19 March 2015

The General Manager
Ryde City Council
Locked Bag 2069
NORTH RYDE NSW 1670

Attention: Mr Glenn Ford

Dear Glenn,

RE: Nos. 110-114 Herring Road, Macquarie Park - Section 75W Modification of MP10_0112 Concept Plan Approval and MP 10_0113 Stage 1 Project Approval (MOD 5)

This letter has been prepared to respond to Council's email to the Department of Planning on 26 February 2015. Council's email indicates their support of MOD 5, which amends the plans to comply with the PAC determination of 21 November 2015 (MOD 3).

Council's email also requires clarification on four matters including:

- Parking for adaptable units;
- Detailed plans to show how storage areas will not be capable of conversion to parking;
- Confirmation that the car parking complies with the relevant standards in terms of layout, driveway grades and clearances and is functional in terms of security separation of areas and service vehicles); and,
- Waste management arrangements.

Responses to the above matters are provided in the following sections.

1 Parking Category for Adaptable Units

Council has advised it will not include a separate parking category for adaptable units. This is a Stage 2 DA matter not relevant to proposed MOD 5.

2 Detailed plans to show how storage areas will not be capable of conversion to parking

Detailed plans have been prepared by AJ+C Architects to demonstrate how the proposed storage areas are not capable of being converted to parking in the future (refer to **Appendix A**).

Under the Australian Standards *AS/NZS 2890.1:2004 Parking Facilities - Off-Street Car Parking,* the minimum car space requirement is 2400mm by 5400mm, or an internal width of 3000mm for enclosed car spaces. The cages are enclosed by a full height masonry rear wall and cyclone mesh dividing wall. A 900mm wide door provides access to the cages, rather than a full width garage door.

URBIS SERVICES
GPO Box 5278 Sydney 2001
Tower 2, Level 23, Darling Park
201 Sussex Street
Sydney NSW 2000 Australia

t 02 8233 9900 f 02 8233 9966 e info@urbis.com.au w urbis.com.au Urbis Services Pty Ltd ABN 24 105 273 505

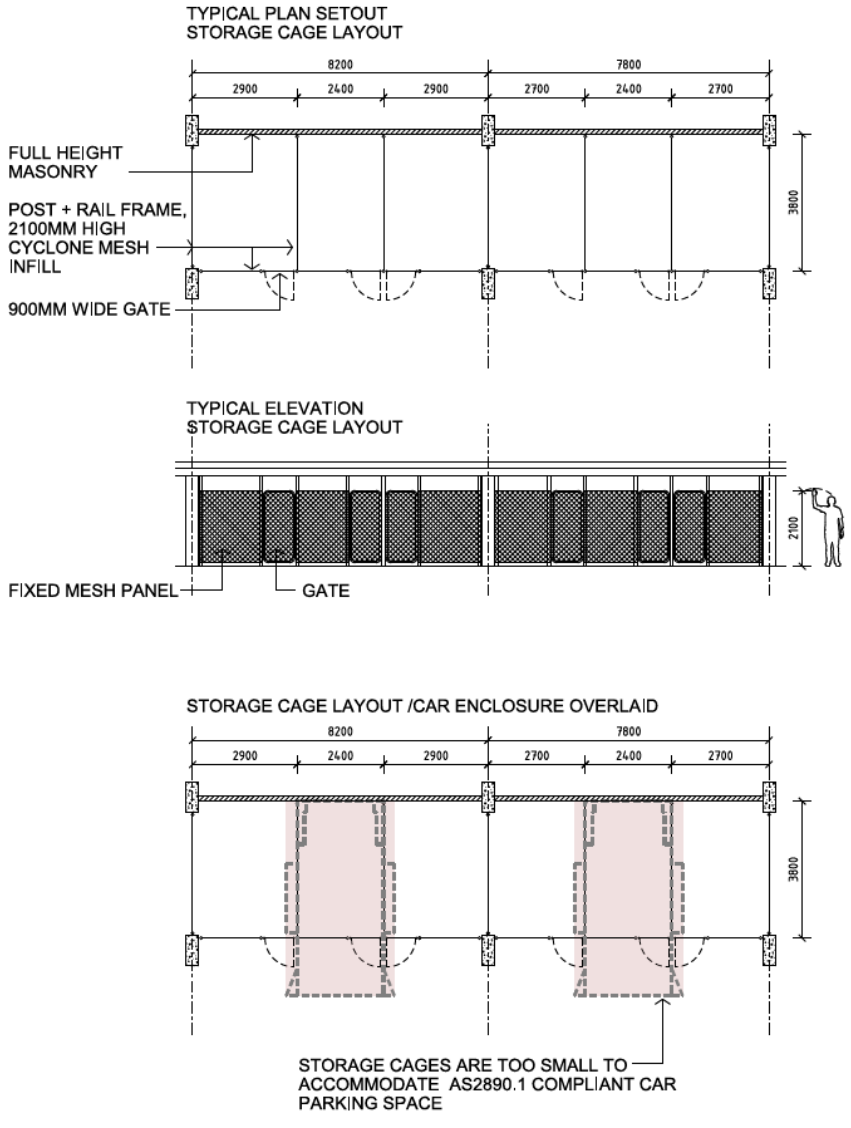
The storage areas range in width from 2400mm to 2900mm. All spaces have a maximum length of 3800mm. The storage cages would therefore not comply with the minimum width and length required for enclosed spaces (refer to Figure 1).

