



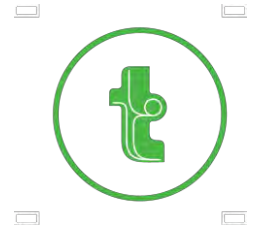
Traffic Impact Assessment

**Proposed Residential Development
Avon Road, Pymble**





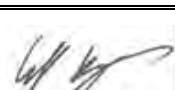
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traffix
traffic & transport planners

Suite 2.08, 50 Holt Street
Surry Hills NSW 2011
t: +61 2 8324 8700
w: www.traffix.com.au



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traffix
traffic & transport planners

po box 1061
potts point nsw 1335
t: +61 2 8324 8700
f: +61 2 9380 4481
w: www.traffix.com.au
abn: 66065132961

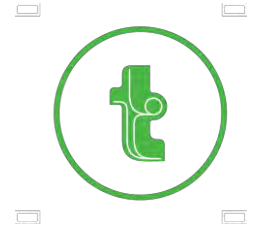


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1. Introduction

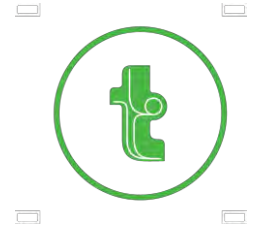
TRAFFIX has been commissioned by Ausbao Pymble Pty Limited to provide traffic consultancy services for a proposed residential development at a consolidated site consisting of 1, 1A, 3, 5 Avon Road and 4, 8 Beechworth Road, Pymble, located within the Sydney LGA of Ku-ring-gai Council.

On 5 December 2014, the Land and Environment Court ordered that a Concept Plan approval be issued in respect of the development of the Site, and the PAC issued the Concept Plan Approval on 19 December 2014. Project approval was subsequently received (MP10_0219).

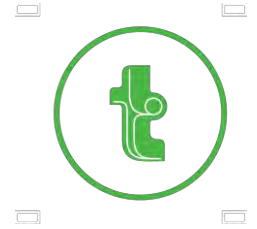
This Traffic Impact Assessment (TIA) report has been prepared as part of the Section 75W, amending the Project Approval for residential development of the subject site. The report documents the findings of our investigations and should be read in the context of the Concept Approval – Terms of Approval and the Statement of Environmental Effects (SEE) prepared separately.

The report is structured as follows:

- Section 2: Describes the site and its location
- Section 3: Documents existing traffic conditions
- Section 4: Describes the proposed development



- ② Section 5: Assesses the parking requirements
- ② Section 6: Assesses traffic impacts
- ② Section 7: Discusses access and internal design aspects
- ② Section 8: Presents the overall study conclusions.



2. Location and Site

The subject site is situated between Avon Road and Beechworth Road, Pymble. The consolidated subject site includes the lots of 1, 1A, 3 & 5 Avon Road, and 4 & 8 Beechworth Street. The site is located within the Ku-ring-gai Council LGA, approximately 600 metres west of Pymble Railway Station and 15 kilometres northwest of the Sydney CBD.

In a more local context, the site has two western frontages, one adjoining Beechworth Street, the other adjoining neighbouring residential properties, and generally two eastern frontages, one adjoining Avon Road and the other adjoining neighbouring residential properties. The subject site shares a northern 150 metre boundary with the T1 North Shore Railway Line and its southern boundaries, which adjoin neighbouring properties, have a combined length of approximately 275 metres. The site is generally L-shaped in configuration with a site area of about 24,643m².

The property at 1 Avon Road is heritage listed and is to be retained as part of the Revised Concept Plan Proposal for the subject site.

A Location Plan is presented in **Figure 1**, with a Site Plan presented in **Figure 2**. Reference should also be made to the Photographic Record presented in **Appendix A**, which provides an appreciation of the general character of roads and other key attributes in proximity to the site.

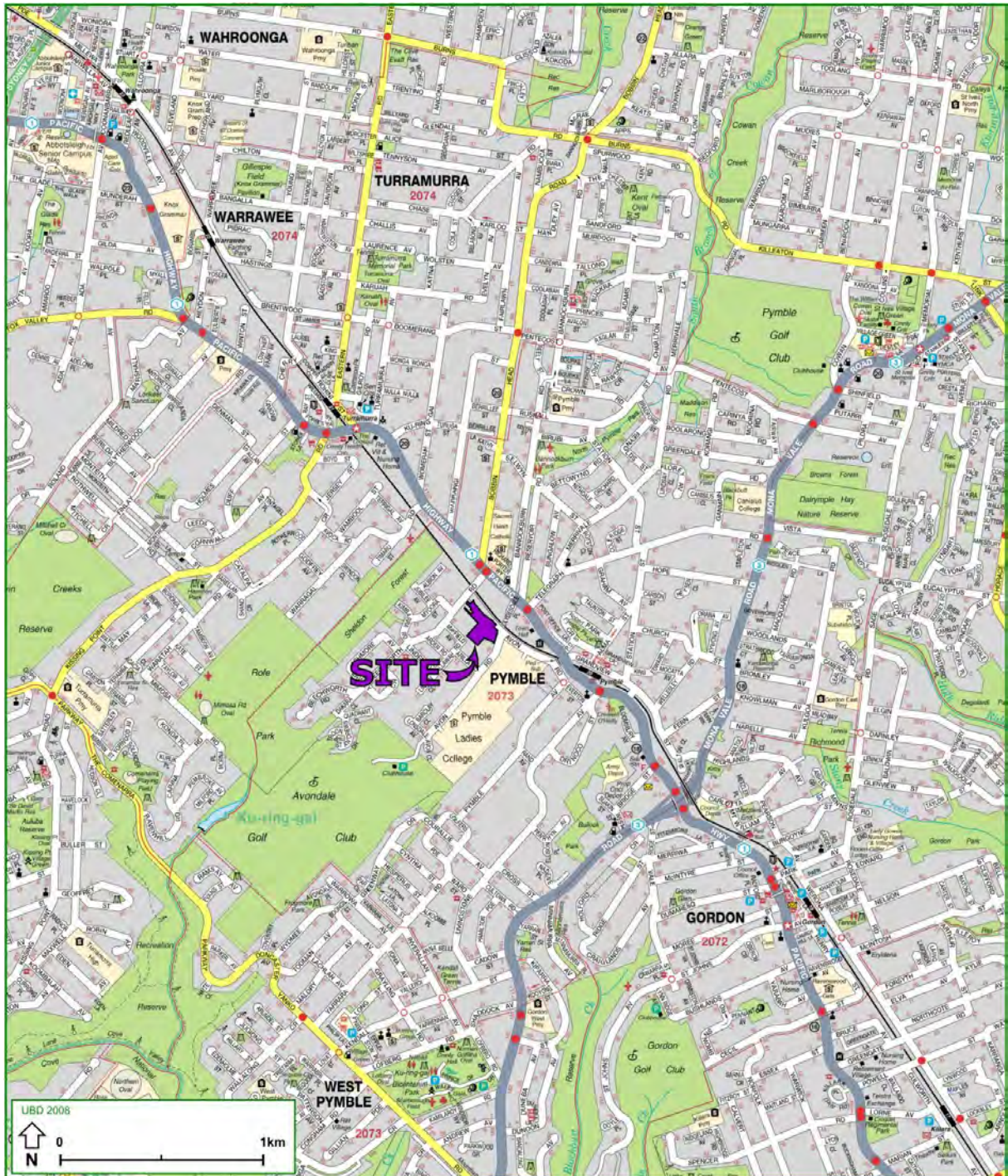
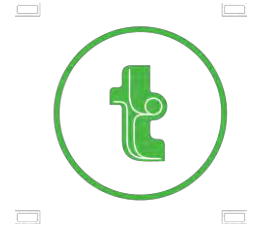


Figure 1: Location Plan



Figure 2: Site Plan



3. Existing Traffic Conditions

3.1 Road Network

The road hierarchy in the vicinity of the site is shown in **Figure 3** with the following roads of particular interest:

- ➊ Avon Road: a local road that has an 'L-shaped' alignment and provides direct vehicular access to the subject site. Avon Road is a collector route which provides access from the surrounding area to the classified RMS arterial road network.

- ➋ Beechworth Road: a local road that runs in a north-south direction. It provides direct vehicular access to the subject site. Beechworth Road is a non-delineated road (i.e. is not lane marked); however, nominally provides a single lane of traffic and unrestricted kerbside parking in both directions and has a posted speed limit of 50km/h. There is an existing footpath on the eastern side and a partial footpath on the western side.

- ➌ Pacific Highway: an RMS State Highway (SH10) that generally runs in a north-south direction and connects Hornsby in the north and North Sydney in the south. In the vicinity of the site, the Pacific Highway generally consists of three traffic lanes in either direction and carries about 64 000 vehicles per day (2005 AADT). It is subject to a 60 km/h speed zoning.

- ➍ Ryde Road: an RMS Main Road (MR162) generally runs in an east-west direction continuing from Lady Game Drive in the east to the Pacific Highway in the west. It continues as Mona Vale Road to the north and Lane Cove Road to the south. In the vicinity of the site, Ryde Road generally consists of three traffic lanes in either direction and carries about 62 000 vehicles per day (2005 AADT). It is subject to a 70 km/h speed zoning. Ryde Road allows for U-turns at the junction with the Pacific Highway.

It can be seen from Figure 3 that the site is conveniently located with respect to the arterial and local road systems serving the region. It is therefore able to effectively distribute traffic onto the wider road network, minimising traffic impacts.

