Proposed Mixed Use Development
37 Mayne Road
Bowen Hills

**TRAFFIC ENGINEERING REPORT**

Prepared for:
Metro (Bowen Hills No. 3) Pty Ltd

*December 2010*



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# 1. Background

## 1.1 Introduction

TTM Consulting has been engaged by Metro (Bowen Hills No. 3) Pty Ltd to prepare a traffic engineering report investigating a proposed mixed use development comprising of residential and retail elements within the Bowen Hills Urban Development Area (UDA). It is understood that a Development Application will be lodged with the Urban Land Development Authority (ULDA).

The scope of this report includes an assessment of the following traffic aspects of the development:

- Parking supply;
- Car park layout;
- Access design and location;
- Service vehicle arrangements &
- Bicycle facilities.

The report has been prepared taking cognisance of the *'Bowen Hills Urban Development Area Development Scheme'* and other relevant documentation such as *'AS2890.1:2001 Parking Facilities: Part 1 – Off-Street Parking'*.

## 1.2 Site Location

The site is located at Bowen Hills, to the north-east of the Royal National Association (RNA) Showgrounds, as shown in Figure 1.1. The site has road frontages to Mayne Road and Hazelmount Street, and is currently occupied by several retailers.

The existing land use currently has access driveways on Mayne Road and Hazelmount Street.

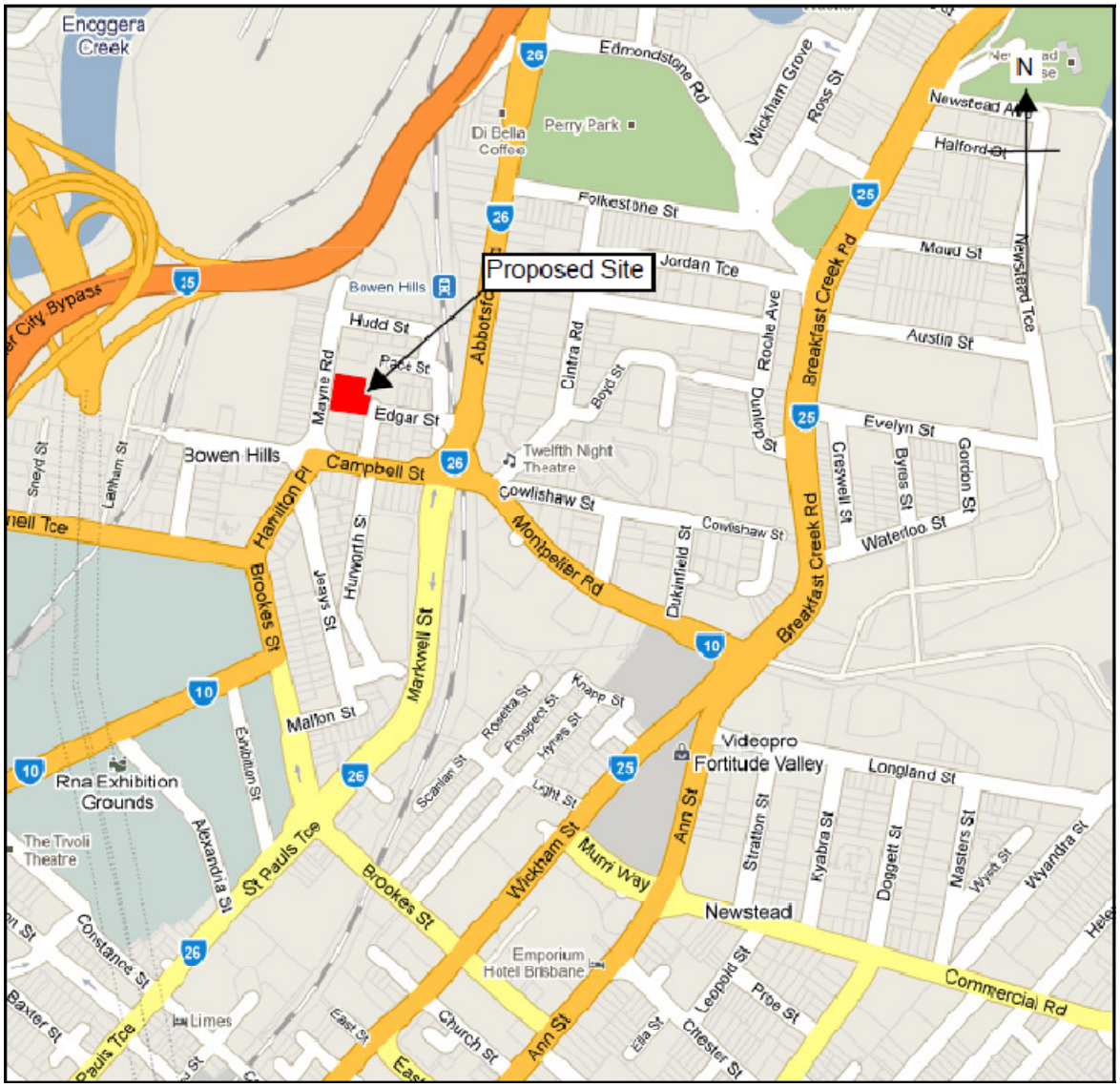



**Figure 1.1: Site Location**

The site is within Precinct 1 (i.e. Bowen Hills Heart) of the UDA.

# 2. Existing Conditions

## 2.1 Road Network

All roads in the immediate vicinity of the site are administered by Brisbane City Council. The hierarchy and characteristics of roads in the immediate vicinity of the site are shown below in Table 2.1.

**Table 2.1: Local Road Hierarchy**

| Road | Carriageway Width | Speed Limit | Lanes | Classification | Management |
|---|---|---|---|---|---|
| ◖ Campbell Street | 12.0m | 60kph | 4 (undivided) | Suburban Route | BCC |
| ◖ Mayne Road | 12.0m | 60kph | 4 (undivided) | Suburban Route | BCC |
| ◖ Hazelmount Street | 5.5m | 60kph | 2 (undivided) | Local Road | BCC |
| ◖ Edgar Street | 3.5m | 50kph | 1 | Local Road | BCC |

The intersection of Campbell Street/Mayne Street/Hamilton Street operates under signal control whist the intersections of Campbell Street/Hazelmount Street, Abbotsford Road/Edgar Street and Hazelmount Street/Edgar Street operate under priority control.

## 2.2 Road Planning

Table 2.2 summarises infrastructure required to be delivered in order to achieve the ULDA's vision for the Bowen Hills Urban Development Area.

