

Kulgun Court Ocean Shores

Revised Traffic Impact Assessment

Kulgun Court Joint Venture

05 April 2024



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1. INTRODUCTION

1.1 Background

Bitzios Consulting Pty Ltd (Bitzios) has been engaged by Kulgun Court Joint Venture to prepare a revised Traffic Impact Assessment (TIA) for Kulgun Court, Ocean Shores (Lot 1 DP1243658) masterplan to remove reference to the subject site's previously proposed access fronting Brunswick Valley Way. This TIA considers, and updates, findings from both the original 2014 TIA (Bitzios P1660.02R) and the Stage A 2021 TIA (Bitzios P4619.004R).

The location of the subject site is shown in Figure 1.1.



Source: Bitzios (adapted from Nearmap)

Figure 1.1: Site Location

1.2 Planning Context

Bitzios previously prepared a TIA (Ref: P1660.002R Kulgun Court Residential Development TIA) for the subdivision masterplan (dated 17/09/2014). This TIA assessed a proposed development mixture of 46 senior living units and 31 residential lots (group dwelling development).

Subsequent applications and development have resulted in 16 medium-density dwellings currently developed on the site, as well as a further 18 approved medium density dwellings and 22 planned within future stages (total of 56 medium-density dwellings proposed across the site). We note that an amended development application for stage 3 of the subdivision (Ref: DA 10.2014.743.3 and dated 23/08/2017) includes 6 of these dwellings accessible only via Matong Drive, separated from the Kulgun Court access by a security gate designed to cater for emergency access only.

Considering this delineation between Matong Drive and Kulgun Court development traffic and the minimal amount of traffic generated from Matong Drive, this report predominantly assesses the distribution of traffic from Kulgun Court as a result of the removal of the Brunswick Valley Way access. For further information on the 6 dwellings fronting Matong Drive see Council reference no: MOD 10.2014.743.5.

1.3 Scope of Works

The purpose of this report is to assess the traffic and transport impacts of the proposed development on the operation of the surrounding transport networks. The scope of this assessment included:

- Assessing the impact of the traffic generated by the proposed development and distribution on the surrounding external road network
- A review of the existing conditions near the subject site including an assessment of public transport, pedestrian and cycling connectivity surrounding the development site
- Assessment of the development's car and bicycle provisions in accordance with Australian Standards AS2890 and Byron Shire Council's (Council) Development Control Plan (DCP)
- Assessment of the site's access location and form including vehicular and pedestrian accesses
- A review of the site's servicing and refuse collection requirements.

1.4 Development Details

The development is proposed to comprise of a total of 50 medium density residential dwellings with access via Kulgun Court, including:

- 16 already constructed dwellings
- 18 approved dwellings yet be built in Stages 3, 4 and 5
- A further 16 dwellings proposed within future stages

As well as a further 6 dwellings in stage 3 with access via 43 Matong Drive, blocked from Kulgun Court via a locked gate and only accessible by emergency vehicles (Council Ref: 10.2014.743.5).

For the purposes of this assessment the full development is assumed to be built. The development proposes to retain the approved primary access via Kulgun Court with the exception of the 6 dwellings fronting Matong Drive.

Development plans are shown in **Appendix A**.

2. EXISTING CONDITIONS

2.1 Subject Site

The subject site currently consists of 16 dwellings, an internal shared road and vacant land. Vehicular access is currently gained in the form of a standard driveway access via the end of the Kulgun Court cul-de-sac. The site has frontages to Brunswick Valley Way to the north-west and other residences to the north and east.

2.2 Surrounding Road Network

Table 2.1 provides a summary of the surrounding road network in proximity to the subject site.

Table 2.1: Key Roads

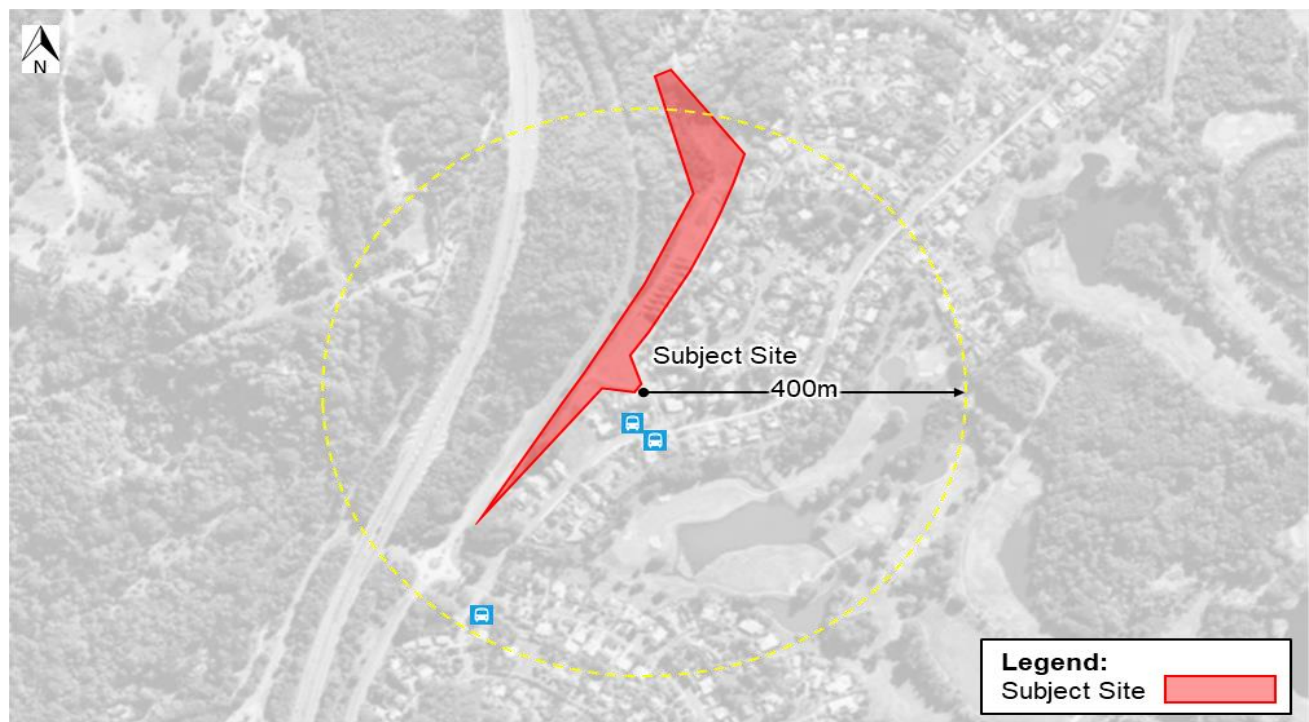
Road Name	Jurisdiction	Hierarchy	Divided	No. of Lanes	Speed Limit
Kulgun Court	Council	Local Street	No	2	50 km/h
Brunswick Valley Way	Council	Collector	Median	2	80 km/h
Balemo Drive	Council	Local Street	Median	2	50 km/h
Matong Drive	Council	Local Street	No	2	50 km/h

Kulgun Court / Balemo Drive is the only key intersection in proximity to the subject site. The intersection is the priority controlled (give-way) and under the jurisdiction of Council.

