained in this document are the property of Samana Blue Engineering Pty Ltd. Use or copying of this document in whole or in part without the written permission of Samana Blue Engineering Pty Ltd constitutes an infringement of copyright.

**LIMITATION:** This report has been prepared on behalf of and for the exclusive use of Samana Blue Engineering Pty Ltd's Client, and is subject to and issued in connection with the provisions of the agreement between Samana Blue Engineering Pty Ltd and its Client. Samana Blue Engineering Pty Ltd accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.



### Contents

1.	INTRO	DDUCTION	1
	1.1.	Background	1
	1.2.	Revision D	1
	1.3.	Scope of Assessment	1
2.	SUBJI	ECT SITE	2
	2.1.	Site Locality	2
	2.2.	Existing Vehicle Access & Car Parking	2
	2.3.	Existing Road Network & Conditions	4
	2.4.	Public Transport	5
	2.5.	Traffic Data	6
	2.6.	Social & Demographic Information	8
3.	PROP	OSED DEVELOPMENT OVERVIEW	9
4.	DEVE	LOPMENT REQUIREMENTS	10
	4.1.	Vehicle Access Requirements	10
	4.2.	Carparking Requirements	11
	4.3.	Bicycle Requirements	11
	4.4.	Servicing Vehicle Requirements	12
	4.5.	Waste Vehicle Requirements	12
5.	DEVE	LOPMENT COMPLIANCE	13
	5.1.	Vehicle Access & Queuing Compliance	13
	5.2.	Carparking & Manoeuvring Compliance	14
	5.3.	Servicing Vehicle Compliance	14
	5.3.1	Service Vehicles (Delivery Vehicles)	14
	5.3.2	Service Vehicles (Waste)	14
	5.4.	Pedestrian Access & Walkability Considerations	15
6.	DEVE	LOPMENT OPERATIONAL PHASE	17
	6.1.	Traffic Demand & Generation – Homes NSW	17
	6.2.	Traffic Demand & Generation – TfNSW Guide	17
7.	CONC	CLUSION	19
Αŗ	pendix	A – Homes NSW	ا
Αŗ	pendix	B – Swept Path Plans	
Αr	pendix	C – Architectural Plans	. 11





#### 1. INTRODUCTION

### 1.1. Background

Samana Blue Engineering Pty. Ltd. has been engaged to prepare a Traffic Impact and Parking Assessment suitable for a proposed 4 storey with a single level basement residential flat building over 6 lots comprising 42 units on behalf of Homes NSW. This report must be read in conjunction with the other relevant documents including but not limited to:

- Concept traffic engineering drawings provided by Samana Blue Engineering Pty Ltd. Refer to the Appendix. (Ref. 2023049DA Rev E dated 26 June 2025).
- Architectural plans by WMK Architecture dated 18 October 2024 (basement) and 27 June 2025 (ground floor) (refer to appendix)
- Georges River Council Development Control Plan 2021
  - Section 6.3.9 of Part 6.3 Residential Flat Buildings and Residential Components of Shop Top Housing
  - Section 3.13 Table 1 Parking Requirements of Part 2 General Planning Considerations
- State Environment Planning Policy (Housing) 2021 Part 2 Development for Affordable Housing – Division 1 In-fill Affordable House
- NSW Planning Environment Preliminary Planning Report by NSW Land & Housing Corporation date 16 September 2022

Other relevant standards or guidelines are referenced elsewhere in this report.

#### 1.2. Revision D

This revision updates the traffic generation rate in accordance with data from Homes NSW

#### 1.3. Scope of Assessment

The purpose of this report is to provide traffic engineering commentary on the following:

- Site and proposed development description
- Surrounding road network serving the site and the prevailing traffic conditions
- Adequacy of the proposed parking.
- Potential traffic implications, line of sight and queueing
- Impact of development to social and demographic conditions and to public transportation
- Assess the suitability of the proposed vehicle access, internal driveway and service vehicle arrangements
- Pedestrian movements
- Serviceability of the site



#### 2. SUBJECT SITE

#### 2.1. Site Locality

The proposed development is located on 6 lots within the R4 high density residential zone in the Riverwood area. The site is surrounded by established apartment buildings on the west and north, the Phillip St recreation reserve to the west/south and the state railway corridor (T8 line) to the east/south. The site location is shown in Figure 1 below.



Figure 1 - Site Locality Map (Accessed: Google Earth Pro on 13 July 2023)

The combined site is approximately 49m wide at the rear, 115m at the front and 36m deep with minor falls from the rear down towards the street.

The site is currently vacant with no existing structures throughout the site and is fenced all around with both timber and mesh fencing. There are three existing concrete vehicle crossovers from Coleridge St, two of which have locked access gates to the site. Existing site details are provided in Table 1 below.

**Table 1 - Existing Site Details** 

Table 1 - Existing Site Details	
Title	Lots 7, 8, 9, 10, 11 & 12 DP 35640
Street Address	1-13 Coleridge St RIVERWOOD NSW 2210
Site Area (before 3m resumption)	2,911m <sup>2</sup>
Site Area (after 3m resumption)	2,805m2
Zoning	R4 High Density Residential Zone

#### 2.2. Existing Vehicle Access & Car Parking

Currently the site is overgrown with grass and there is no evidence of vehicular pavements on the site. However, there are existing vehicle crossings from Coleridge St kerb and gutter to the front boundary which we assume served pre-demolition houses.



There is no existing footpath and pedestrian access is provided via the existing grass verge within the road reserve along the front boundary of the site.

The existing vehicle crossovers are shown below.



Figure 2 – One of the two existing access driveway from Coleridge St. (Photo by Samana Blue Engineering on 9 June 2023)

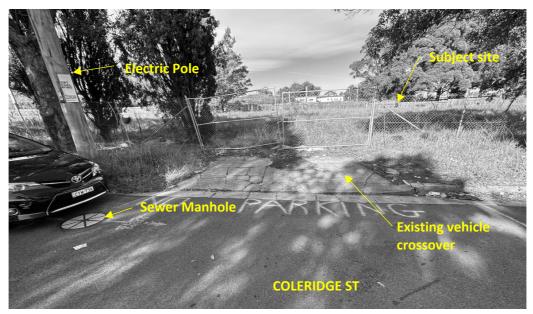


Figure 3 – One of the two existing access driveway from Coleridge St. (Photo by Samana Blue Engineering on 20 June 2023)





Figure 4 - Access driveway from Coleridge St (Photo by Samana Blue Engineering on 9 June 2023)

### 2.3. Existing Road Network & Conditions

Georges River Council does not have its road network classifications provided on council available documents however NSW Transport for NSW does classify its road in two different systems. Pursuant to the Road Act 1993 the legal system identifies the following Classified Road categories:

- Highway (Previously State Highway)
- Main Road
- Secondary Road
- Tourist Road
- Transitway

The system includes an additional series of road identified as Unclassified Regional Roads which includes all local roads.

The NSW's administrative system simplifies the legal road classifications and are grouped into three tier categories:

- State Road are the major arterial links throughout NSW and within major urban areas. They are the principle traffic carrying and linking routes for the movement of people and goods within the Sydney, Newcastle, Wollongong and Central Coast urban areas and which connect between these urban centres, the major regional towns, the major regions of the State and the major connections interstate.
- Regional Road are routes of secondary importance between State Roads and Local Roads which together with the State Roads, provide the main connections to and between smaller towns and districts and perform a sub arterial function in major urban areas.
- Locals Roads comprise the remaining Council controlled roads which provide



for local circulation and access.

The road classifications provided are generally used by Development Control Planning documents to prescribe the site, road and street layout for developments which interact with the road network.

According to the description of the administrative system road, the proposed development is located on a 'Local' road. A summary of the critical surrounding roads is provided in Table 2 below.

**Table 2 - Key Surrounding Roads** 

Road Name	Classification	Authority	Existing Formation	Posted Speed
Coleridge St	Local Road	TfNSW	Located to the north of the site with a 20m wide road reserve and 13m wide carriageway (approximately). The pavement is not linemarked but there is one travel lane in either direction. Kerbside parking is available for the full length of the site vicinity on both sides, but it is not line marked.	50km/hr

### 2.4. Public Transport

The subject site is well-serviced by public transport and the residents have good access to transport facilities. The available bus services are summarised in Table 3 below.

**Table 3 - Nearby Transport Services** 

Bus route	Description	Closest Station / Stop
455	Kongarah Station to Bellmore Road	Bus stop located in Belmore Rd about 4 mins walk.
M9S	Sutherland Station to Coleridge St after Hunter St	Bus stop at the front of the site about 1min walk or less.
413	Lewisham Station to Coleridge St after Hunter St	Bus stop located in Belmore Rd about 4 mins walk.
420	Kingsford Smith Airport – International Terminal to Coleridge after Hunter St	Bus stop located in Belmore Rd about 4 mins walk.
970	Miranda Station to Coleridge St after Hunter St	Bus stop located in Belmore Rd about 4 mins walk.
491	Ashfield Mall to Coleridge St after Hunter St	Bus stop located in along Coleridge St after Hunter St about 7 mins walk.
407	Westfield Burwood to Coleridge St after Hunter St	Bus stop located in along Coleridge St after Hunter St about 7 mins walk.
909	Auburn Botanic Gardens to Coleridge St after Hunter St	Bus stop located in Belmore Rd about 4 mins walk.

The site and the above-mentioned bus stops are well within walking proximity to the site with estimated walk times determined using Google Maps.



#### 2.5. Traffic Data

We attempted to obtain data from the Traffic for NSW Traffic Volume Viewer on 16th July 2023, but note that there is no traffic count information available for Coleridge St, Riverwood.

It is important to note that traffic counting is beyond the scope for this report. The report is based on field observations and general engineering experience with findings and recommendations based upon this. A site visit was conducted on 9th June 2023.

For comparison purposes, we obtain traffic volume data from a nearby station at Alfords Point Rd approximately 7.1km away and in the southeast direction from the site (Station ID 42001).

Table 4 – 2022 Traffic Data Summary Table

Traffic Count	Northbound	Southbound	Total
AADT	26,737	27,175	53,912
AM Peak Week AAWT	9,665	6,627	16,292
PM Peak AAWT	5,240	8,122	13,362

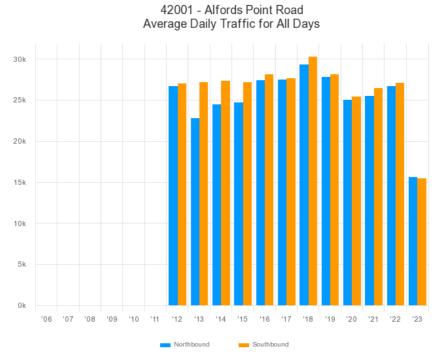


Figure 5 – Annual Average Daily Traffic – Alfords Point Rd.



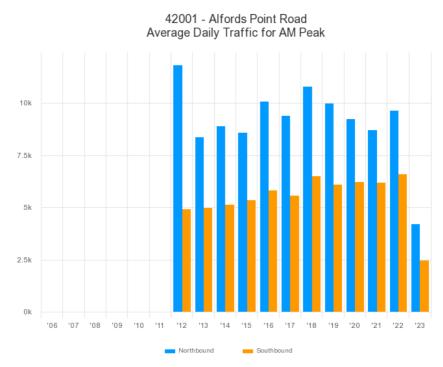


Figure 6 - AM Peak Annual Average Weekday Traffic (AAWT) - Alfords Point Rd.

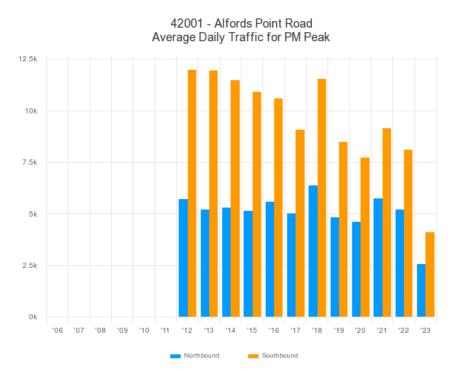


Figure 7 – PM Peak Annual Average Weekday Traffic (AAWT) – Alfords Point Rd.

The increase in traffic volumes from 2012 to 2018 reflects a general growth in the local area. The notable decrease in traffic volumes from 2020 can likely be attributed to lockdowns and changes in community behaviour caused by the Coronavirus Pandemic which started in 2020. However, traffic has increased from 2020 to 2022 due to the reduction in Covid restrictions as movements and community behaviour has returned



back to normal. The traffic data volume for 2023 is not included in our studies as this data is incomplete at this stage.

The surveyed road experiences traffic growth most years, with the average AADT 10-year growth rate recorded as 0.178%.

### 2.6. Social & Demographic Information

2021 Census Data (refer www.censusdata.abs.gov.au) was used to construct a community profile of the Riverwood suburb in terms of issues impacting upon transport matters. The most relevant census data categories are reproduced in the table below; we have also provided average values for NSW and Australia to allow general comparisons to be made. The data collected is shown in Table 5 below.

**Table 5 - Social Demographic Information** 

Category	Riverwood (%)	NSW (%)	Australia (%)
Employment			
Worked Full-time	47.6	55.2	55.9
Worked Part-time	26.5	29.7	31.2
Unemployed	8	4.9	5.1
Travel to Work			
By car (as driver or passenger)	35.9	46.3	56.6
By public transport	8.4	2.3	1.8
Number of registered motor veh	icles per dwelling		
0	22.5	9	7.3
1	43.2	37.8	36.2
2	22.9	34.1	36.3
3+	8.8	17.5	18.8

Based on the above data most residents work full-time jobs and prefer to travel by car to work. However, the percentage of residents which utilise public transport for their work commute is greater than the NSW and national averages. This affirms that Riverwood residents do make good use of public transport which is reflected in the large number of existing bus stops / bus routes. However this data should be compared with actual use data from Homes NSW as the residents of the SEPP development may have differences.



### 3. PROPOSED DEVELOPMENT OVERVIEW

The proposed development is for a 4 storey with a single level basement residential flat building comprising 42 units with a single vehicle access crossover and below ground basement carparking. A summary of the transport and parking development particulars is provided in Table 6 below:

**Table 6 - Development Summary** 

Land Use / Item	Yield
Vehicle Access & Car Parking	<ul> <li>Vehicle access is from a proposed 7.2m wide vehicle crossover from Coleridge St generally in accordance with Council standard drawings.</li> <li>Car parking and manoeuvring will be provided in the basement floor with car space dimensions, aisle widths, provision of blind aisle turning, and compliant heights to AS2890.1</li> <li>Car parking is adequate with the provision of 19 standard spaces 2.4m x 5.4m long including 5 disability spaces</li> <li>Manoeuvring swept paths for the B85 vehicle are provided in the appendix</li> <li>Vehicles are able to enter and exit the site in a forward direction</li> <li>No service or waste vehicles are proposed to enter/exit the basement (service delivery and waste collection are at ground level)</li> <li>Basement height ranges from 2.46m to 3m over aisles and spaces (AS2890 standard is 2.2m) and from 2.5m to 2.77m over disability spaces (AS2890 standard is 2.5m)</li> </ul>
Pedestrian Access	<ul> <li>A 1.5m wide footpath is proposed at 0.7m off the boundary (non-standard alignment) which will preserve existing tree root structures and amenity</li> <li>Five entries are available from the front footpath along Coleridge St: four for pedestrians and one for the bin room. There is also a side passage providing access to the landscaping area at the eastern boundary. These will be assessed by the access consultant for DDA compliance.</li> <li>Additional individual unit entries are provided (some with steps).</li> </ul>



#### 4. DEVELOPMENT REQUIREMENTS

#### 4.1. Vehicle Access Requirements

It is proposed that the development will have one vehicle crossover which is centrally located and connects to the basement floor with grades and widths compliant with relevant Australian Standards AS2890 and Council best practice. On-site parking comprises parking spaces on both sides of the basement ramp, disability space and a maneouvring aisle. Note that a blind aisle is provided for the car space at the end of the aisle as well as a turning area is adjacent the lift core area where vehicles can turn around (when the basement is full) and exit in a forward direction without needing to reverse. Refer to Figures 8 and 9 below.