The dimensions for the 85th percentile vehicle under the *AS/NZS 2890.1:2004* is 4910mm by 1870mm. Even if the cages were removed the space is not of a sufficient size to accommodate a standard medium size vehicle. We note that removal of the cages would be in breach of the approval.

A 'small' car space should be 5000mm by 2300mm (unenclosed). This requirement is based on what is referred to as a 'light' car. The dimensions of such a vehicle are 4450mm in length and 1700mm in width and this represents the 35th percentile vehicle. The storage cages are not long enough to accommodate even a small vehicle.

Accordingly, as demonstrated in Appendix A, the storage areas are not capable of being converted to parking spaces.

FIGURE 1 – STORAGE CAGES



3 Car Parking Compliance with the Australian Standards

Council has requested more information to confirm that the car parking complies with relevant standards, including layout, driveway grades, clearances, and is functional in terms of security separation of areas, service vehicles.

Traffix has prepared a letter that addresses key elements of the car park design and layout, considering the design requirements of the relevant Australian Standards, including AS2890.1, AS2890.2, and AS2890.6. A copy of this letter is attached at **Appendix B**. Traffix concludes in their letter, inter alia:

> *"In summary, the internal car parking design as shown in the amended plans, including ramps, internal circulation aisles, parking aisles and parking modules, is generally in accordance with the requirements of the relevant Australian Standards.*
>
> *This application is therefore considered to be supportable from a traffic-engineering perspective."*

4 Waste Management Arrangements

Council's email requests more information relevant to the proposed waste management arrangements and advise that a more detailed explanation of the concerns of Council's Waste Management Team will be provided under separate cover. Although we have not received any further formal explanation, Council's Waste Management Team have provided hand written notes that raise six matters. Those matters and a response to each are provided below. We note that it appears Council have not reviewed the Revision H drawings that form part of MOD 5.

- *The bin storage area on the western end of the basement has been deleted and there is no facility for trucks to pull up.*

  Response: This is incorrect. A central bin storage area is proposed on the western side of the basement. There is also a loading dock area for trucks to pull up and service the bin store through a sliding gate on the western elevation.

- *There is no clean-up room/ hard waste storage area of 20m² for household clean up. This needs to be accessible by truck from the loading area.*

  Response: A hard waste storage area is now clearly indicated on the drawings. The area is a designated space within the main bin storage room, separate to the car park area. The hard waste area is $10m^2$ and is considered to be sufficient for the development and consistent with Part 7.2 of Council's DCP, which requires a separate room or undercover caged area of a minimum 5m² for developments of 30 or more dwellings.

- *Basement needs to be a minimum of 4m high for trucks to enter.*

  Response: The basement has a minimum 4.5m clearance for truck access.

- *The carousel compactor will not work. It needs to have 1,100L bins for this size of development.*

  Response: 1100l bins are proposed on the carousel.

- *Items from previous RFI have been addressed.*

Response: All matters raised in the Request for Information have been addressed in Urbis' letter of 5 March 2015 and this letter.

- *An amended Waste Management Plan is required explaining how bins will be serviced.*

  Response: The proposal is consistent with the approved Waste Management Plan and does not need to be amended.

Accordingly, the matters raised in the RFI and Council's further items have been addressed, as per DA Drawing Nos. 2001, 2002 and 2003 Revision H.

5 Conclusion

The matters raised by Council in their email of 26 February 2015 have been addressed in the above sections and in Appendix A and Appendix B.

Accordingly, the DA as submitted addresses the concerns of Council such that the DA can be supported and reported to the JRPP.