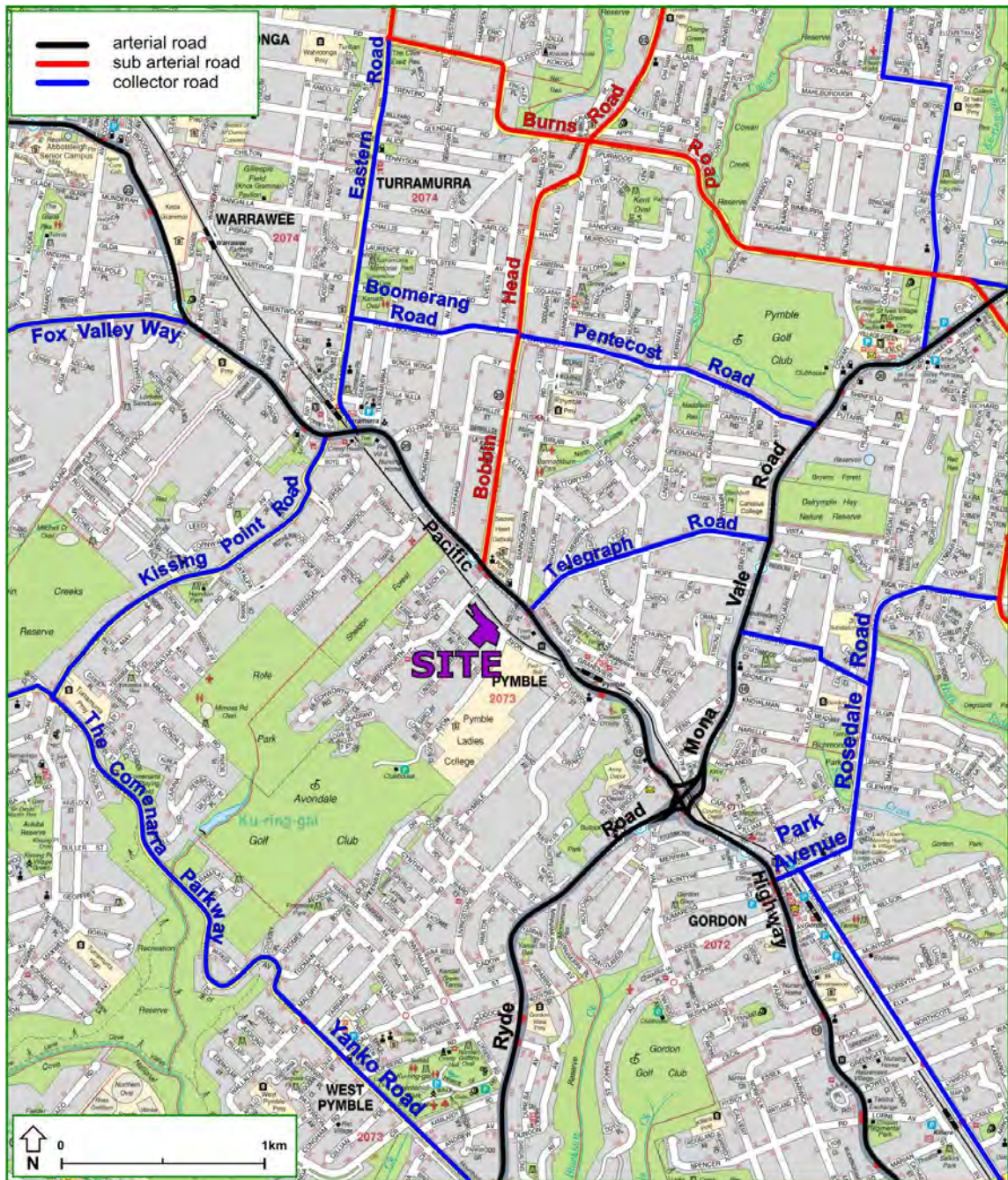
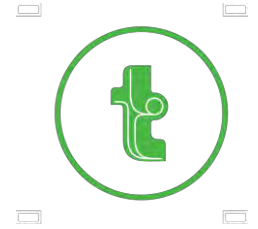


Figure 3: Road Hierarchy



3.2 Public Transport

The site is well located to take advantage of the numerous public transport services that serve the surrounding area, due largely to the proximity of the Pymble train station. The existing train and bus services that operate in the locality are shown in **Figure 4**.

Standard transport planning guidelines state that a development is advantageously located to benefit from rail if it is within 800 metres walking distance of a train station. In this regard, the site is just 600 metres walking distance to Pymble train station to the east of the subject site via the footpath that runs from the southern end of Avon Road to the train station via the pedestrian tunnel which passes under the Pacific Highway.

With regard to buses, standard transport planning guidelines state that a development is advantageously located to benefit from bus services if it is within 400 metres walking distance of a bus stop. As Figure 4 shows there are numerous bus stops within 400 metres walk of the site, providing access to Hornsby in the northeast, Macquarie University in the south and East Turramurra in the north.

In summary, the site is ideally situated with regard to public transport facilities to encourage future tenants / visitors of the residential development to use alternative transport means to access the site.

3.3 Existing Site Generation

As previously mentioned, the subject site is currently occupied by four dwelling houses. Current RMS guidance for low density residential dwellings indicates that the houses would each generate 0.95 and 0.99 peak hour trips for the morning and evening peak hours respectively. By applying these trip rates to the four existing dwelling houses, it is anticipated that the site currently generates a peak hour traffic generation of about four (4) vehicle trips during the morning peak hour and the evening peak hour.

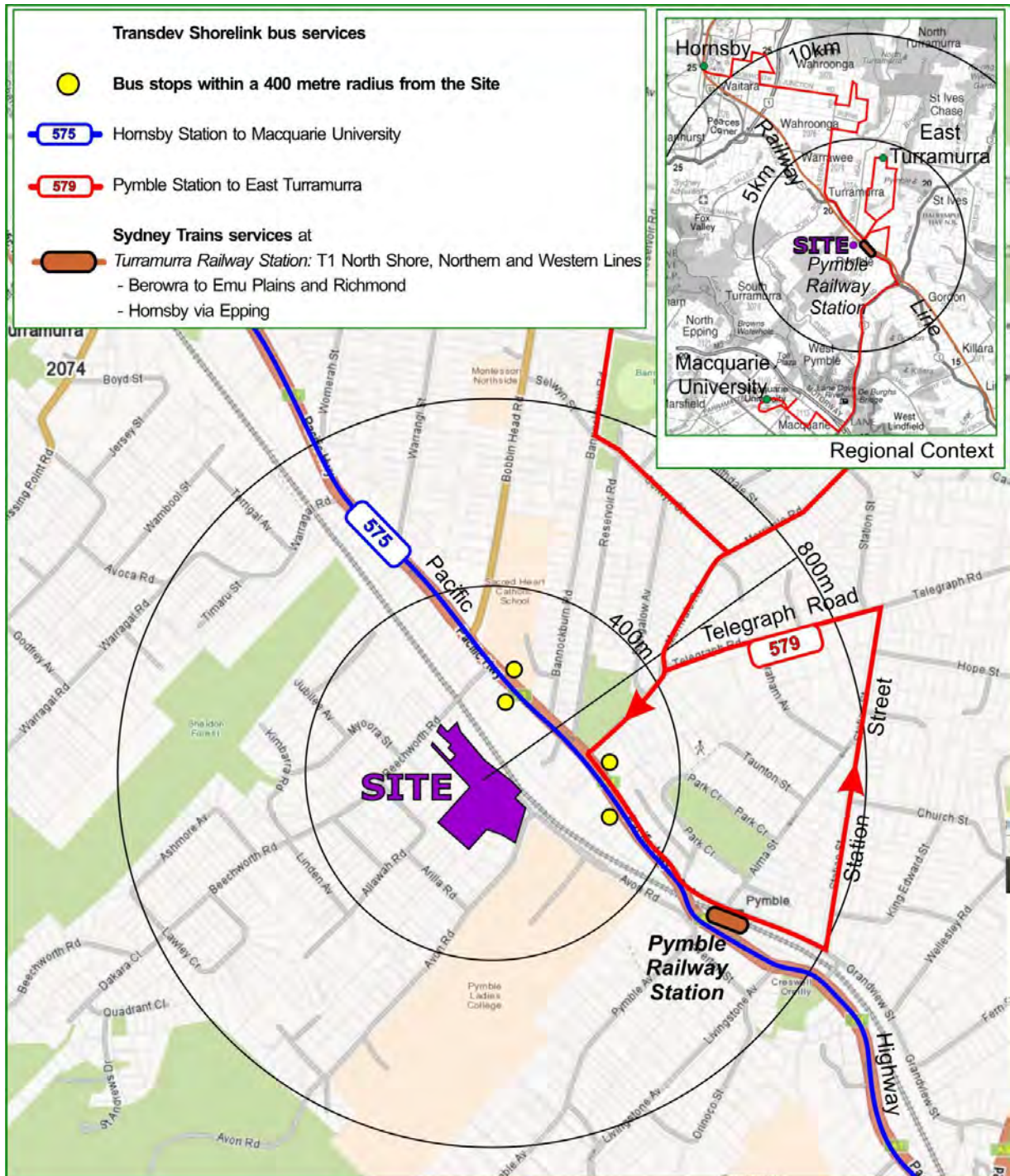


Figure 4: Public Transport Services

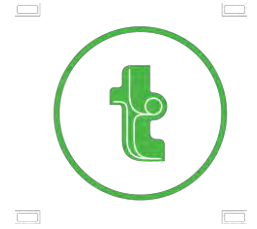


4. Description of Proposed Development

A detailed description of the development is provided in the SEE prepared separately. In summary, the Revised Project Approval is a residential development with the following characteristics:

- ➊ Demolition of all existing structures, except for the heritage building at 1 Avon Road;
- ➋ Construction of four (4) detached residential dwellings with:
 - House 1, House 2 & House 3 with a shared access driveway to Beechworth Road;
 - House 4 with a separate access driveway to Beechworth Road;
 - each dwelling provided with two parking spaces;
- ➌ Construction of three residential apartment buildings, with access to Avon Road, comprising a total of 168 residential apartments (including 18 adaptable units) with the following attributes:
 - 52 x one bedroom apartments
 - 87 x two bedroom apartments;
 - 29 x three bedroom apartments;
- ➍ The provision of four basement levels of car parking with a total of 244 parking spaces, bicycle parking and 1 loading bay, consisting of:
 - 202 spaces for residents (including 17 accessible/adaptable spaces);
 - 42 spaces for visitors (including 1 accessible space);
 - 33 bicycle spaces for residents;
 - 17 bicycles spaces for visitors; and
 - 1 loading bay at Basement 1 for furniture removal trucks and Council's waste collection truck.

The parking and traffic impacts arising from the development are discussed in Sections 5 and 6, respectively. Reference should be made to the plans submitted separately to Council which are presented at reduced scale at **Appendix B**.



5. Parking Requirements

5.1 Off-Street Car Parking

The Ku-ring-gai Local Centres Development Control Plan (DCP) 2012 – Volume C, Part 2R.2 (Car Parking Rates) sets out the car parking requirements for the proposed development. The rates provided in the DCP are minimum parking rates.

With regard to the four detached dwellings, the DCP requires the following parking provision:

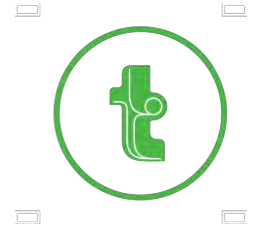
- 8 parking spaces @ 2 spaces per single occupancy dwellings.

In response, the development provides eight (8) parking spaces for the four detached dwellings on Beechworth Road.

With regard to the apartments, the concept approval stipulates a maximum of 257 parking spaces in the basement car park whilst council's DCP requires car parking for residential flat building developments to be provided at the rates shown in **Table 1**.