Appropriate linemarking and signage is to be documented at construction stage.

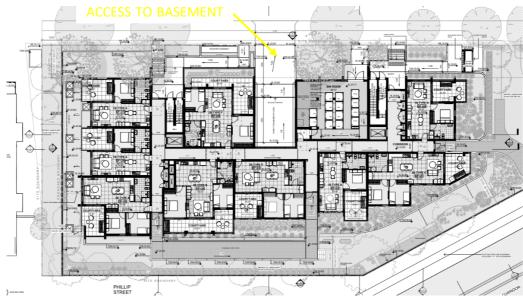


Figure 8 - Proposed Site Access

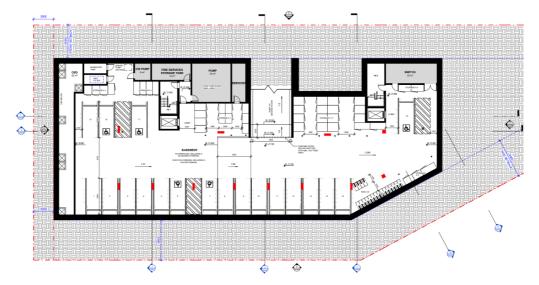


Figure 9 - Proposed Basement Parking



### 4.2. Carparking Requirements

The statutory car parking rates for the subject development are outlined by State Environmental Planning Policy (2021), Part 2 Development for affordable Housing, Division 1 In-fill affordable housing. The applicable requirements are given in Table 7 below.

Table 7 - SEPP (Housing) 2021 Part 2 Development for Affordable Housing Parking Requirement

Land Use	Yield	Car Parking Rate	Requirement
High Density Residential Zone	In accordance with the SEPP, for a development application made by a social housing provider for development on land in an accessible area— (i) for each dwelling containing 1 bedroom—at least 0.4 parking spaces, or  (ii) for each dwelling containing 2 bedrooms—at least 0.5 parking spaces, or  (iii) for each dwelling containing at least 3 bedrooms—at least 1 parking space,	22 x 1 bed units @ 0.4 spaces  20 x 2 bed units @ 0.5 spaces	8.8 parking spaces for 19 (1 bed units)  10 parking spaces for 18 (2 bend units)
Total Required			19 Spaces
Total Provided 19 Space			19 Spaces

In accordance with Table 7 of the Georges River Council Part 3 General Planning Considerations affordable housing parking requirements are based on the SEPP. The development complies with this regulation by providing a total of 19 parking spaces, including 5 disability parking, which is deemed sufficient.

### 4.3. Bicycle Requirements

The statutory bicycle parking rates for the subject development are outlined by GRC's Development Control Plan Part 3 General Planning Consideration. The control outlines onsite bicycle parking requirement for all commercial, place of worship, residential flat building and shop top housing development. The applicable requirements are given in Table 8 below.

Table 8 – GRC's Part 3 General Planning Consideration – Bicycle Parking

Land Use	Yield	Car Parking Rate	Requirement





High Density	1 space per 3 dwelling	42 units @ 1 space per 3	14 parking
Residential	plus 1 space per 10	dwellings	spaces for 1
Zone	dwellings		space per 3
			dwellings
		42 units @ 1 space per 10	4.2 parking
		dwellings	spaces for 1
			space per 10
			dwellings
Total			19 Spaces

The above table confirms the total 19 bicycle parking spaces outlined in the proposed development plans does comply with Council's control requirements. Additionally access to the bicycle parking space located in the basement level is adequate as it will also be through the main access driveway from the front of the site.

### 4.4. Servicing Vehicle Requirements

The statutory site servicing requirements for the subject development are outlined by GRC's DCP Part 3 General Planning Considerations, that outlines service vehicle areas shall be designed in accordance with the requirements of AS2890.1. The control does not outline a specific design vehicle, nor that servicing must occur on site for residential flat buildings so on-street servicing has been provided. As there is no commercial use on the site the servicing requirements are typical of a residential flat building (tenants moving in/out) and occurs infrequently and is most often on-street with delivery trucks parking nearby. This is expected to be reasonable for the relatively low number of apartments (and therefore low number of movements). In addition there is envisioned to be only minimal disruption as Homes NSW tenants are typically on long term leases. Homes NSW will facilitate people moving in and out of our properties to minimise the likelihood of disruptions.

### 4.5. Waste Vehicle Requirements

Waste will be collected by council's waste collection vehicle on collection day using a wheel-out, wheel-back service. A waste management plan will be provided by others which will detail the waste collection procedures.



#### DEVELOPMENT COMPLIANCE

The proposed layout has been reviewed against the following relevant documents:

- Georges River Council Development Control Plan
  - o Part 3 General Planning Considerations
  - Part 6.3 Residential Flat Buildings and Residential Components of Shop Top Housing (High Density)
- State Environmental Planning Policy (Housing) 2021
  - o Part 2: Division 1 In-fill Affordable Housing
- Australian Standards for Car Parking
  - AS2890.1 Parking Facilities, Part 1: Off-streetcar parking.
  - o AS2890.3 Parking Facilities, Part 3: Bicycle Parking
- NSW Government Planning & Environment
  - Preliminary Planning Report dated September 2022.
  - O Homes NSW vehicle generation email (refer Appendix A)

A summary of the review is provided in the following sections.

#### 5.1. Vehicle Access & Queuing Compliance

- The design provides reasonable consideration of driver behaviour, safety of pedestrians and vehicle characteristics. One vehicle crossing is considered appropriate and is generally in accordance with Council design standards and engineering best practice. From back of the footpath a 5% grade for 6.0m is provided, in accordance with AS2890 so that pedestrian / vehicle line of sight is achieved. This 6m also provides for one vehicle queuing which is considered appropriate. The driveway grades into the basement comply with AS2890 and are considered suitable for B85 vehicles.
- There are no intersections or other road infrastructure (poles, stormwater pits etc) that will be affected by the vehicle access crossover location.
- The vehicle access is typical of nearby vehicle crossings, no left in/left out treatment is deemed necessary given the excellent line of sight and low traffic volumes.
- Coleridge St has a posted speed limit of 50km/h, requiring a minimum 69m sight distance at access points (per AS2890.1).
- The driveway can be conditioned to be constructed to relevant Council and AS requirements.
- The vehicle crossover may be constructed to achieve an appropriate finish for pedestrian safety.
- The driveway will service the residential flat building with minor traffic generation. Adequate space is provided by the design (and standard vehicle crossings) to accommodate potential queuing needs. This is demonstrated by swept paths provided in the appendices.
- There are no existing signs in the proximity of the works and there will be no impact to line marking on the existing carriageway.



#### 5.2. Carparking & Manoeuvring Compliance

The proposed car park layout and design allows for safe manoeuvrability, grade and layout compliant driveway and parking, entry/exit in a forward direction, visibility to pedestrians and vertical clearance compliance.

The number of on-site parking spaces provided complies with the SEPP and is considered reasonable due to the reduced numbers of residents using vehicles, as is evidenced in Appendix A (Homes NSW email).

There is a generous amount of on-street parking available as well given the sites 115m frontage, only interrupted by the vehicle crossover.

Specific layout considerations include:

- The plans show a blind aisle beyond the last parking space, allowing sufficient movement for B85 vehicles is able to exit this space individually.
- In rare cases where the car park is full, B85 vehicles may need to execute
  multiple point turns when exiting their parking spaces. This can be achieved
  with a 3 point turn adjacent the lift core where there is plenty of turning space
  and the swept paths show only a minor encroachment into this area is
  necessary.
- The driveway crossover accommodates two-way traffic flow between B85 vehicles.
- Adequate line of sight is provided.

### 5.3. Servicing Vehicle Compliance

#### 5.3.1. Service Vehicles (Delivery Vehicles)

Given no design vehicle is stipulated by GRC's planning scheme for this development type, the proposed development has not been designed to accommodate service vehicles on site. It is expected that removalist or bulk good deliveries can be loaded or unloaded at the kerbside given on-street parking is available. Future residents would be expected to coordinate such deliveries, so they do not remain on the kerbside. As previously noted there is envisioned to be only minimal disruption as Homes NSW tenants are typically on long term leases. Homes NSW will facilitate people moving in and out of our properties to minimise the likelihood of disruptions.

#### 5.3.2. Service Vehicles (Waste)

Waste is generated at source within each unit and hand-delivered to one of the waste bins in the bin room adjacent to the vehicle access to the basement. Waste bins are stored on-site and will be collected by the council's waste collection vehicle on collection day using a wheel-out, wheel-back service.

Based on the above, the servicing needs of the development comply with AS2890 and Georges River Council's policies.



### 5.4. Pedestrian Access & Walkability Considerations

A proposed 1.5m wide footpath and grass infill turf will be provided for the full site frontage (as well as planting) – refer to the landscaping plan by others. The footpath is proposed at 1.5m wide and is located 0.7m from the property boundary. Existing trees are largely retained. Existing vehicle crossovers will be removed with kerb reinstated.

Adequate line of sight (pedestrian) and lighting are provided at the site entrances as per AS2890.1, so we do not foresee problematic pedestrian / vehicle interaction issues.

Although a review of surrounding pedestrian connectivity is not strictly necessary for residential flat developments, walking is considered a form of transport and its role within the transport network is expected to increase in the coming years. Accessible and walkable areas are believed to be more liveable as almost all journeys incorporate some degree of walking. Austroads's Guide to Traffic Management (AGTM) 2020 Part 4 identifies 9 key aspects and features that add to the walkability of a pedestrian trafficked area, a review of these aspects against the proposed development has been provided below.

**Table 9 - AGTM Pedestrian Considerations** 

Key Aspect	Objective	Proposed Development
Accessible	Key destinations are within easy walking distance.	The proposed development provides ease of access to the street frontage. Proposed and exiting footpaths within the road reserve provide access to public transport and to the local shops nearby.
Connected	Walking routes connect directly to streets and other paths, avoiding circuitous routes.	Opportunity to access direct to Coleridge St reserve footpath is provided, which then connects direct to local hubs.
Legible	Walking routes are obvious and used intuitively through elements such as paths, clear crossings and sight lines to other connecting streets or public spaces.	The road reserve verge has reasonable sight lines for pedestrians, and footpaths can be easily identified by pedestrians.
Comfortable	Routes are unpolluted by excessive noise and fumes. Paths are wide enough with even surfaces and gentle gradients.	Nearby existing verge footpaths are suitable for most pedestrians. The road reserve is a considered a local road, associated noise can be expected.
Convenient	Continuous, efficient routes unimpeded by obstacles and undelayed by other path users and road traffic. Crossing locations are well located.	Site frontage contains standard footpath arrangements with low pedestrian traffic volumes and no notable obstructions. The site will have opportunity to access to the road reserve.
Pleasant	Spaces are enjoyable, interesting, and clean with	Standard turfed verges and existing street trees provide a pleasant walking experience





	qualities that encourage lingering and social interaction. This includes shade and weather protection where appropriate.	to the surrounding footpath network. Ample shade and open space are provided for within the road reserve.
Safe	Road crossing places and driveway crossings are safe from traffic danger and all surfaces provide a good slip resistance when wet and provide even surfaces free from trip hazards.	The adjoining existing pathways along Coleridge St appear to be in adequate condition for most pedestrian use. The proposed site access driveway can be designed to achieve an even non-slip surface for use by pedestrians.
Secure	Environment discourages antisocial and criminal behaviour due to the application of crime prevention through environmental design (CPTED) principles.	The road reserve area is typical of residential streets and has sufficient light and open space for passive surveillance.
Universal	Facilities are suitable for pedestrians with a mobility or vision impairment through gentle gradients, avoidance of steps, visual contrast, audible and tactile features.	The proposed development provides adequate pedestrian access for residential dwellings.



#### 6. DEVELOPMENT OPERATIONAL PHASE

An increase in traffic generation and demand is expected because of the proposed development. The existing use comprises a series of six residential house lots that are currently vacant, whilst the proposed development will result in a 4 storey building with a single level basement comprising 42 units.

#### 6.1. Traffic Demand & Generation – Homes NSW

Per Appendix A the number of residents with private vehicles in SEPP housing that Homes NSW develops is considerably lower than similar residential flat buildings. As such the generation rates are not easily determined however the ABS data ABS data indicates a much lower rate as the Georges River LGA (2021) indicates:

- 44% of social housing households have no cars, which is substantially higher than the general population households at 11%
- Only 13% of social housing households have 2 or more cars compared to 41% of general population households

#### 6.2. Traffic Demand & Generation – TfNSW Guide

As a basis for traffic generation the Department of Transport and Main Roads provides a *Guide to Traffic Generating Developments* (GTGD) (October 2002). This document applies to applications lodged prior to Nov 2024 and contains estimates for traffic generation rates based on various descriptive development types and/or uses. Several of these generation rates have since been updated by the former RMS (now Transport for NSW) Technical Direction 04a published in 2013 and with an entirely new document (not applicable to this application as it was pre- Nov 2024). The Technical Direction published in 2013 provides the most current values for low density residential dwellings, the most relevant values for traffic generation have been provided below in.

**Table 10 - Traffic Generation Rates** 

Land Use	Daily Vehicle Trips	Weekday Peak Hour Vehicle Trips
High-Density Residential  Dwelling  TDT 04a	3.14/ dwelling (Sydney Range)	0.41 trips / dwelling (Sydney Range PM average) 0.32 trips / dwelling (Sydney Range AM average)

The Technical Direction provides averages based on surveys conducted within Sydney and Sydney Range area and regional NSW areas. Riverwood is a southern Sydney suburb, as such the Sydney Range High Density residential flat building rates have been applied. (We note that regardless of this the Sydney generation rates would have provided a similar effect to the surrounding road network given the development size.) Estimated traffic generation for the development, using the regional survey data above are provided in Table 11 below.



Table 11 - Estimated Traffic Generated by the Proposed Development

Land Use	Daily Vehicle Trips	Weekday Peak Hour Vehicle Trips
Existing Use Lot currently vacant TDT 04a	Previous developments were demolished in 2021 and has been vacant since.	Previous developments were demolished in 2021 and has been vacant since.
Proposed Use High-Density Residential Development TDT 04a	42 x 3.14/dwelling = 131.88	37 x 0.41/dwelling = 17.22(PM) 37 x 0.32/dwelling = 13.44 (AM)
Total Difference	131.88/dwelling	+17.22 (PM), +13.44 (AM)/dwelling
Total Difference (%)	+100%	+100%

It is important to reiterate that the estimated values above are based on similar development uses and are intended to be conservative approximations only. The actual generation rates may vary from those provided dependant on occupancy rates, and each resident's inclination towards public transport, of which there is ample access.

Based on the following calculations:

Per dwelling:

We do not believe the proposed development with a 0.24% increase will contribute to any noticeable impact upon existing traffic network infrastructure beyond current observable impacts. As such, the proposed development is not expected to meaningfully affect traffic efficiency, amenity, safety, or road pavement life.

Notwithstanding the TfNSW rates we reference back to 6.1 above and note the much lower vehicle use for social housing – evidence is which is seen in Appendix A.



#### 7. CONCLUSION

Samana Blue Engineering Pty Ltd has been engaged to provide traffic engineering input in relation to the proposed residential dwelling development. Swept path plans for the development have been provided and are included in the Appendices.