Yours sincerely,

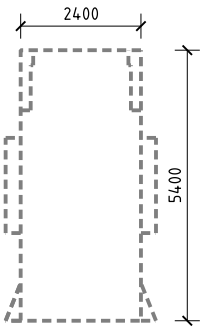
Alaine Roff
Senior Planner

Appendices

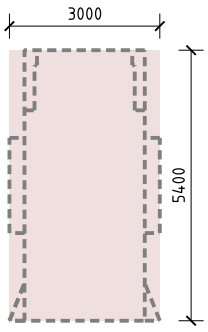
Appendix A: Storage Area Diagrams

Appendix B: Traffic Statement – Design of Traffic Elements

Appendix A Storage Area Diagrams

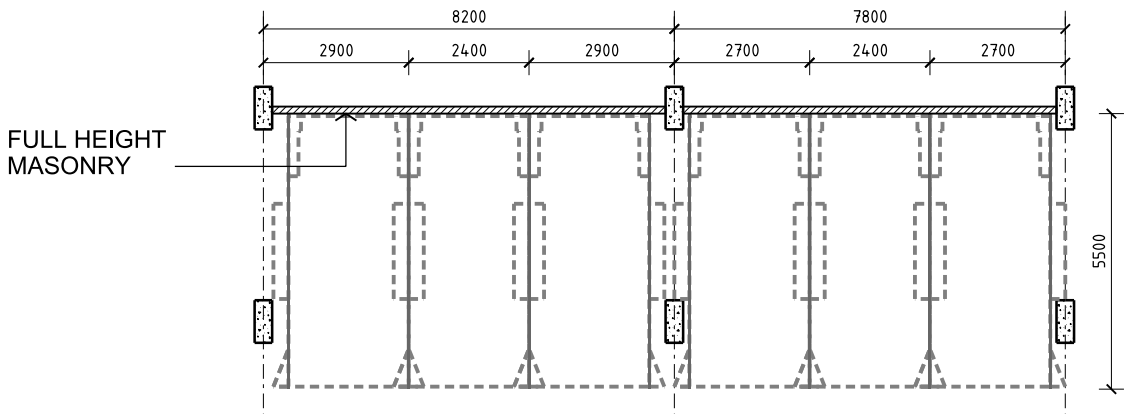


CAR PARKING ENVELOPE -
NO WALL OBSTRUCTIONS
REFER AS2890.1 FIG 5.2

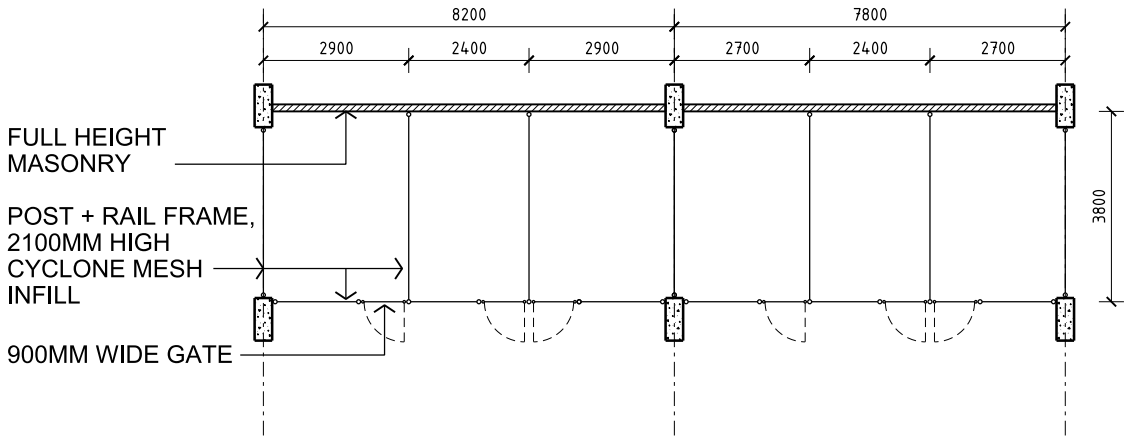


CAR PARKING ENVELOPE -
WALLS ON BOTH SIDES
REFER AS2890.1 FIG 5.2

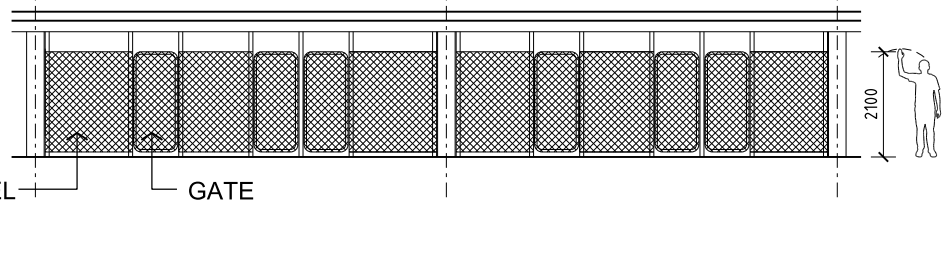
TYPICAL PLAN SETOUT
LINE MARKED CAR PARKING SPACES



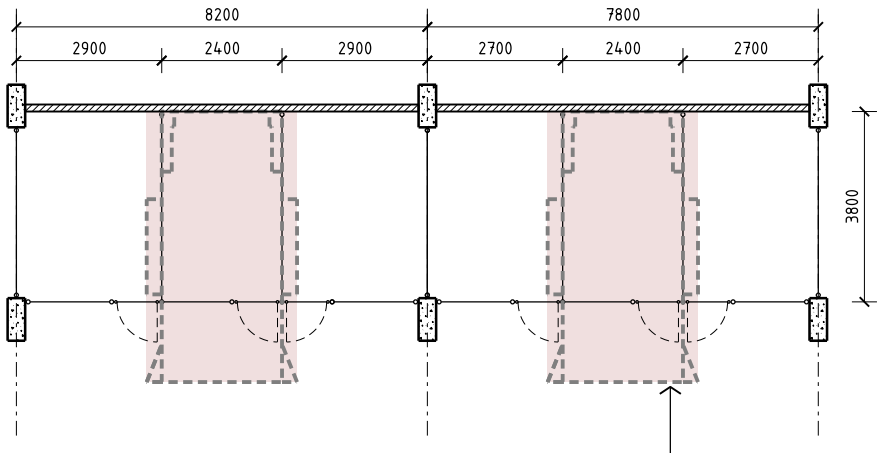
TYPICAL PLAN SETOUT
STORAGE CAGE LAYOUT



TYPICAL ELEVATION
STORAGE CAGE LAYOUT



STORAGE CAGE LAYOUT /CAR ENCLOSURE OVERLAID



STORAGE CAGES ARE TOO SMALL TO
ACCOMMODATE AS2890.1 COMPLIANT CAR
PARKING SPACE

0 0.5 1 2 5 8m

Project
MACQUARIE PARK VILLAGE
110-114 HERRING ROAD, MACQUARIE PARK

Drawing No
SK-0-387

Scale at A3 | Issue
A

Architect
AJ+C
Allen Jack+Cottier
79 Myrtle Street Chippendale NSW 2008 AUSTRALIA
ph +61 2 9311 8222 fx +61 2 9311 8200 ABN 53 003 782 250