**Table 2.2: Proposed infrastructure improvements**

| **Proposed catalyst infrastructure** | |
|---|---|
| **Infrastructure** | **Description of works** |
| ◖ Bowen Hills Railway Station | Stage 1 upgrade to improve safety, amenity and visual and physical access from Hudd Street. |
| **Proposed infrastructure improvements** | |
| **Infrastructure** | **Description of works** |
| ◖ Road and street improvements | Widening of O'Connell Terrace and public realm improvements. |
| | Widening of Cambell Street east of Mayne Road through to Abbotsford Road and public realm improvements. |
| | Widening of Tufton Street and public realm improvements. |
| | Extension of Tufton Street through to the junction of Mayne Road and Hudd Street. |
| | Public realm improvements to Brookes Street between Gregory and O'Connell Terraces |
| | Public realm improvements to Hamilton Place. |
| | Intersection modifications at the junction of Campbell Street, Hamilton Place and Mayne Road. |
| | Intersection modifications at the junction of O'Connell Terrace, Hamilton Place and Brookes Street to allow for both lanes from O'Connell Terrace to turn right into Brookes Street. |
| | Intersection signalisation at the junction of Tufton Street and O'Connell Terrace. |
| ◖ Transport Infrastructure | Upgrades to Bowen Hills Railway Station. |
| | New bus station linking to the Bowen Hills Railway Station. |

In respect to Precinct 1 the ULDA anticipate the following outcomes:

- Hudd Street will be widened on the southern alignment, extended through to Abbotsford Road and developed as a new 'main street'. It will become one of the most important public streets within Bowen Hills due to its proximity to the Bowen Hills Railway Station and new bus facility and the range and intensity of the adjacent uses. It will be an attractive tree lined avenue with generous footpaths to optimise the area available for commercial and pedestrian activity to spill out into the street;
- Hudd Street will accommodate four lanes of vehicle traffic with two-way vehicle movement, a cycle way with median buffer, on-street parking outside of peak traffic periods and bio-retention planting areas;
- Jamieson and Edgar Streets will be realigned and remodelled to create an attractive and pedestrian friendly space through which vehicles are likely to pass but where vehicle speeds will be kept low. A road surface that is flush with adjacent pavements allows for the seamless flow of pedestrians across the street and the inclusion of trees in tree pits maximises the volume of street area available for outdoor commercial use and pedestrian enjoyment; &
- Edgar Street will be extended through to Mayne Road.

The *'Bowen Hills UDA Masterplan'* states that the Edgar Street extension should function as a shared-use pavement which for cars provides access to adjacent sites. It is recommended that this link should have a streetscape sympathetic to pedestrians with car use restricted to access to adjacent car parks. It is considered that the speed limit on the link could be limited to 30kph in order to reduce the risk of speeding and allow pedestrians and cyclists to enjoy equal priority with other road users.

The Edgar Street extension through to Mayne Road is considered critical to provide access to the subject site.

The applicant has dedicated land to facilitate the extension through to Mayne Road. The land dedication is based on a concept plan provided by BCC and has been confirmed by the ULDA.

## 2.3 Public Transport and Other Road Users

Bowen Hills Train Station is located approximately 200m to the north of the site. Services operate every 20-30 minutes (approximately) in all directions. As illustrated in Table 2.3 below the station provides both direct and connecting rail services to Brisbane and the wider South East Queensland (SEQ) region.

**Table 2.3: Rail Services**

| Route | Frequency (Monday to Friday) |
|---|---|
| AIRP (Varsity Lakes to Brisbane International Airport) | 38 daily |
| BEEN (City to Beenliegh) | 54 daily |
| CABL (City to Caboolture) | 56 daily |
| CLEV (City to Cleveland) | 50 daily |
| DMBN (City to Doomben - Pinkenba – Myrtletown) | 33 daily |
| FERN (City to Ferny Grove) | 56 daily |
| IPSW (City to Ipswich/Rosewood) | 68 daily |
| SHOR (City to Shorncliffe) | 43 daily |
| NAMB (City to Nambour) * | 30 daily |

* Includes Railbus Service no. 649 (Caboolture to Nambour)

Inspection of timetabling information indicates that Translink services no. 301 (Cultural Centre to Toombul) and 320 (Edward Street to Chermside) operate on Abbotsford Road whilst service no. 393 (Teneriffe Ferry Terminal to Normanby Station) operates on Hamilton Place. A summary of the timetabling information for the bus services is provided in the tables below.

**Table 2.4: Timetabling Information for Service No. 301**

| Day | Cultural Centre to Toombul | | | Toombul to Cultural Centre | | |
|---|---|---|---|---|---|---|
| | First | Last | Frequency | First | Last | Frequency |
| ◖ Monday to Friday | 06:40 | 22:42 | 29 | 05:55 | 22:25 | 29 |
| ◖ Saturdays | 07:37 | 22:42 | 20 | 07:30 | 22:25 | 19 |
| ◖ Sundays & Public Holidays | 08:47 | 19:42 | 9 | 08:30 | 19:25 | 9 |

**Table 2.5: Timetabling Information for Service No. 320**

| Day | Edward Street to Chermside | | | Chermside to Edward Street | | |
|---|---|---|---|---|---|---|
| | First | Last | Frequency | First | Last | Frequency |
| ◖ Monday to Friday | 06:30 | 21:35 | 32 | 05:17 | 19:55 | 32 |
| ◖ Saturdays | 08:25 | 17:45 | 8 | 07:45 | 17:05 | 8 |
| ◖ Sundays & Public Holidays | 10:35 | 17:15 | 6 | 09:55 | 16:35 | 6 |

**Table 2.6: Timetabling Information for Service No. 393**

| Day | Teneriffe Ferry to Normanby Hotel | | | Normanby Hotel to Teneriffe Ferry | | |
|---|---|---|---|---|---|---|
| | First | Last | Frequency | First | Last | Frequency |
| ◖ Monday to Friday | 06:27 | 17:36 | 42 | 06:49 | 18:06 | 42 |

The formal bus stops situated on both Abbotsford Road and Hamilton Place are within a 5 minute (400m) walk of the subject site.

It is therefore considered that the subject site enjoys a high level of connectivity to the public transport network with Bowen Hills train station and bus stops within a convenient walking distance.

The subject site is reasonably well served in terms of pedestrian facilities with footpath provision provided on both sides of Campbell Street and Mayne Street. Formal pedestrian crossing facilities are provided at adjacent signal controlled intersections.

# 3. The Proposed Development

## 3.1 Development Description

The schedule of accommodation of the proposed scheme is shown in Table 2.1 below.

**Table 2.1: Proposed Development Schedule**

| Type | Number / GFA (m²) |
|---|---|
| **Residential:** Studio | 1 |
| One Bedroom | 155 |
| Two Bedroom | 86 |
| Total | 242 units |
| **Retail** | 520m² |

The development plans are included in Appendix A.

## 3.2 Car Parking

The development plan also includes 180 parking spaces distributed over 5 levels plus 7 motorcycle spaces and 1 carwash space.

The development plan also includes 100 bicycle spaces.

All parking provided is intended for the residential component, with no parking allocation for the retail component.

## 3.3 Access Arrangements

Vehicular access/egress will be achieved via a driveway located on the Edgar Street (through to Mayne Street) extension. It is proposed that the Edgar Street extension will be one-way running from Hazlemount Street to Mayne Road.

In terms of the gradients on the Edgar Street extension it is proposed that the section directly adjacent to the driveway will be level whilst a gradient of 1:13 will be provided on the western section ramping up from Mayne Road and a gradient of 1:15 will be provided on the eastern section ramping up to Hazlemount Street. It is considered that the detail design of the Edgar Street extension will need to be coordinated between the applicants developing the parcels on either side the extension with input from the ULDA. It is considered that the detailed design of the Edgar Street extension will have to satisfy urban design and traffic objectives.

The concept plan showing the Edgar Street extension is included in Appendix B.

## 3.4 Development Timing

Depending on the progress of the development application it is anticipated that the development will be complete by 2013.

# 4. Car Parking Arrangements

## 4.1 ULDA Requirement for Car Parking

***Residential***

The *'Bowen Hills Urban Development Area Development Scheme'* stipulates that on average 1 no. car parking space (inclusive of visitor car parking) is provided per dwelling. Based on this requirement 242 no. car parking spaces are necessitated to serve the residential component of the proposed development.

The total proposed on-site parking supply for the development is 180 spaces plus 7 motorcycle spaces.