Table 1: Council Parking Rates and Provision

Type	Number	Council Parking Rates	Minimum Spaces Required	Spaces Provided
1 Bedroom	52	1 space per unit	52.0	202
2 Bedroom	87	1 space per unit	87.0	
3 Bedroom	29	1.5 space per unit	43.5	
Visitor	168	1 space per 4 unit	42.0	42
Totals			226	244



It can be seen from Table 1 that the proposed residential apartment development requires a minimum of 226 parking spaces consisting of 184 spaces for resident parking and 42 spaces for visitor parking. In response, the proposed four-level basement provides a total of 244 parking spaces, 202 spaces for residents and 42 spaces for visitors, thereby satisfying Council's DCP parking requirements and the requirements of the concept approval. Details relating to the design of the car parking layout are provided at Section 7.

5.2 Adaptable and Disabled Parking

With regard to adaptable parking for the 17 adaptable units, Council's DCP – Part 2.5 (Parking for People with a Disability) requires the following adaptable parking provision:

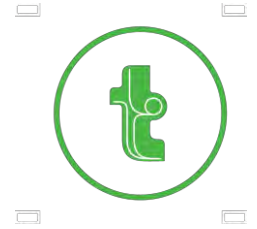
- 17 parking spaces @ 1 space per adaptable unit.

In response, the development provides a minimum of 17 adaptable parking spaces, thereby satisfying Council's DCP resident adaptable parking requirement.

With regard to accessible visitor parking, Council's DCP at Part 2.4 (Visitor Parking) states:

At least one visitor parking space it to be accessible, designed in accordance with AS2890.6.

In response, the development provides one (1) accessible visitor parking spaces designed in accordance with the requirements of AS2890.6 (2009) *Part 6: Off-street parking for people with disabilities*, thereby satisfying Council's DCP accessible visitor parking requirement. It is noteworthy that this equates to 2% of the total visitor parking provision of 42 spaces.



5.3 Bicycle Parking

Council's DCP – Part 7B.2 (Bicycle Parking Provision) requires the following bicycle parking provision for residents:

- 33 bicycle spaces @ 1 space per 5 units (or part thereof).

In response, the development provides a minimum of 33 bicycle spaces for residents located by the lifts on Basement 2 Level, thereby meeting Council's DCP resident bicycle parking requirement.

With regard to visitor bicycle parking, Council's DCP at Part 7B.2 requires the following bicycle parking provision for visitors to be provided in the form of bicycle rails in the car park area:

- 17 bicycle spaces @ 1 space per 10 units (or part thereof).

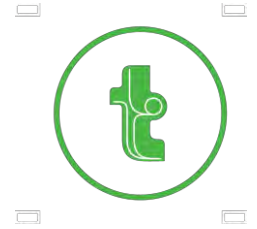
In response, the development provides a minimum of 17 bicycle spaces for visitors on Basement 1 Level, meeting Council's DCP visitor parking requirement.

5.4 Servicing

5.4.1 Garbage Management Plan

Firstly, garbage collection for the four detached dwellings would occur from on-street adjacent to their driveways on Beechworth Road.

With regard to the apartment buildings, the PPR includes a Waste Management Plan (WMP) that has been prepared by Elephants Foot Waste Compactors Pty Ltd. Elephants Foot has assessed the Revised Concept Plan Proposal and calculated the volume of waste that would be generated by the residential development, and provided advice to the architects, Marchese Partners, with regard to the bin and bin storage room requirements.



The Revised Concept Plan Proposal provides three separate garbage storage rooms, one for each apartment building, at Basement 1 Level adjacent to the lift lobby for each building. In addition, Basement 1 Level includes a garbage bin collection area in the south-east corner of the basement adjacent to the basement's access point and the proposed loading bay. In accordance with the WMP, Building Management will ensure that full garbage and recycling bins are ready for collection according to Council's collection schedule.

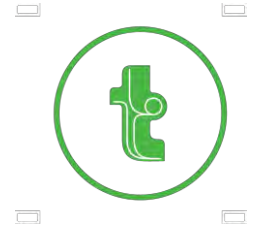
The proposed loading bay at Basement 1 Level has been designed in accordance with design standards AS2890.2 and Part 2.3 (Basement Car Parking) of Council's DCP. Of note, the loading bay, and the required manoeuvring areas and the access to/from it, has been designed with a headroom clearance of 3.5 metres, capable of providing access for a Small Rigid Vehicle of up to 6.6 metres in length. Details relating to the design of the loading bay layout are provided at Section 7.

5.4.2 Furniture Removal Trucks

The loading bay would also be for the use of furniture removal trucks and vans. At Basement 1 Level furniture movers would have good, level access to the lift lobbies of all three apartment buildings. Building Management would manage access to the loading dock to ensure that it is always available for Council's garbage truck at collection times.

5.5 Parking Summary

In summary, the proposed development has been designed to accommodate Council's DCP requirements for off-street car parking (including visitor and adaptable/accessible requirements), bicycle and loading provisions, ensuring that all reasonably anticipated parking demands are accommodated on-site and therefore do not impact upon the availability of on-street parking in the area. Reference should be made to Section 7 of this report for further details of the design of the parking and loading areas.



6. Traffic Impacts

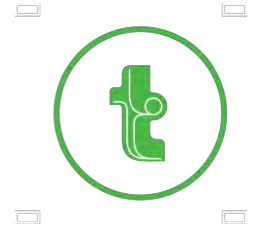
6.1 Background 2012 Traffic Study

The following information has been extracted from the Traffic and Parking Assessment Report prepared by Varga Traffic Planning (dated 10 December 2012) that supported the original Part 3A Concept Plan application:

- ② Assessed development yield of 273 units consisting of:
 - 210 units with access to Avon Road;
 - 63 units with access to Beechworth Road;
- ② Adopted trip generation rate of 0.4 trips per unit:
- ② Anticipated traffic generation 109 peak hour trips (morning and evening) consisting of:
 - 84 trips to/from Avon Road;
 - 25 trips to/from Beechworth Road;

The impacts of the additional traffic were assessed on the surrounding network using SIDRA intersection. The analysis demonstrated the following:

- ② The intersection of the Pacific Highway with Livingstone Access (which provides the main connection to the wider road network for Avon Road development traffic) would continue to operate at a *Level of Service of "B"* – Good with acceptable delays & spare capacity – under the project additional traffic flows, with increases in total average vehicle delays of less than 2 seconds per vehicle;
- ② The intersection of the Pacific Highway with Beechworth Road would continue to operate at a *Level of Service of "B"*, with increases in total average vehicle delays in the order of 3-4 seconds per vehicle;



- ② The intersection of Avon Road with Arilla Road (to the south of the subject site) would continue to operate at a *Level of Service of "A"* – Good operation – under the project additional traffic flows, with no appreciable change in average vehicle delays; and
- ② All proposed vehicle access driveways would operate at a *Level of Service of "A"* – Good operation.

Based on the traffic impact findings above, the Varga 2012 report concluded the following:

In summary, of the results of the capacity analysis indicate that the proposed residential development will not have any unacceptable traffic implications in terms of the road network capacity, and that there will not be any road improvements or intersection upgrade required to accommodate the projected additional traffic flows.

On the basis that the traffic impact analysis and findings presented in the Varga 2012 report were generally accepted – and have not been questioned during the experts' discussions – the 2012 analysis forms a baseline against which the current proposal has been assessed. This is presented in the following sections.

6.2 Project Traffic Generation

Latest RMS guidance recommends that trip generation analysis for detached dwellings (in Sydney) adopt a morning peak hour trip rate of 0.95 trips per dwelling and an evening peak hour trip rate of 0.99 trips per dwelling. Adoption of these rates indicate that the four detached dwellings – with access to Beechworth Road – would generate about four trips during the morning and evening peak hours.

With regard to the 168 apartment development, adoption of the peak hour trip rate of 0.4 trips per unit – adopted by the 2012 Varga study – indicates that this component of the Revised Concept Plan Proposal would generate 68 trips via Avon Road during the morning and evening peak hours.

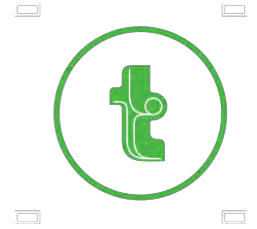
In summary, the Revised Concept Plan Proposal is projected to generate a total of 72 peak hour trips, 4 via Beechworth Road and 68 via Avon Road.



6.3 Traffic Impact Assessment

The analysis above demonstrates that the latest development scheme is anticipated to generate 37 fewer peak hour trips – during both the morning and evening peak hours – compared with the original Part 3A Concept Plan proposal assessed by the Varga 2012 report. Having consideration for the separate accesses, the current scheme is anticipated to generate 16 fewer peak hour trips to/from Avon Road and 21 fewer trips to/from Beechworth Road.

Accordingly, the network performance findings of the Varga 2012 report are, as a minimum, representative of the likely traffic impacts of the current scheme. Therefore, it is still concluded that the Revised Concept Plan Proposal will not have any unacceptable traffic implications in terms of the road network capacity, and that there will not be any road improvements or intersection upgrade required to accommodate the projected additional traffic flows.



7. Access & Internal Design Aspects

7.1 Detached Dwellings

The four detached dwellings will be provided with domestic driveway accesses to Beechworth Road. As is permissible under AS2890.1 (2004) *Part 1: Off-street car parking* for a domestic property – defined as three or fewer domestic units – the three dwellings (referred to as House 1, House 2 and House 3 on the attached plans) will have a ‘shared’ domestic driveway. House 4 will have its own separate domestic driveway access to Beechworth Road. All accesses have been designed in accordance with the requirements of AS2890.1, noting that garbage collection will occur from on-street on Beechworth Road. Swept Path analysis has been undertaken to ensure scraping will not occur on the gradient transitions, the results can be viewed in **Appendix C**.

The following sections refer to the access and internal design aspects of the apartment building development that would be accessed via Avon Road.

7.2 Vehicular Access

The access to Avon Road (a local road) serves 246 parking spaces and therefore requires a Category 2 driveway under AS2890.1, being a combined entry-exit driveway of 6.0-9.0 metres width. In response, the development proposes a 10.6 metre wide access driveway at street frontage, narrowing to 7.6m which meets the requirements of AS2890.1. Furthermore, the additional width at street frontage assists with accommodating Council’s garbage truck which would also use the driveway to access the loading bay at Basement 1 Level.

Access and egress swept path simulations have been undertaken for key manoeuvres on the access driveway. These are presented on plans attached at **Appendix C** and – importantly – demonstrate that the access driveway is of sufficient width to permit a left-turn exiting car to perform the manoeuvre without crossing the centreline into oncoming traffic.