Drawing Title
BASEMENT CAR PARKING/
STORAGE CAGE STUDY

Proj No.
10_030

Appendix B Traffic Statement

Ref 10.151l02v03

traffix
traffic & transport planners

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PO Box 1124
Strawberry Hills NSW 2012
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f: +61 2 9380 4481
w: www.traffix.com.au
director Graham Pindar
acn: 065132961
abn: 66065132961

18 March 2015

Urbis
Level 23, Darling Park Tower 2
201 Sussex Street
Sydney NSW 2000

Attention: Ian Cady, Associate Director

Re: Section 75W Application relating to 110-114 Herring Road, Macquarie Park
Concept Plan Modification (MP10_0112 MOD 5) and Stage 1 Project Approval Modification (MP10_0113 MOD 5)
Traffic Statement – Design of Traffic Elements

Dear Ian,

This letter has been prepared to respond to Council's request for further information on the traffic design elements as shown in the architectural drawings for the subject development (MOD 5).

It addresses key elements of the car park design and layout, considering the design requirements of the relevant Australian Standards, including AS2890.1, AS2890.2, and AS2890.6.

Overall Access and Circulation Strategy

Vehicular access to the development is proposed via a driveway on Herring Road adjacent to the northern property boundary, to maximise separation from the Epping Road intersection. Given that Herring Road is median-separated, the movements will be restricted to left-in and left-out only.

All vehicles will enter and exit the site via the Herring Road access. An exit onto Epping Road adjacent to the western property boundary will be provided for emergency vehicle egress only.

An internal roadway is to be constructed, connecting from the Herring Road Driveway to the Epping Road emergency vehicle exit. From this roadway, access to the basement car park as well as the servicing area is to be provided. These access arrangements are consistent with the Concept Plan approval, and are discussed further in the following sections.

Basement Car Park Entry / Exit Capacity

The proposed car park access involves a single access driveway to the basement from the internal roadway at the north-western corner of the site, which provides two entry lanes, and one exit lane.

An assessment of the theoretical entry and exit capacity against the predicted generation has been undertaken, based upon the following assumptions:

Capacity

- The assumed lane capacity assuming a card reader arrangement is 400 vehicles/hour/lane, as suggested in Appendix D of AS/NZS 2890.1:2004.

Demand

- Stage 1 will deliver 343 units, and Stage 2 will deliver an additional 297 units, providing a total of 640 units;
- The predicted traffic generation is 0.29vph / unit during the critical peak periods, consistent with the assumptions made in previous traffic analyses;
- The assumed directional split is 80% departures and 20% arrivals in the AM peak, and the reverse in the PM peak, consistent with the assumptions made in previous traffic analyses.

Application of the above assumptions provides the theoretical entry and exit capacities, and the predicted entry and exit demands as outlined in **Table 1** below.

Table 1: Access Capacity (Approved and Proposed) vs Predicted Demand

	CAPACITY				DEMAND	
	Approved		Proposed (MOD 4)		STAGE 1 Peak Direction (vph)	STAGE 1 + STAGE 2 Peak Direction (vph)
	Number of Lanes (Total)	Theoretical Capacity (vph)	Number of Lanes (Total)	Theoretical Capacity (vph)		
Entry	2	800	2	800	80	149
Exit	2	800	1	400	80	149

The table above indicates that the theoretical capacity of both the entry and the exit to the basement car park is substantially greater than the anticipated peak demands, under all scenarios. Accordingly, it is anticipated that the access will operate acceptably without congestion or queuing as a result of capacity issues.

Car Park Layout

As shown the architectural drawings included as **Attachment A**, the internal car parking design, including ramps, internal circulation aisles, parking aisles and parking modules, is generally in accordance with the requirements of AS2890.1, AS2890.2, AS2890.6 and AS4299, as summarised following:

- Standard parking spaces are a minimum of 2.4m wide and 5.5m long, exceeding the minimum requirements as stipulated in AS2890.1 (Clause 2.4.1) for User Class 1A spaces;
- Parking aisles are a minimum of 5.8m wide, meeting the minimum requirements as stipulated in AS2890.1 (Clause 2.4.2) for User Class 1A parking facilities;
- Grades across parking spaces do not exceed 1:20, noting that AS2890.1 (Section 2.4.6) permits grades across parking spaces of up to 1:16 in any direction other than parallel to the direction of the parking spaces (Clause 2.4.6);
- Columns are positioned so as to not impede vehicle manoeuvring into and out of parking spaces, or opening of doors, in accordance with the AS2890.1 (Clause 5.2);

