

Our Ref: 20027103E-240701

1 July 2024

Kuatro
Suite 1, 3b Macquarie Street
SYDNEY NSW 2000

Attention: Mr Ryan Soh

Dear Ryan,

**RE: 8 FOREST RD, WARRIEWOOD PROPOSED RESIDENTIAL DEVELOPMENT,
(N0440/15) – S4.56 COMMUNAL OPEN SPACE & ROADS TRAFFIC
AND PARKING REVIEW**

As requested, MLA Transport Planning (MLA) has conducted a traffic and parking review to accompany a S4.56 application to be lodged with Northern Beaches Council. The S4.56 application will seek approval to amend the communal open space and roads approved as part of the proposed development granted in Development Application No. N0440/15 (as modified). Our findings are contained herein.

Background

In October 2015, a development application (N0440/15) was lodged with Pittwater Council (now Northern Beaches Council) seeking approval for a proposed subdivision and the construction of a residential development incorporating 81 dwellings at the subject site. The proposal comprised 66 residential apartments in four 3-storey residential flat buildings with 14 townhouses in a 3-storey multi dwelling housing building as well as the retention of the existing dwelling house.

The approved development includes an internal road system and communal open space surrounding the approved buildings. The approved internal road system comprises of a fire access road and a private access road joining on to another access that connects to Jubilee Avenue and the future connection to Forest Road.

Following a deemed refusal, an appeal (16/151186) was lodged with the Land and Environment Court (LEC). With consideration of expert advice, the LEC upheld the appeal in May 2017.

There have been several S4.56 approvals following approval of the original development application.

A new S4.56 application is being prepared for submission seeking approval to amend the approved internal road system and communal open space. The proposed amendments to the internal road system include additional facilities to accommodate a waste vehicle to service the site.

This letter addresses the traffic implications arising from the current proposed S4.56 modifications. The traffic and parking assessment is discussed below. This letter has been revised to address Council's comments in their "Waste Referral Response" dated 20th June 2024.

Approved Internal Road System

The approved internal road system comprises two access roads and a fire access road as described below.

The approved road system includes an 8m wide access road that connects Jubilee Avenue to the future road link to Forest Road. From this access road, a 4m wide fire access road is developed to loop around the approved buildings and forms two separate intersections with the access road. In addition, the approved fire access road will also provide vehicular access to the existing dwelling that has been approved to be retained as part of the approved development.

A second access road is also approved. This has been approved as a 5.5m wide private access road that meanders in an east-west direction between Buildings A/D and Buildings B/C. It forms two T-junctions – one at its eastern end with the access road from Jubilee Avenue and the other one at its western end with the fire access road.

A 20m diameter turn around area is also approved. This is located on the fire access road at the north-western corner of the site.

The architectural plan showing the approved internal road system is provided in Attachment One.

Proposed S4.56 Modifications

This S4.56 application seeks approval to amend the approved road system with the following proposed modifications:

- upgrade of the fire access road into a sealed road and retain the approved 4m width

- modify the alignment of the private access road by removing the road curvature with a generally straighter alignment and reduce the width to 4m to permit traffic flow in one direction from east to west only
- provision of an outdoor bin holding area on the internal road west of Jubilee Avenue to facilitate kerb side collection
- an indented service vehicle bay adjacent to the proposed outdoor bin holding area, and
- a temporary turn around area on the internal road adjacent to the future road connection to Forest Road.

In addition, the previously approved turn around area is proposed to be retained in the same general location.

In relation to the length of the proposed indented service vehicle bay, the Waste Referral Response from Council indicates that the proposed service vehicle bay to have a “minimum distance of 12.5 metres is required to park the truck and to undertake loading operations at the rear of the truck”. It is noted that the architectural plan indicates the proposed service vehicle bay has a length of 12.5m which is consistent with that stated in the Waste Referral Response from Council. It is also noted that the previous proposed short term parking spaces are no longer being contemplated.