The proposed parking supply rate is based on constraining the commuter traffic generated by the proposed development, which is consistent with Transport-Orientated-Development (TOD) principles. The UDA Development Criteria states:

> *"In support of TOD principles priority should be given to pedestrian, cycle and public transport modes, over private vehicle use".*

As mentioned previously, the site enjoys a high level of connectivity to the public transport network, therefore it is considered appropriate in terms of travel demand management strategies to reduce the overall parking supply and encourage residents to use alternative modes of transport.

It is noted that the ULDA recently approved a similar residential development on Jeays Street (named CODE) with a parking rate of less than one space per unit (0.84 spaces per unit).

TTM consider the Brisbane City Council rate for CBD residential development appropriate for TOD sites such as Bowen Hills. The BCC rate is 0.5 spaces per bedroom plus 1 space per 20 units for visitors. The parking requirement based on the BCC CBD rates is shown in Table 4.1.

**Table 4.1: Parking Provision – BCC CBD Rates**

| Unit Type | Parking Rate | No. of Parking Spaces Required |
|---|---|---|
| 1 x studio | 0.5 spaces per unit | 1 |
| 150 x one bedroom units | 0.5 spaces per unit | 75 |
| 84 x two bedroom units | 1.0 spaces per unit | 84 |
| 4 x three bedroom units | 1.5 spaces per unit | 6 |
| **Visitors:** 239 units | 1.0 spaces per 20 no. units | 12 |
| **Total** | | 178 |

The proposed parking supply of 180 parking spaces plus 7 motorcycle spaces is therefore considered acceptable on the basis of travel demand management principles required to encourage residents to use public transport or walk/cycle as opposed to travelling by private vehicle.

It is proposed that 13 visitor spaces will be located at the ground level parking area.

***Retail***

The car park ratio applicable to retail development in Precinct 1 is a maximum of 1 space per 200m$^2$ of GFA.

The development plan does not provide any spaces for the retail component, which satisfies the 'maximum' criteria specified by the development criteria.

## 4.2 Proposed Car Park Design

*'AS2890.1:2001'* is adopted as a reference for car park design. The key design parameters in accordance with *'AS 2890.1'* are set out in Table 4.2 below.

**Table 4.2: Car Park Design Criteria**

| Criteria | Minimum Required | Proposed | Comply (Yes or No) |
|---|---|---|---|
| Parking Spaces | 2.4m x 5.4m | 2.4m x 5.4m | **Yes** |
| Small Car Spaces | 2.3m x 5.0m | 2.3m x 5.4m | **Yes** |
| Motorcycle Spaces | 1.2m x 2.5m | 1.2m x 2.5m | **Yes** |
| Parking Aisle | 5.8m | 6.2m | **Yes** |
| Circulation Road | 5.5m | Varies | **Yes** |
| Ramp Grades | 1:4 (up to 20m)/1:5 (over 20m) | Varies between 1:5 and 1:10 | **Yes** |

Taking cognisance of Table 4.2 it is evident that the proposal accords with Australian Standards.

Whilst the design of the car parking facility complies with the design criteria set out in *'AS 2890.1'* it is considered that minor modifications are required to the layout at the detailed design stage to address operational issues. For example, it is considered that at some locations the introduction of small car spaces may be more desirable in terms of vehicle manoeuvrability. Inspection of the development plans included in Appendix A confirms that 12 spaces (or 7% of the total car park capacity) have been allocated as small car spaces. *'TAPS Policy'* suggests that in fully reserved car parking areas, up to 20% of the spaces provided may be small. As such it is considered that the allocation of a number of additional spaces for small cars in the car park will still ensure that the proposal adheres to BCC's requirements.

# 5. Road Network Performance

## 5.1 Traffic Generation & Distibution

The proposed development is expected to generate approximately 50vph during the weekday AM and PM peak-hour periods based on a trip generation rate of 0.25vph, which is typical for high density residential accommodation in close proximity to the CBD with constrained parking. On distribution of the development traffic to the road network (Campbell Street, O'Connell Terrace, Markwell Street, Brooke Street, Hamilton Place, St Pauls Terrace) the impact will be negligible, thus not warranting a traffic impact assessment.

## 5.2 Road Network Performance

A majority of the proposed road improvement works summarised in Table 2.1 in the area has been devised to accommodate the traffic demands for development across the entire Bowen Hills UDA.

# 6. Site Access Arrangements

## 6.1 Access Design & Location

Vehicular access/egress will be achieved via a driveway located on the Edgar Street (through to Mayne Street) extension.

In accordance with *'AS 2890.1'* a Category 2 driveway is required to facilitate vehicular access to the car park facility and service vehicle area. A Category 2 driveway requires a total width between 6.0m-9.0m. The proposed width of the driveway is 7.0m and as such this requirement is satisfied.

Swept path analysis has demonstrated that the required vehicle manoueuvres, (MRV's in this instance), can be accommodated at the driveway.

# 7. Service Vehicle Arrangements

## 7.1 Service Vehicle Bays

The service vehicle facility needs to accommodate the demands generated by the retail and residential components of the development. As illustrated on the development plans included in Appendix A it is proposed that 2 MRV spaces and a van space will be provided to facilitate the servicing of the development.

***Retail***

Brisbane City Council *'TAPS Policy'* is the best guide to determine the number service vehicle bays required. The *'TAPS Policy'* requires the following:

- 1 x Van; &
- 1 x MRV.

***Residential***

A significant proportion of the units within the development are classified as 'small' (i.e. <75m$^2$) and are targeted at the investor market, which relates to a high proportion of rental units. Whilst this may relate to a higher turn-over of tenants, these tenants typically have less furniture to move in/out of the unit, therefore utes and vans are typically used as opposed to the large trucks in order to minimise cost.

It is possible to manage the furniture trucks in a manner that controls the size of the vehicle accessing the site and also time at which the residents move in/out of the development. The building manager allocates a specific time period to the tenants to lock off a lift and use one of the service vehicle bays. On this basis, it is TTM's view that an MRV is the appropriate design vehicle for the furniture truck.

It is considered that the provision of 2 MRV spaces and 1 van space is sufficient to ensure the adequate servicing of the residential and retail components.

## 7.2 Vehicle Manoeuvrability

As shown in Figures 7.1 and 7.2 all service vehicles can enter and exit the site in a forward motion. It is noted that service vehicles will be required to reverse into the bays at the bottom of the ramp within the path of traffic entering the basement car park, however the potential for conflict is considered minimal given the tidal flow of traffic and the infrequency of service vehicles. The inbound traffic flow will typically peak after 5pm on weekdays, after servicing is finished, thus avoiding any significant conflict.