2.3 Alternative Transport

2.3.1 Public Transport

The public transport facilities within 400m walking distance of the site are shown in Figure 2.1.



Source: Bitzios (adapted from Nearmap)

Figure 2.1: Public Bus Stops

It should be noted that the bus stops shown do not have any formal infrastructure (e.g. shelters etc.) however they are recognized by Transport for NSW.

2.3.2 Active Transport

The active transport network in proximity to the subject site is shown in Figure 2.2.



Source: Bitzios (adapted from Nearmap)

Figure 2.2: Pedestrian Infrastructure

Limited pedestrian footpaths are provided in the surrounding road network. This is likely due to the regional nature of the surrounding area and historical uses of the area adjacent to the Old Pacific Highway. The existing pedestrian infrastructure is considered adequate given the expected active transport demands for the local area (i.e. limited high pedestrian demand uses within proximity of the subject site).

3. TRAFFIC ASSESSMENT

3.1 Background Traffic

Existing background traffic at Brunswick Valley / Balemo Drive Roundabout was sourced from the 2020 Stage A TIA (Ref: P4619.004R), which used the traffic data from the original 2014 traffic surveys (Ref: P1660.002R). A traffic growth rate of 2% per annum compounding has been applied to the development traffic as per the 2014 TIA.

This rate was adopted considering the following:

- The limited level of development in the area over the last 10 years
- The historic population growth of Ocean Shores from Profile.ID (current population growth from 2011 to 2016 is 1.76% per annum)
- Traffic growth rates utilised in Bitzios previous assessment (Ref: P1660.002R Kulgun Court Residential Development TIA) dated 17/09/2014.

Based on the above, the 2% growth rate is considered a conservative estimate for the background traffic. No growth has been applied to traffic on Kulgun Court as there are no other vacant lots and the only expected increase in traffic volumes will be from the proposed development.

The background volumes were forecast to the design years 2024 (anticipated year of opening) and 2034 (10-year design horizon). Background traffic volumes for the years 2024 and 2034 are shown in **Appendix B**.

3.2 Development Traffic Generation

The traffic generated by the proposed development was estimated using RMS' *Guide to Traffic Generating Developments Technical Direction (2013)*. The medium-density residential land use was adopted for this assessment as the most conservative land use. The trip generation for the proposed development is shown in Table 3.1.

Table 3.1: Development Trip Generation

Land Use	Quantity	Traffic Generation Rates		Trips (vph)	
		AM	PM	AM	PM
Existing Development					
Med Density Residential	16 Dwellings	0.65 trips per dwelling	0.65 trips per dwelling	10.4	10.4
Approved Development					
Med Density Residential	18 Dwellings	0.65 trips per dwelling	0.65 trips per dwelling	11.7	11.7
Future Development					
Med Density Residential	16 Dwellings	0.65 trips per dwelling	0.65 trips per dwelling	10.4	10.4
Total				33	33

The newly proposed final development yield for 50 med density dwellings accessing via Kulgun Court in accordance with *Guide to Traffic Generating Developments (2002)*, is 33 trips in both the AM and PM peak hours. By comparison, the 2014 masterplan TIA estimated 30 trips during both the AM and PM peaks. The net change in traffic generation is considered a very minimal increase at approximately 1 additional trip every 20 minutes during peak times.

It is noted that the sites 6 dwellings accessible only via Matong Drive have been excluded from this traffic assessment as they have been separately approved as part of Council Ref: 10.2014.743.5 and have no impact on the changes to traffic utilising Kulgun Court. Notwithstanding, traffic via Matong Drive would equate to 1 vehicle every 10 minutes in or out, this is considered a very minimal amount of traffic and is anticipated to have no significant impact on the surrounding network capacity.

A typical residential 'IN:OUT' directionality split was adopted for this assessment to estimate the distribution of the development generated traffic from the proposed development. The 'IN:OUT' split of the Kulgun Court based development traffic is summarised in Table 3.2.

Table 3.2: Development Trip Directionality

Land Use	AM Trip Split		PM Trip Split		AM Trips (vph)		PM Trips (vph)	
	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Med Density Residential	20%	80%	70%	30%	6.6	26.4	23.1	9.9
Total					7	26	23	10

The design traffic, consisting of the forecast background combined with the development traffic, has been calculated for the forecast years 2024 (anticipated year of opening) and 2034 (10-year design horizon).

The complete traffic assessment with estimated 2024 and future 2034 traffic volumes is shown in **Appendix B**.

3.3 Development Traffic Distribution

The expected trip distribution percentages and corresponding traffic volumes for both AM and PM peak hours are shown in Figure 3.1.

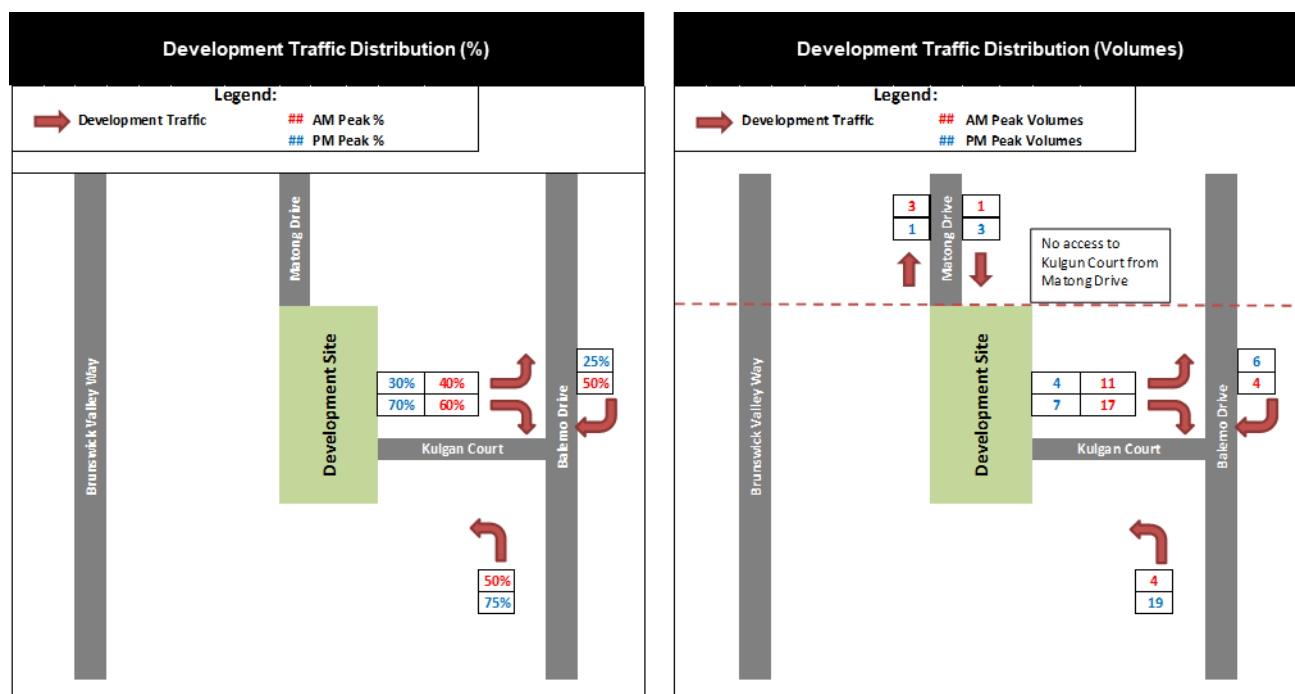


Figure 3.1: Development Traffic Distribution

The minimal number of trips to be generated from Matong Drive are expected to head northbound and exit the catchment via Brunswick Valley Way / Baleno Drive, thus having negligible impact on other development traffic.