This S4.56 application does not involve modifying any other elements of the approved development including the apartment number and mix, nor any design modifications to the approved basement car park. The proposed development will continue to accommodate 81 residential dwellings with 194 car parking spaces consistent with the approved development.

The revised internal road system is shown in the architectural plans contained within Attachment 2.

Parking Effects of Proposed S4.56 Modifications

The proposed changes to the internal road system does not require any changes to the approved parking as the proposed modifications do not involve any changes to the apartment number and/or mix. Parking to serve the proposed development will remain as approved at 194 car parking spaces located inside the basement.

Traffic Effects of Proposed S4.56 Modifications

As noted previously, the proposed development will continue to accommodate 81 residential dwellings with 194 car parking spaces consistent with the approved development.

Furthermore, the proposed changes to the internal road system are not expected to generate any additional development traffic.

As such, it is expected that the level of development traffic arising from the proposed development will continue to remain consistent with that estimated for the approved development (which has been dealt with previously by traffic experts during the LEC proceedings).

In light of the above, the proposed development would not create any additional traffic impacts to the surrounding road network. The nearby intersections would continue to operate as originally planned.

Swept Path Analysis

Swept path analysis of an Australian Standard 5.2m long B99 vehicle and an 8.8m long medium rigid vehicle (MRV) circulating on the internal road system has been conducted. The B99 vehicle represent general traffic (residents and visitors) accessing the site, while the MRV represents emergency RFS vehicle. In addition, swept path analysis of a 12.5m long heavy rigid vehicle representing service vehicles (including waste collection) circulating along the internal road.

The analysis indicates all design vehicles, namely B99, MRV and HRV would be able to circulate on the proposed revised internal road system satisfactorily.

The swept path diagrams are provided in Attachment 3.

Summary and Conclusion

MLA has conducted a traffic and parking review for this Section 4.56 application to modify the approved internal road system at 8 Forest Road, Warriewood. The proposed modifications do not involve any changes to the approved apartment number and/or mix.

In terms of the parking effects, the revised proposed development would continue to provide parking in compliance with the DCP and consistent with the approved development. As such, the proposed parking provision is satisfactory.

In terms of the traffic effects, it is not expected that the proposed modifications would result in any additional development traffic. As such, the proposed development would not create traffic impacts worse than the approved development.

Overall, the traffic and parking aspects of the proposed development are considered to be satisfactory.

Yours sincerely,



Michael Lee
Director

Encl. Attachment One – Approved Internal Road System
Attachment Two – Revised Internal Road System
Attachment Three – Swept Path Diagrams

Attachment One

Approved Internal Road System

BUILDING A	18 APARTMENTS (01-18) 3 STOREY MAX HEIGHT 10.5 M 4 X 1 BEDROOM 5 X 2 BEDROOM 8 X 3 BEDROOM 1 X 4 BEDROOM
BUILDING B	19 APARTMENTS (19-36) 3 STOREY MAX HEIGHT 10.5 M 4 X 1 BEDROOM 2 X 2 BEDROOM 15 X 3 BEDROOM
BUILDING C	12 APARTMENTS (37-48) 3 STOREY MAX HEIGHT 10.5 M 12 X 3 BEDROOM
BUILDING D	18 APARTMENTS (49-66) 3 STOREY MAX HEIGHT 10.5 M 3 X 1 BEDROOM 1 X 2 BEDROOM 14 X 3 BEDROOM
TOWNHOUSES 1-14	14 TOWNHOUSES (1-14) 3 STOREY MAX HEIGHT 10.5 M 14 X 3 BEDROOM
	66 UNITS 14 TOWNHOUSES 1 DWELLING HOUSE 78% SOLAR ACCESS COMPLIANCE (63 UNITS) 78% NATURAL VENTILATION COMPLIANCE (62 UNITS) 81 TOTAL DWELLING UNITS

LEGEND:

- EXISTING BOUNDARY
- EXISTING NARRABEEN CREEK
- EXISTING BUILDING
- EXISTING VEGETATION TREES
- EXISTING SIGNIFICANT TREES
- EXISTING RESIDENCE
- PROPOSED DRIVEWAY ACCESS
- PROPOSED FOOTPATH
- PROPOSED FIRE ACCESS
- PROPOSED PRIVATE ACCESS WAY
- PROPOSED TOWNHOUSES
- PROPOSED APARTMENTS
- PROPOSED BALCONIES & TERRACES
- 25m RIPARIAN SETBACK
- BUSHFIRE APZ
- PROPOSED LETTER BOXES
- PROPOSED LEVEL

- TOTAL SITE AREA - 5.678 Ha
- RU2 SITE AREA - 2.823 Ha
- R3 SITE AREA - 2.855 Ha
- LANDSCAPE AREA - 15,689.7 m²
- TOTAL FOOT PRINT AREA - 9,393.6 m²
- SITE COVERAGE - 32.90 %
- PRIVATE OPEN SPACE AREA - 3,466.7 m²



<p>WARREWOOD VALE PTY LTD 3A MACQUARIE STREET, MORRISSET PARK, NSW 2264</p> <p>DREWICKSON ARCHITECTS NEW SOUTH WALES 11/111 DUNDAS STREET, SYDNEY NSW 2009 02 9550 1111 1/111 DUNDAS STREET, SYDNEY NSW 2009 1/111 DUNDAS STREET, SYDNEY NSW 2009</p>	<p>Client: WARREWOOD VALE PTY LTD 3A MACQUARIE STREET, MORRISSET PARK, NSW 2264</p>	<p>Project Name: MEDIUM DENSITY DEVELOPMENT 8 FOREST ROAD, WARREWOOD, NSW 2012</p>	<p>Scale: 1:500@A1</p>	<p>Date: 16/02/2017</p>	<p>Drawn By: VE</p>
	<p>SITE PLAN AND DEVELOPMENT SUMMARY</p> <p>Project No: 15049 Drawing No: A-001 Revision: 05</p>				

Attachment Two

Revised Internal Road System

GENERAL NOTES:

1. ALL DIMENSIONS AND SIZE SHOWN IN METRES. DO NOT SCALE DRAWINGS.
2. REFER TO THE PREVIOUS EDITIONS OF THIS DOCUMENT FOR THE LATEST REVISIONS.
3. ALL WALLS, INCLUDING EXTERIOR WALLS, MUST BE CONSTRUCTED TO THE FULL HEIGHT AND FINISH AS SPECIFIED IN THE DRAWINGS.
4. THE WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA (NCC) AND ALL APPLICABLE STANDARDS AND REGULATIONS.
5. THE WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE LOCAL COUNCIL REQUIREMENTS AND REGULATIONS.
6. THE WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE LOCAL COUNCIL REQUIREMENTS AND REGULATIONS.
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10. THE WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE LOCAL COUNCIL REQUIREMENTS AND REGULATIONS.

PREVIOUS APPROVALS

MOD 2022/0070, MOD 2023/0201

- SECTION 4.5 CHANGE SCHEDULE FOR MORE DETAILS**
(REFER TO CHANGE SCHEDULE FOR MORE DETAILS)
1. UPGRADE FIRE TRAIL ACCESS TO 4m WIDE & INTERNAL ROAD TO BE 4m WIDE
 2. COMMON OPEN SPACE AREA TO BE CREATED BETWEEN BUILDINGS CONSISTING OF:
 - A. SWIMMING POOL
 - B. BIKING AREA
 - C. FITNESS AREA
 - D. SITTING PAVING AREAS
 - E. LANDSCAPING
 3. WASTE MANAGEMENT UPDATES CONSISTING OF 43 BIN ROOMS & HOLDING AREA FOR KERBSIDE COLLECTION.
 4. EXTENSION OF UNIT 50 BUILDING D PRIVATE OPEN SPACE DUE TO REMOVAL OF RAMP ACCESS BUILDING D LOBBY. PRIVATE OPEN SPACE INCREASED BY 20.50M²

RETURNED APPLICATION (22/11/2023)

