

Our Ref: 20027I03B-230815

15 August 2023

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.

This letter addresses the traffic implications arising from the current proposed S4.56 modifications. The traffic and parking assessment is discussed below.

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, and
- introduce four kerbside car parking spaces on the western side of the approved 8m wide access road for use as short term parking for deliveries and ride share/taxi drop off.

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

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.

However, separate to parking requirements for residents and visitors it is proposed to provide four short term kerbside parking on the southern side of the approved 8m wide access road. These proposed kerbside parking will provide a safe and convenient area for deliveries and passenger drop off without having to access the visitor parking 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. Similarly, the proposed four kerbside car parking spaces are also 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.

The analysis indicates the B99 and MRV would be able to circulate on the 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. In addition, four kerbside parking is proposed to provide a safe and convenient area for deliveries and passenger drop off. 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	18 APARTMENTS (19-36) 3 STOREY MAX HEIGHT 10.5 M 4 X 1 BEDROOM 5 X 2 BEDROOM 2 X 3 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
<ul style="list-style-type: none"> 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 NARRABREEN 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

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ENGINEER
 15/03/2017
 15/03/2017
 15/03/2017
 15/03/2017
 15/03/2017

DATE
 15/03/2017
 15/03/2017
 15/03/2017
 15/03/2017
 15/03/2017

PROJECT
 MEDIUM DENSITY DEVELOPMENT
 8 FOREST ROAD, WARRIWOOD, NSW 2012

CLIENT
 WARRIWOOD VALE PTY LTD

SCALE
 1:500 @ A1

DATE
 16/02/2017

PROJECT NO.
 A-001

PROJECT NAME
 MEDIUM DENSITY DEVELOPMENT APPLICATION

PROJECT LOCATION
 8 FOREST ROAD, WARRIWOOD, NSW 2012

PROJECT NO.
 15049

PROJECT NAME
 MEDIUM DENSITY DEVELOPMENT APPLICATION

PROJECT LOCATION
 8 FOREST ROAD, WARRIWOOD, NSW 2012

PROJECT NO.
 A-001

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 8 FOREST ROAD, WARRIWOOD, NSW 2012

PROJECT NO.
 A-001

Attachment Two

Revised Internal Road System

GENERAL NOTES

1. ALL DIMENSIONS AND SIZES ARE IN MILLIMETRES. DO NOT SCALE DRAWINGS.
2. PREFERENCES OF DIMENSIONAL EQUIPMENT TO BE TAKEN OVER SCALED DIMENSIONS.
3. INFORMATION INDICATED IN THIS DOCUMENT MAY BE CRUCIAL TO THE SAFE AND PROPER CONSTRUCTION OF THE PROJECT. DO NOT ALTER ANY ASPECT WITHOUT REFERENCE TO THE ARCHITECT.
4. READ THIS DRAWING IN CONJUNCTION WITH RELEVANT CONSULTANT DRAWINGS AND SPECIFICATIONS.
5. INFORM THE ARCHITECT OF ANY DISCREPANCIES.
6. THE WORK IS TO BE COMPLETED IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA AND ALL APPLICABLE STANDARDS, SAM CODES AND ALL RELEVANT CONDITIONS BY LAW.
7. THE BUILDING MANUFACTURER SHALL CHECK AND VERIFY ALL DIMENSIONS, MATERIALS AND FINISHES TO BE SUBMITTED BY THE PROPRIETOR TO THE WATERBOARD FOR APPROVAL AS REQUIRED BY THE LOCAL COUNCIL.
8. A COPY OF THIS PLAN IS TO BE SUBMITTED BY THE PROPRIETOR TO THE WATERBOARD FOR APPROVAL AS REQUIRED BY THE LOCAL COUNCIL.
9. THIS DRAWING IS THE PROPERTY OF ADS ARCHITECTS. IT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT IS ISSUED.



Rev.	Date	Amendment	By
01	11/10/2021	ISSUE FOR S4.56(2) FOR COORDINATION	DL
02	23/10/2021	ISSUE FOR S4.56 - FOR COORDINATION	DL
03	11/02/2022	ISSUE FOR S4.56 - FOR COORDINATION	DL
04	11/02/2022	ISSUE FOR S4.56 - FOR COORDINATION	DL
05	11/02/2022	ISSUE FOR S4.56 - COORDINATION	DL
06	14/12/2022	ISSUE FOR S4.56 - COORDINATION	DL
07	23/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
08	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
09	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
10	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
11	24/07/2023	ISSUE FOR S4.56(2) FOR COORDINATION	DL
12	28/07/2023	ISSUE FOR S4.56(4)	DL

Project: RESIDENTIAL DEVELOPMENT
 Address: 8 Forest Road Warriewood NSW 2102 Australia
 Client: KLATRO

Status: ISSUE FOR S4.56(4)
 Drawing Title: Floor Plans
 Ground Floor Plan - East
 Project No: Ph_0800 A100.1 12
 Revision: Drawing No: PD GL 1:200
 Date: 28/07/2023
 Checked: Drawn: Scale@A1:
 28/07/2023 PD GL 1:200