Based on the analysis and discussion documented within this report, we conclude that:

- The on-site parking complies with the State Environment Planning Policy (Housing) 2021 Part 2 Development for Affordable Housing's requirements.
- The actual parking requirements are expected to be considerably lower than other comparable Residential Flat Buildings, refer Appendix A
- The off-street parking comprises the entire length of the site frontage of 105m less the vehicle crossover.
- The 6m wide vehicle crossover and driveway located at the front of the site aligns with the requirements of the GRC planning scheme and development control plan regarding parking, access, and manoeuvrability.
- Driveway grades and vertical clearances comply with relevant standards for both B85 and disability vehicle. Vehicle scrape paths have been run to confirm no scraping of B85 vehicles occurs. There is sufficient capacity to increase boundary levels and the driveway grade still comply should Council wish to provide vehicle crossover levels.
- The design of the car parking spaces is in accordance with the GRC development control plan, AS2890.1 and best engineering practice.
- The pedestrian access and walkability are considered suitable for the development use with a proposed footpath along most of the frontage.
- The site's proximity to nearby public transport and easy access to local public transport via the proposed / existing footpath network means pedestrians/future residents are expected to use the new footpath which links to the existing adjoining path on the west to be able to access bus stops.
- The proposed development is consistent with the Council's future transport planning objectives, and will likely promote public transport use, walking and cycling due to its locality.
- The redevelopment of the site is not expected to contribute to any noticeable impact upon the existing transport network and on this basis, is not likely to result in any observable impacts to the surrounding network.

## Appendix A – Homes NSW

Email confirming generation rates, dated 26 June 2025

Subject: Georges River Basement Parking Survey 24 June 2025

**Date:** Friday, 27 June 2025 at 4:07:58 pm Australian Eastern Standard Time

From: Karl Harb < Karl. Harb@homes.nsw.gov.au>

To: Stefan Koebsch < stefan@samanablue.com>

Attachments: 53 Lawrence.jpg, 53 Lawrence (2).jpg, 43 Gover.jpg

HI Stefan,

Please note Homes NSW staff attended the following properties on 24 June 2025 at approximately 10.30am to conduct a survey of parking demand of similar developments within the LGA.

- 43 Gover Street, Peakhurst Residential flat building comprising 30 units 9/16 parking spaces being used.
- 53-57 Lawrence Street Peakhurst Residential flat building comprising 21 Units -9/26 parking spaces being used

I have also attached some photography to assist for evidence.

Kind regards,

#### **Karl Harb**

Senior Planner, Planning & Assessment Portfolio Development, Housing Portfolio Homes NSW

M 0409 465 156 E Karl.Harb@homes.nsw.gov.au

www.nsw.gov.au/homes-nsw

DISCLAIMER: This email message, including any attachments, is intended for the individual or entity to whom it is addressed and may contain information that is confidential, privileged and/or exempt from disclosure under applicable law. If you have received this email in error you must not disclose or use the information in it. Please delete the email and any copies and notify the sender. Confidentiality or privilege are not waived or lost by reason of the mistaken delivery to you. Views expressed in this message are those of the individual sender, and are not necessarily the views of the Department of Communities and Justice. The Department accepts no liability for any loss or damage arising from the use of this email or attachments and recommends that the recipient check this email and any attached files for the presence of viruses.







## Appendix B – Swept Path Plans

Vehicle Swept Path Plans by Samana Blue Engineering

# CONCEPT TRAFFIC ENGINEERING

PROJECT:

## PROPOSED DEVELOPMENT

AT:

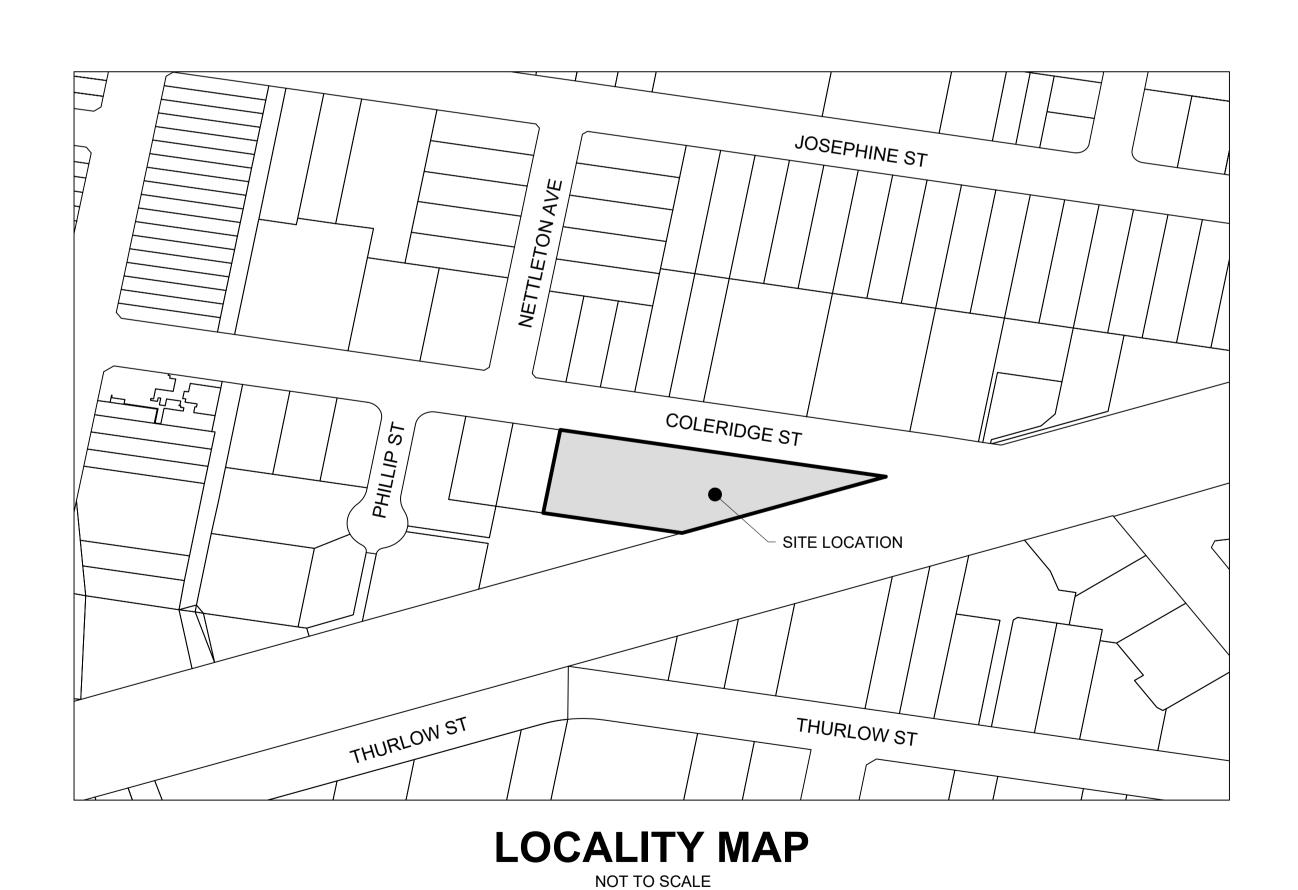
1-13 COLERIDGE ST, RIVERWOOD NSW 2210

Lot(s): DP35640

PROJECT No:

2023049DA

DRAWING SCHEDULE	
Sheet Number	Sheet Title
C00	LOCALITY MAP & SCHEDULE OF DRAWINGS
C01	GENERAL NOTES
C02	LEGEND
C03	EXISTING LAYOUT PLAN
C04	EXISTING LAYOUT PLAN (AERIAL)
C05	GROUND FLOOR OVERALL LAYOUT PLAN
C06	BASEMENT FLOOR OVERALL LAYOUT PLAN
C07	BASEMENT LAYOUT PLAN
C08	DRIVEWAY SETOUT PLAN
C09	DRIVEWAY PLAN
C10	DRIVEWAY LONGSECTION CONTROL LINE 01
C11	DRIVEWAY LONGSECTION CONTROL LINE 02
C12	GROUND MANOEUVRING PLAN
C13	BASEMENT MANOEUVRING PLAN - SHEET 1 OF 8
C14	BASEMENT MANOEUVRING PLAN - SHEET 2 OF 8
C15	BASEMENT MANOEUVRING PLAN - SHEET 3 OF 8
C16	BASEMENT MANOEUVRING PLAN - SHEET 4 OF 8
C17	BASEMENT MANOEUVRING PLAN - SHEET 5 OF 8
C18	BASEMENT MANOEUVRING PLAN - SHEET 6 OF 8
C19	BASEMENT MANOEUVRING PLAN - SHEET 7 OF 8
C20	BASEMENT MANOEUVRING PLAN - SHEET 8 OF 8



## **CIVIL ENGINEERING**

E	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED IN THE DOCUMENT ARE THE COPYRIGHT OF SAMANA BLUE ENGINEERING PTY LTD USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD
3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009
PO BOX 604, MOFFAT BEACH QLD 4551
M. +61 488 042 994
E. info@samenablus.com

LOCALITY MAP & SCHEDULE OF DRAWINGS

TG

DWG SIZE:

## PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C00 E

### GENERAL

- THESE NOTES ARE VERY IMPORTANT
- 2. IF IN DOUBT ASK
- 3. THESE DRAWINGS ARE CONCEPTUAL ONLY AND HAVE BEEN PROVIDED FOR COUNCIL ASSESSMENT ONLY.
- 4. THESE DRAWINGS (INCLUDING DETAILS) ARE NOT INTENDED TO BE USED FOR CONSTRUCTION PURPOSES. 5. DETAILS PROVIDED ARE SUBJECT TO CHANGES AT THE DETAILED
- DESIGN STAGE AND MAY CHANGE DEPENDING ON COUNCIL DA CONDITIONS, OR OTHER AUTHORITY REQUIREMENTS. 6. THESE DRAWINGS ARE NOT INTENDED TO BE SUBMITTED TO COUNCIL OR OTHER AUTHORITIES FOR DETAILED DESIGN ASSESSMENT (E.G.
- CONSTRUCTION CERTIFICATE, OPERATIONAL WORKS, ETC.) 7. EXISTING DETAILS HAVE BEEN SHOWN AS PROVIDED BY SURVEY /DBYD DATA OBTAINED AT THE COMMENCEMENT OF THE PROJECT. SBE MAY HAVE AUGMENTED SUCH DATA FOR FURTHER CLARITY BY ADDING NOTES, EXPLANATORY LEADERS, OR MINOR LINEWORK BASED ON OUR SITE INSPECTIONS OR REVIEW OF SITE PHOTOS.
- 8. ALL LEVELS ARE TO A.H.D

SCHEDULE OF REVISION CHANGES				
REV DATE BY DESCRIPTION CHANGES			CHANGES	
Α	12.07.2023	TG	ISSUED FOR APPROVAL	N/A
В	03.11.2023	TG	C07 - C08 UPDATE SETOUT CONTROL LINE C09 - C10 UPDATE LONGITUDINAL SECTION C11 - C15 UPDATE SWEPT PATH	
С	05.08.2024	TG	CO7 UPDATE CHAINAGE CO8 UPDATE LEVELS & GRADES CO9 - C10 UPDATE LONGITUDINAL SECT C11 - C15 UPDATE SWEPT PATH	
D 24.10.2024 TG UPDATE ARCHITECTURE FLOOR LAYOUT C08 UPDATE CHAINAGE C09 UPDATE LEVELS & GRADES		C08 UPDATE CHAINAGE		
Е	26.06.2025	KT	UPDATED ARCHITECTURALS	C05 & C12 - UPDATED GROUND FLOOR LAYOUT

## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

THE CONCEPTS AND INFORMATION CONTAINED IN THE DOCUMENT ARE THE COPYRIGHT OF SAMANA BLUE ENGINEERING PTY LTD USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

TG

## LEGEND:

### GENERAL

<del>-----15.6-----</del> EXISTING MAJOR CONTOURS **EXISTING MINOR CONTOURS EXISTING FENCE** EXISTING KERB & GUTTER **EXISTING BUILDING** EXISTING OVERHEAD ELECTRICAL **EXISTING TELECOM** EXISTING TELSTRA PIT EXISTING POWER POLE **EXISTING TREES** <sub>x</sub>16.6 EXISTING SPOT LEVEL **EXISTING SIGN** PROPOSED BOUNDARY PROPOSED CATCHMENT BOUNDARY PROPOSED KERB & GUTTER PROPOSED 150mm BARRIER KERB <del>-----15</del>.6-----PROPOSED MAJOR CONTOURS PROPOSED MINOR CONTOURS \_ \_ \_ \_ \_ \_ \_ PROPOSED ELECTRICAL PROPOSED TELECOM PROPOSED FENCE -----PROPOSED RETAINING WALL <sub>x</sub>16.6 PROPOSED SPOT LEVEL

## **EROSION AND SEDIMENT CONTROL**

PROPOSED TEMPORARY FIELD INLET SEDIMENT TRAP

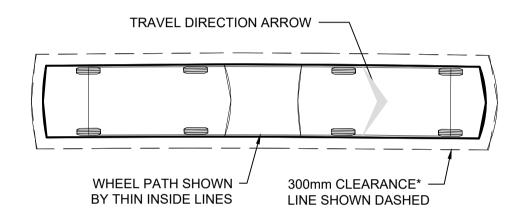
SEDIMENT FENCE

TEMPORARY CONSTRUCTION ENTRY/EXIT SHAKE DOWN AND SEDIMENT TRAP

## **PAVEMENT**

PROPOSED CONCRETE PAVEMENT

## SWEPT PATHS



\*300mm CLEARANCE TO AS2890.1 REQUIREMENT FOR MANEOUVRING NEAR/AROUND PHYSICAL **OBSTRUCTIONS** 

### ABBREVIATIONS & ACRONYMS

SBE	SAMANA BLUE ENGINEERING PTY LTD
KI	KERB INVERT LEVEL
КТ	KERB TOP LEVEL
КВ	KERB BACK LEVEL
KL	KERB LIP LEVEL
FL	FINISHED LEVEL
RL	RELATIVE LEVEL
EL	EXISTING LEVEL
IL	INVERT LEVEL
OL	OBVERT LEVEL
GL	GRATE LEVEL
FFL	FINISHED FLOOR LEVEL
BEL	BULK EARTHWORKS LEVEL
TW	TOP OF WALL
BW	BOTTOM OF WALL
BDY	BOUNDARY
UNO	UNLESS NOTED OTHERWISE
NTS	NOT TO SCALE
TBC	TO BE CONFIRMED
TYP	TYPICAL
DBYD	DIAL BEFORE YOU DIG
OP	OCEAN PROTECT
DP	DOWNPIPE
RWO	RAINWATER OUTLET
RWT	RAINWATER TANK
OSD	ON-SITE DETENTION
WSUD	WATER SENSITIVE URBAN DESIGN
AEP	ANNUAL EXCEEDANCE PROBABILITY
ARI	AVERAGE RECURRENCE INTERVAL
KIP	KERB INLET PIT
K&G	KERB AND GUTTER