7.3 Pedestrian Access

The concept approval states a new footpath is to be built on the north side of Avon Road between the site and the existing footpath in accordance with Traffic plans Project 14.243 Drawings TX.00-TX05. Land holders approval is required by the State Rail Authority (SRA) to implement this proposal as the planned footpath encroaches on SRA land.

Discussions held with the SRA indicate approval will not be granted to implement the footpath design as developed. Consequently, an alternative proposal has been developed to improve the crossing point along the pedestrian desire line on Avon Road through the use of a kerb buildout and associated kerb ramps. This draft design drawing can be viewed at **Appendix D**.

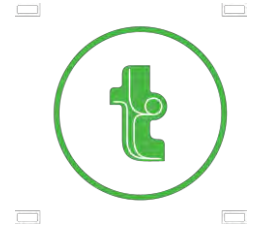
7.4 Internal Design

7.4.1 Design Standards

The internal car park design complies with the requirements of AS2890.1 (2004) Part 1: Off-street car parking, AS2890.2 (2004) Part 2: Off-street commercial vehicle facilities and AS2890.6 (2009) Part 6: Off-street parking for people with disabilities, with the following characteristics considered noteworthy:

7.4.2 Parking Modules

- ② Car parking spaces for residents and visitors have been designed to User Class 1A standards with parking bays 2.4 metres in width, 5.4 metres in length and provide a minimum of 5.8 metre aisle width;
- ② All spaces located adjacent to obstructions of greater than 150mm in height are provided with an additional width of 300mm;
- ② Dead-end aisles are provided with the required 1.0m aisle extension in accordance with Figure 2.3 of AS2890.1;
- ② All disabled and adaptable parking spaces on site would be designed in accordance with the requirements AS2890.6. Disabled and adaptable spaces will be provided with a minimum width of 2.4 metres with a minimum shared space width of 2.4 metres;



7.4.3 Ramps

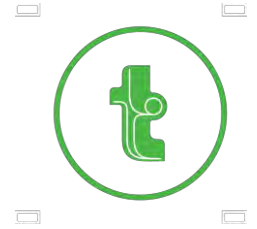
- ② The initial ramp from Avon Road to Basement 1 Level has been designed in accordance with AS2890.2 for a 6.4 metre SRV with a maximum gradient of 15.4% (1 in 6.5) with 4.0m transitions of 7.1% (1 in 14);
- ② The remaining ramps associated with the residential basement car park have a maximum gradient of 15% (1 in 6.7) with 2.0m transitions of 12.5% (1 in 8) at all summit grade changes. These provisions satisfy the requirements of AS 2890.1;

7.4.4 Clear Head heights

- ② A minimum clear head height of 2.2m is provided for all areas within the basement car park as required by AS2890.1. A clear head height of 2.5m is provided above all disabled spaces as required by AS2890.6 and a clear head height of 3.5m is provided above the loading bay as required for a Small Rigid Vehicle (SRV) according to AS2890.2, exceeding the requirement of council's DCP;

7.4.5 Service Area Design

- ② The garbage truck nominated by Council's experts – and which is referred to in Council's Waste Management Info Pack (August 2010) – is 6.30 metres in length, 2.04 metres in width, has an overall height of 2.25 metres and a turning circle of 13.8 metres. It is noteworthy that these dimensions indicate that Council's truck is smaller and more manoeuvrable than a standard 6.4 metre Small Rigid Vehicle (SRV) truck. Accordingly – and as agreed with Council's experts – a 6.4m SRV has been adopted as the design service vehicle;
- ② The internal design of the service area has been undertaken in accordance with the requirements of AS2890.2 for the maximum length vehicle permissible on-site being a 6.4m SRV;
- ② Council's DCP requires a minimum clear head height of 2.6m to be provided above the loading bay at Basement 1 Level and above the ramp and manoeuvring areas used to access the loading bay. In response the development has provided a 3.5m clear head height meeting the requirements of an SRV;
- ② Swept path analysis has been undertaken as is permissible under AS2890.2 and confirms the internal design of the loading bay. The swept path assessment is included in **Appendix C**;



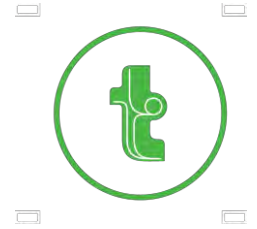
7.4.6 Security Access & Intercom

- ② An intercom is provided, as required by Council's DCP for residential developments that provide visitor parking beyond a security gate/roller shutter;
- ② The cross-sectional width of the access at the intercom is 7.6m in width, providing a 600mm wide median island for the intercom and two 3.5m wide entry and exit lanes as required by AS2890.2 for access by a 6.4m SRV;
- ② Queueing analysis of the proposed roller shutter door indicates that the 98th-percentile queue would be up to 2 vehicles in length. Accordingly, a minimum of 12 metres (2 car lengths) is provided between the property boundary and the roller shutter;
- ② Swept path analysis has been undertaken as is permissible under AS2890.2 and confirms the design of the access in proximity of the intercom. The swept path assessment is included in **Appendix C**;

7.4.7 Other Considerations

- ② All columns are located outside of the parking space design envelope as shown in Figure 5.2 of AS 2890.1;
- ② Appropriate visual splays are provided in accordance with the requirements of Figure 3.3 of AS2890.1 at all accesses;
- ② A swept path analysis of all critical movements has been undertaken to confirm geometry and compliance with the relevant standards. The swept path assessment is included in **Appendix C**.

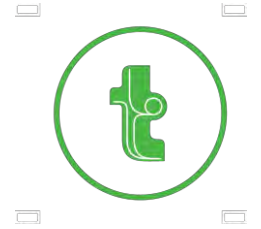
In summary, the internal configuration of the basement car park has been designed in accordance with AS2890.1, AS2890.2 and AS2890.6 and any design requirements of Council's DCP. It is however envisaged that a condition of consent would be imposed requiring compliance with these standards and as such any minor amendments considered necessary (if any) can be dealt with prior to the release of a Construction Certificate.



8. Conclusions

In summary:

- ② The Revised Concept Plan proposes a residential development consisting of four (4) detached dwellings and 168 units at 1, 1A, 3, 5 Avon Road and 4, 8 Beechworth Road, Pymble. The development is located within the Ku-ring-gai LGA and has been assessed under that Council's controls;
- ② The site is conveniently located with respect to the arterial and local road systems serving the region and therefore able to effectively distribute traffic onto the wider road network, minimising traffic impacts;
- ② The site is well located to take advantage of the numerous public transport services that serve the surrounding area, due largely to the proximity of the Pymble train station. It is therefore ideally located to encourage future tenants / visitors of the residential development to use alternative transport means to access the site;
- ② The proposed development has been designed to accommodate Council's DCP requirements for off-street parking and loading provisions, ensuring that all reasonably anticipated parking demands are accommodated on-site and therefore not impact upon the availability of on-street parking in the area;
- ② Bicycle parking, adaptable parking and accessible parking have all been provided in accordance with Council's DCP;
- ② Traffic impact analysis demonstrates that the latest development scheme is anticipated to generate 37 fewer peak hour trips compared with the original concept plan proposal assessed by the Varga 2012 report. Accordingly, the network performance findings of the Varga 2012 report are representative of the likely traffic impacts of the current scheme, and it is still concluded that the proposed residential development will not have any unacceptable traffic implications in terms of the road network capacity, and that there will not be any road improvements or intersection upgrade required to accommodate the projected additional traffic flows;
- ② The proposed access, internal design principles, car parking and servicing have all been designed in accordance with Australian Standards and Council's DCP and are considered acceptable and will operate safely and efficiently; and



- ④ The Revised Concept Plan Proposal is the result of an extensive, detailed and collaborative process that has been heavily influenced and guided by Council and PAC and responds to all the comments raised by the traffic parties' experts during previous discussions / consultation.

It is therefore concluded that the proposed residential development at 1, 1A, 3, 5 Avon Road and 4, 8 Beechworth Road is supportable on traffic planning grounds and would operate satisfactorily.

Appendix A

Site Photos



Site frontage as viewed from Avon Road



Existing site access from Avon Road





Avon Road looking north from site access



Avon Road looking south from site access





Avon Road looking east from site (footpath to be provided along left kerb)