3.4 Design Traffic Volumes

An annual growth rate of 2% per annum was applied to the existing traffic volumes to account for future growth within the surrounding area. Figure 3.2 shows the expected traffic volumes with development for 2024 and 2034, respectively.

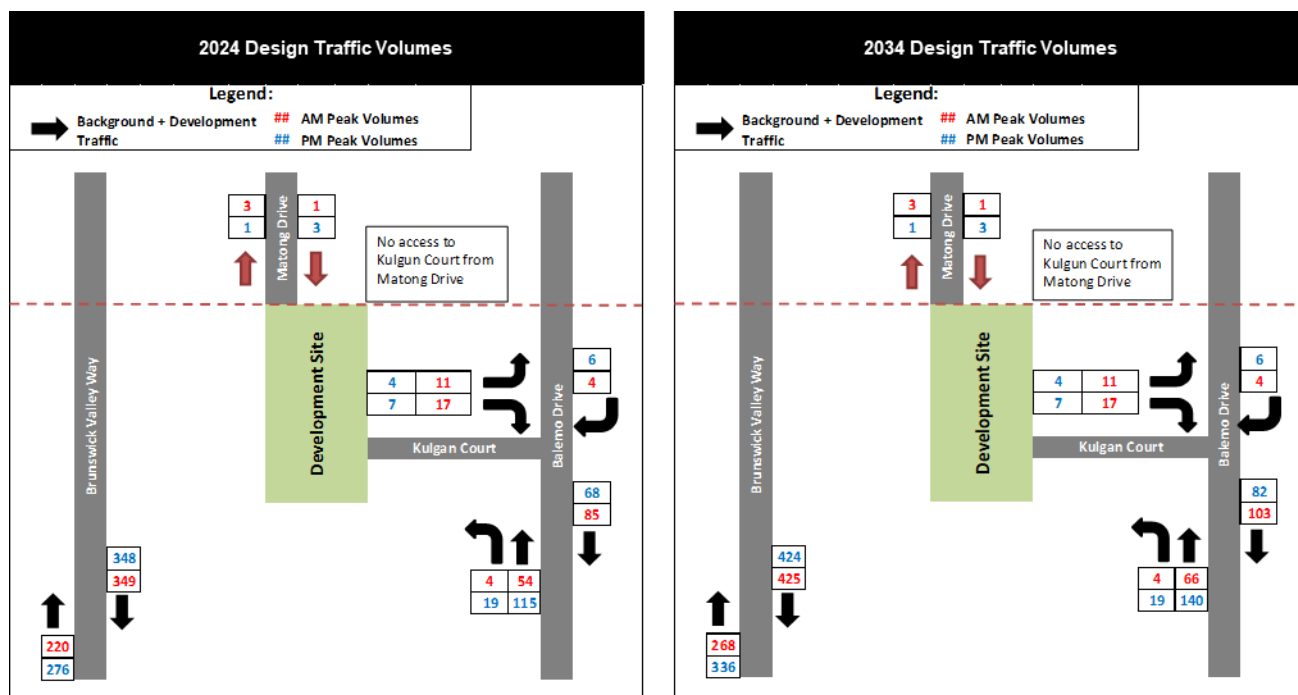


Figure 3.2: Design Traffic Volumes

3.5 Brunswick Valley Way / Orana Road Roundabout

The development traffic impacts at the Brunswick Valley Way / Orana Road roundabout have been investigated. It is assumed that the development traffic will distribute through the roundabout as shown in Figure 3.3, noting that of trips turning south out of the development, 70% in the AM and 50% in the PM will turn to/from Orana Road at the Brunswick Valley Way / Orana Road roundabout. The remainder is assumed to turn east towards the Ocean Shore town centre and beach.

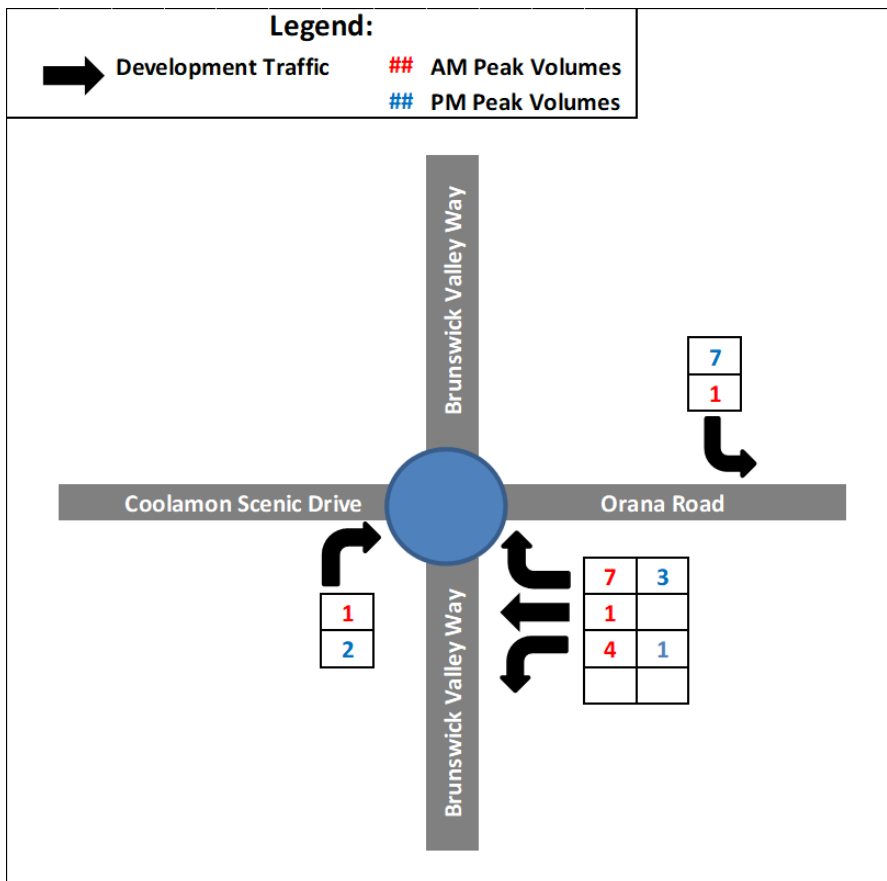


Figure 3.3: Development Distribution (Brunswick Valley Way / Orana Road Roundabout)

The net impact on any one movement with the AM and PM peaks is 1-7 vehicles per hour (1 per 8.5 minutes). It is concluded that this traffic increase will be insignificant and as such will not have any major impact on the Brunswick Valley Way / Orana Road roundabout operations. Further, the change is insignificant from the 2014 masterplan assessment findings.