5. ADDITIONAL POOL SECTIONS
 6. SHADOW DIAGRAMS
- SECTION 4.5 CHANGE LIST ADDENDUM (07/05/2024)**
(REFER TO CHANGE SCHEDULE FOR MORE DETAILS)
7. INTERNAL FIT OUT CHANGE INTO LIFT SPACE
 8. LIFTS REMOVED FROM TOWNHOUSES 02, 03, 04, 05, 08, 09, 10, 11, 12, 13 & 14
 9. FINISH CHANGES: 'TIMBER LOOK' CHANGED TO 'TULUX DURABLE ANTI-TEAR HD BRONZE MATT' AND 'SANDSTONE CLADDING' CHANGED TO 'SANDSTONE LOOK'
 10. FACADE FINISH DRAFTING ERROR CORRECTIONS
 11. LIFT OVERBRUN REMOVED & ALLOWANCE FOR ROOF PARAPET ADDED. THE HEIGHT OF WHICH IS 100mm LOWER THAN THE PREVIOUSLY APPROVED LIFT OVERBRUN HEIGHT.
 12. INTERNAL FIT OUT CHANGES TO UNIT 12 TO COMPLY WITH NCC REQUIREMENTS

Rev.	Date	Description
01	15/02/2021	ISSUED FOR CONSTRUCTION
02	15/02/2021	ISSUED FOR CONSTRUCTION
03	15/02/2021	ISSUED FOR CONSTRUCTION
04	15/02/2021	ISSUED FOR CONSTRUCTION
05	15/02/2021	ISSUED FOR CONSTRUCTION
06	15/02/2021	ISSUED FOR CONSTRUCTION
07	15/02/2021	ISSUED FOR CONSTRUCTION
08	15/02/2021	ISSUED FOR CONSTRUCTION
09	15/02/2021	ISSUED FOR CONSTRUCTION
10	15/02/2021	ISSUED FOR CONSTRUCTION
11	15/02/2021	ISSUED FOR CONSTRUCTION
12	15/02/2021	ISSUED FOR CONSTRUCTION

Project: RESIDENTIAL DEVELOPMENT

Address: 8 Forest Road Warriewood NSW 2102 Australia

Client: KLJATRO

Status: S4.56 MODIFICATION
Drawing Title: Preliminary Site Plan

Project No: Pn_0800_A001
Drawing No: 12

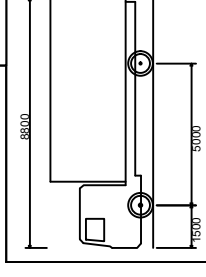
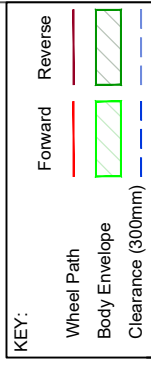
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ARCHITECTS
ARCHITECTURE DESIGN STUDIO (NSW) PTY LTD
17 Murray Road, Sydney Olympic Park NSW 2127
P: 02 9763 1888
info@adsarchitects.com | www.adsarchitects.com
ABN: 90 616 216 196
NSW Nominated Architect Paolo Dorosh 9170



Attachment Three

Swept Path Diagrams



MRV - Medium Rigid Vehicle
 Overall Length 8800mm
 Overall Width 2500mm
 Overall Body Height 3233mm
 Min Body Ground Clearance 426mm
 Track Width 2500mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 10000mm

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1 JULY 2024

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DRAWING NO.:

20027CAD015A-001

REV:

A

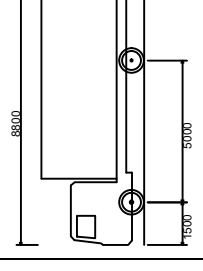
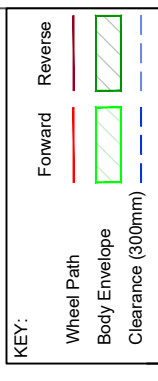
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SWEPT PATH ANALYSIS -
 AS2890.2 8.8M MRV (RFS
 EMERGENCY VEHICLE) USING
 FIRE TRAIL

PROJECT:

8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT





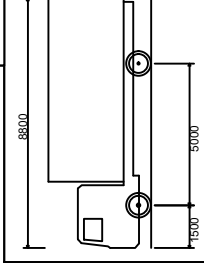
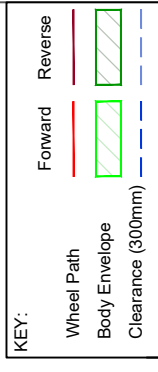
MRV - Medium Rigid Vehicle
 Overall Length 8800mm
 Overall Width 2500mm
 Overall Body Height 3333mm
 Min Body Ground Clearance 436mm
 Track Width 2500mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 10000mm

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DRAWING TITLE:
**SWEPT PATH ANALYSIS -
 AS2890.2 8.8M MRV (RFS
 EMERGENCY VEHICLE) USING
 TURN AROUND AREA ON FIRE
 TRAIL**

PROJECT:
**8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT**





MRV - Medium Rigid Vehicle
Overall Length 8800mm
Overall Width 2500mm
Overall Body Height 3333mm
Min Body Ground Clearance 436mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 10000mm





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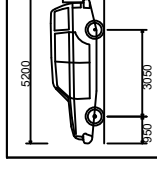
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SWEPT PATH ANALYSIS -
AS2890.2 8.8M MRV (RFS
EMERGENCY VEHICLE) USING
PROPOSED SHARED ACCESS

PROJECT:
8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT



KEY:

Wheel Path	Forward	Reverse
Body Envelope		
Clearance (300mm)		



B99 Vehicle (Realistic min radius) (2004)
Overall Length 5200mm
Overall Width 1940mm
Overall Body Height 1878mm
Min Body Ground Clearance 272mm
Track Width 1640mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 6250mm

DATE:

1 JULY 2024

SCALE:

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DRAWING NO.:

20027CAD015A-004

REV:

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DRAWING TITLE:





SWEPT PATH ANALYSIS -
AS2890.1 5.2M B99 VEHICLE
USING FIRE TRAIL

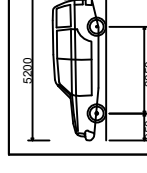
PROJECT:

8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT



KEY:

Wheel Path	Forward	Reverse
Body Envelope		
Clearance (300mm)		



B99 Vehicle (Realistic min radius) (2004)
 Overall Length 5200mm
 Overall Width 1940mm
 Overall Body Height 1878mm
 Min Body Ground Clearance 272mm
 Min Body Ground Clearance 1840mm
 Track Width 1640mm
 Lock-to-lock time 4.00s
 Curb to Curb Turning Radius 6250mm

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REV:

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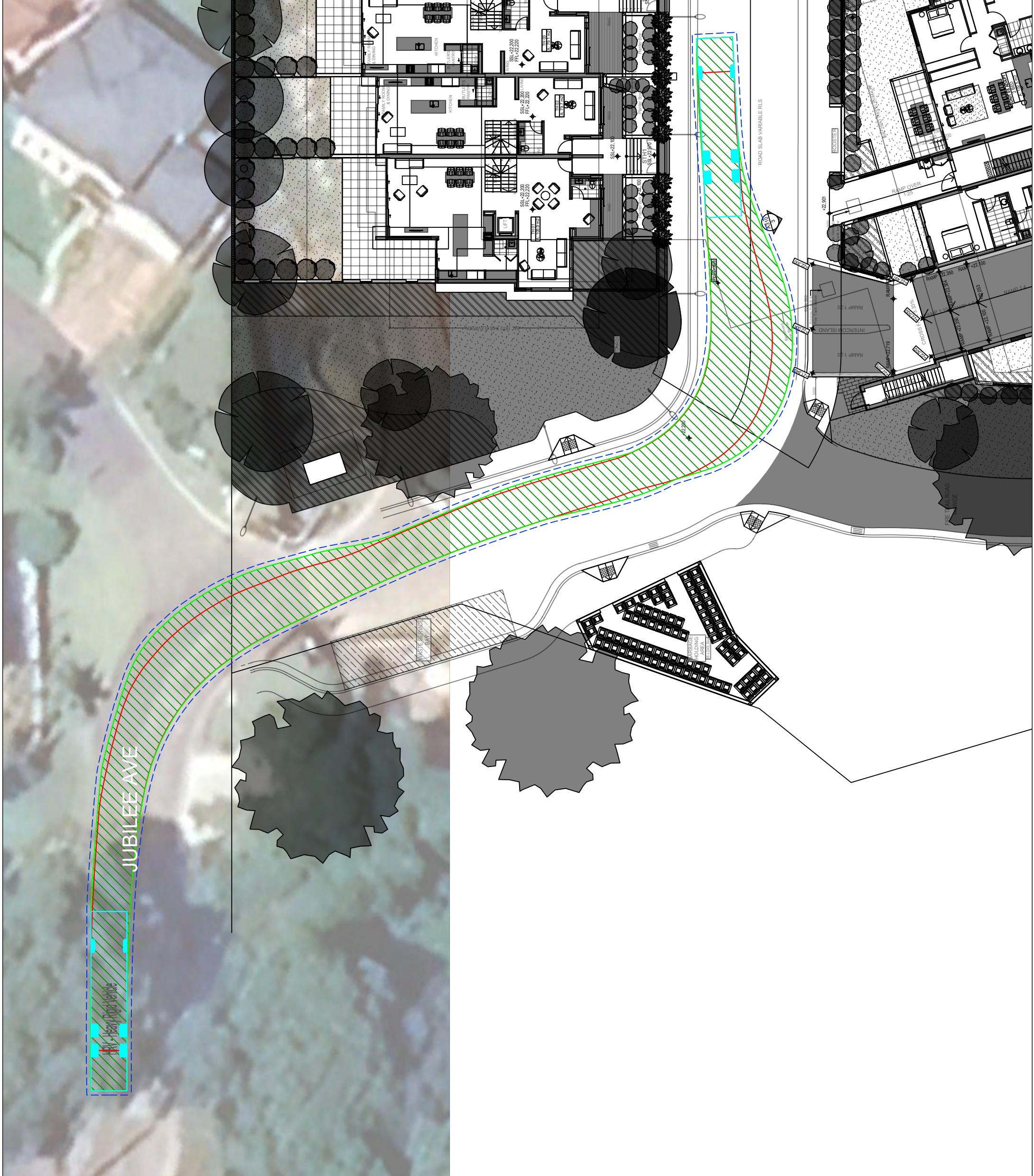
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SWEPT PATH ANALYSIS -
 AS2890.1 5.2M B99 VEHICLE
 USING PROPOSED SHARED
 ACCESS

PROJECT:

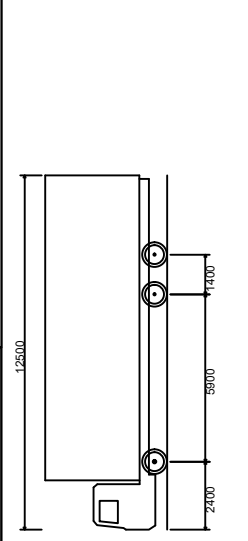
8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT





KEY:

Wheel Path	Forward	Reverse
Body Envelope		
Clearance (300mm)		