TG

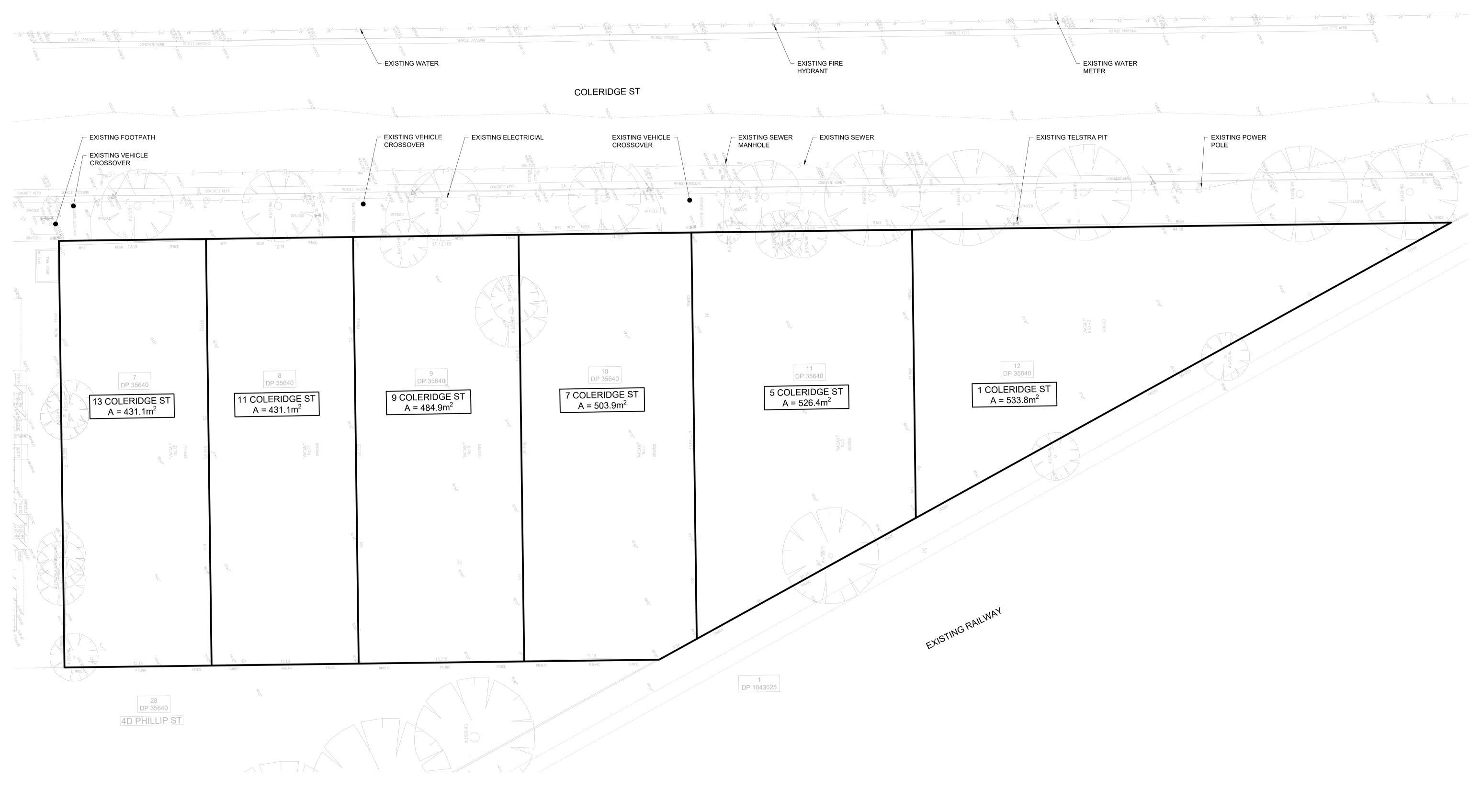
DWG SIZE:

## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

THE CONCEPTS AND INFORMATION CONTAINED IN THE DOCUMENT ARE THE COPYRIGHT OF SAMANA BLUE ENGINEERING PTY LTD USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT





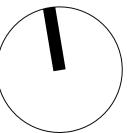
## NOTES:

- SURVEY DATA TAKEN FROM TSS TOTAL SURVEYING SOLUTIONS, PLAN REF BGXZ7, DATED 21/09/2021, FILENAME: BGXZ7\_Surveyors CAD File.dwg
- 2. SOME LABELS HAVE BEEN ADDED BY SBE FOR CLARITY

## 0 4.5 9 SCALE Meters 1:150 (A1), 1:300 (A3)

## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



## COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

ISW + QLD	
5/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009	
PO BOX 604, MOFFAT BEACH QLD 4551	
Л. +61 488 042 994	
info O a sure a laboratoria	

EXISTING	LAYOUT
PL	AN

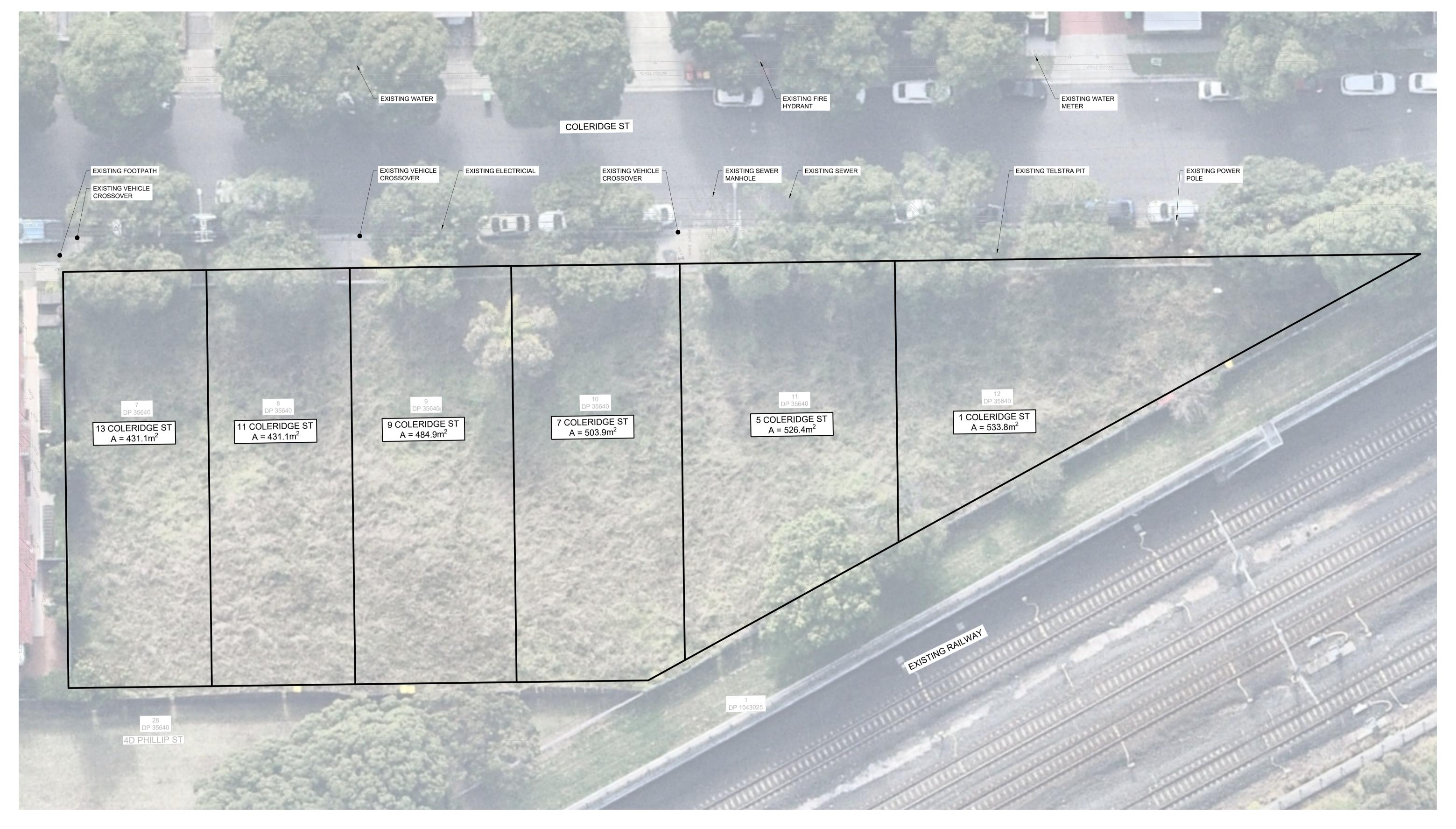
TG

DWG SIZE:

## PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C03 E

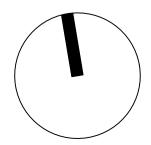


## NOTES:

- 1. SURVEY DATA TAKEN FROM TSS TOTAL SURVEYING SOLUTIONS, PLAN REF BGXZ7, DATED 21/09/2021, FILENAME: BGXZ7\_Surveyors CAD File.dwg
- 2. SOME LABELS HAVE BEEN ADDED BY SBE FOR CLARITY
- 3. AERIAL IMAGERY TAKEN FROM NEARMAPS

## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



## COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

**EXISTING LAYOUT PLAN (AERIAL)** 

TG

DWG SIZE: A1

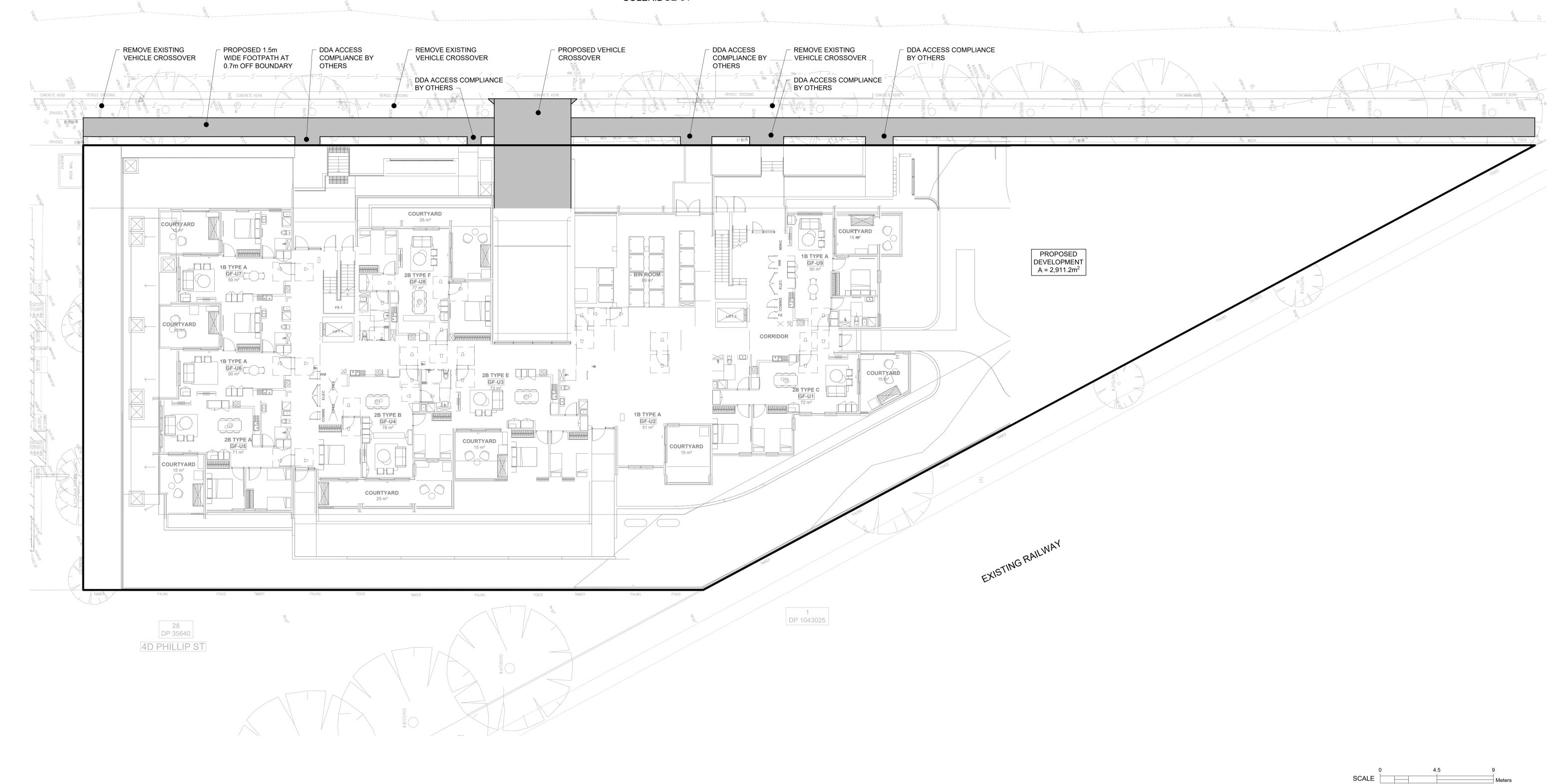
## PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

1:150 (A1), 1:300 (A3)

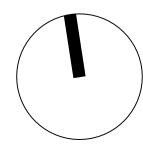
2023049DA - C04 E

COLERIDGE ST



## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING DESIGN: SK DRAWN: TG DWG SIZE: A1

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

## **GROUND FLOOR**

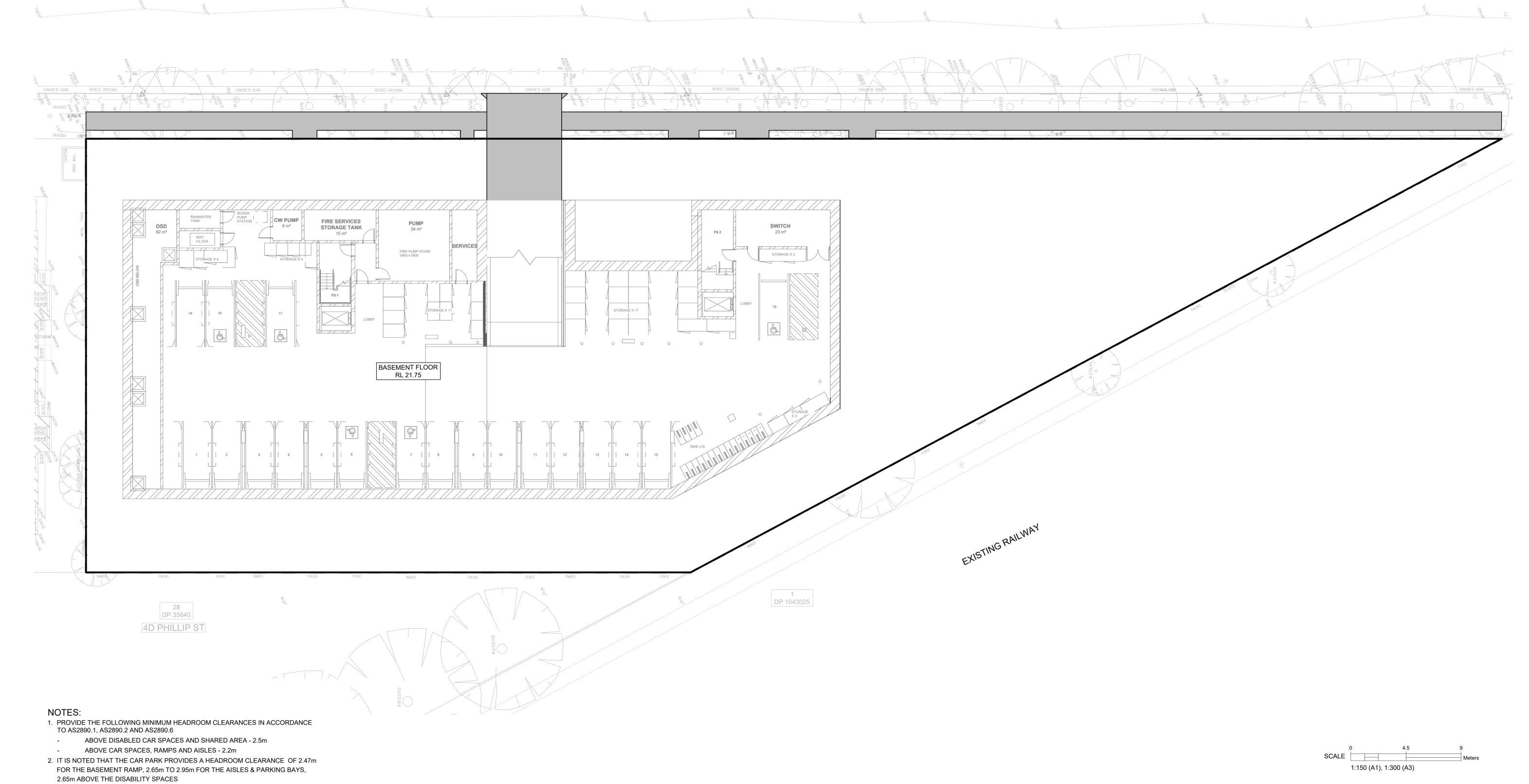
## PROPOSED DEVELOPMENT

OVERALL LAYOUT PLAN 1-13 COLERIDGE ST, RIVERWOOD NSW 2210

1:150 (A1), 1:300 (A3)