4. PARKING ASSESSMENT

4.1 Parking Requirements & Provision

The car parking rates for the proposed development were sourced from the Byron Shire Council's *Development Control Plan Chapter B4 Traffic Planning, Vehicle Parking, Circulation and Access* (2014) for a medium-density residential land use. The car parking assessment is shown in Table 4.1

Table 4.1: Car Parking Requirements and Provisions

Land Use	Quantity	Type	Parking Rate	Parking Required	Parking provided
Medium Density Residential	50 units	Dwelling	2 spaces per dwelling	100 spaces	Min. two spaces per lot
		Visitor	1 space per 4 dwellings	13	4 existing/approved spaces Future lots to be provided with parking at DCP Rate

The proposed development shall provide an adequate level of residential parking based on current lot designs. On-street visitor parking is provided as per the DCP rate for the existing and approved developments. The visitor parking provision is expected to comply with future development lots.

The parking provision for the proposed development shall meet the requirements set out by Council's DCP.

4.2 Bicycle Parking

Council's DCP stipulates requirements for bicycle parking at a rate of 2 per unit for each dwelling development. The development is to provide bicycle parking in accordance with this requirement and bicycle parking is to be provided within the curtilage of each property.

5. ACCESS & INTERNAL LAYOUT ASSESSMENT

5.1 Site Access

5.1.1 Vehicular Access

The main vehicular access is via an all-movements two-way crossover with Kulgun Court. The crossover form and type are shown in Table 5.1.

Table 5.1: Access Summary

Access ID	Access Direction	Road Frontage	Service Vehicle Access	Requirement (AS2890.1 / IPWEA)	Provided
Site Access	Entry / Exit	Kulgun Court	Yes	Class 1 (less than 100 car parking spaces on a local access road) / Type A (6.0m wide)	6.0m width

As shown, the crossover form and type provided by the proposed development meets the relevant requirements set out by AS2890.1 and IPWEA. This site access is designed to cater for the ultimate development yields over the subject site.

The access is located at the end of a cul-de-sac in a low-speed environment. The access maintains a clear 50m sightline to the Balem Drive / Kulgun Court intersection and is considered adequate for the purposes of the proposed development.

For further information on access for the 6 Matong Drive dwellings see Council reference no: MOD 10.2014.743.5.

5.1.2 Pedestrian Access

Pedestrian access is proposed via the two-way vehicular crossover and using the internal roadway as a shared zone. Due to the expected low speed and frequency of the vehicles using the crossover (one (1) vehicle per two (2) minutes during peak hour periods) and the limited level of pedestrian activity in the area, there is a very low likelihood of any conflict. Furthermore, it is consistent with developments of a similar scale that have been approved in the area.

It should be noted that the proposed development shall provide pedestrian sight triangles (2.0m x 2.5m) in accordance with Figure 3.3 of AS2890.1.

5.2 Layout Assessment

The internal parking geometric layout for the proposed development was assessed against the criteria set out in AS2890.1. The key outcomes of the assessment are shown in Table 6.2.

Table 5.2: Parking Geometric Layout Assessment

Design Element	AS2890.1	Provided	Compliant
Residential car parking bays (User Class 1A)	2.4m x 5.4m	2.4m x 5.4m	YES
Garage car parking	2.4m wide doorway and 3.0m wide internal space	Min. 2.6m wide doorway and 3.2m wide internal space	YES
Residential visitor car parking bays (Parallel)	2.1m x 6.1m	Min. 2.1m x 6.1m	YES
Parking aisle width	5.8m wide	Min. 5.8m wide	YES
Roadway width	5.5m wide	Min. 5.5m wide	YES

Design Element	AS2890.1	Provided	Compliant
Clearance to vertical obstructions	0.3m	Min. 0.3m	YES
Clearance to vertical obstructions on a bend	0.5m	Min. 0.5m	YES

The existing and recently approved (Stage A) development generally complies with all relevant requirements stipulated in AS2890.1. The relevant critical swept paths (i.e. Vehicles passing at the proposed gate and service vehicle movements) are shown in **Appendix C**.

Future stages shall be in accordance with AS2890.1 and Council's requirements to be assessed as part of future applications.

6. SERVICING & REFUSE COLLECTION

6.1 Servicing

Servicing is expected to be undertaken by a medium rigid vehicle (MRV) as per the existing operations. The swept path assessment in **Appendix C** show an MRV can circulate throughout the subject site. As such the proposed development meets the requirements set out by Council's DCP.

6.2 Refuse Collection

Refuse collection will be undertaken by a side-loading refuse collection vehicle (RCV). The RCV has been designed in accordance with *Chapter B8 Waste Minimisation and Management Appendix B8.5* in Council's DCP as per the existing operations. The swept path assessment in **Appendix C** shows an RCV can circulate throughout the subject site. As such the proposed development meets the requirements set out by Council's DCP.

We understand that currently the site operates with a formal turnaround facility successfully catering for use by Council's RCVs, completed as part of Stage 2 works. We understand no change is proposed that will impact the existing or proposed service vehicle turnaround ability and service vehicle turnaround assessment will be provided within the appropriate future Stage of development assessment.