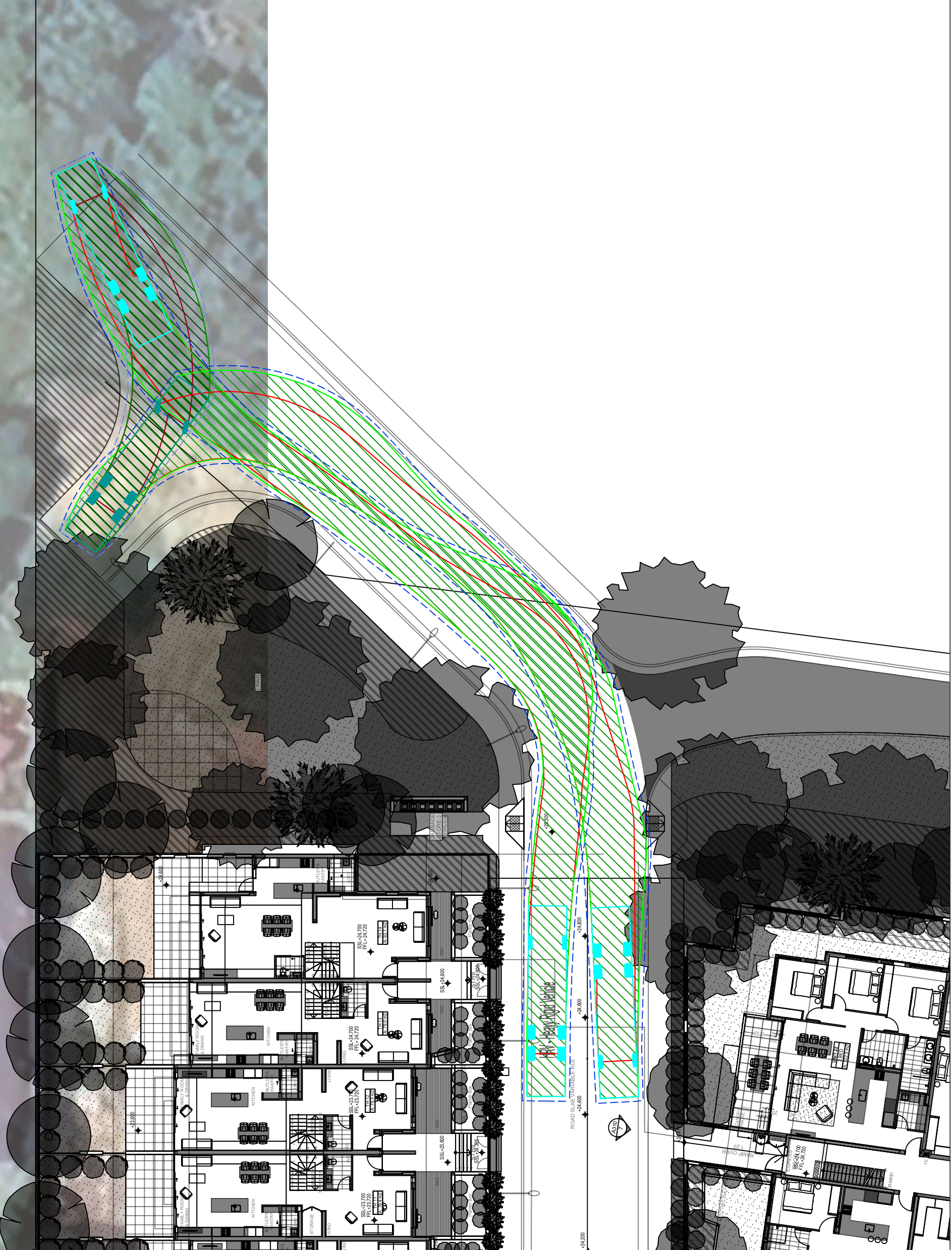
HRV - Heavy Rigid Vehicle
Overall Length 12500mm
Overall Width 2500mm
Overall Body Height 4300mm
Min Body Ground Clearance 4170mm
Track Width 2500mm
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12500mm

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SCALE: 1:250@A3

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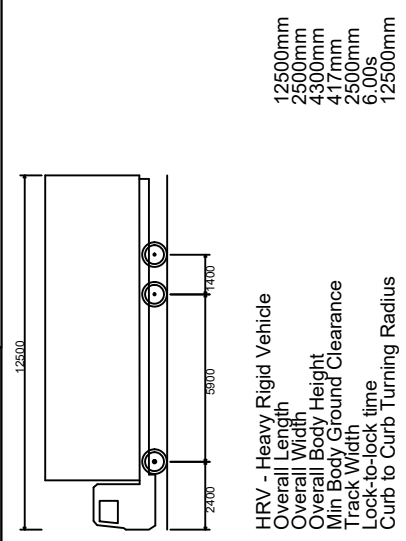
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SWEEP PATH ANALYSIS -
AS2890.2 12.5M HRV ENTERING
SITE FROM JUBILEE AVE