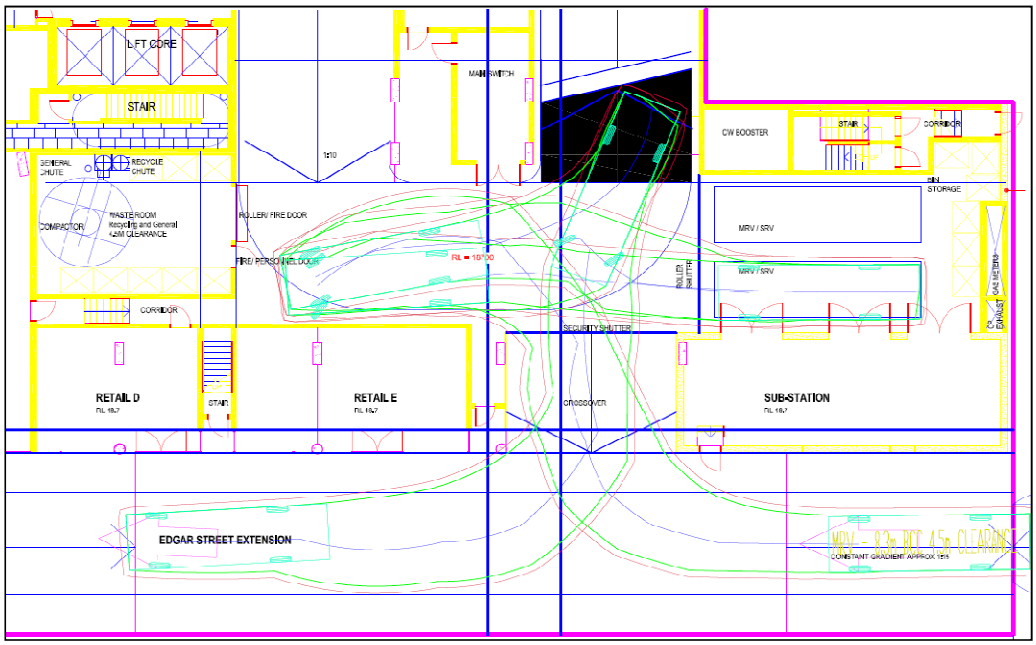



**Figure 7.1: MRV Swept Path for Service Bay 1**

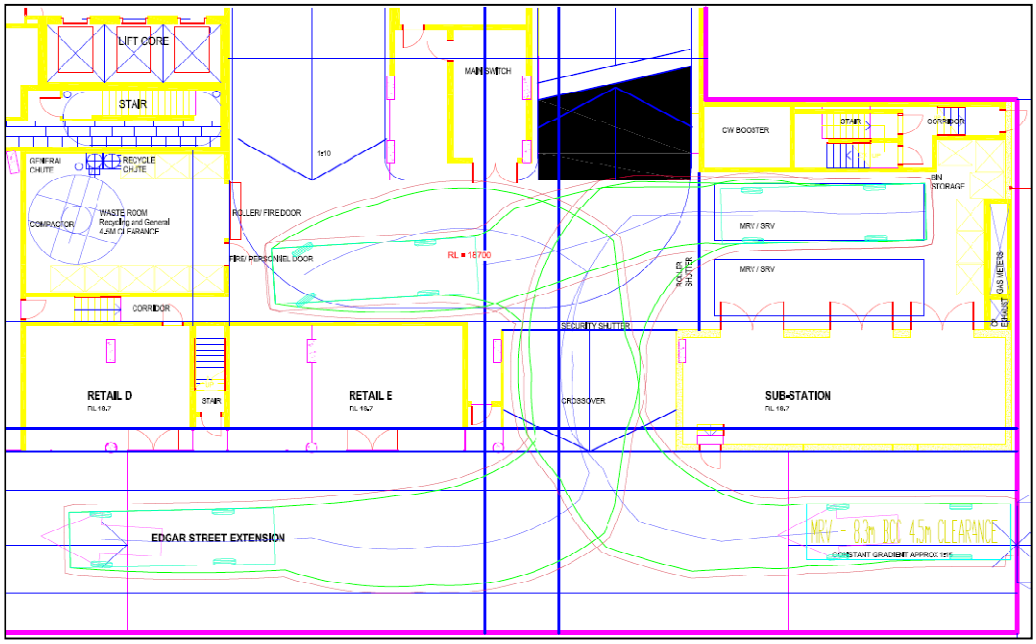



**Figure 7.2: MRV Swept Path for Service Bay 2**

# 8. Public Transport & Other Road Users

## 8.1 Public Transport

As intimated previously the subject site enjoys a high level of connectivity to the public transport network.

It has been demonstrated that the proposed development accords with Translink's requirements whereby public transport can be accessed within a 5 minute (400m) walk of the site.

As part of *'Bowen Hills Urban Development Area Development Scheme'* it is anticipated that the Bowen Hills train station will be upgraded to improve safety, visual and physical access from Hudd Street.

In addition a new busway station linking to the train station is proposed as part of the Urban Development Area.

With all of these infrastructure upgrade works public transport services will be able to cater for the needs of the residents.

## 8.2 Other Road Users

It is proposed that the Edgar Street extension will have a streetscape sympathetic to pedestrians with car use restricted to access to adjacent car parks. It is considered that the speed limit on the link could be limited to 30kph in order to reduce the risk of speeding and allow pedestrians and cyclists to enjoy equal priority with other road users.

The UDA development criteria specifies bicycle parking requirements for residential development, which are as follows:

- Residents: One secure bicycle space per unit; &
- Visitors: One space per 400m² of GFA.

It is intimated in the *'Bowen Hills Urban Development Area Development Scheme'* that the bicycle parking requirements are based on that set out in *'AS2890.3, Parking Facilities, Part 3 Bicycle Parking Facilities'*. Inspection of this document has confirmed that it does not specify parking rates for bicycles.

The generally accepted guide for determining bicycle facilities is *'AustRoads Part 14-Bicycles'*. Table 9.1 summarises the AustRoads bicycle parking requirement.

**Table 8.1: Bicycle Parking Provided as per AustRoads**

| Land Use | Category | Parking Requirements | No. of Spaces Required |
|---|---|---|---|
| **Residential** | Tenants | 1.0 space per 4 units | 61 |
| | Visitor | 1.0 space per 16 units | 15 |
| **Retail** | Visitor | 10 .0 spaces minimum | 10 |
| **Total** | | | 86 |

As shown in Table 8.1 above the proposed cycle parking provision satisfies the minimum requirements set out by Austroads.

It is acknowledged that it is imperative that the provision of bicycle spaces be maximised for the proposed development, particularly given the parking supply for cars is less than one (1) spaces per unit.

To minimise the space utilised by the bicycle storage facility, and subsequently improve the efficiency of the building, a bicycle rack system utilising double height storage is proposed.

# 9. Recommendations

## 9.1 Impact on Surrounding Road Network

It is concluded that the traffic generated by the proposed development will have a negligible impact upon the adjacent road network, and as such, TTM do not consider that a detailed impact analysis is necessary.

## 9.2 Development Access

Vehicular access/egress will be achieved via a driveway located on the Edgar Street extension.

In terms of the gradients on the Edgar Street extension it is proposed that the section directly adjacent to the driveway will be level whilst a gradient of 1:13 will be provided on the western section ramping up from Mayne Road and a gradient will be provided on the eastern section ramping up to Hazlemount Street. It is considered that the detail design of the Edgar Street extension will need to be coordinated between the applicants developing the parcels on either side the extension with input from the ULDA. It is considered that the detailed design of the Edgar Street extension will have to satisfy urban design and traffic objectives.

In accordance with *'AS 2890.1'* a Category 2 driveway is required to facilitate vehicular access to the car park facility and service vehicle area. A Category 2 driveway requires a total width between 6.0m-9.0m. The proposed width of the driveway is 7.0m and as such this requirement is satisfied.

Swept path analysis has demonstrated that the required vehicle manoueuvres, (MRV's in this instance), can be accommodated at the driveway.

## 9.3 Car Parking Arrangements

The proposal includes 180 parking spaces distributed over 5 levels plus 1 carwash space.

All parking provided is intended for the residential component, with no parking allocation for the retail component.

The proposed parking supply is based on constraining the commuter traffic generated by the subject site and is consistent with TOD principles.

## 9.4 Service Vehicle Arrangements

The proposed service vehicle facilities are considered acceptable to service the demands for both the retail and the residential components of the development.

## 9.5 Public Transport and Other Road Users

The site is well located in terms of providing a high level of accessibility to public transport, with the Bowen Hills Train Station and RBWH Busway station within walking distance of the site. This reinforces the proposal to constrain resident car parking and encourage residents to use public transport.