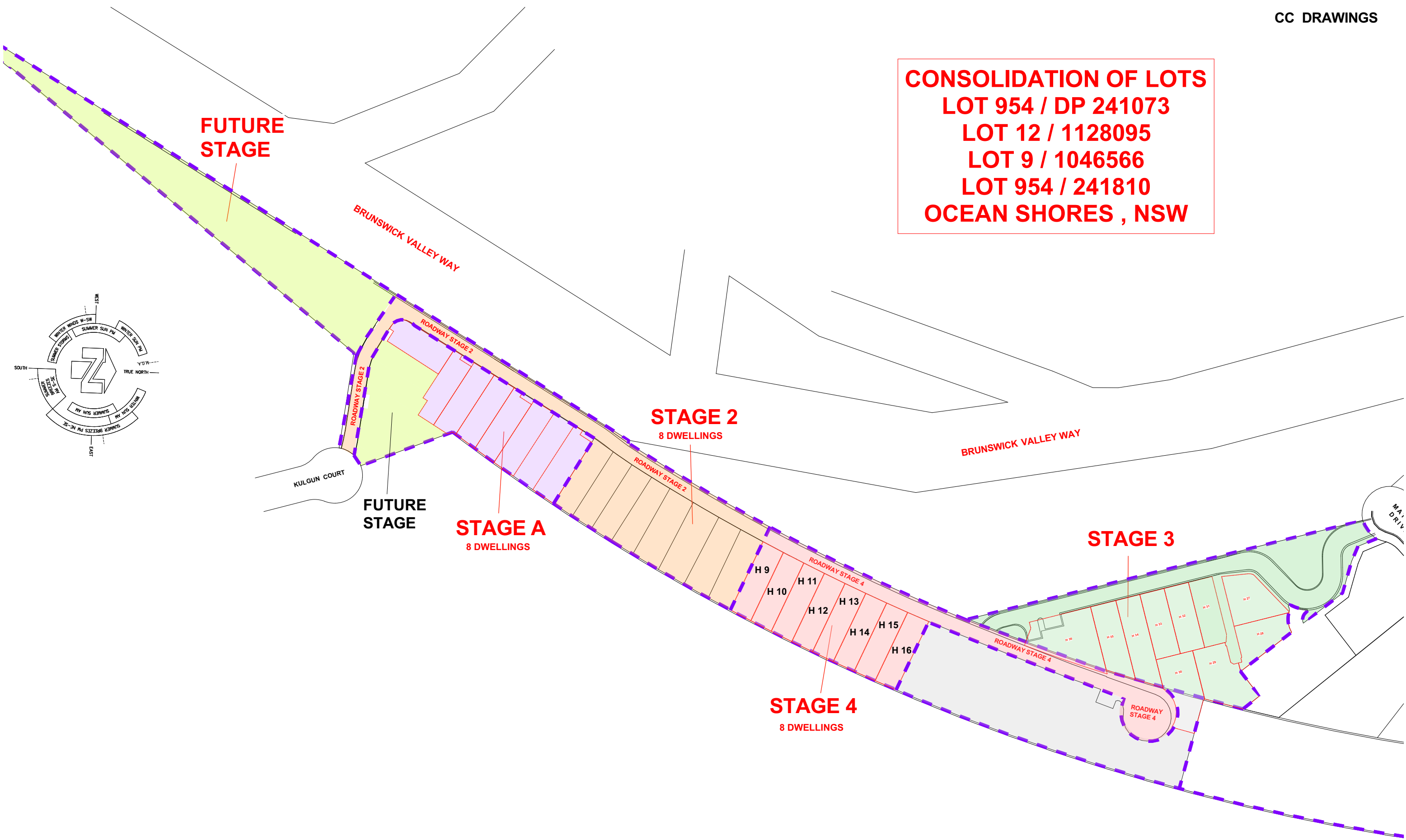
Refuse collection access for the 6 Matong Drive dwellings will be as per Council approval MOD 10.2014.743.5.

7. CONCLUSION

The key findings of Kulgun Court, Ocean Shores TIA are as follows:

- The proposed development is estimated to generate 34 AM and PM trips during peak periods via the Kulgun Court access (total of 50 medium-density dwellings). No changes are proposed to the 6 approved dwellings utilising the Matong Drive access
- The traffic generated does not adversely affect the surrounding road network and does not require any mitigation measures
- The car parking provision shall meet requirements set out in Council's DCP
- Considering the subject site's the location and the existing surrounding infrastructure, it is adequately serviced by active and public transport systems
- Vehicular access is proposed via the existing two-way all movements crossover on Kulgun Court. The access is at the end of a cul-de-sac in a low-speed environment and has a clear 50m sightline to the Balemo Drive / Kulgun Court intersection that is considered adequate for the purposes of the proposed development
- As per Council approved MOD 10.2014.743.5, no through access from Matong Drive is permitted for general traffic, the site is separated by a gate that provides access to emergency vehicles only
- The proposed development provides pedestrian sight triangles (2.0m x 2.5m) in accordance with Figure 3.3 of AS2890.1
- Servicing and refuse collection are expected to be undertaken on-site as per existing operations and the internal circulation roadways are designed for the relevant servicing vehicles. Noting that service vehicle turnaround will ultimately be performed at the cul-de-sac proposed as part of another stage of the development.
- Based on the above assessment, it is concluded that there are no significant traffic or transport impacts associated with the proposed development to preclude its approval and relevant conditioning on transport grounds.

Appendix A: Development Plans



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SURFERS PARADISE BANORA POINT

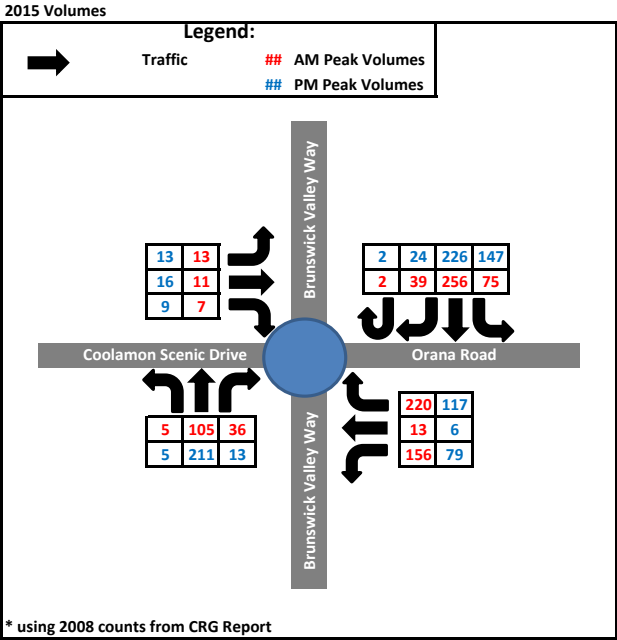
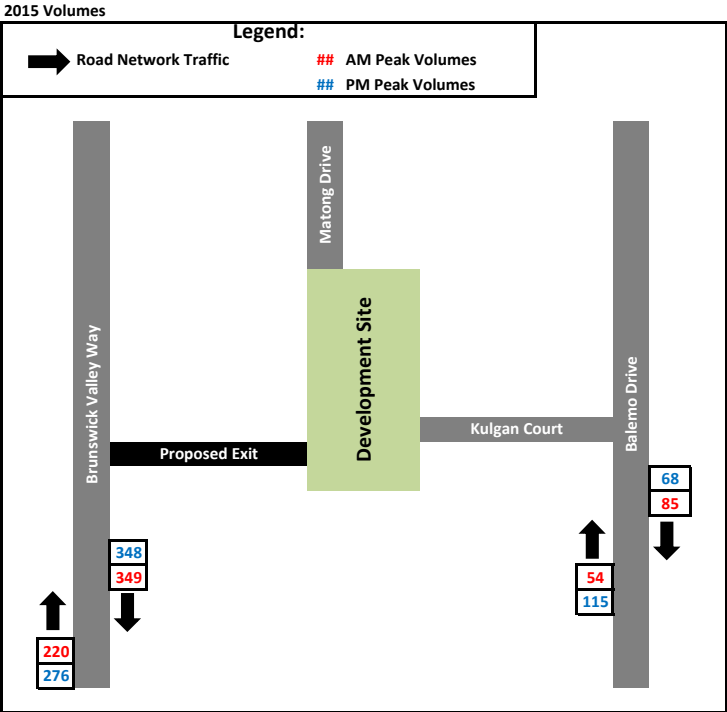
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rev.	date	description	initi.	rev.	date	description	initi.
A	03/11/20	PRELIM LAYOUT	SR	G	27/03/24	STAGING PLAN REVISIONS	SR
B	30/11/20	PRELIM ELEVATION	SR				
C	19/01/21	DA DRAWINGS	AP				
D	19/01/22	MODIFIED DA DRAWINGS	AP				
E	26/10/22	REAR SETBACK CHANGE - 3m to 4 m	AP				
F	20/11/23	LABELLING CHANGES	SR				

client	project number	drawing number	drawing print date
Kulgun Crt JV	20017	101	27/03/2024
project	scale	issue	drawing name
Stage 4	1:1500 on A3	G	OVERALL STAGING PLAN
Small Lot Development	drawn	checked	
2 Kulgun Crt, Ocean Shores, NSW	SR	Sam Ray	