01 Ground Floor
 Scale @ A1 = 1:200

FOR CONTINUATION SEE SHEET A100.2

FOR CONTINUATION SEE SHEET A100.1

- GENERAL NOTES
1. ALL DIMENSIONS AND SIZES ARE IN MILLIMETRES. DO NOT SCALE DRAWINGS.
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 3. ALL WALL THICKNESSES DIMENSIONED OR NOTED ARE NOMINAL SIZE ONLY.
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 8. THE BUILDING MANUFACTURER SHALL CHECK AND VERIFY ALL DIMENSIONS, RL, WEIGHTS AND LOADS TO BE SUBMITTED BY THE PROPRIETOR TO THE WATERBOARD FOR APPROVAL AS REQUIRED BY THE LOCAL COUNCIL.
 9. APPROVAL AS REQUIRED BY COPYRIGHT. IT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT IS ISSUED.

Rev.	Date	Amendment	By
01	11/12/2021	ISSUE FOR S4.56(2) FOR COORDINATION	DL
02	23/12/2021	ISSUE FOR S4.56 - FOR COORDINATION	DL
03	13/01/2022	ISSUE FOR S4.56 - FOR COORDINATION	DL
04	13/01/2022	ISSUE FOR S4.56 - FOR COORDINATION	DL
05	13/01/2022	ISSUE FOR S4.56 - FOR COORDINATION	DL
06	14/12/2022	ISSUE FOR S4.56 - COORDINATION	DL
07	23/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
08	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
09	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
10	14/02/2023	ISSUE FOR COORDINATION S4.56 (4)	DL
11	23/02/2023	ISSUE FOR S4.56(4) COORDINATION	DL
12	23/02/2023	ISSUE FOR S4.56(4)	DL

Project: RESIDENTIAL DEVELOPMENT
 Address: 8 Forest Road Warriewood NSW 2102 Australia

Client: KLATRO



Status: ISSUE FOR S4.56(4)

Drawing Title: Floor Plans
 Ground Floor Plan - West

Project No: Ph_0800 A100.2 12
 Drawing No: 12

Date: 28/07/2023
 Checked: Scale@A1:
 PD GL 1:200

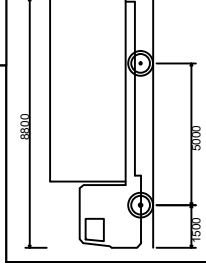
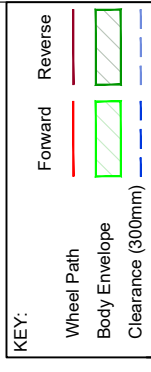


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 AEN: 90 616 216 196
 NSW Nominated Architect Pavlo Dorob 9170



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

DATE:

14 AUGUST 2023

SCALE:

1:600@A3

DRAWING NO.:

20027CAD013A-001

REV:

A

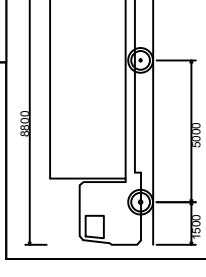
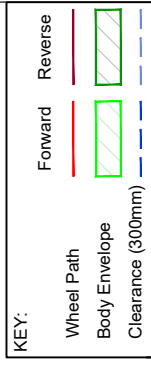
DRAWING TITLE:

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 3833mm
Min Body Ground Clearance 426mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 10000mm

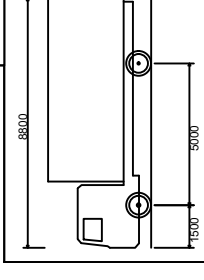
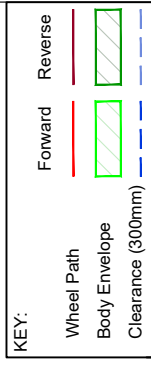
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SCALE: 1:600@A3

DRAWING NO.: 20027CAD013A-002
REV: A

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 3833mm
Min Body Ground Clearance 426mm
Track Width 2500mm
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 10000mm

DATE:

14 AUGUST 2023

SCALE:

1:600@A3

DRAWING NO.:

20027CAD013A-003

REV:

A

DRAWING TITLE:

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

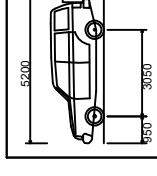
PROJECT:

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:	14 AUGUST 2023	SCALE:	1:600@A3
DRAWING NO.:	20027CAD013A-004	REV:	A

DRAWING TITLE:

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

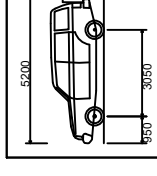
PROJECT:

8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT



KEY:

	Forward	Reverse
Wheel Path		
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:

14 AUGUST 2023

SCALE:

1:600@A3

DRAWING NO.:

20027CAD013A-005

REV:

A

DRAWING TITLE:

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

PROJECT:

8 FOREST RD, WARRIEWOOD
PROPOSED RESIDENTIAL
DEVELOPMENT