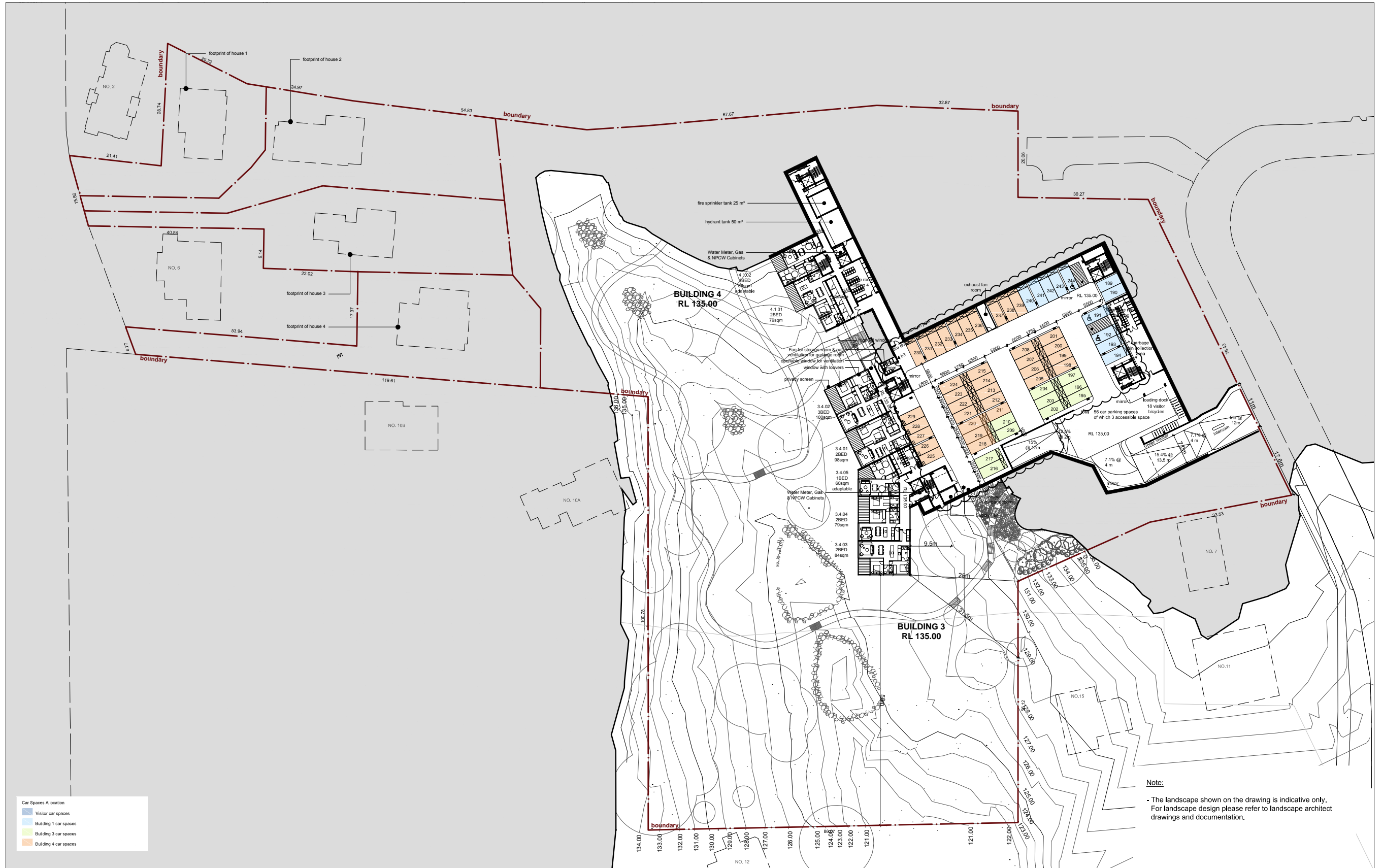


Avon Road proposed footpath location



Appendix B

Reduced Plans



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T	04.09.15	SUBMISSION TO LEC	PS
U	11.12.15	SUBMISSION TO LEC	PS
V	22.06.16	ISSUED FOR SECTION 79W APPLICATION	JK
W	05.08.16	ISSUED FOR SECTION 79W APPLICATION	JL
X	15.08.16	ISSUED FOR SECTION 79W APPLICATION	JL

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 Marchese Partners International Pty Ltd
 Level 1, 53 Walker Street, North Sydney, NSW 2060 Australia
 P +61 2 9922 4375 F +61 2 9929 5786 E info@marchesepartners.com.au
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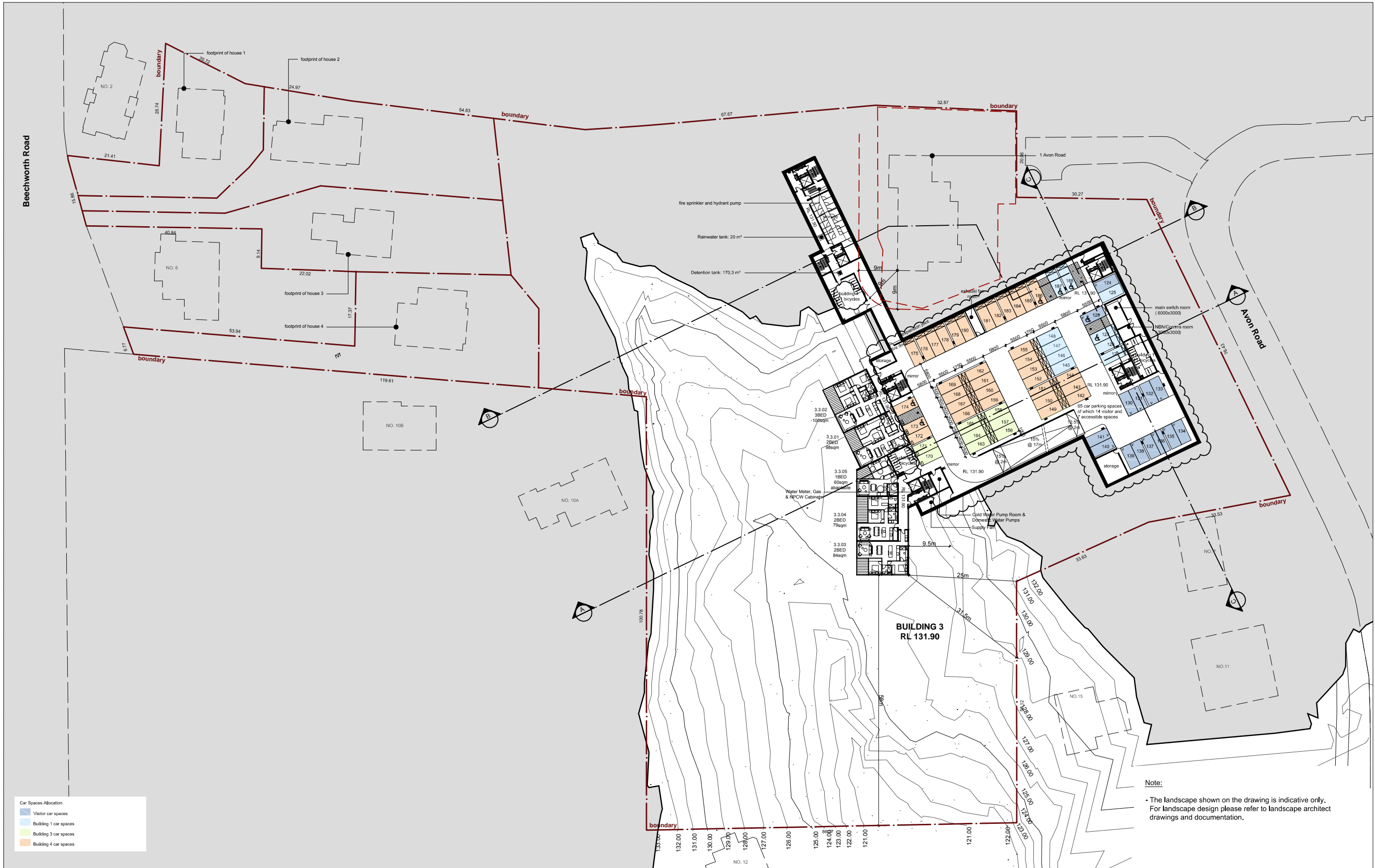
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PROPOSED RESIDENTIAL DEVELOPMENT
 AVON ROAD, PYMBLE

DRAWING TITLE

FLOOR PLAN LEVEL RL+135

SCALE	DATE	DRAWN	CHECKED
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JOB	DRAWING	REVISION	
12009	MP 22.06	X	



Note:
 - The landscape shown on the drawing is indicative only.
 For landscape design please refer to landscape architect drawings and documentation.

Car Spaces Allocation

Visitor car spaces
Building 1 car spaces
Building 3 car spaces
Building 4 car spaces

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T	04.09.15	SUBMISSION TO LEC	PS
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W	05.08.16	ISSUED FOR SECTION 75W APPLICATION	JL
X	15.08.16	ISSUED FOR SECTION 75W APPLICATION	JL

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 Level 1, 53 Walker Street, North Sydney, NSW 2060 Australia
 P +61 2 9922 4375 F +61 2 9929 5786 E info@marchesepartners.com.au
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PROJECT
 PROPOSED RESIDENTIAL DEVELOPMENT
 AVON ROAD, PYMBLE