PROJECT:
8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT



KEY:

	Forward	Reverse
Wheel Path		
Body Envelope		
Clearance (300mm)		

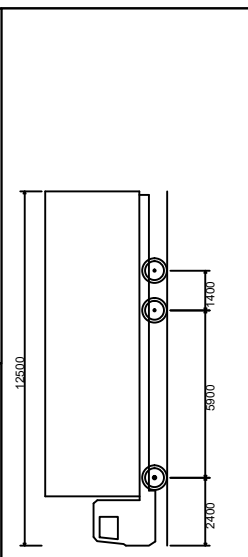
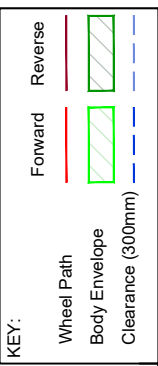


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 SWEEP PATH ANALYSIS -
 AS2890.2 12.5M HRV TURNING
 AROUND AT FUTURE FOREST
 RD CONNECTION

PROJECT:
 8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT

JUBILEE AVE



HRV - Heavy Rigid Vehicle
Overall Length 12500mm
Overall Width 2500mm
Min Body Height 4300mm
Min Body Ground Clearance 4170mm
Track Width 2500mm
Lock-to-lock time 6.00s
Curb to Curb Turning Radius 12500mm

DATE: 1 JULY 2024
SCALE: 1:250@A3

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REV: A

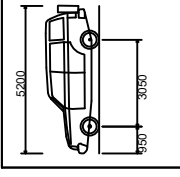
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SWEPT PATH ANALYSIS -
AS2890.2 12.5M HRV
ACCESSING WASTE
COLLECTION AREA

PROJECT:
8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT



KEY:

Wheel Path	Forward	Reverse
Body Envelope		
Clearance (300mm)		



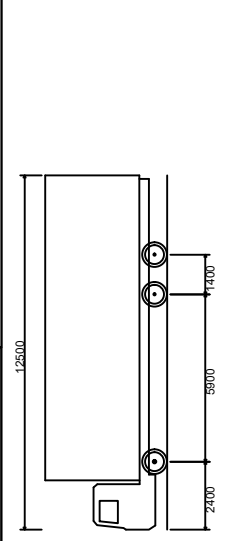
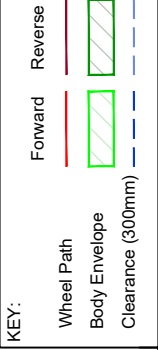
B99 Vehicle (Realistic min radius) (2004)
 Overall Length 5200mm
 Overall Width 1940mm
 Overall Body Height 1878mm
 Min Body Ground Clearance 272mm
 Track Width 1640mm
 Lock-to-lock time 4.0Us
 Curb to Curb Turning Radius 6250mm

DATE: 1 JULY 2024
 SCALE: 1:250@A3

DRAWING NO.: 20027CAD015A-009
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DRAWING TITLE:
 SWEEP PATH ANALYSIS -
 AS2890.1 5.2M B99
 CIRCULATING PASS WASTE
 AREA

PROJECT:
 8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT



HRV - Heavy Rigid Vehicle
 Overall Length 12500mm
 Overall Width 2500mm
 Overall Body Height 4300mm
 Min Body Ground Clearance 417mm
 Track Width 2500mm
 Lock-to-lock time 6.00s
 Curb to Curb Turning Radius 12500mm

DATE: 1 JULY 2024
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DRAWING TITLE:
 SWEEP PATH ANALYSIS -
 AS2890.2 12.5M HRV LEAVING
 WASTE COLLECTION AREA
 AND SITE

PROJECT:
 8 FOREST RD, WARRIEWOOD
 PROPOSED RESIDENTIAL
 DEVELOPMENT