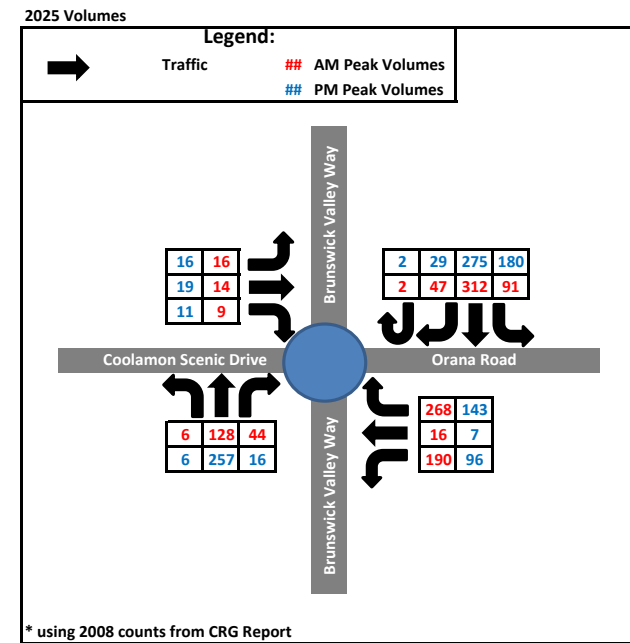
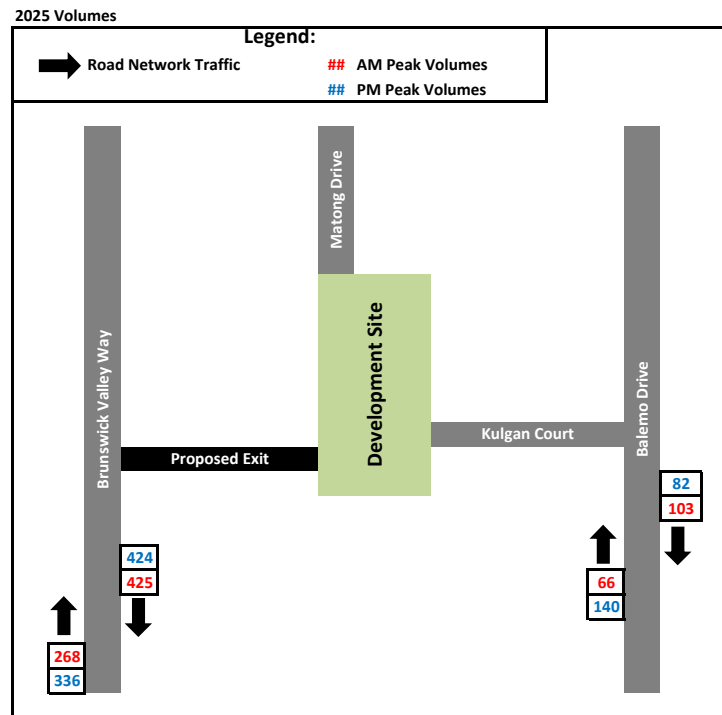
Appendix B: Traffic Assessment

GROWTH	2.00%	2.00%
Base Year	2014	2008
Dev. Year	2024	2024
10yr Post Dev	2034	2034



2024 Background Traffic

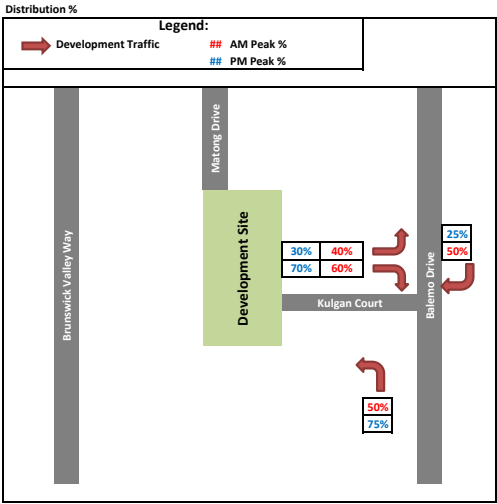
GROWTH	2.00%	2.00%
Base Year	2014	2008
Dev. Year	2024	2024
10yr Post Dev	2034	2034



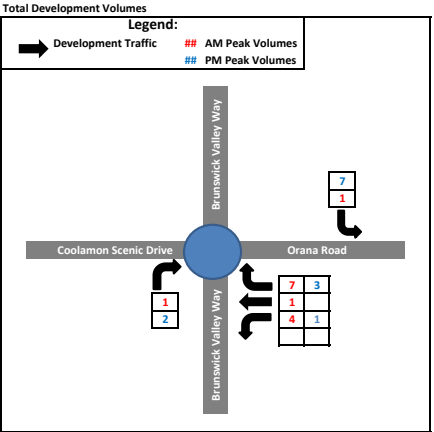
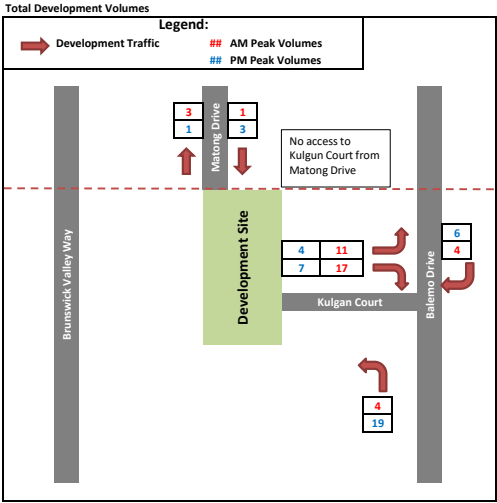
2034 Background Traffic