- Where parking spaces are adjacent to walls or other vertical obstructions outside the clearance envelope around parking spaces as required under AS2890.1 (Figure 5.2), a minimum 300mm clearance area is provided adjacent to these spaces.
- Accessible parking spaces are 3.8m wide and 5.5m long, in accordance with the requirements of AS4299 (Clause 3.7).
- Motorcycle parking spaces are 1.2m wide and 2.5m long, in accordance with the requirements of AS2890.1 (Section 2.4.7).
- 1m aisle extensions are provided at blind aisles, in accordance with the requirements of AS2890.1 (Section 2.4.2).
- Ramps are proposed to have a maximum grade of 1:8, which meets both the maximum grade and the maximum grade change requirements as stipulated in AS2890.1 (Clause 5.5.3); and
- A minimum height clearance of 2.2m is to be provided throughout the car park as required under AS2890.1, with 2.5m clearance to be available above accessible parking spaces in accordance with the requirements of AS2890.6.
- Speed humps are proposed to be strategically placed on long parking aisles, to help control vehicle speeds.

Notwithstanding the above, the car park layout would be subject to refinement at detailed design / Construction Certificate stage, therefore any minor amendments (if necessary) could be made at that stage.

Servicing / Refuse Collection

Service vehicles will enter and exit the site via Herring Road. A centralised servicing / refuse collection area catering for a 12.5m Heavy Rigid Vehicle and an 8.8m Medium Rigid Vehicle is proposed at the north-western corner of the site. This loading area will be accessed via the internal circulation roadway, which has been designed to accommodate up to a 12.5m Heavy Rigid Vehicle. A clear height of 4.5m will be provided within the loading area to cater for these vehicles.

Garbage rooms (with waste chutes) are provided in various locations within Basement 1 level, and bins will be transported by a caretaker to the servicing area for collection.

Swept path diagrams showing service vehicle access, manoeuvring, and egress have been provided with previous applications, but have been updated based upon revised drawings and are included as **Attachment B**. As shown in this drawing, a 12.5m Heavy Rigid Vehicle and an 8.8m Medium Rigid Vehicle would be able to undertake the necessary manoeuvres to access and egress the two loading bays proposed. The reverse manoeuvres would be contained within an area which will not be used by passenger vehicles, and which is isolated from key pedestrian routes and desire lines.

Summary and Recommendation

In summary, the internal car parking design as shown in the amended plans, including ramps, internal circulation aisles, parking aisles and parking modules, is generally in accordance with the requirements of the relevant Australian Standards.

This application is therefore considered to be supportable from a traffic-engineering perspective.

Please contact the undersigned should you have any queries or require any further information or assistance.