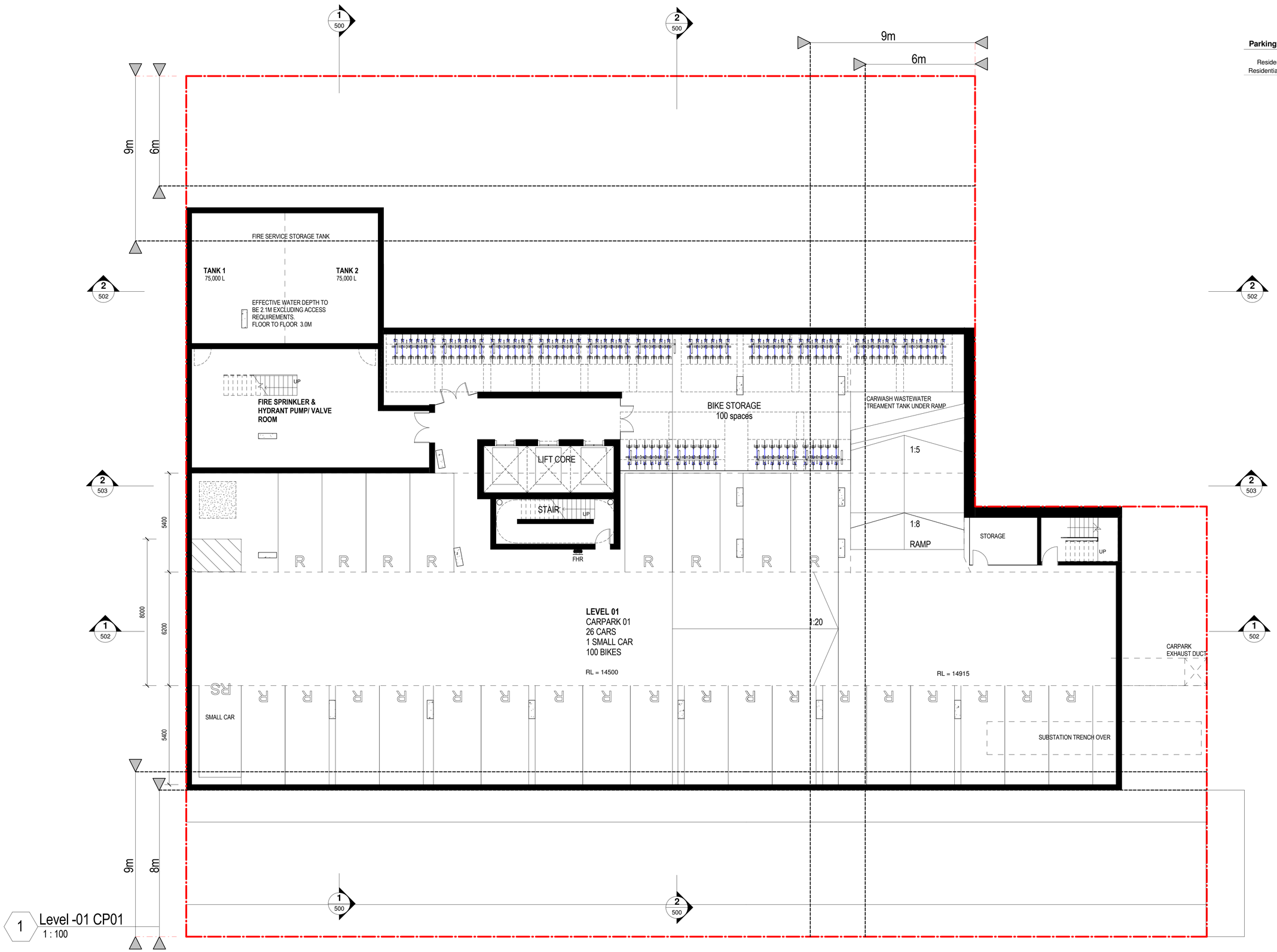
The bicycle facilities provided on-site are well in excess of the minimum requirements of the Austroads Part 14, which is considered appropriate based on the constrained car park supply and the need to encourage residents to use alternative modes of transport.

# Appendix A

## *PROPOSED DEVELOPMENT LAYOUT*

**Parking Schedule LEVEL -01 CP01**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Residential | 5400 x 2500 mm | R | 26 |
| Residential Small | 5000 x 2300 mm | RS | 1 |
| | | | 27 |




1 Level -01 CP01
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bureau proberts

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| PROJECT: | MAYNE ROAD |
| ADDRESS: | 37 MAYNE ROAD, BOWEN HILLS |

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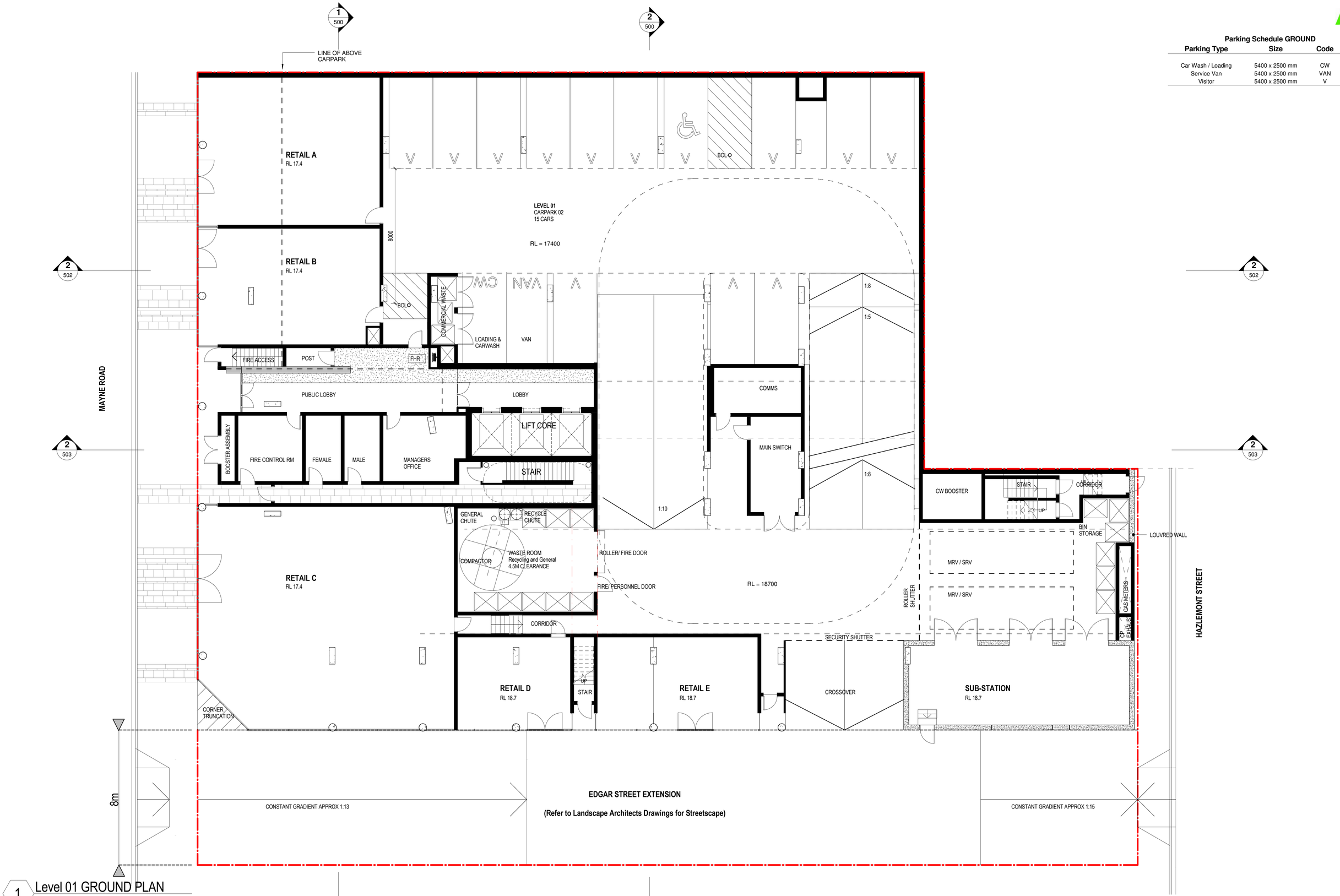
**Parking Schedule GROUND**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Car Wash / Loading | 5400 x 2500 mm | CW | 1 |
| Service Van | 5400 x 2500 mm | VAN | 1 |
| Visitor | 5400 x 2500 mm | V | 13 |
| | | | 15 |