DRAWING TITLE
 FLOOR PLAN LEVEL RL+132

SCALE
 1:400 @ A1
 1:800 @ A3

DATE
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DRAWN
 PS

CHECKED
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JOB
 12009

DRAWING
 MP 22.05

REVISION
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DRAWING TITLE
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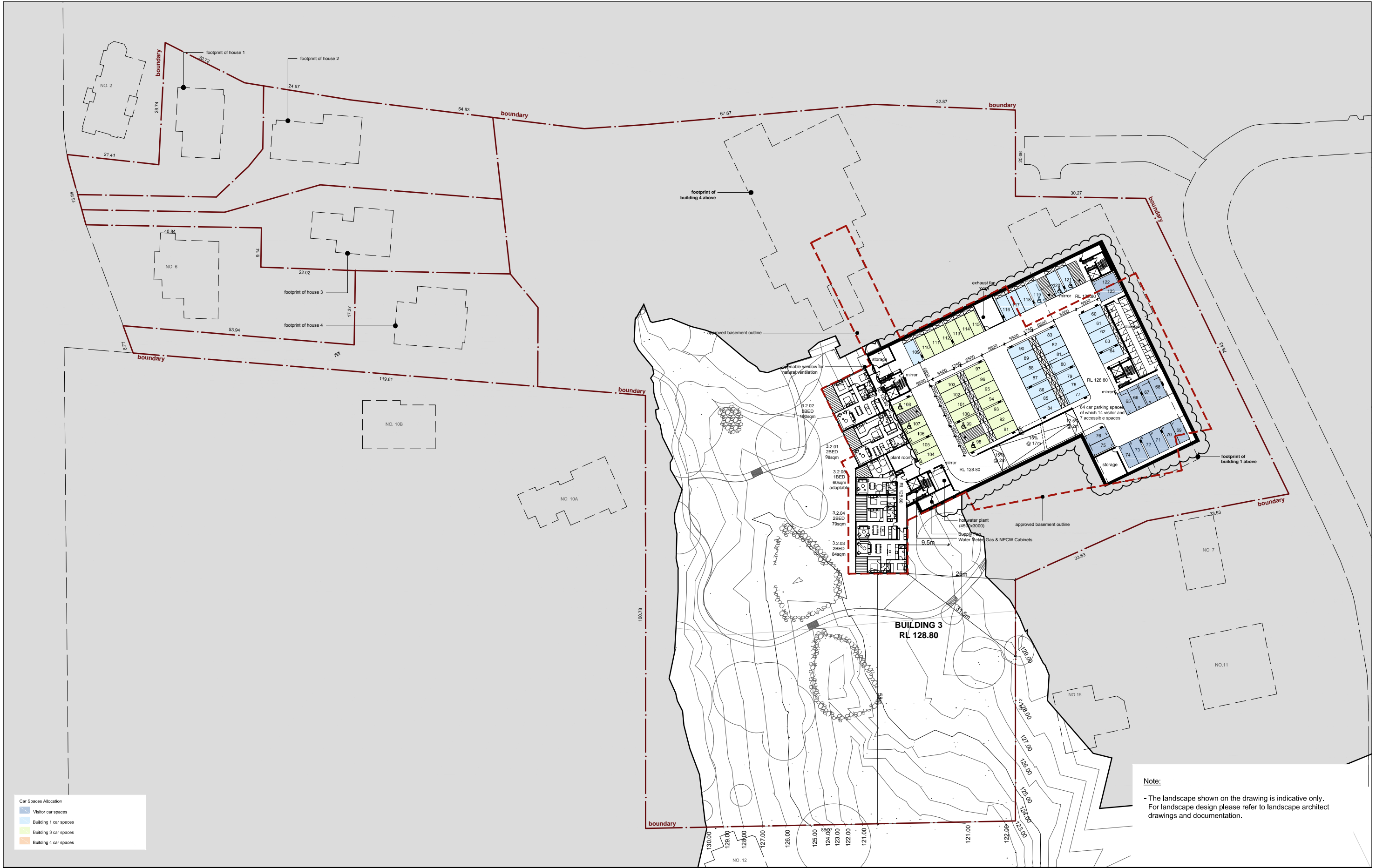
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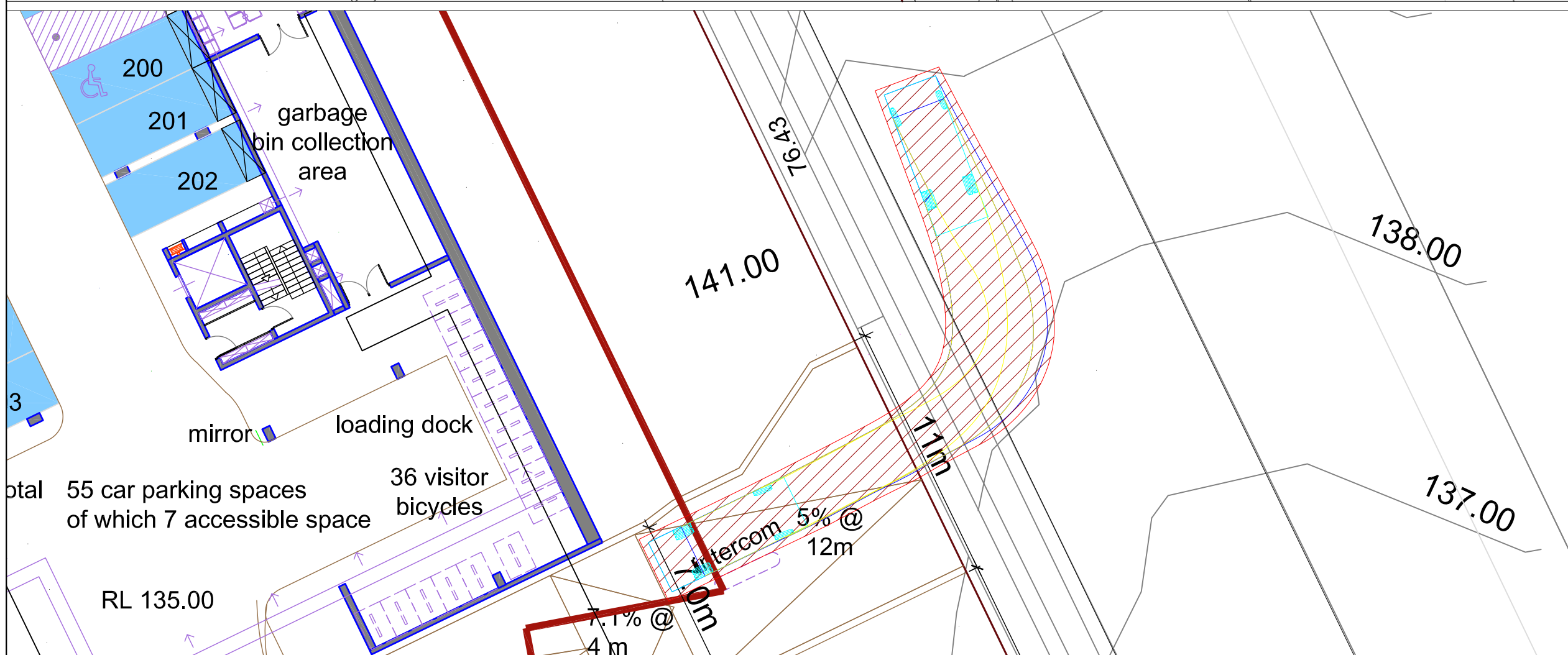
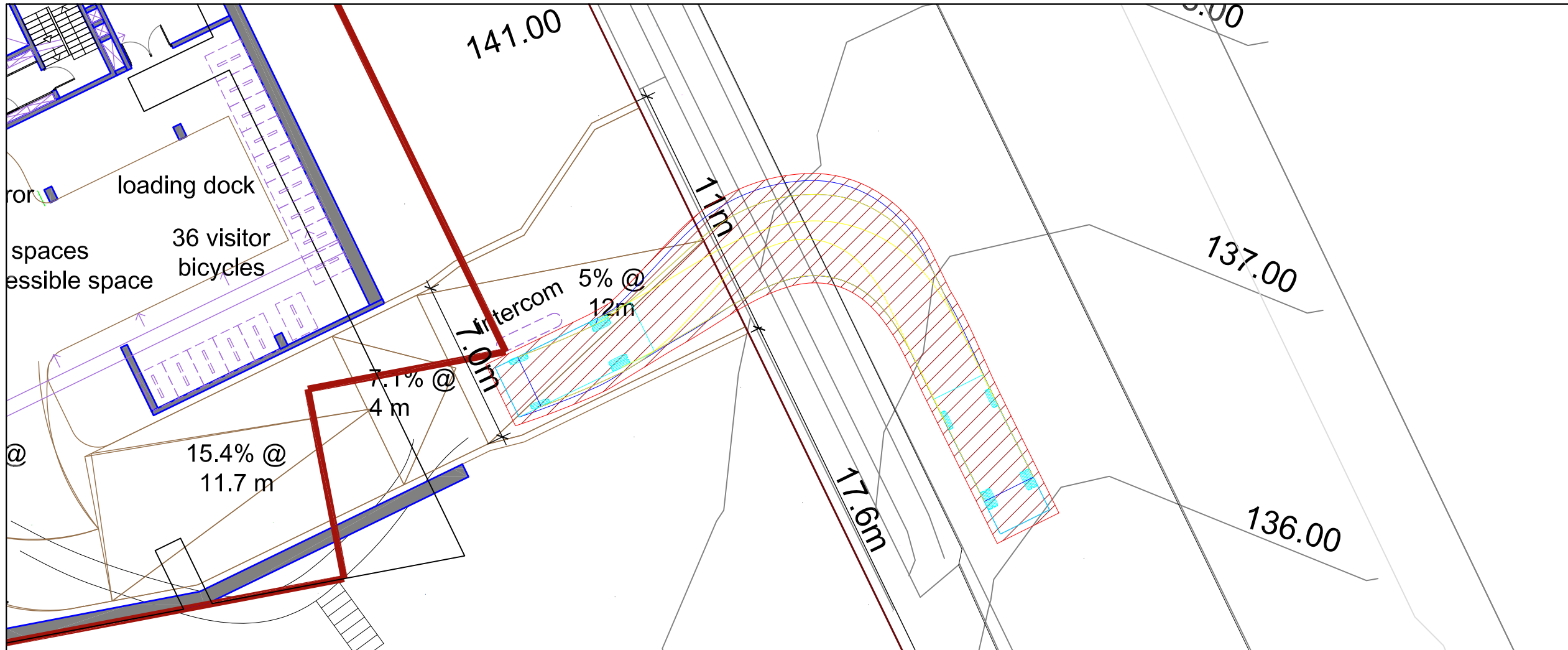
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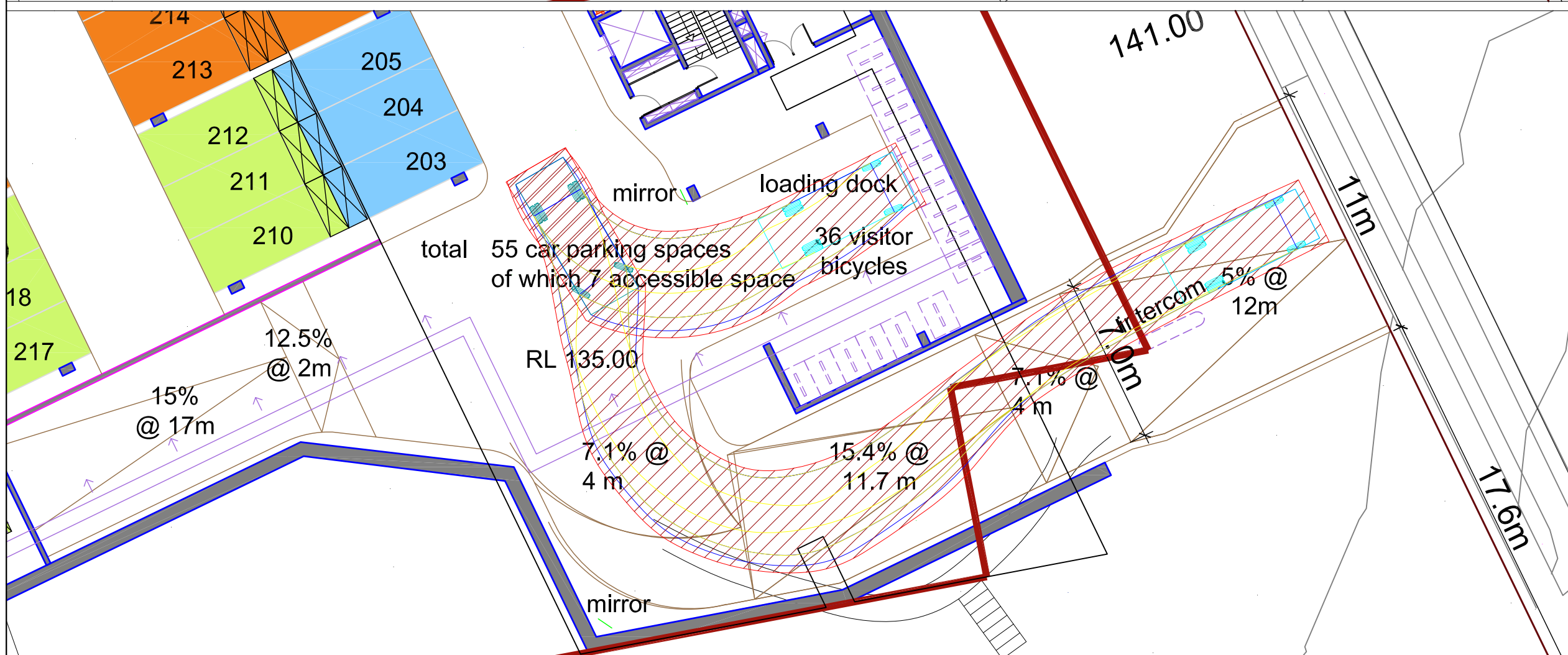
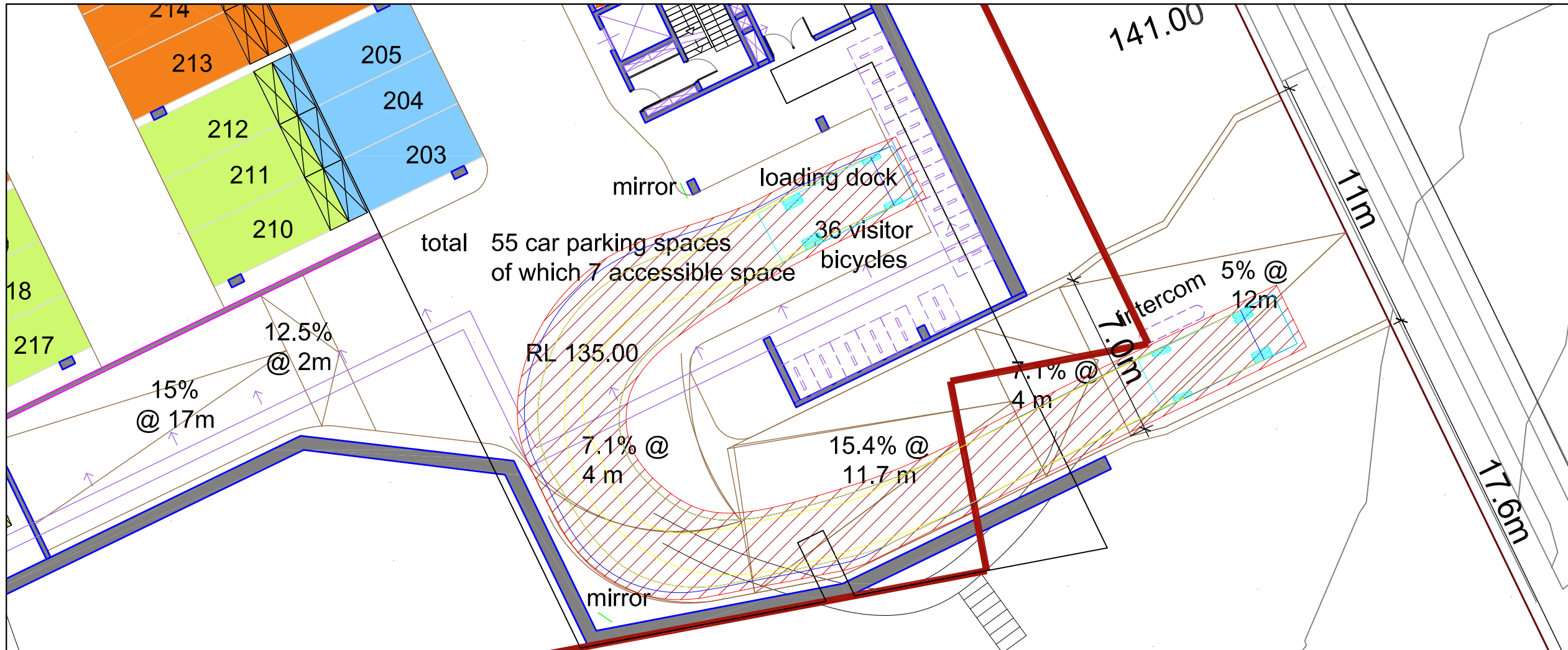
Appendix C