Yours faithfully

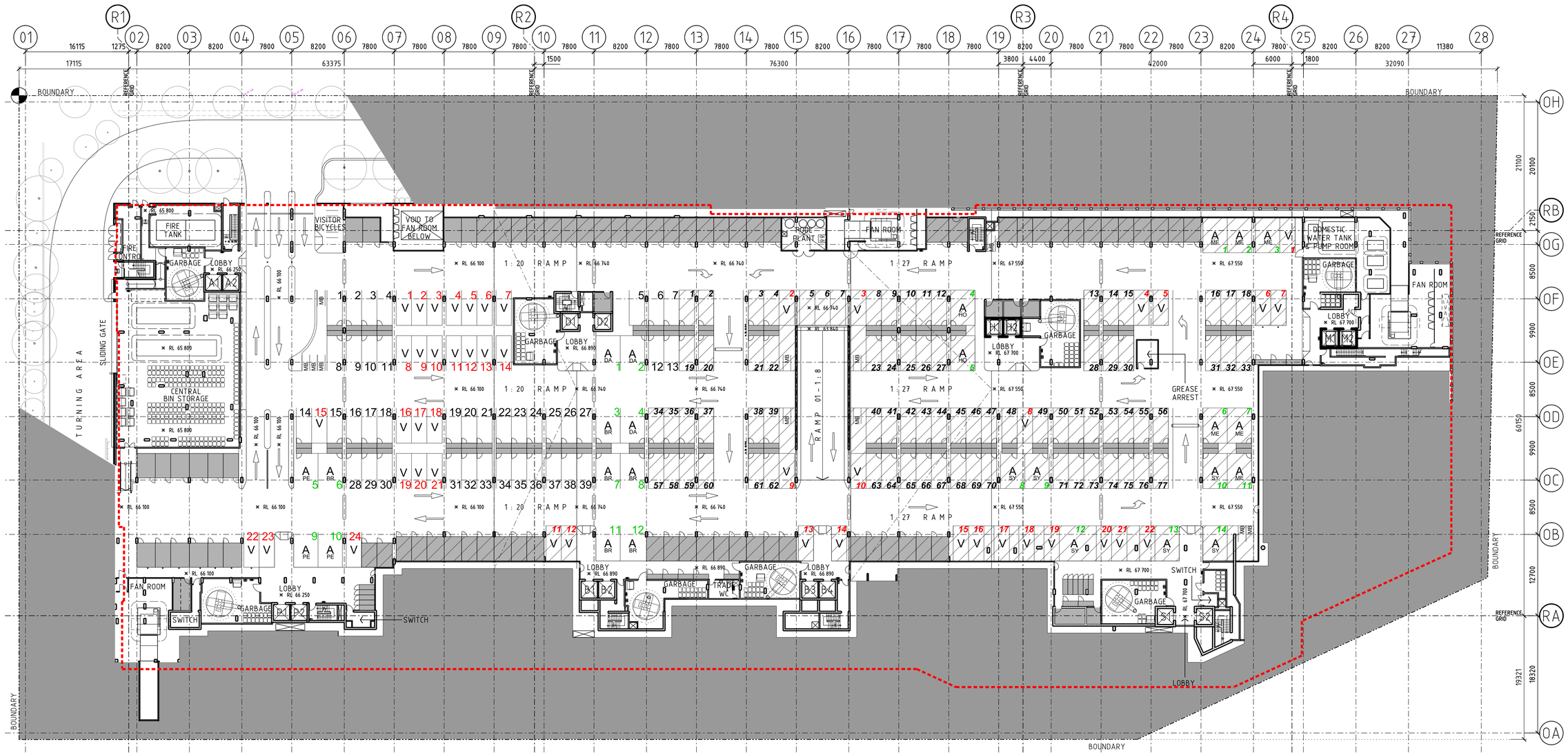
traffix

Anne Coutts
Senior Engineer

Encl: Attachment A – Architectural Drawings
Attachment B – Vehicle Swept Path Diagrams

ATTACHMENT A

Architectural Drawings



STAGE 1 PARKING TALLY

VISITORS	24
RISIDENTS (EX. ADAPT)	39
RESIDENTS ADAPATBLE	12
COMMERCIAL/RETAIL	0

STAGE 2 PARKING TALLY

VISITORS	22
RISIDENTS (EX. ADAPT)	77
RESIDENTS ADAPATBLE	14
COMMERCIAL/RETAIL	0

LEGEND

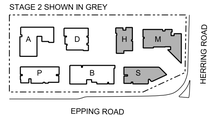
- STAGE 2 CARPARK FIT-OUT
- 75W CONCEPT PLAN - PAC APPROVED BASEMENT OUTLINE
- A PARKING SPACE - ADAPTABLE APARTMENT
- MB PARKING SPACE - MOTOR BIKE
- R PARKING SPACE - RETAIL
- V PARKING SPACE - VISITOR
- RESIDENTIAL STORAGE - STORAGE AREAS ENCLOSED WITH CYCLONE FENCING AND GATE OR SOLID WALLS AND DOOR.

Revisions

No	Date	Description	Ver	App'd
F	26.05.14	75W SUBMISSION - CAR PARKING		
G	27.06.14	75W SUBMISSION		
H	19.01.15	75W SUBMISSION - REVISED BASEMENT		

Nominated Architects: Michael Heenan 5264, Peter Ireland 6661

Site Location Plan



Client

STAMFORD LAND CORPORATION LTD

Architect

AJ+C ALLEN JACK+COTTIER

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ph +61 2 9311 8222 fx +61 2 9311 8200 ABN 53 003 782 250