1 Level 01 GROUND PLAN
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| | |
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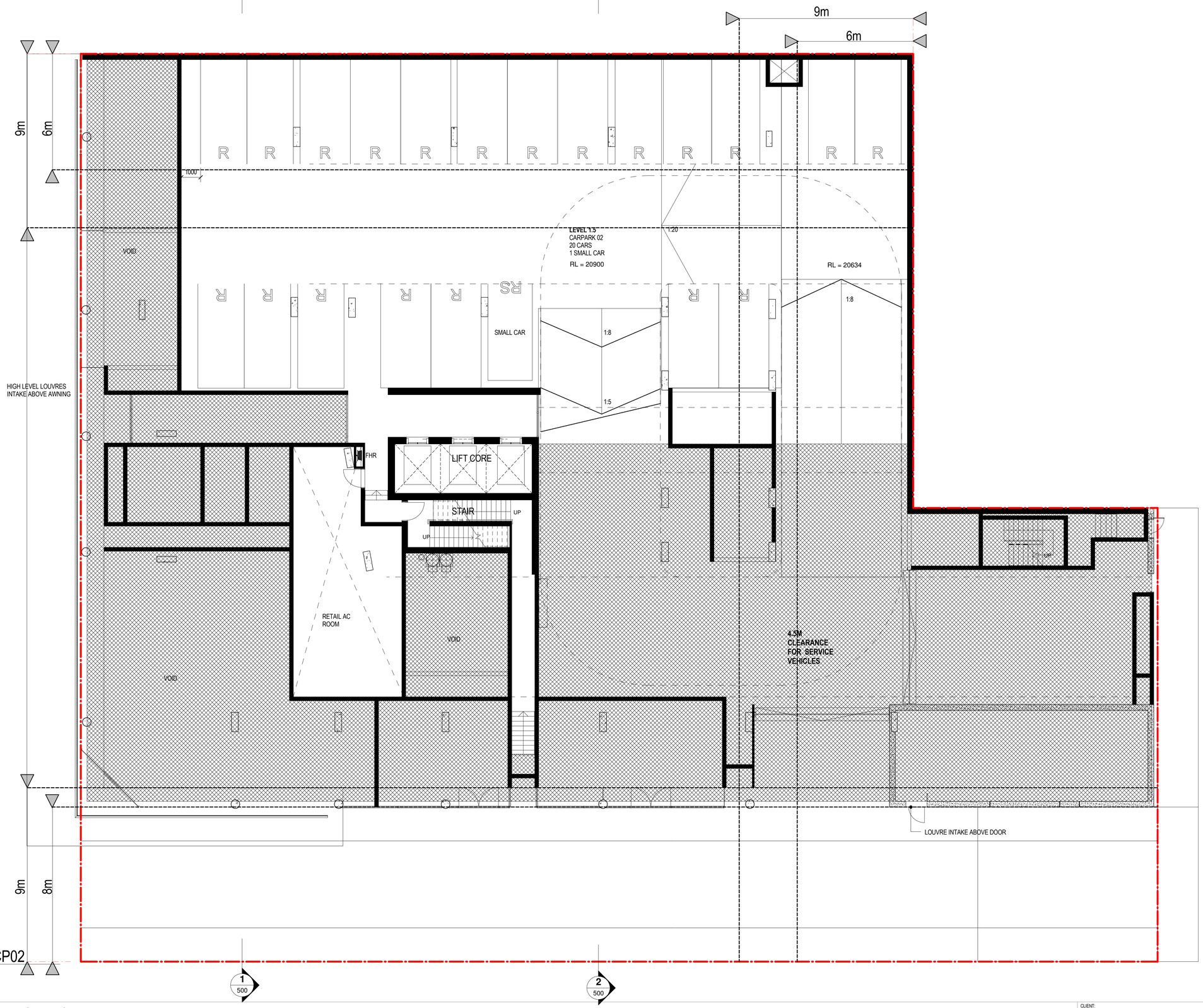
**Parking Schedule LEVEL 1.5 CP02**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Residential | 5400 x 2500 mm | R | 20 |
| Residential Small | 5000 x 2300 mm | RS | 1 |
| | | | 21 |




1 Level 1.5 CP02
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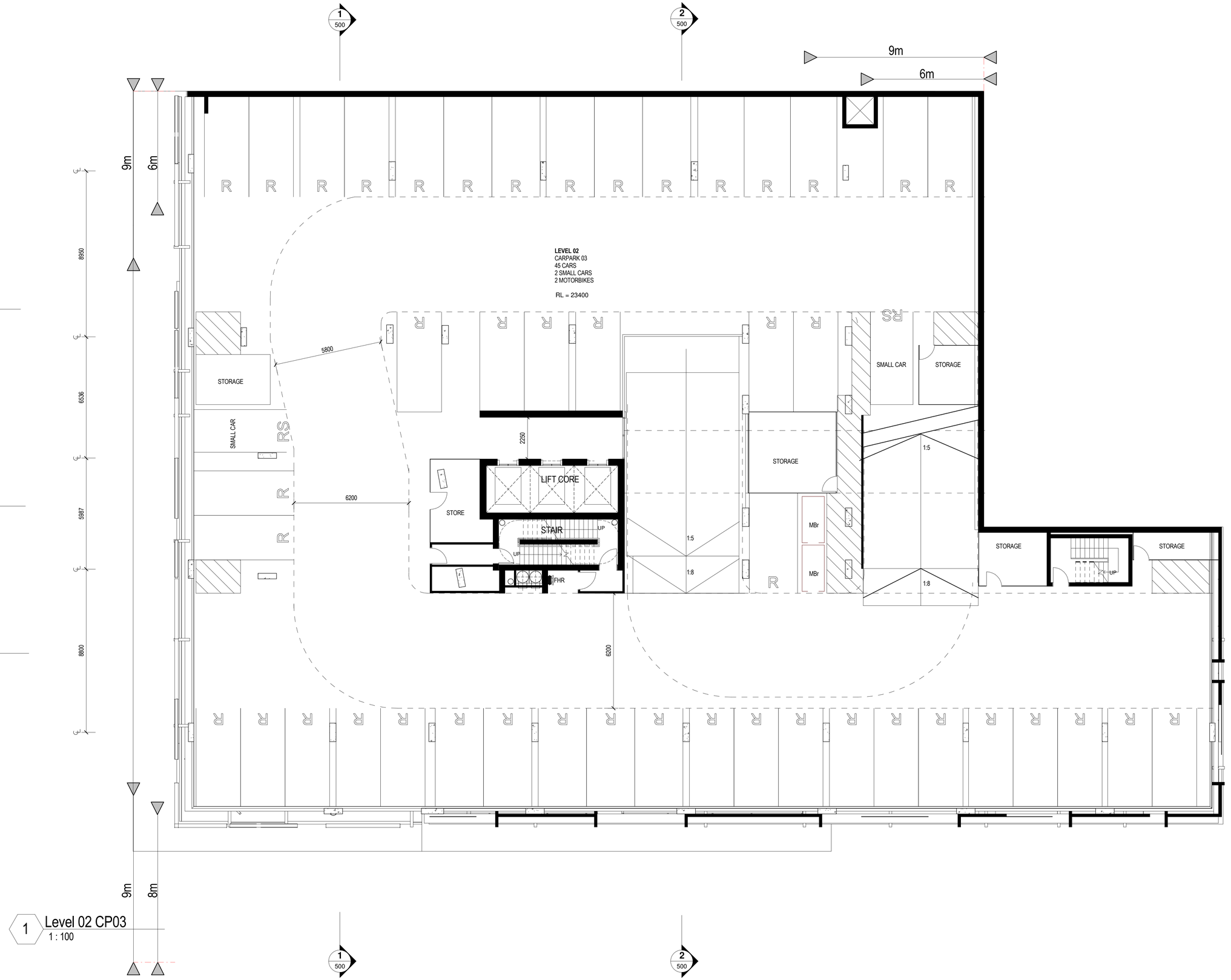
**Parking Schedule LEVEL 02 CP03**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Motorcycle | 2500 x 1200 mm | MBr | 2 |
| Residential | 5400 x 2500 mm | R | 45 |
| Residential Small | 5000 x 2300 mm | RS | 2 |
| | | | 49 |