Swept Path Analysis

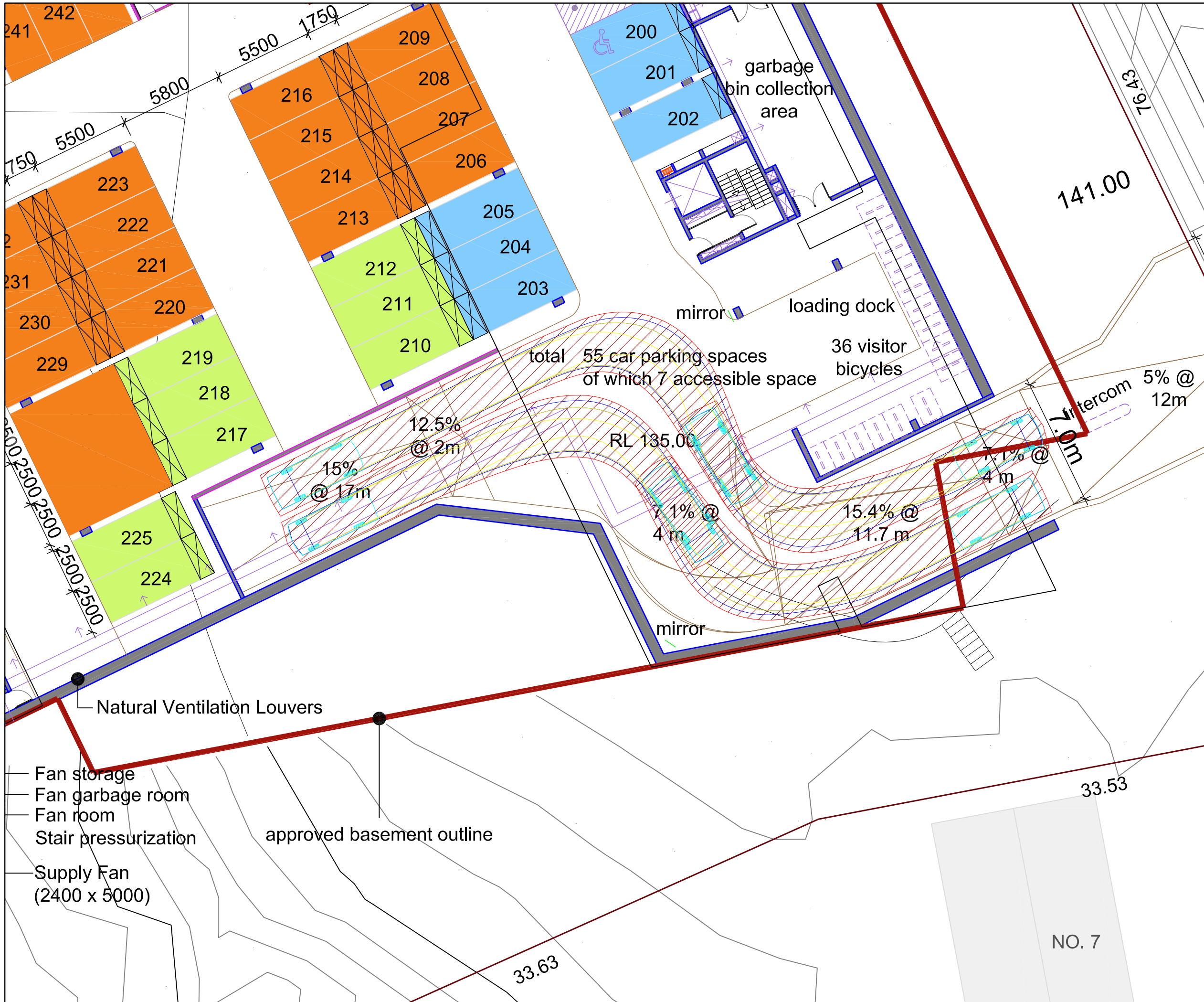


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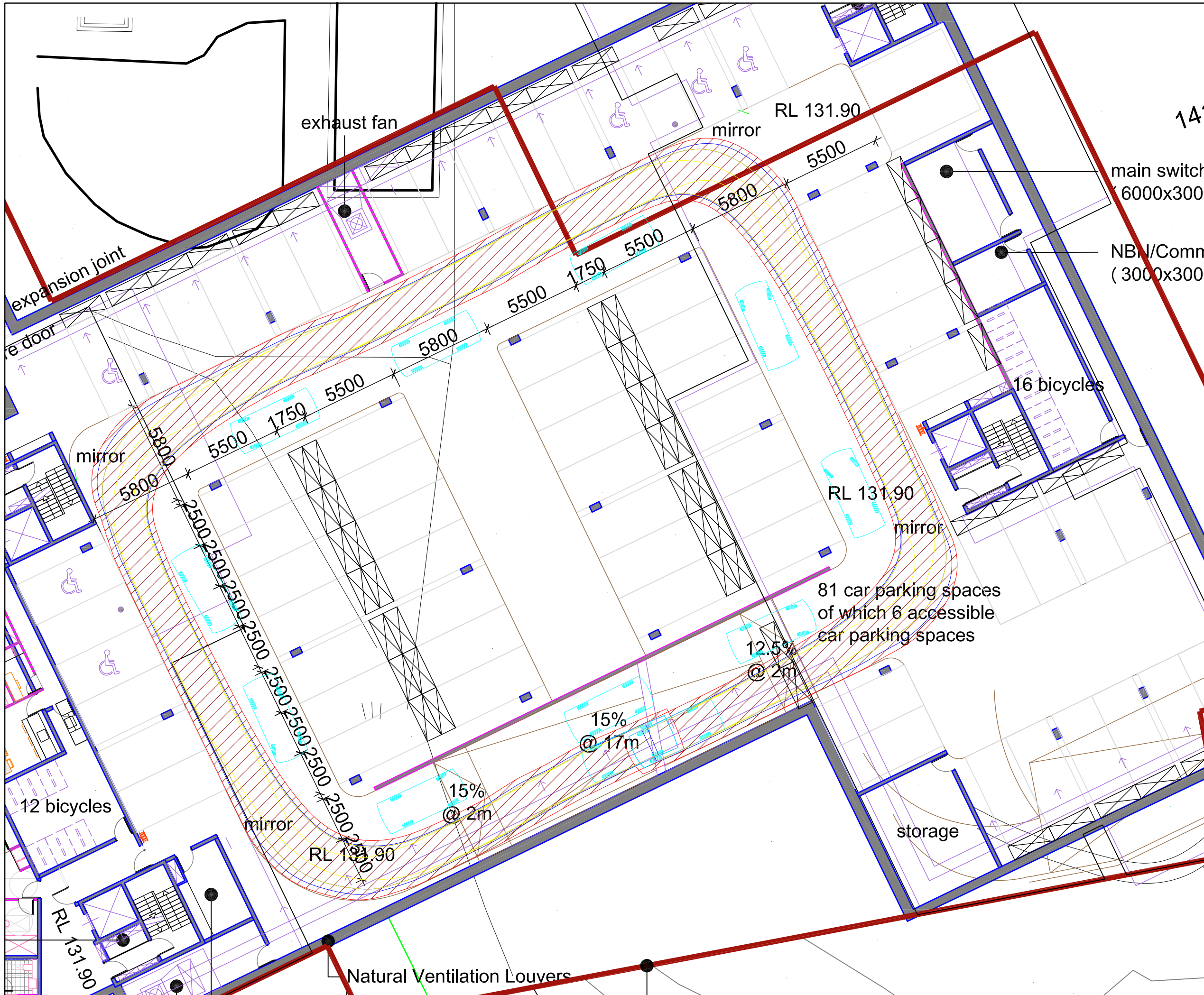
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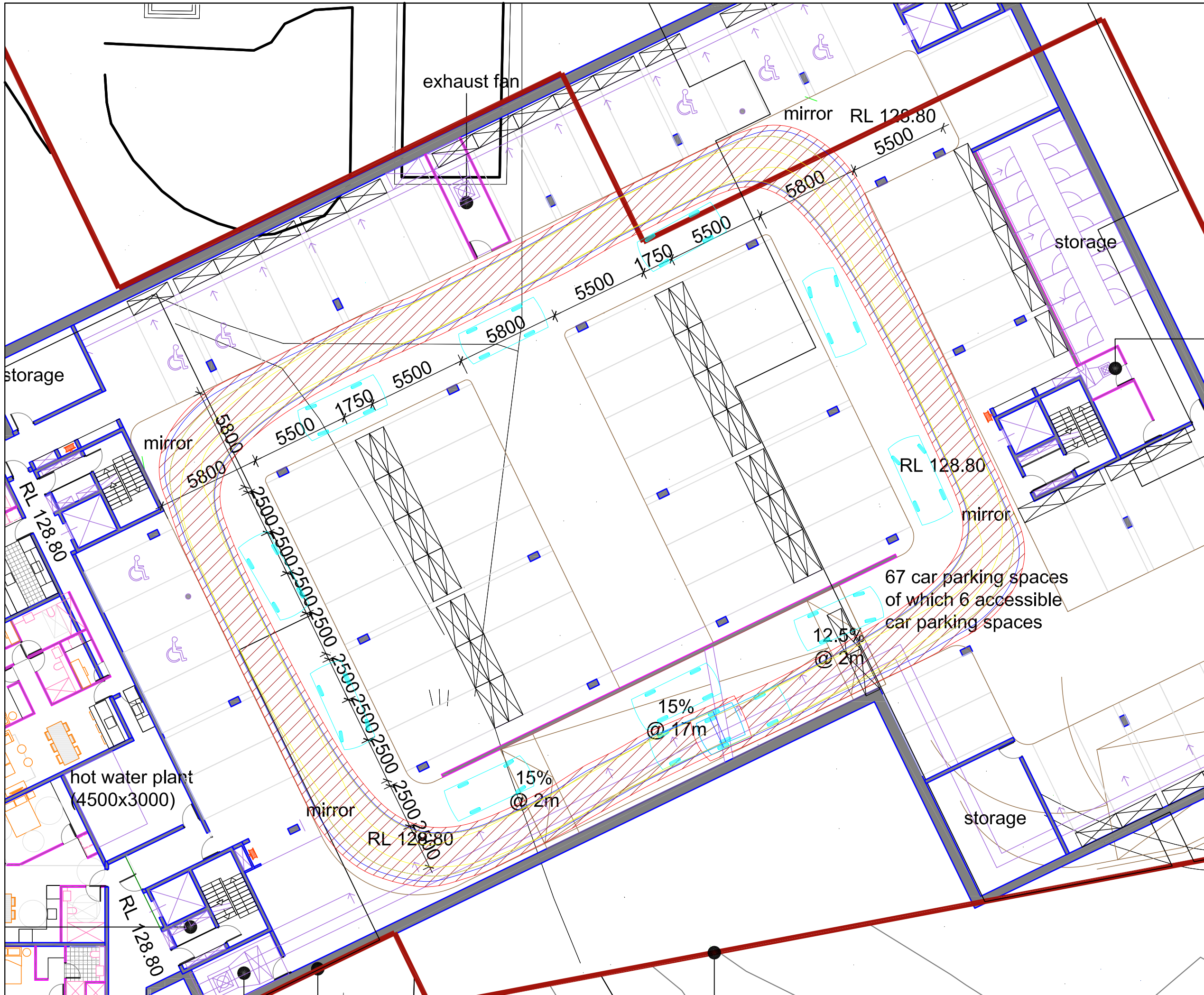


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Circulation
B85 & B99 Vehicles

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 traffic and transport planners
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 potts point NSW 2011
 PO Box 1061 potts point nsw 1335
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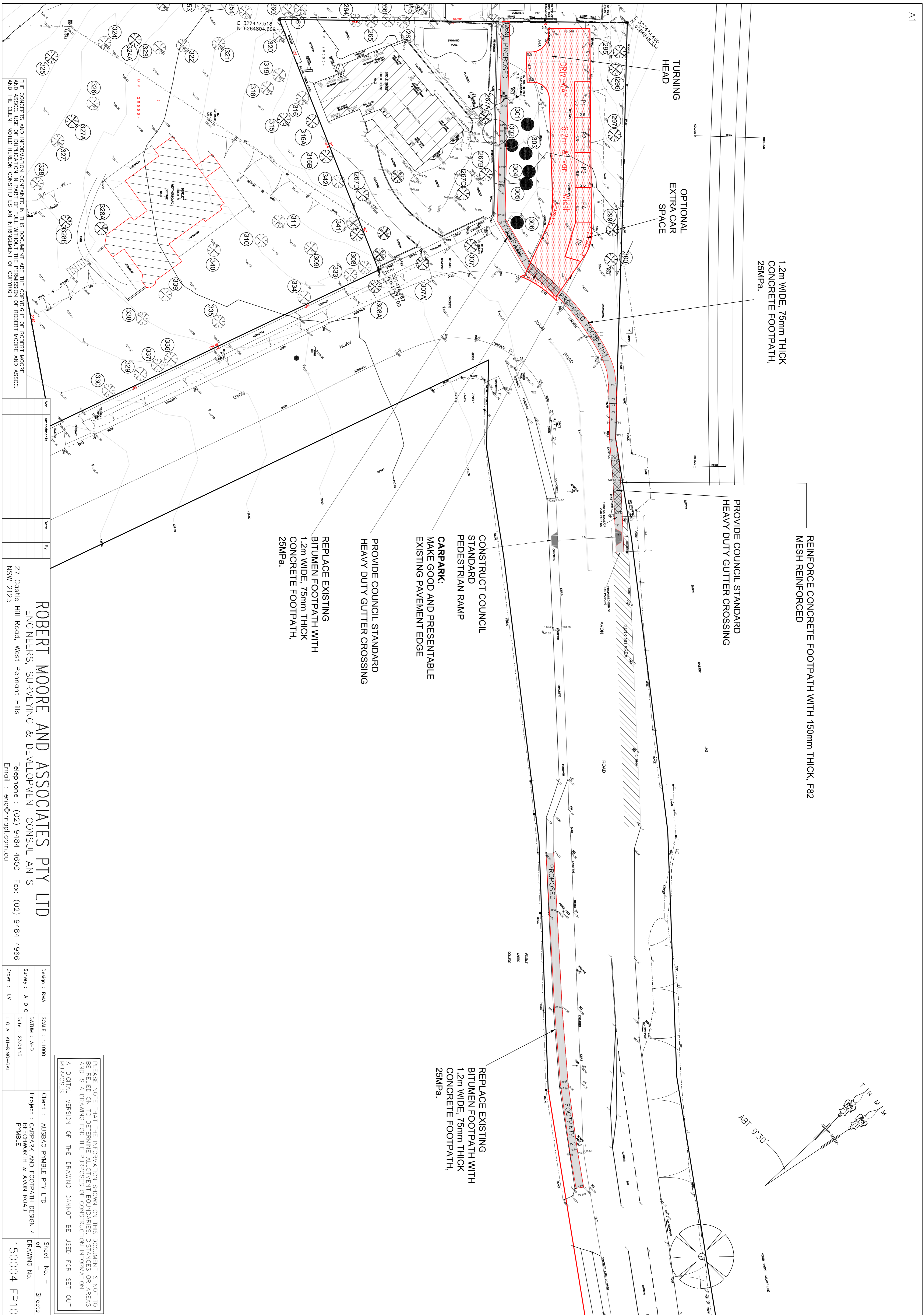
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67 car parking spaces
 of which 6 accessible
 car parking spaces

Appendix D