2023049DA - C05 E

COLERIDGE ST



## **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

## COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

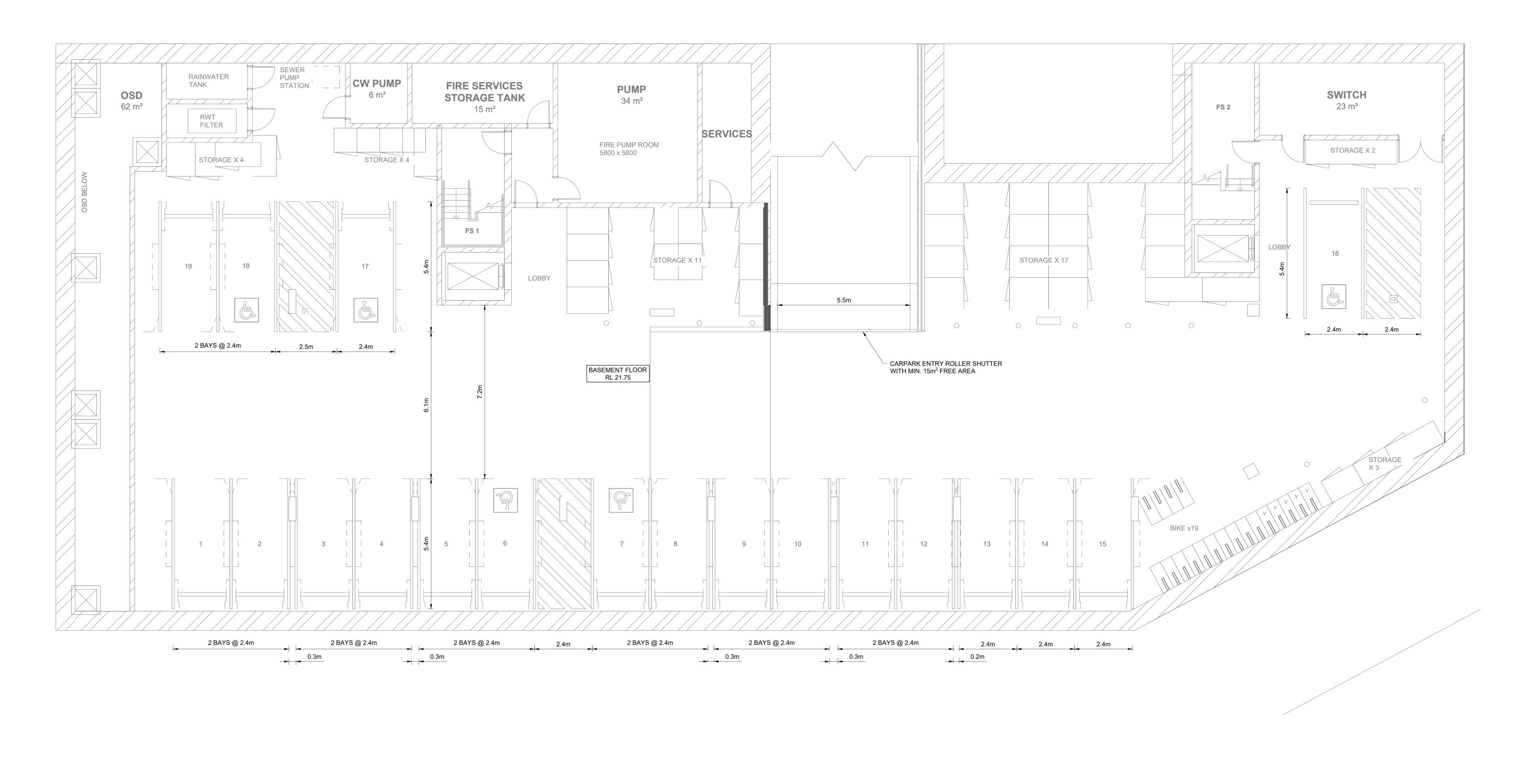
DESIGN:	SK	
DRAWN:	TG	OV
DWG SIZE:	A1	

## **BASEMENT FLOOR**

## PROPOSED DEVELOPMENT

VERALL LAYOUT PLAN 1-13 COLERIDGE ST, RIVERWOOD NSW 2210

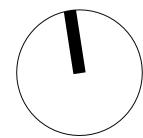
2023049DA - C06 E





## **CIVIL ENGINEERING**

E	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



## COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

## **BASEMENT LAYOUT PLAN**

TG

**A**1

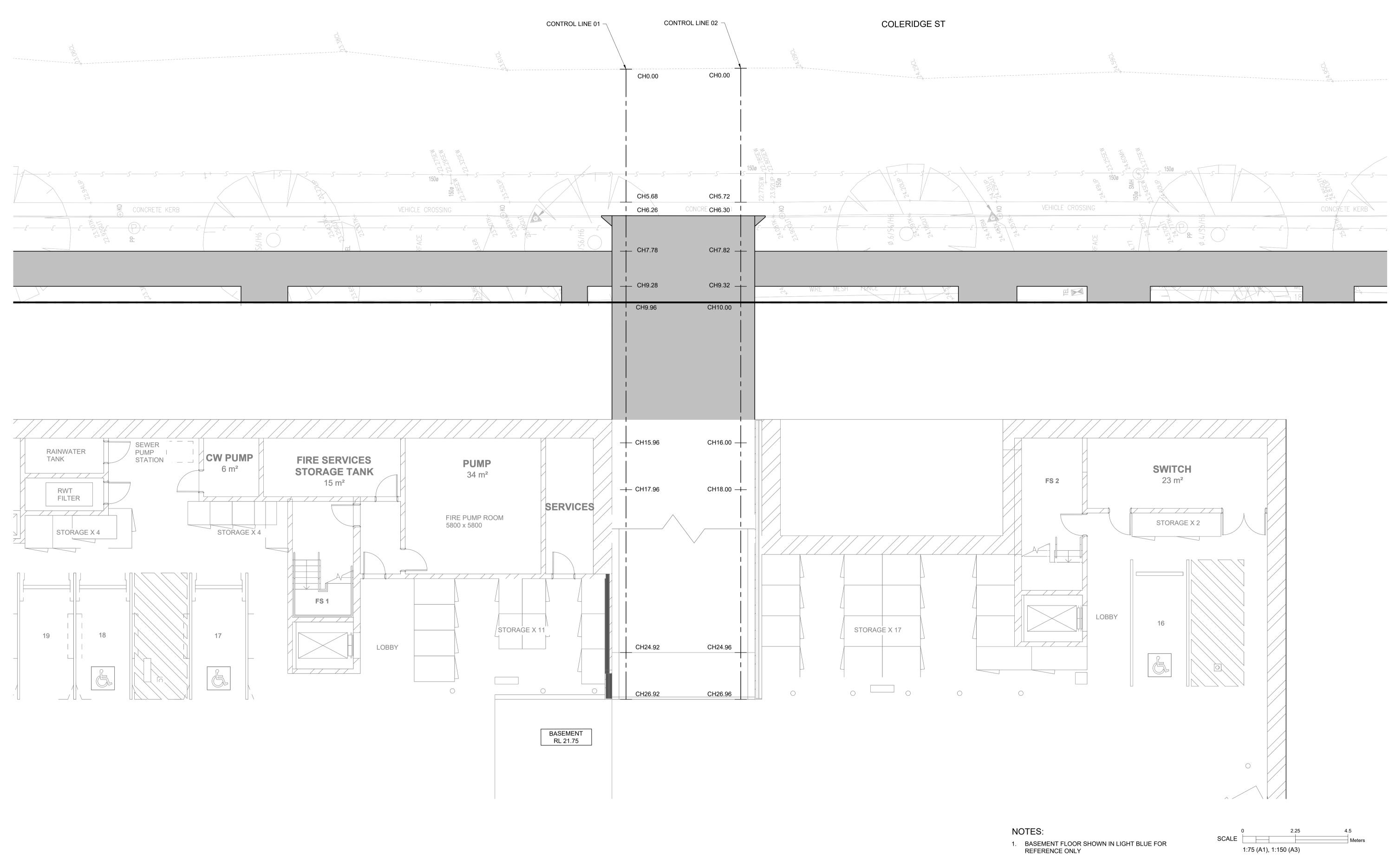
DRAWN:

DWG SIZE:

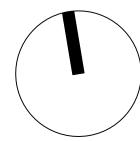
## PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C07 E



Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **DRIVEWAY SETOUT PLAN**

TG

A1

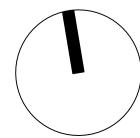
DWG SIZE:

### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C08 E

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED IN THE DOCUMENT ARE THE COPYRIGHT OF SAMANA BLUE ENGINEERING PTY LTD USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

DRAWN:

DWG SIZE:

TG

A1

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **DRIVEWAY PLAN**

NOTES:

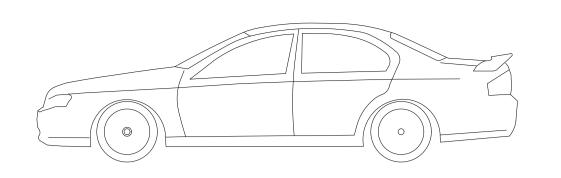
BASEMENT FLOOR SHOWN IN LIGHT BLUE FOR REFERENCE ONLY

#### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

1:75 (A1), 1:150 (A3)

2023049DA - C09 E



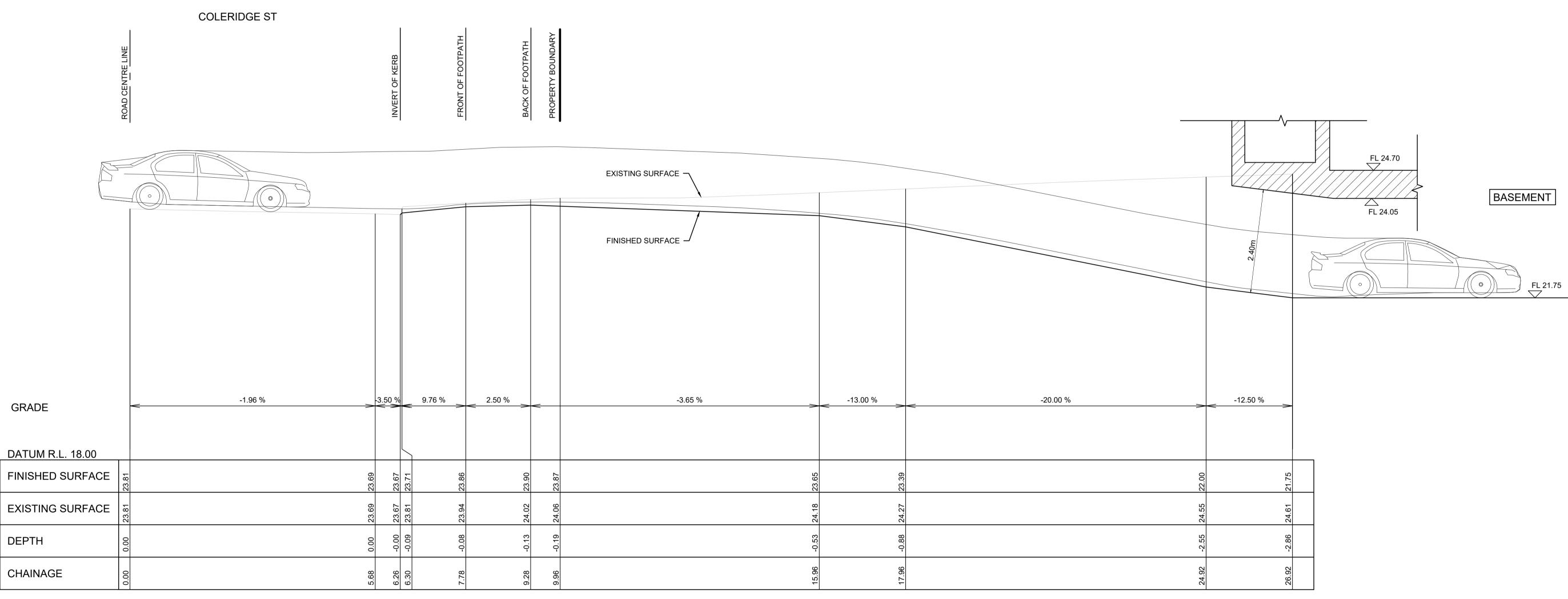
4.9m

B85 VEHICLE (REALISTIC MIN RADIUS) (2004)

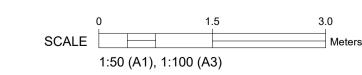
OVERALL LENGTH 4.910m OVERALL WIDTH 1.870m OVERALL BODY HEIGHT 1.421m MIN BODY GROUND CLEARANCE 0.120m TRACK WIDTH 1.770m LOCK-TO-LOCK TIME 4.00s KERB TO KERB TURNING RADIUS 5.750m

#### NOTES:

1. UNDERSIDE OF SLAB LEVELS HAVE BEEN ASSUMED AND IF THEY CHANGE THEN HEAD CLEARANCES WILL NEED TO BE CHECKED FOR COMPLIANCE.



CONTROL LINE 01 - LONGITUDINAL SECTION SCALE 1:50



#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



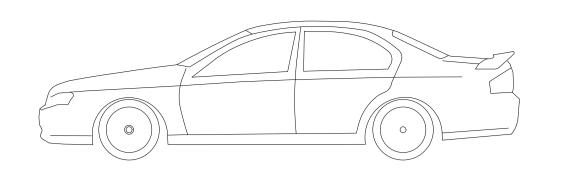
# SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

DESIGN:	SK	DF
DRAWN:	TG	
DWG SIZE:	A1	

# **CONTROL LINE 01**

#### DRIVEWAY LONGSECTION PROPOSED DEVELOPMENT 1-13 COLERIDGE ST, RIVERWOOD NSW 2210



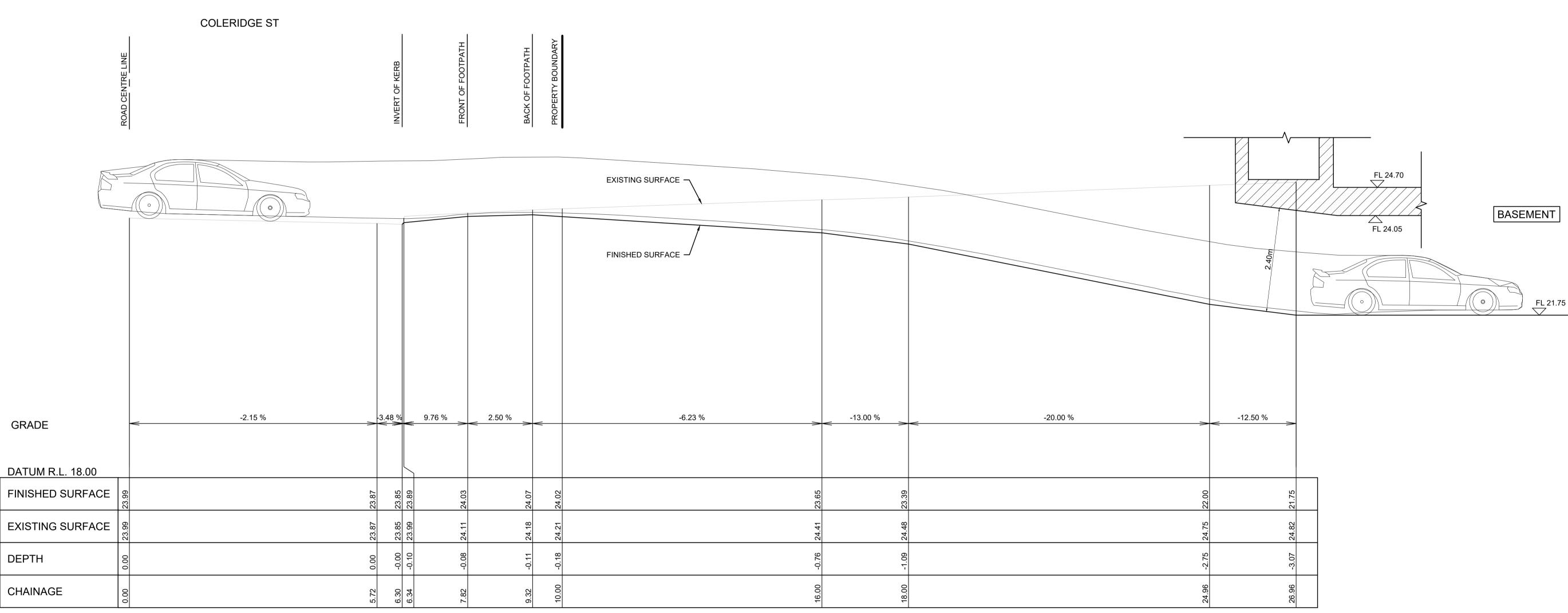
4.9m

B85 VEHICLE (REALISTIC MIN RADIUS) (2004)

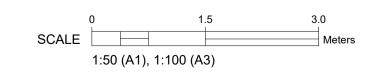
OVERALL LENGTH 4.910m OVERALL WIDTH 1.870m OVERALL BODY HEIGHT 1.421m MIN BODY GROUND CLEARANCE 0.120m TRACK WIDTH 1.770m LOCK-TO-LOCK TIME 4.00s KERB TO KERB TURNING RADIUS 5.750m

#### NOTES:

1. UNDERSIDE OF SLAB LEVELS HAVE BEEN ASSUMED AND IF THEY CHANGE THEN HEAD CLEARANCES WILL NEED TO BE CHECKED FOR COMPLIANCE.