Project
MACQUARIE PARK VILLAGE

110-114 HERRING ROAD
MACQUARIE PARK

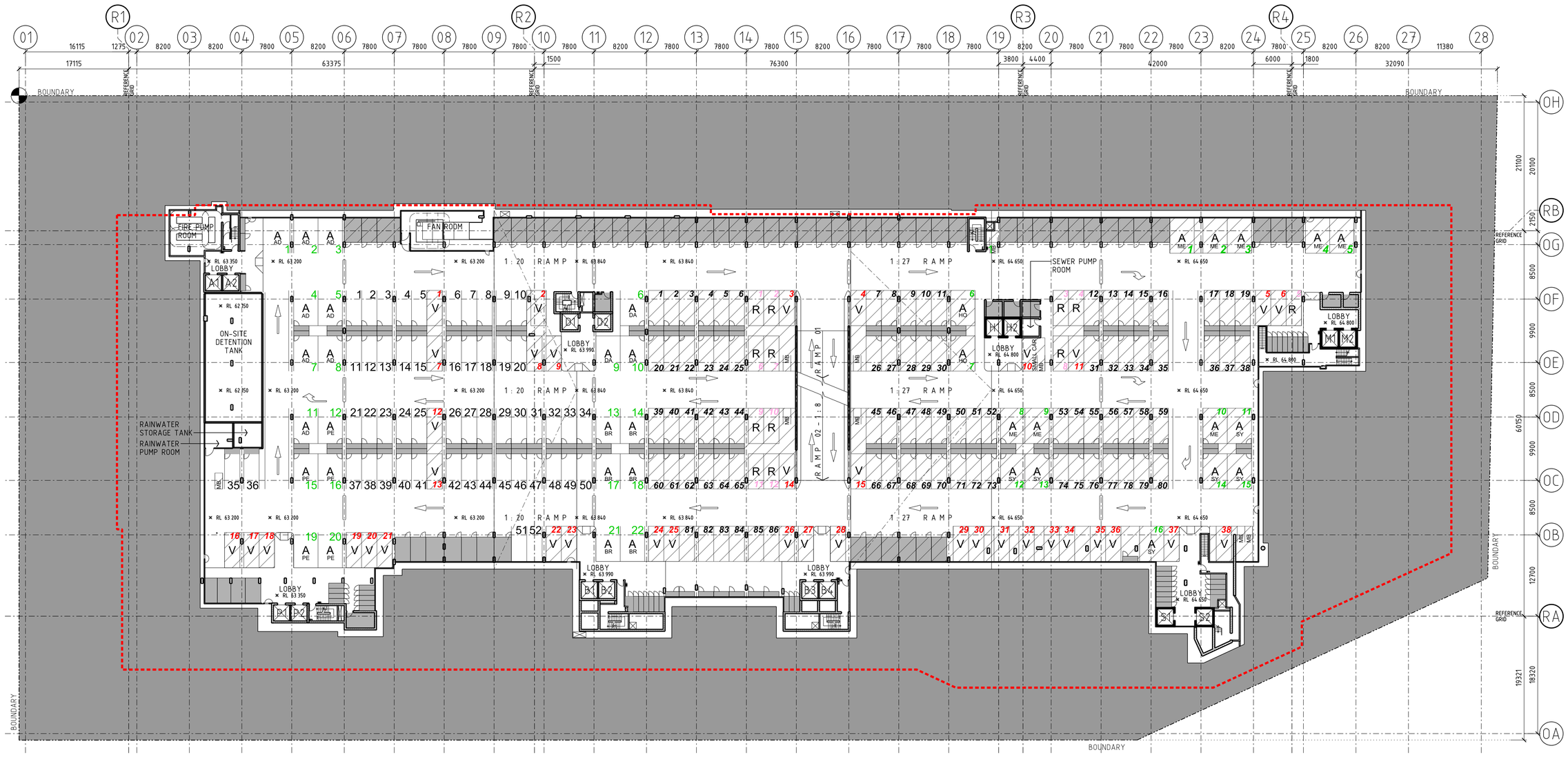
Proj No. 10_030

Drawing Title
LEVEL B1 PLAN

Drawing Status
NOT FOR CONSTRUCTION

Scale 1:330@A1 | Drawing No DA2001 | Issue H

A1



STAGE 1 PARKING TALLY	
VISITORS	0
RISIDENTS (EX. ADAPT)	52
RESIDENTS ADAPATBLE	22
COMMERCIAL/RETAIL	0

STAGE 2 PARKING TALLY	
VISITORS	38
RISIDENTS (EX. ADAPT)	86
RESIDENTS ADAPATBLE	16
COMMERCIAL/RETAIL	12

LEGEND

- STAGE 2 CARPARK FIT-OUT
- 75W CONCEPT PLAN - PAC APPROVED BASEMENT OUTLINE
- A PARKING SPACE - ADAPTABLE APARTMENT
- MB PARKING SPACE - MOTOR BIKE
- R PARKING SPACE - RETAIL
- V PARKING SPACE - VISITOR
- RESIDENTIAL STORAGE - STORAGE AREAS ENCLOSED WITH CYCLONE FENCING AND GATE OR SOLID WALLS AND DOOR.

Revisions

No	Date	Description	Ver	App'd
F	26.05.14	75W SUBMISSION - CAR PARKING		
G	27.06.14	75W SUBMISSION		
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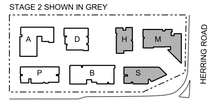
Site Location Plan



Client

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Architect

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Project
MACQUARIE PARK VILLAGE