	AM	PM
In	20%	70%
Out	80%	30%

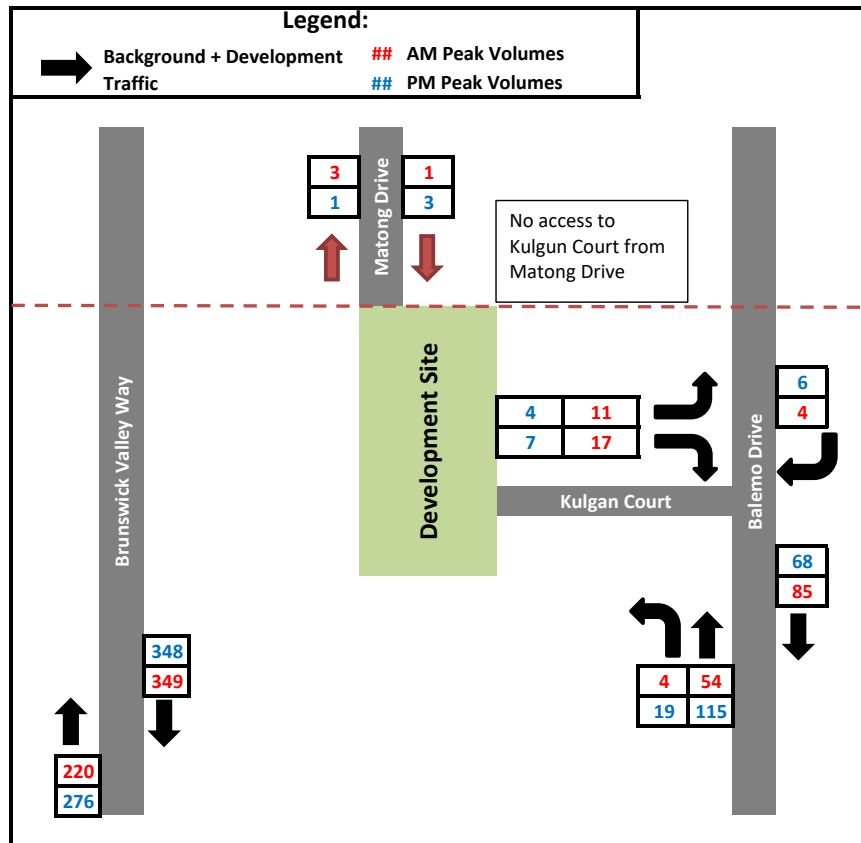
	AM	PM
In	7	25
Out	28	11



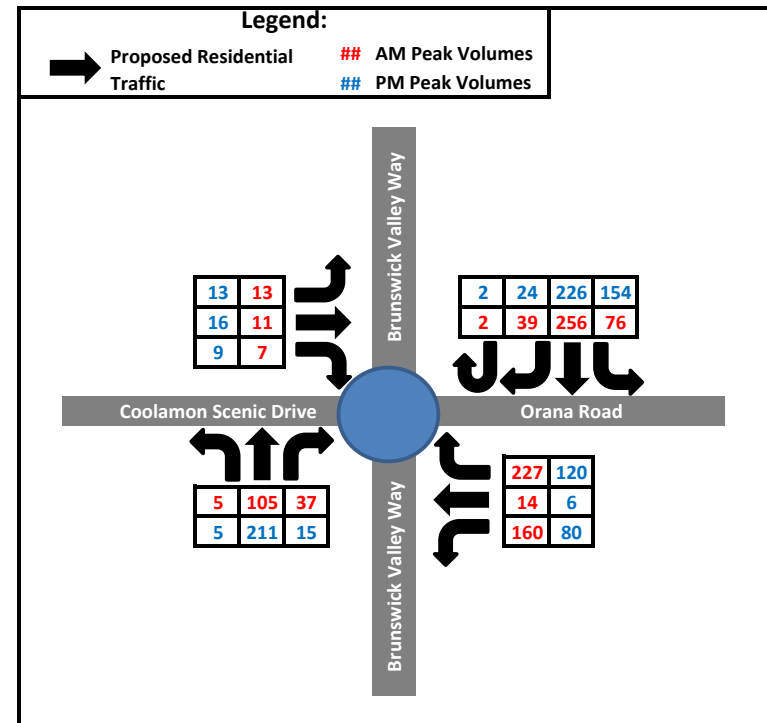
Development Distribution



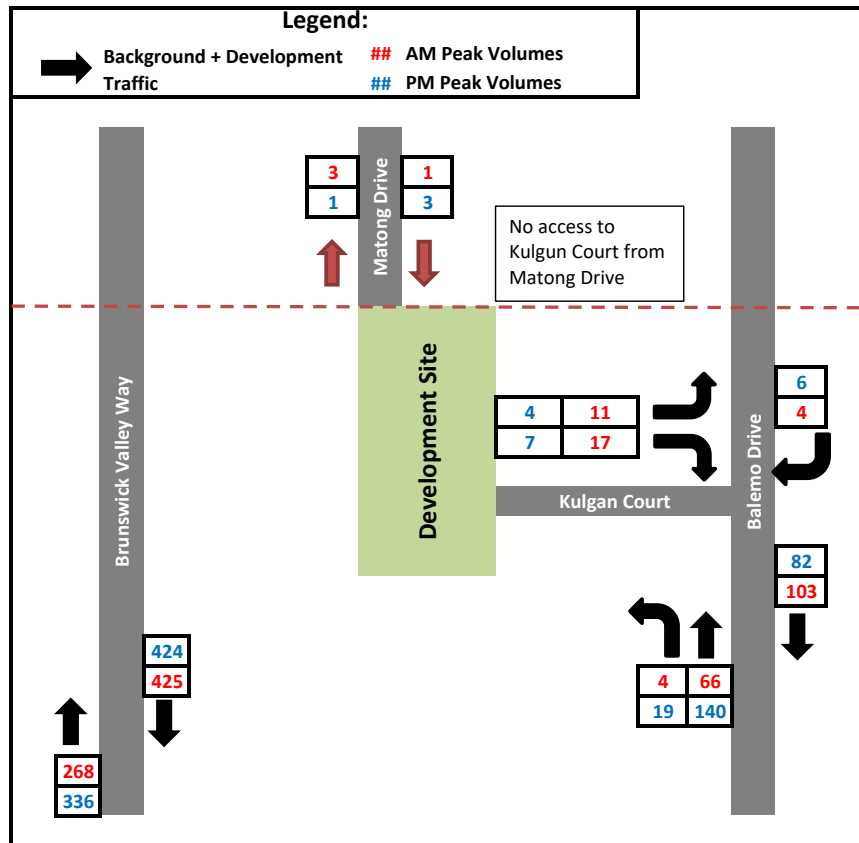
Development Traffic



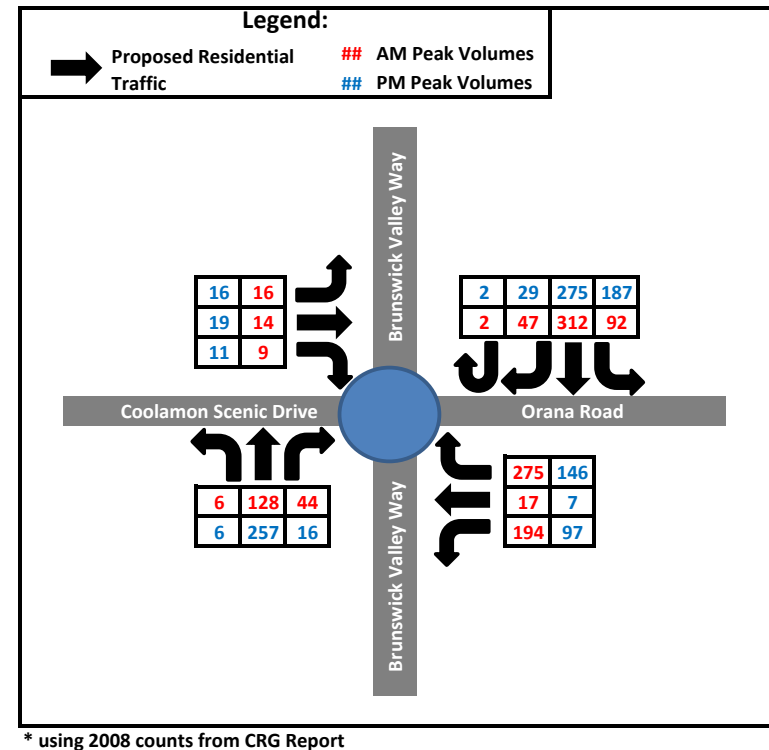
2024 Design Traffic



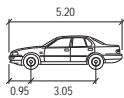
* using 2008 counts from CRG Report



2034 Design Traffic



Appendix C: Swept Path Assessment



B99 meters
Width : 1.94
Track : 1.84
Lock to Lock Time : 6.0
Steering Angle : 38.0

DESIGN VEHICLE



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NO.	DATE	DESCRIPTION	BY	CHKD	APP'D
001	14.07.2021	Sweep Path Assessment	A.S.		
002	14.07.2021	Updated Plans	A.S.		
003	30.07.2021	Updated Plans	A.S.		

NO.	DATE	DESCRIPTION	BY	CHKD	APP'D
001	14.07.2021	Sweep Path Assessment	A.S.		
002	14.07.2021	Updated Plans	A.S.		
003	30.07.2021	Updated Plans	A.S.		

Scale @ A3 0 4 8 12 16 20 1:400

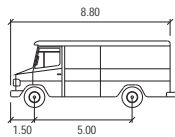