CONTROL LINE 02 - LONGITUDINAL SECTION SCALE 1:50



#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE

#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED IN THE DOCUMENT ARE THE COPYRIGHT OF SAMANA BLUE ENGINEERING PTY LTD USE OR COPYING OF THE WHOLE OR IN PART WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

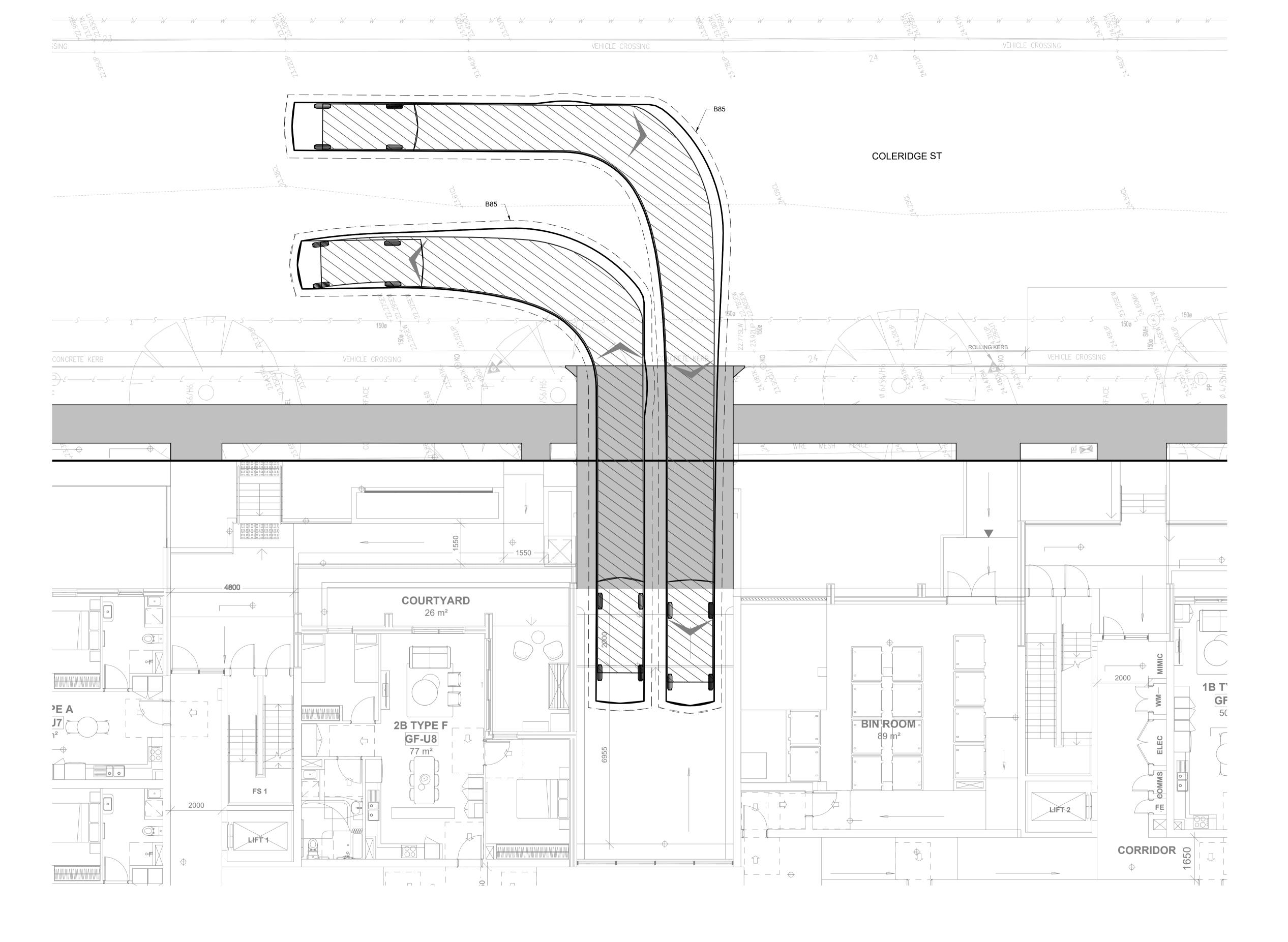
NSW + QLD
3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009
PO BOX 604, MOFFAT BEACH QLD 4551
M. +61 488 042 994

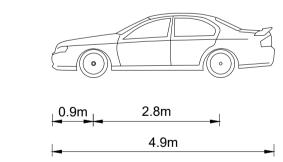
<b>DRIVEWAY</b>	LON	<b>GSE</b>	CTION
CONTR	OL L	INE (	02

TG

DWG SIZE:

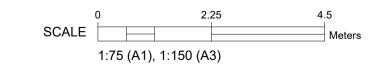
#### N PROPOSED DEVELOPMENT 1-13 COLERIDGE ST, RIVERWOOD NSW 2210





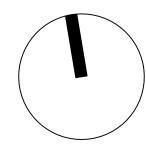
#### B85 VEHICLE (REALISTIC MIN RADIUS) (2004)

OVERALL LENGTH	4.910m
OVERALL WIDTH	1.870m
OVERALL BODY HEIGHT	1.421m
MIN BODY GROUND CLEARANCE	0.120m
TRACK WIDTH	1.770m
LOCK-TO-LOCK TIME	4.00s
KERB TO KERB TURNING RADIUS	5.750m



#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE
ENGINEERING PTY LTD CONSTITUTES AN
INFRINGEMENT OF COPYRIGHT



# SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **GROUND MANOEUVRING PLAN**

SK TG

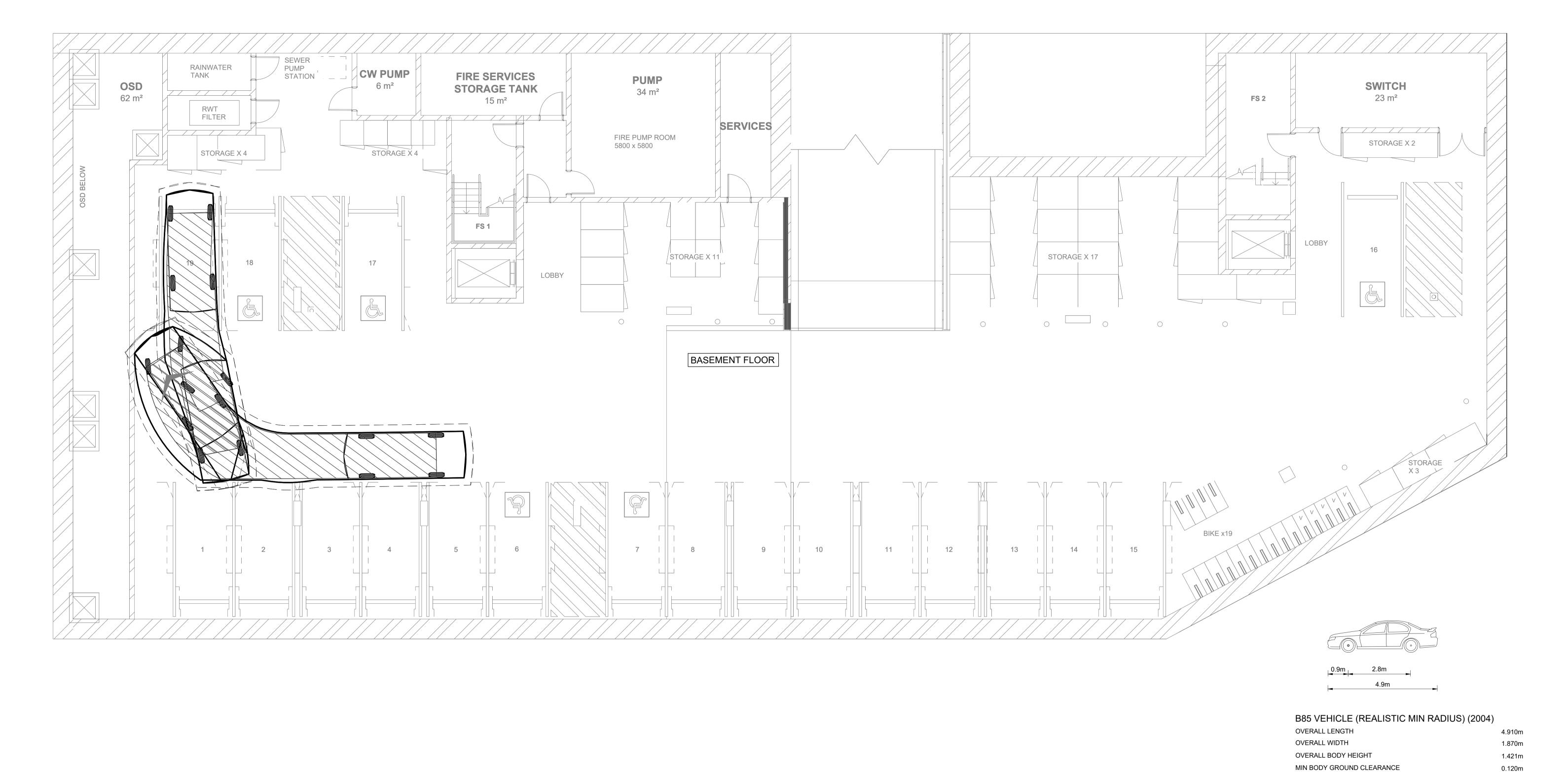
A1

DRAWN:

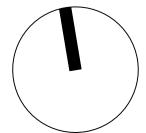
DWG SIZE:

#### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210



E	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 1 OF 8

SK

TG

A1

DWG SIZE:

#### PROPOSED DEVELOPMENT

TRACK WIDTH

LOCK-TO-LOCK TIME

KERB TO KERB TURNING RADIUS

1:75 (A1), 1:150 (A3)

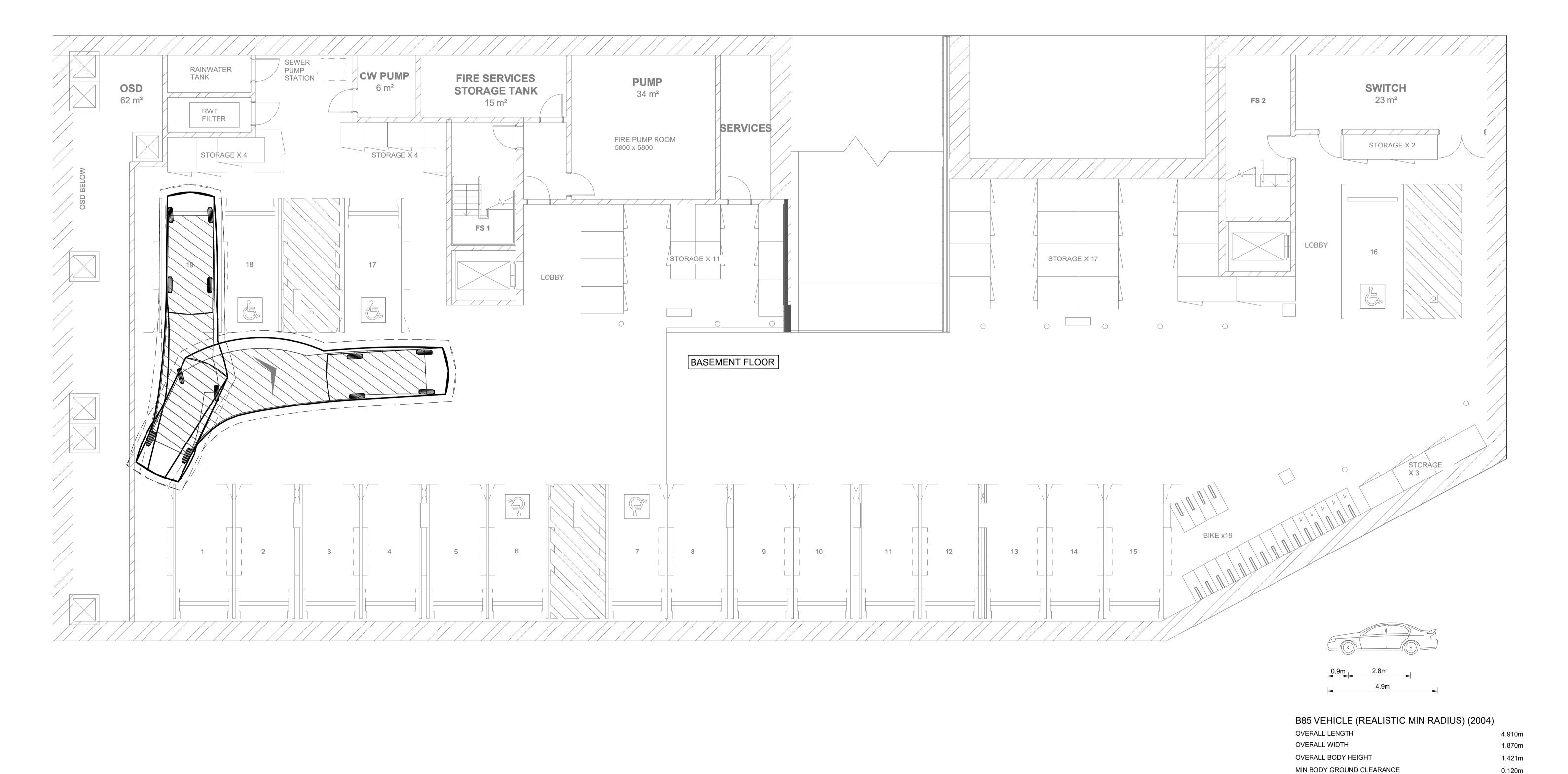
1.770m

4.00s

5.750m

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C13 E



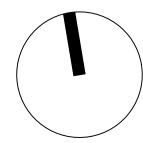
1.770m

4.00s

5.750m

#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 2 OF 8

SK

TG

A1

DWG SIZE:

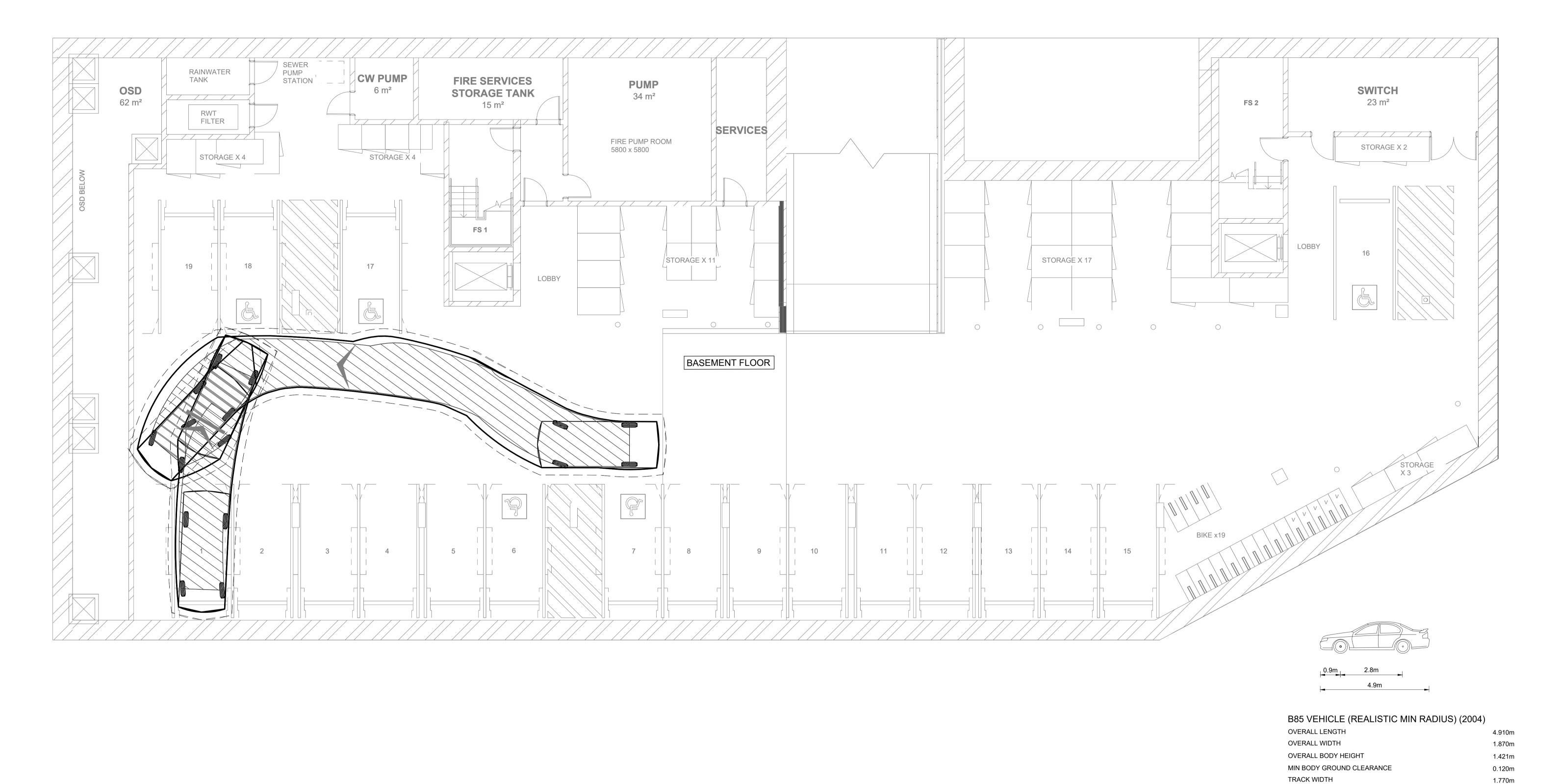
#### PROPOSED DEVELOPMENT

TRACK WIDTH

LOCK-TO-LOCK TIME

KERB TO KERB TURNING RADIUS

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

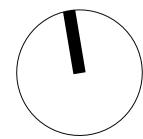


4.00s

5.750m

#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 3 OF 8

SK

TG

A1

DRAWN:

DWG SIZE:

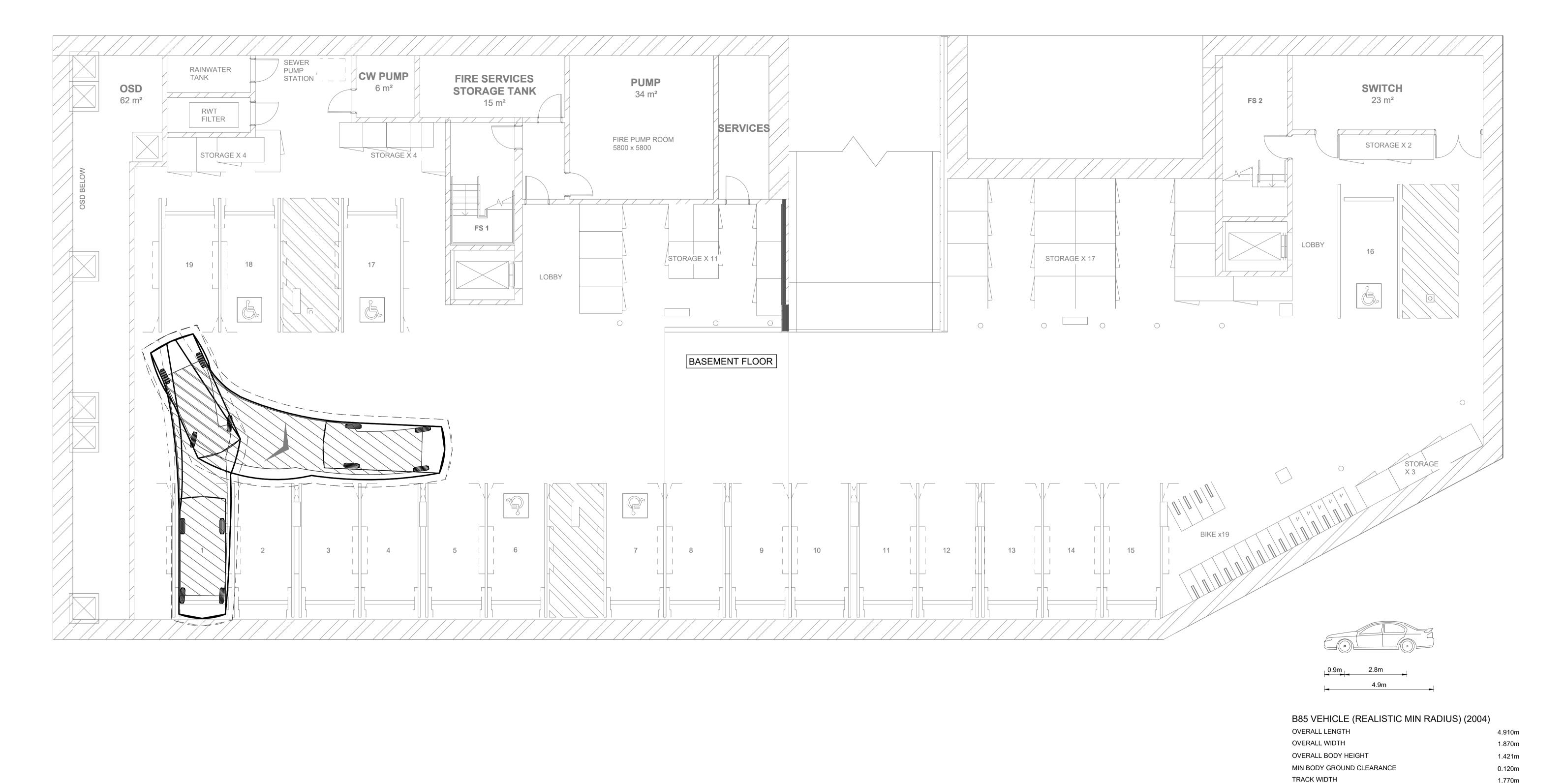
#### PROPOSED DEVELOPMENT

LOCK-TO-LOCK TIME

KERB TO KERB TURNING RADIUS

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C15 E

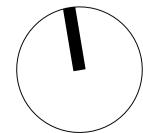


4.00s

5.750m

#### **CIVIL ENGINEERING**

E	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 4 OF 8

SK

TG

A1

DWG SIZE:

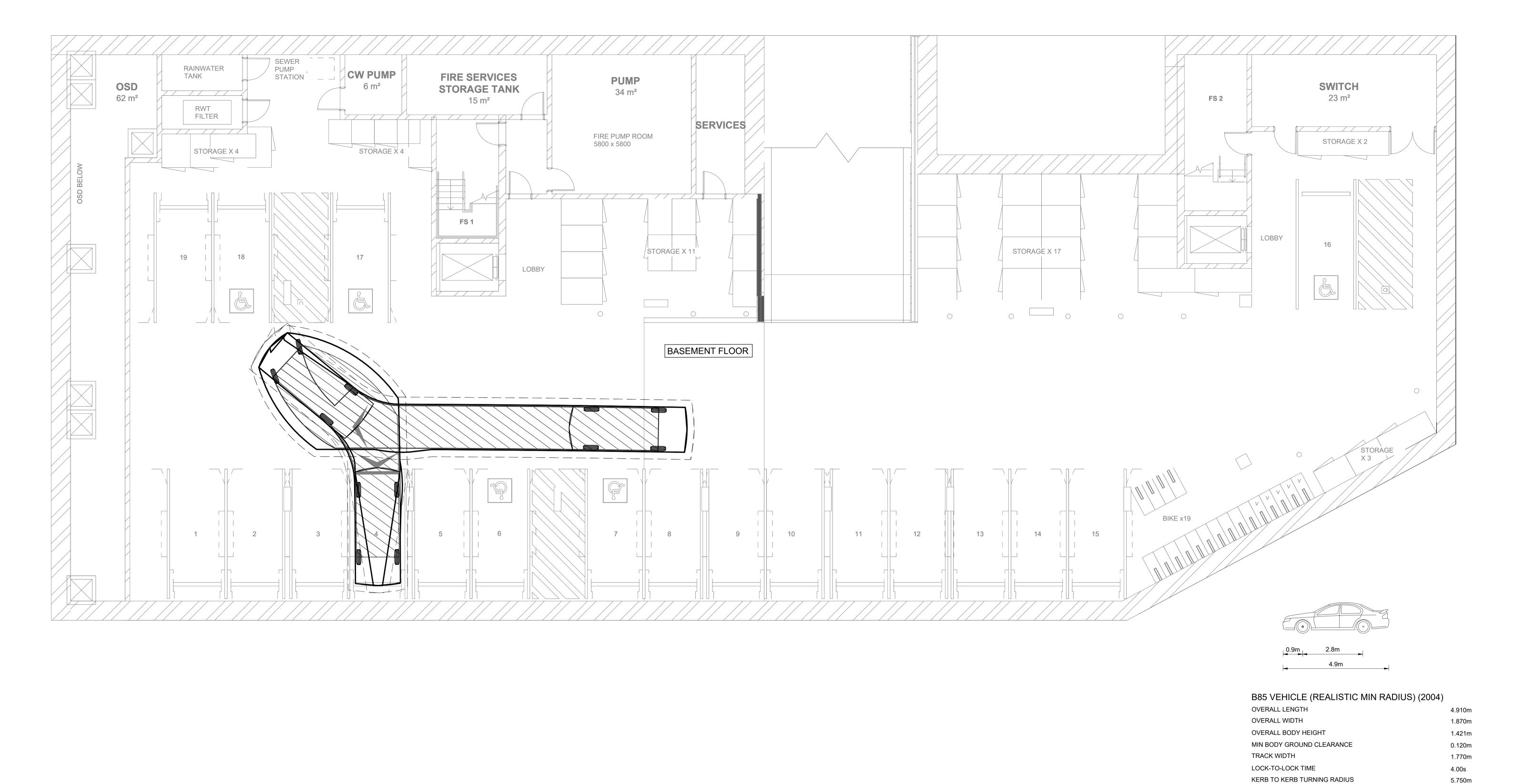
#### PROPOSED DEVELOPMENT

LOCK-TO-LOCK TIME

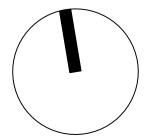
KERB TO KERB TURNING RADIUS

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C16 E



E	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

TG

A1

DRAWN:

DWG SIZE:

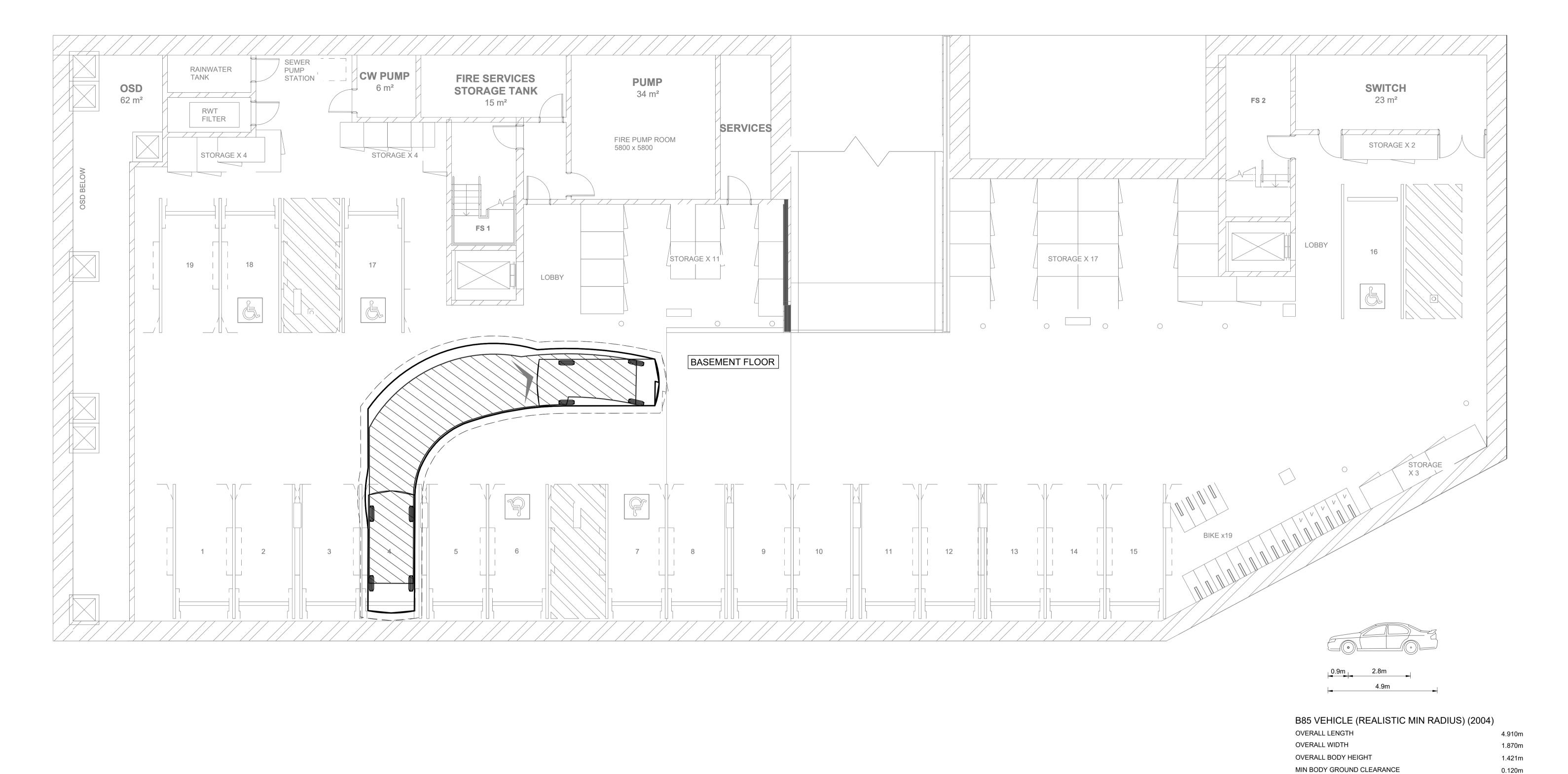
#### **BASEMENT** ANOEUVRING PLAN -SHEET 5 OF 8

#### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

1:75 (A1), 1:150 (A3)

2023049DA - C17 E



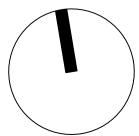
1.770m

4.00s

5.750m

#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



## SAMANA BLUE ENGINEERING

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 6 OF 8

SK

TG

A1

DRAWN:

DWG SIZE:

#### PROPOSED DEVELOPMENT

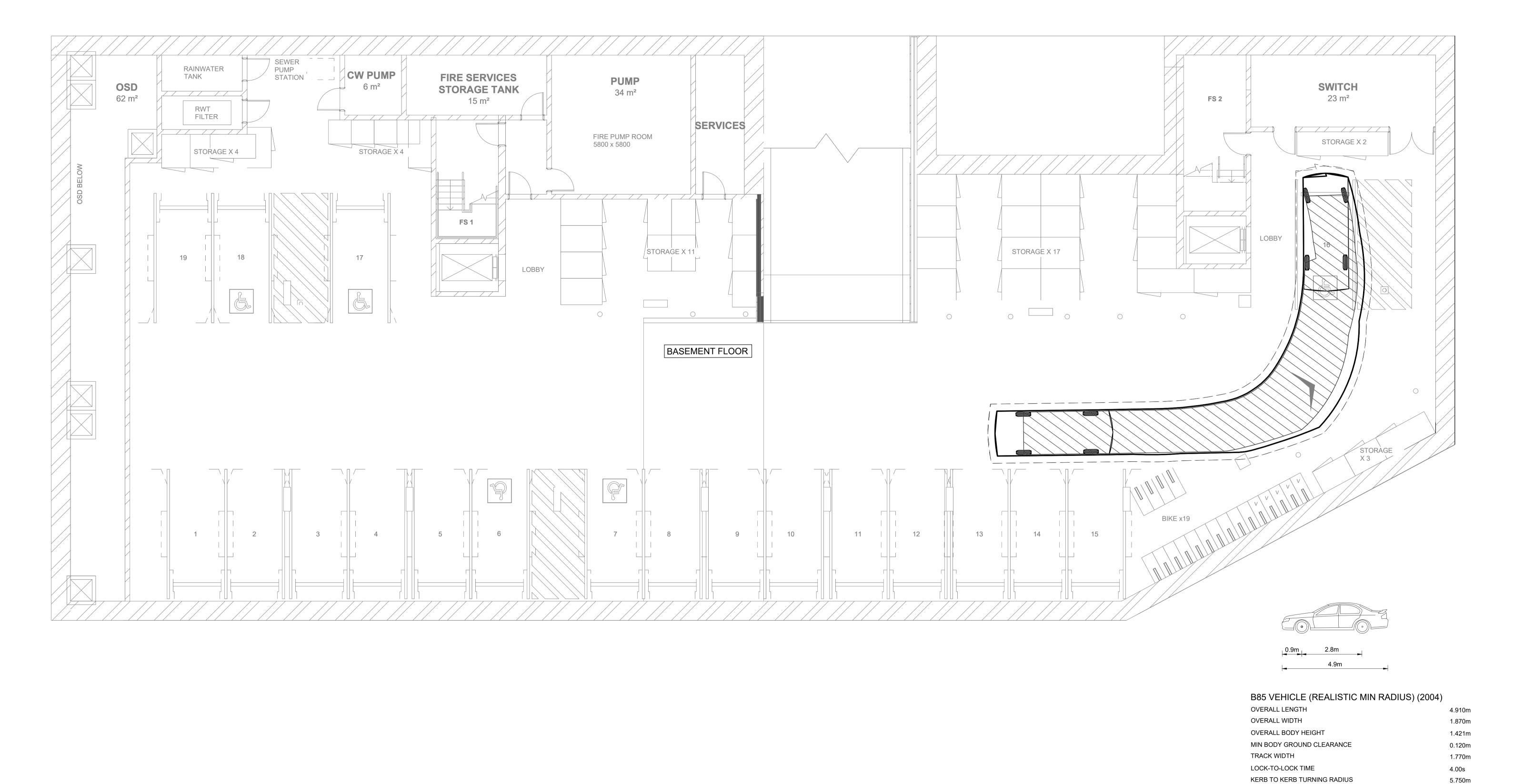
TRACK WIDTH

LOCK-TO-LOCK TIME

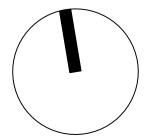
KERB TO KERB TURNING RADIUS

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

2023049DA - C18 E



Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT



#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 7 OF 8

SK

TG

A1

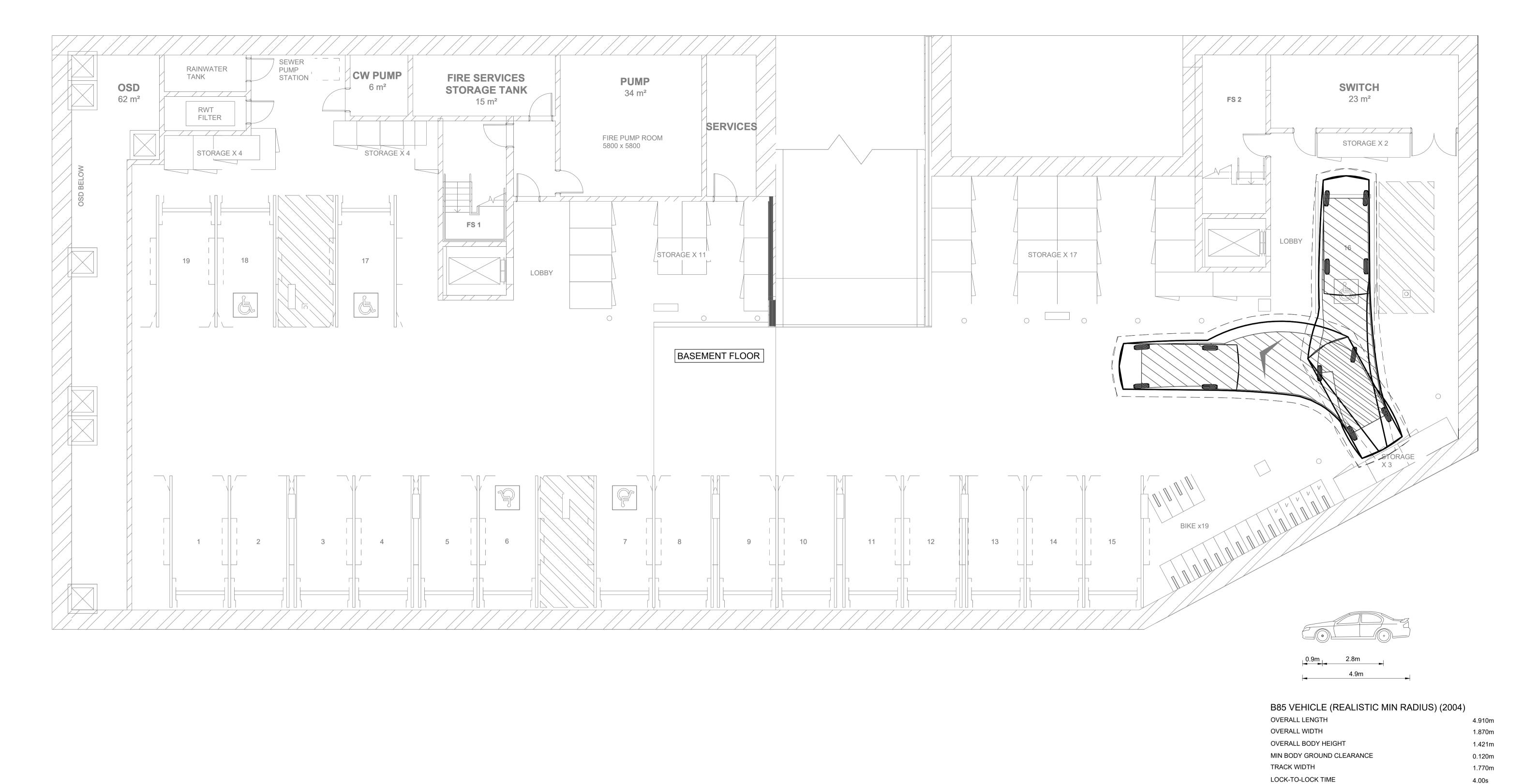
DWG SIZE:

#### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

1:75 (A1), 1:150 (A3)

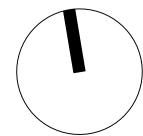
2023049DA - C19 E



5.750m

#### **CIVIL ENGINEERING**

Е	UPDATED ARCHITECTURALS	KT	26.06.2025
D	UPDATE ARCHITECTURE	TG	24.10.2024
С	UPDATE ARCHITECTURE	TG	05.08.2024
В	ISSUED FOR APPROVAL	TG	03.11.2023
REV	DESCRIPTION	BY	DATE



#### COPYRIGHT

THE CONCEPTS AND INFORMATION CONTAINED
IN THE DOCUMENT ARE THE COPYRIGHT
OF SAMANA BLUE ENGINEERING PTY LTD
USE OR COPYING OF THE WHOLE OR IN PART
WITHOUT WRITTEN PERMISSION OF SAMANA BLUE ENGINEERING PTY LTD CONSTITUTES AN INFRINGEMENT OF COPYRIGHT

# Samana Blue M. +61 488 042 994 E. info@samanablue.com

#### SAMANA BLUE ENGINEERING DRAWN:

NSW + QLD 3/55 PYRMONT BRIDGE RD, PYRMONT NSW 2009 PO BOX 604, MOFFAT BEACH QLD 4551 M. +61 488 042 994

#### **BASEMENT MANOEUVRING PLAN -**SHEET 8 OF 8

SK

TG

A1

DWG SIZE:

#### PROPOSED DEVELOPMENT

1-13 COLERIDGE ST, RIVERWOOD NSW 2210

KERB TO KERB TURNING RADIUS

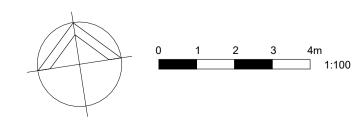
2023049DA - C20 E

#### Appendix C – Architectural Plans

Selected Architectural Plans by WMK Architecture.







ISSUED FOR DEVELOPMENT APPLICATION ISSUED FOR DEVELOPMENT APPLICATION

18/10/2024

27/06/2025

Client HOMES NSW



LAHC RIVERWOOD RESIDENTIAL FLAT BUILDING, 1-13 COLERIDGE STREET, RIVERWOOD 2210, LOTS 7-12, DP 35640

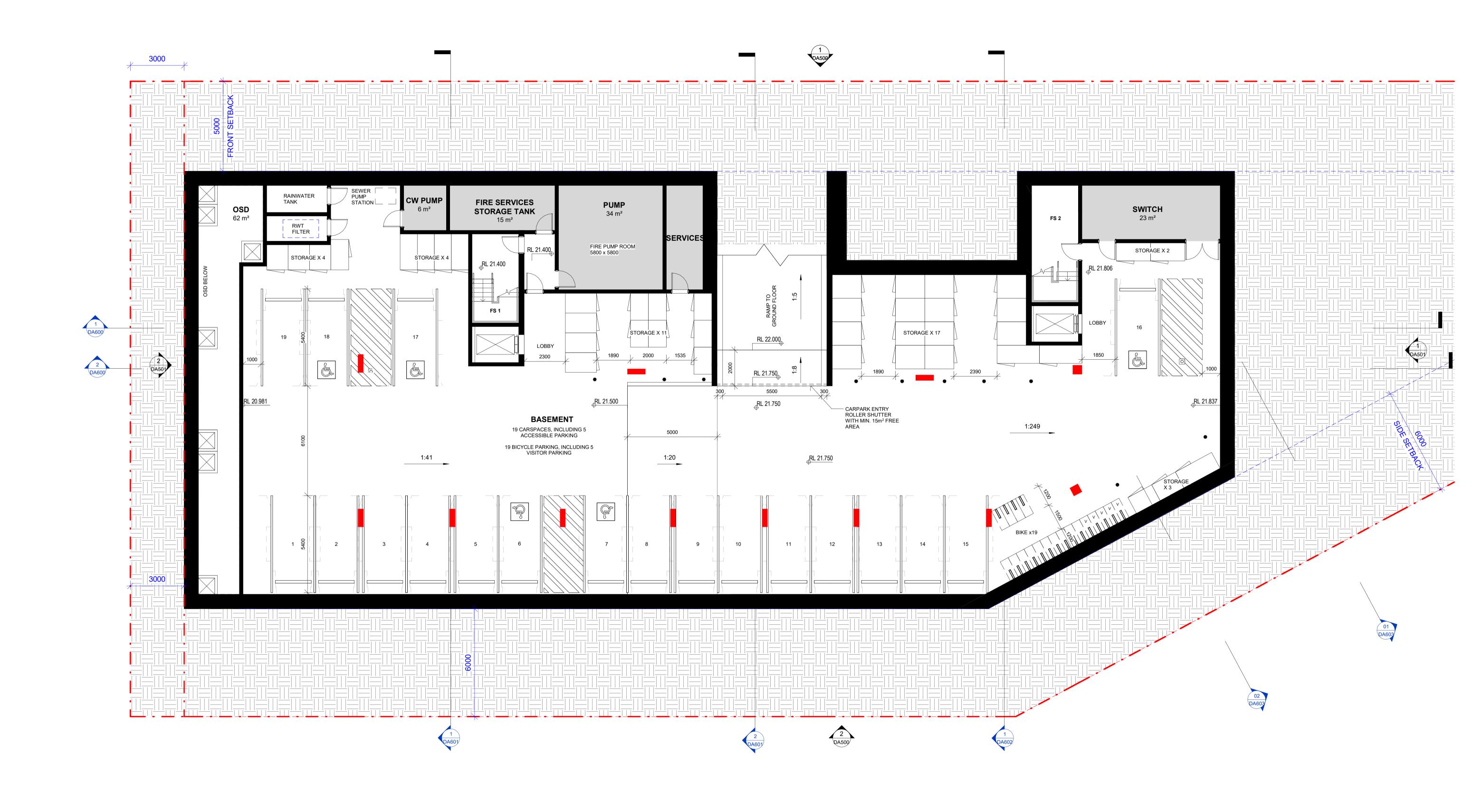
GROUND FLOOR PLAN

Drawing No. DA101 Scale **Drawing Size** 1:100 Α1 Project No. Drawn By 21182 LR/EY

Dimensioned Drawings to take precedence over scaling. Contractor to verify all dimensions on site before construction. All inconsistencies to be reported to the Architect immediately. This drawing and its contents remain the copyright of WMK Architecture Pty Ltd ©

**CAD Reference** 

27/06/2025 11:45:48 AM







Issue Description ISSUED FOR DEVELOPMENT APPLICATION

Client 18/10/2024

HOMES NSW

Project LAHC RIVERWOOD RESIDENTIAL FLAT BUILDING, 1-13 COLERIDGE STREET, RIVERWOOD 2210, LOTS 7-12, DP 35640

BASEMENT PLAN

DEVELOPMENT APPLICATION
ONLY
NOT FOR CONSTRUCTION Drawing No. DA100 Scale **Drawing Size** 1:100 Project No. Drawn By 21182 LR/EY

**CAD Reference** 18/10/2024 4:12:12 PM