110-114 HERRING ROAD
MACQUARIE PARK

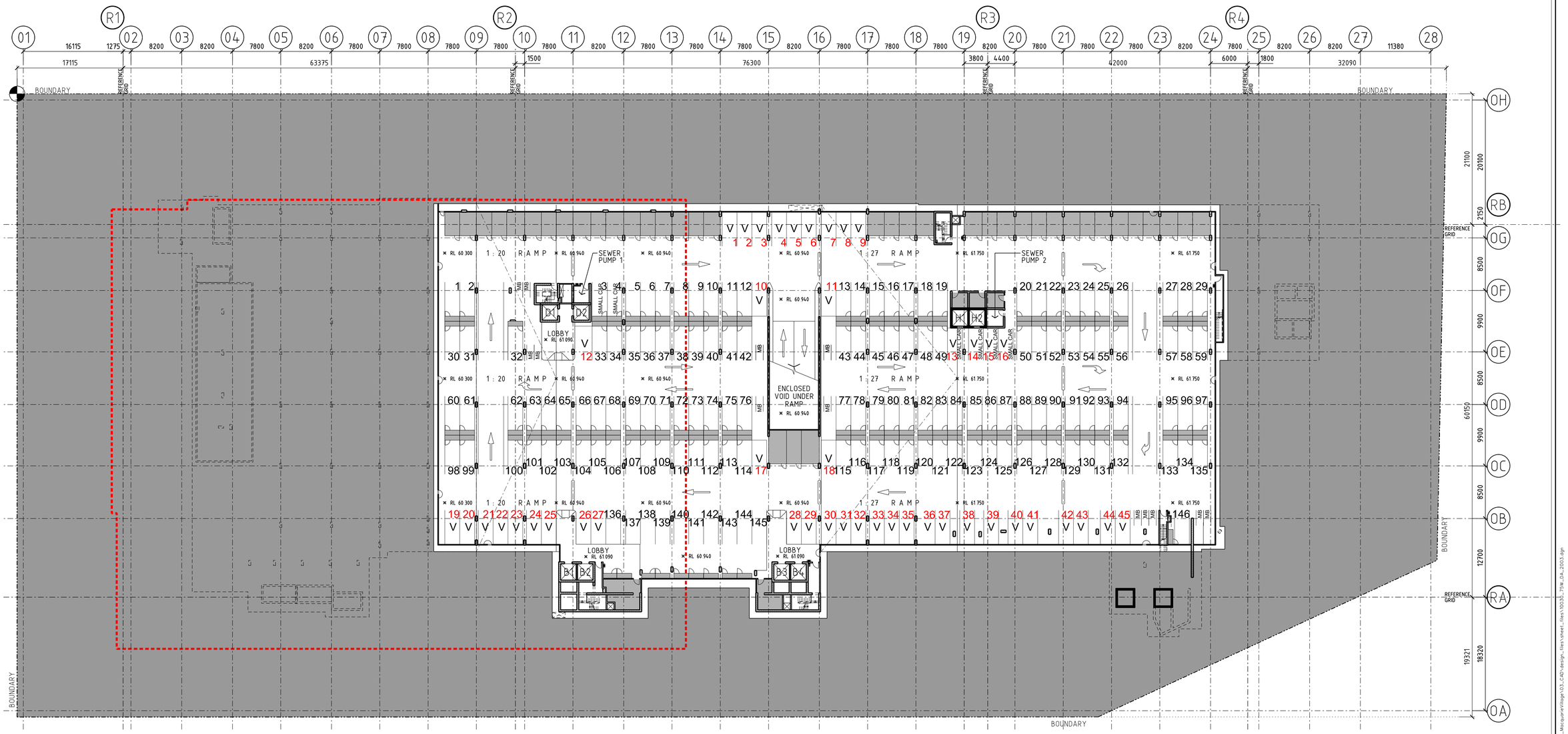
Proj No. 10_030

Drawing Title
LEVEL B2 PLAN

Drawing Status
NOT FOR CONSTRUCTION

Scale 1:330@A1 | Drawing No DA2002 | Issue H

A1



STAGE 1 PARKING TALLY	
VISITORS	45
RISIDENTS (EX. ADAPT)	146
RESIDENTS ADAPATBLE	0
COMMERCIAL/RETAIL	0

STAGE 2 PARKING TALLY	
VISITORS	0
RISIDENTS (EX. ADAPT)	0
RESIDENTS ADAPATBLE	0
COMMERCIAL/RETAIL	0

LEGEND

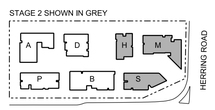
- STAGE 2 CARPARK FIT-OUT
- 75W CONCEPT PLAN - PAC APPROVED BASEMENT OUTLINE
- A PARKING SPACE - ADAPTABLE APARTMENT
- MB PARKING SPACE - MOTOR BIKE
- R PARKING SPACE - RETAIL
- V PARKING SPACE - VISITOR
- RESIDENTIAL STORAGE - STORAGE AREAS ENCLOSED WITH CYCLONE FENCING AND GATE OR SOLID WALLS AND DOOR.

Revisions

No	Date	Description	Ver	App'd
F	26.05.14	75W SUBMISSION - CAR PARKING		
G	27.06.14	75W SUBMISSION		
H	19.01.15	75W SUBMISSION - BASEMENT REVISION		

Nominated Architects: Michael Heenan 5264, Peter Ireland 6661

Site Location Plan



Client

STAMFORD LAND CORPORATION LTD

Architect

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Project: MACQUARIE PARK VILLAGE

110-114 HERRING ROAD
MACQUARIE PARK

Proj No. 10_030

Drawing Title: LEVEL B3 PLAN

Drawing Status: NOT FOR CONSTRUCTION

Scale: 1:330@A1 | Drawing No: DA2003 | Issue: H

A1

ATTACHMENT B

Vehicle Swept Path Diagrams

17115

63375

BOUNDARY

REFERENCE GRID

EGL 67.120

EGL 67.190

HRV - Heavy Rigid Vehicle

LIFT A1

LIFT A2

8.8

1.5

5

MRV - Medium Rigid Vehicle

Overall Length	8.800m
Overall Width	2.500m
Overall Body Height	3.633m
Min Body Ground Clearance	0.428m
Track Width	2.500m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	10.000m

2.4

2.4

5.9

1.4

HRV - Heavy Rigid Vehicle

Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.417m
Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	12.500m

A PE

A BR

notes

This drawing is prepared for information purposes only. It is not to be used for construction.

Base drawing prepared by other. TRAFFIX is responsible for the mark-ups and vehicle swept path overlays only.

no.	revision note	by.	date

client

Stamford Property Services

scale

1:250 @ A3

0m 2 4 6 8

project

110-114 Herring Road
Macquarie Park NSW

drawing prepared by

TRAFFIX
traffic and transport planners

suite 3.08 46a macleay street
potts point NSW 2011

PO Box 1061 potts point nsw 1035

t: +61 2 8324 8700
f: +61 2 9380 4481

traffix
traffic & transport planners

drawing title

Service Vehicle Swept Paths
Base Plan: AJ+C Drawing DA_2001 Issue H

drawn:	checked:	date:
AC	AC	18/03/2015

project no.	drawing phase.	drawing no.	rev
10.151		TX01	-