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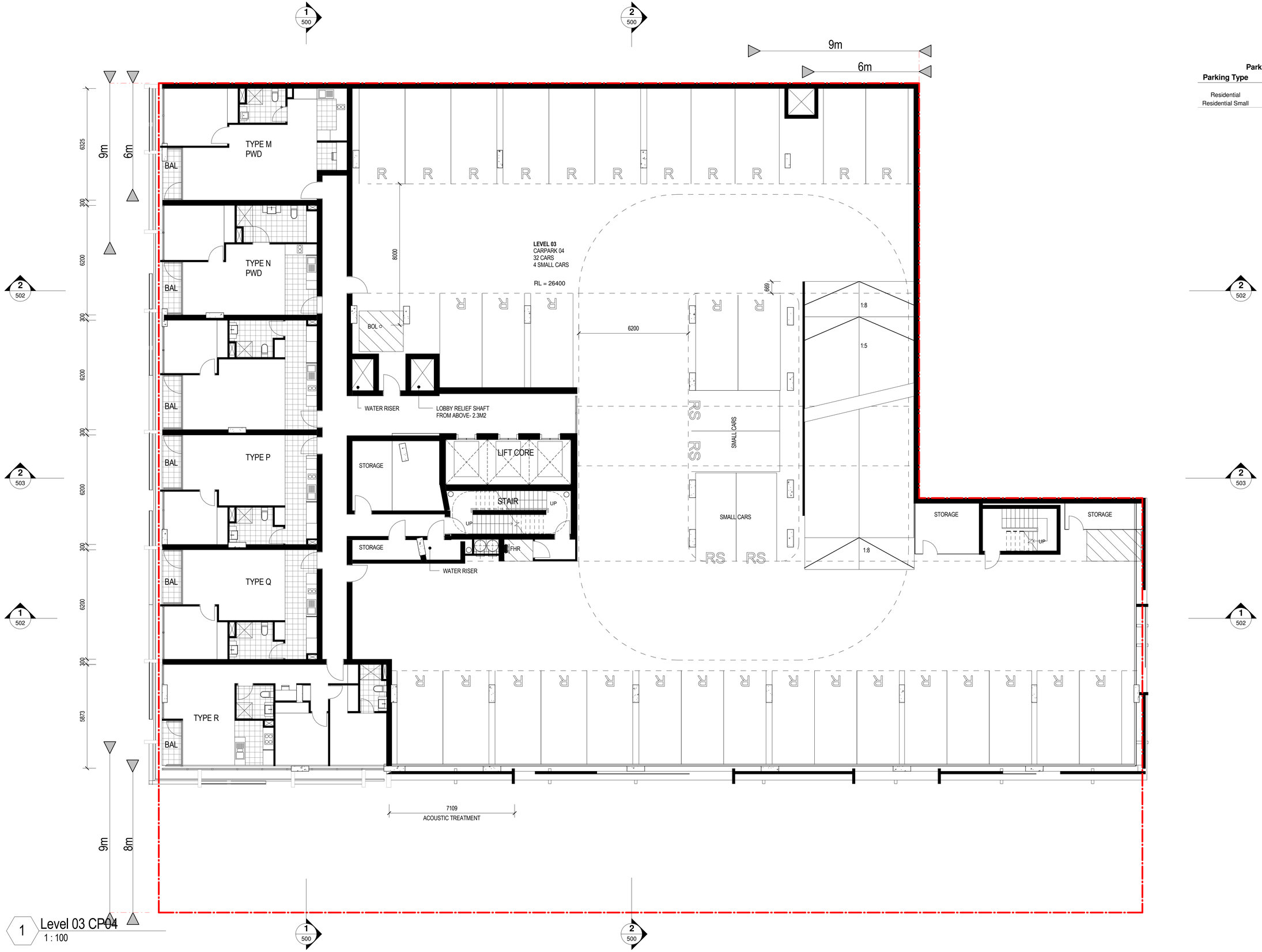
**Parking Schedule LEVEL 03 CP04**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Residential | 5400 x 2500 mm | R | 32 |
| Residential Small | 5000 x 2300 mm | RS | 4 |
| | | | 36 |




1 Level 03 CP04
1 : 100

bureau proberts

CLIENT: Metro (Bowen Hills No.3) Pty Ltd
PROJECT: MAYNE ROAD
ADDRESS: 37 MAYNE ROAD, BOWEN HILLS

SCALE: 1 : 100 [A1]
DATE: 16/12/10
NORTH:
PROJECT NO: 10053
PHASE: DA
DRAWING NUMBER: 106
REVISION: G

16/12/2010 1:51:04 PM

**Parking Schedule LEVEL 04 CP05**

| Parking Type | Size | Code | Total |
|---|---|---|---|
| Motorcycle | 2500 x 1200 mm | MBr | 5 |
| Residential | 5400 x 2500 mm | R | 32 |
| Residential Small | 5000 x 2300 mm | RS | 4 |
| | | | 41 |


1 Level 04 CP05
1 : 100

bureau proberts

| | | | |
|---|---|---|---|
| CLIENT: Metro (Bowen Hills No.3) Pty Ltd | SCALE: 1 : 100 [A1] | DATE: 16/12/10 | NORTH: |
| PROJECT: MAYNE ROAD | | | |
| ADDRESS: 37 MAYNE ROAD, BOWEN HILLS | PROJECT NO: 10053 | PHASE: DA | DRAWING NUMBER: 107 REVISION: G |