Avon Road Footpath Design



1.2m WIDE, 75mm THICK
CONCRETE FOOTPATH,
25MPa.

PROVIDE COUNCIL STANDARD
HEAVY DUTY GUTTER CROSSING

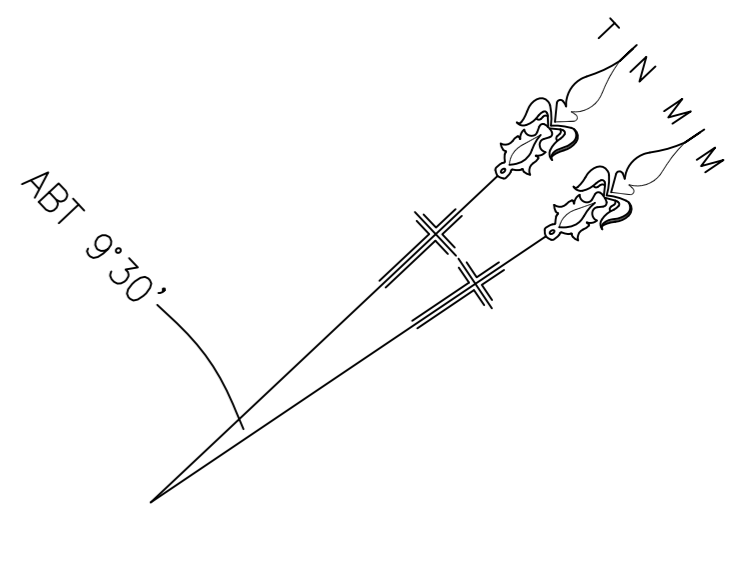
REINFORCE CONCRETE FOOTPATH WITH 150mm THICK, F82
MESH REINFORCED

CONSTRUCT COUNCIL
STANDARD
PEDESTRIAN RAMP
CARPARK:
MAKE GOOD AND PRESENTABLE
EXISTING PAVEMENT EDGE

PROVIDE COUNCIL STANDARD
HEAVY DUTY GUTTER CROSSING

REPLACE EXISTING
BITUMEN FOOTPATH WITH
1.2m WIDE, 75mm THICK
CONCRETE FOOTPATH,
25MPa.

REPLACE EXISTING
BITUMEN FOOTPATH WITH
1.2m WIDE, 75mm THICK
CONCRETE FOOTPATH,
25MPa.



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Email : eng@rmpl.com.au

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Drawn : LV	Date : 23.04.15
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