16/12/2010 1:53:23 PM

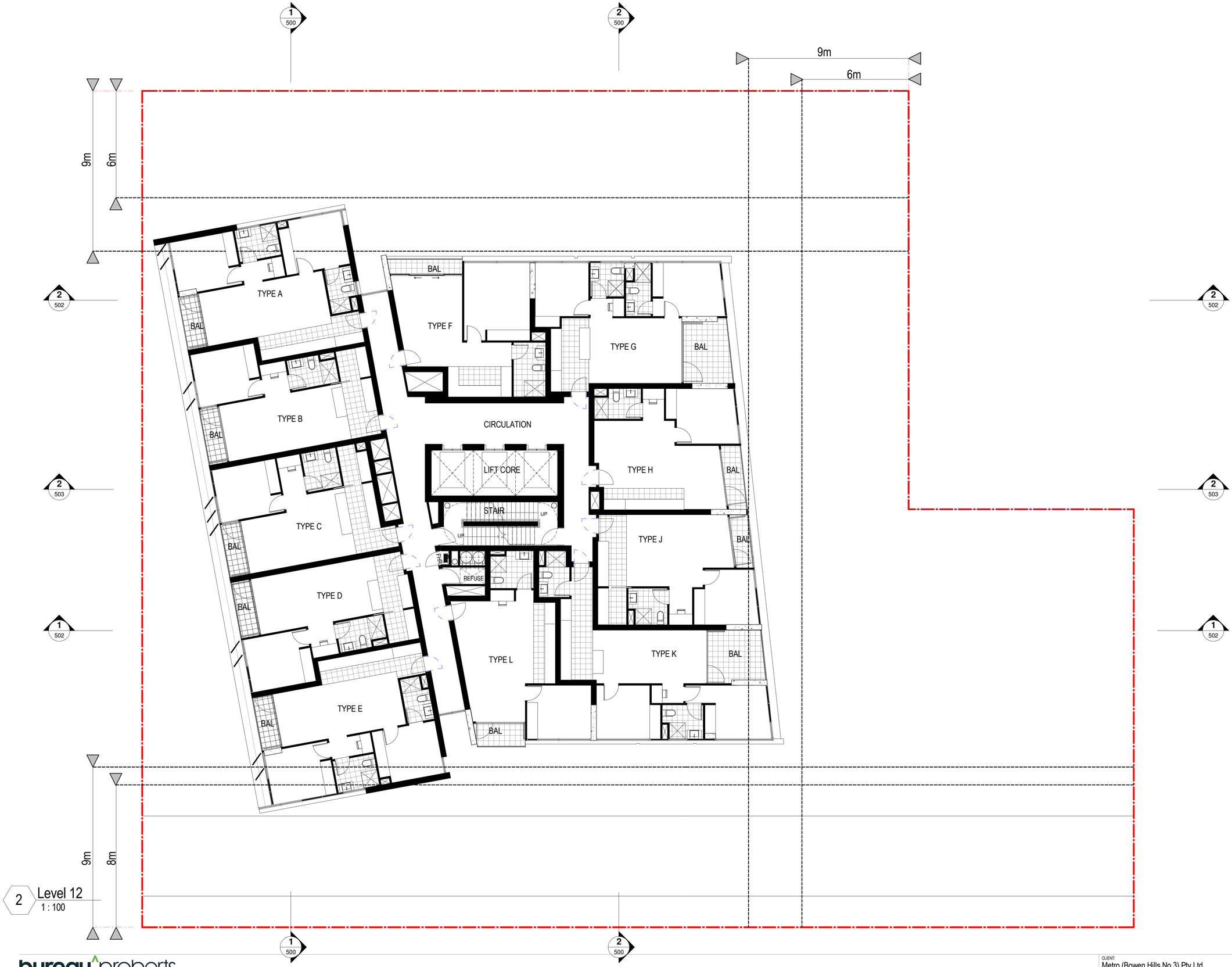
| Area Schedule (GFA) Level 5 | | |
|---|---|---|
| **Area** | **Name** | **Level** |
| 51.55 | INTERNAL | Level 05 Podium Level |
| 53.50 | INTERNAL | Level 05 Podium Level |
| 56.19 | INTERNAL | Level 05 Podium Level |
| 53.77 | INTERNAL | Level 05 Podium Level |
| 68.08 | INTERNAL | Level 05 Podium Level |
| 57.98 | INTERNAL | Level 05 Podium Level |
| 64.06 | INTERNAL | Level 05 Podium Level |
| 42.71 | INTERNAL | Level 05 Podium Level |
| 53.97 | INTERNAL | Level 05 Podium Level |
| 69.82 | INTERNAL | Level 05 Podium Level |
| 43.66 | LIFT AND STAIRS | Level 05 Podium Level |
| 55.80 | INTERNAL | Level 05 Podium Level |
| 88.83 | CIRCULATION | Level 05 Podium Level |
| 14.04 | STAIR | Level 05 Podium Level |

1 Level 05 Podium Level
1 : 100

bureau proberts

| | |
|---|---|
| CLIENT: | Metro (Bowen Hills No.3) Pty Ltd |
| PROJECT: | MAYNE ROAD |
| ADDRESS: | 37 MAYNE ROAD, BOWEN HILLS |
| SCALE: | 1 : 100 [A1] |
| DATE: | 16/12/10 |
| PROJECT NO: | 10053 |
| PHASE: | DA |
| DRAWING NUMBER: | 108 |
| REVISION: | H |

16/12/2010 1:53:49 PM




PRELIMINARY

bureau proberts

CLIENT: Metro (Bowen Hills No.3) Pty Ltd
PROJECT: MAYNE ROAD
ADDRESS: 37 MAYNE ROAD, BOWEN HILLS

SCALE: 1 : 100 [A1]
DATE: 16/12/10
NORTH:
PROJECT NO: 10053
PHASE: DA
DRAWING NUMBER: 115
REVISION: E

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bureau proberts

CLIENT: Metro (Bowen Hills No.3) Pty Ltd
PROJECT: MAYNE ROAD
ADDRESS: 37 MAYNE ROAD, BOWEN HILLS

SCALE: 1 : 100 [A1]
DATE: 16/12/10
NORTH:
PROJECT NO: 10053
PHASE: DA
DRAWING NUMBER: 128
REVISION: F

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# Appendix B

## PRELIMINARY LANDSCAPE CONCEPT – PROPOSED EDGAR STREET EXTENSION

NOTE : EXISTING OVERHEAD POWER LINES

SINGLE AVENUE
SUB-TROPICAL TREES
+ LOW UNDERPLANTING
eg: Xanthostemon
Syzygium etc
+ Liriope
Trachelospermum etc

MAYNE ROAD

BENCH SEATS
/ BINS ETC

ACCENT ENTRY PAVING

EXISTING PORPHYRY KERBS
TO BE REINSTATED

RAMP ENTRY TO 'LANE'

1:13 GRADIENT

EDGAR STREET EXTENSION – ONE WAY TRAFFIC

1:15 GRADIENT

CARPARK ENTRY

EXPOSED AGGREGATE PAVEMENT (Grey)

HAZELMOUNT STREET

VEHICLE ROADWAY
3.5m WIDE
DEFINED BY SURFACE TREATMENT
TO BCC / ULDA REQ'S
NO KERBS

PEDESTRIAN ZONES
DEFINED BY SURFACE TREATMENT
eg: EXPOSED AGGREGATE – GREY

POSSIBLE CARPARK ACCESS
TO PROPOSED 'MADISON ON MAYNE'

RAMP ENTRY TO 'LANE'

TREVOR LYNCH
LANDSCAPE
ARCHITECT

PROJECT **PROPOSED DEVELOPMENT**
@ 37 MAYNE RD, BOWEN HILLS

CLIENT **METRO PROPERTY DEVELOPMENT P/L**

TITLE **LANDSCAPE CONCEPT PLAN**
**GROUND FLOOR / STREETSCAPE**

Scale: 1:250@A3 Date: DEC 10 Drg. No 10053 / 01B