ENGINEERING CERTIFICATION (RPEQ)

Name	Signature	No.	Date

Project
2 Kulgun Crt Ocean Shores Res Development TIA

Title
B99 - Access Gate Passing

Design	Drawn	Checked
A.S.	A.S.	B.J.
CONCEPT ONLY		
Project Number	Sheet Number	Issue
P4619	1	003

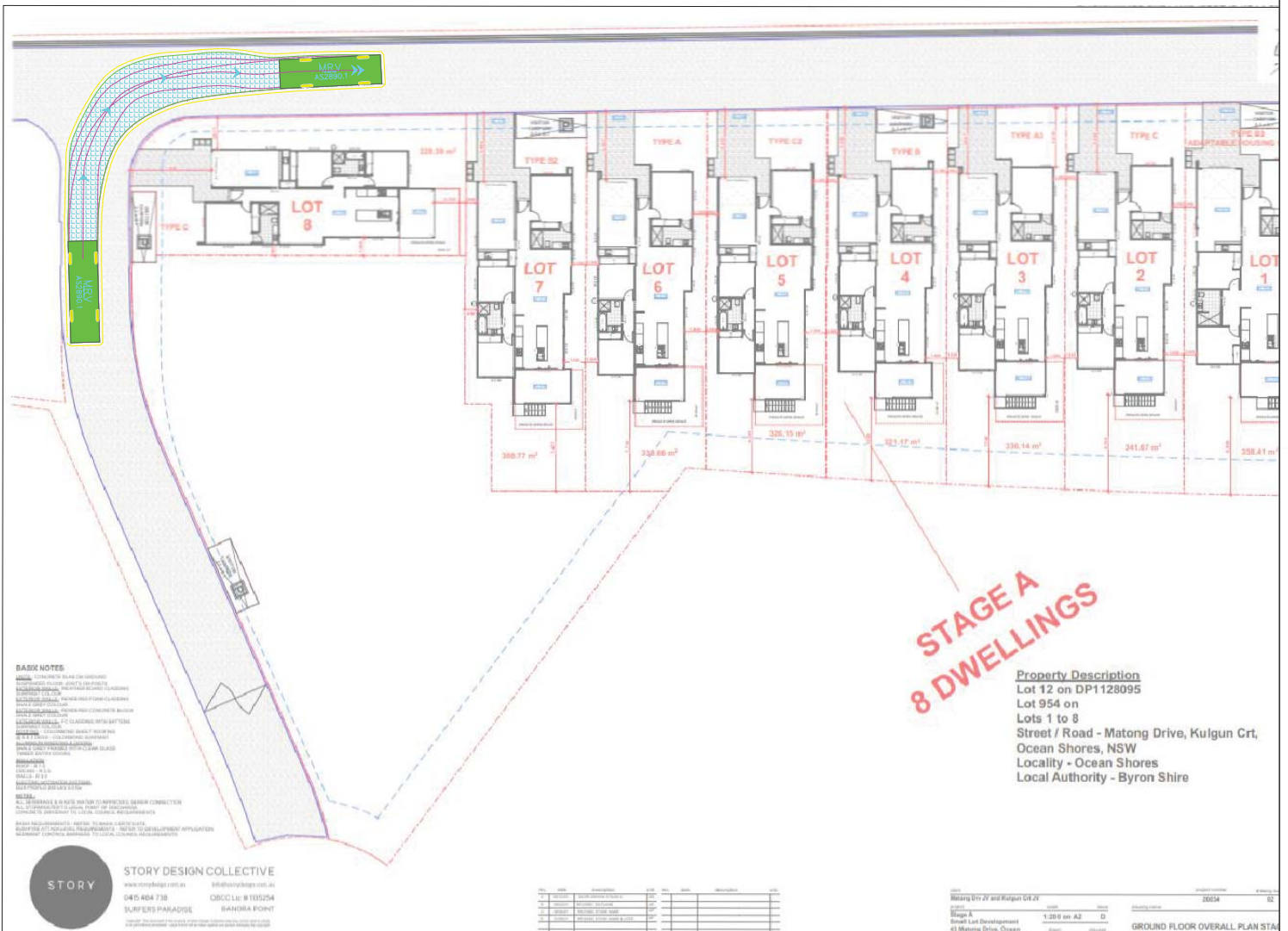


MRV
meters
Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 38.7

DESIGN VEHICLE



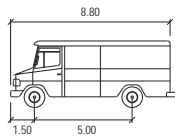
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REVISIONS			Drawn	Date
001	Sweep Path Assessment		A.S.	30.03.2021
002	Updated Plans		A.S.	14.07.2021
003	Updated Plans		A.S.	30.07.2021

Scale @ A3				0	4	8	12	16	20	1:400
ENGINEERING CERTIFICATION (RPEQ)										
Name	Signature	No.	Date							

Project	2 Kulgun Crt Ocean Shores Res Development TIA			Design	A.S.	Drawn	A.S.	Checked	B.J.
Title	MRV - Internal Circulation 1			CONCEPT ONLY			Date	30.07.2021	
Project Number	P4619			Sheet Number	2			Issue	
								003	

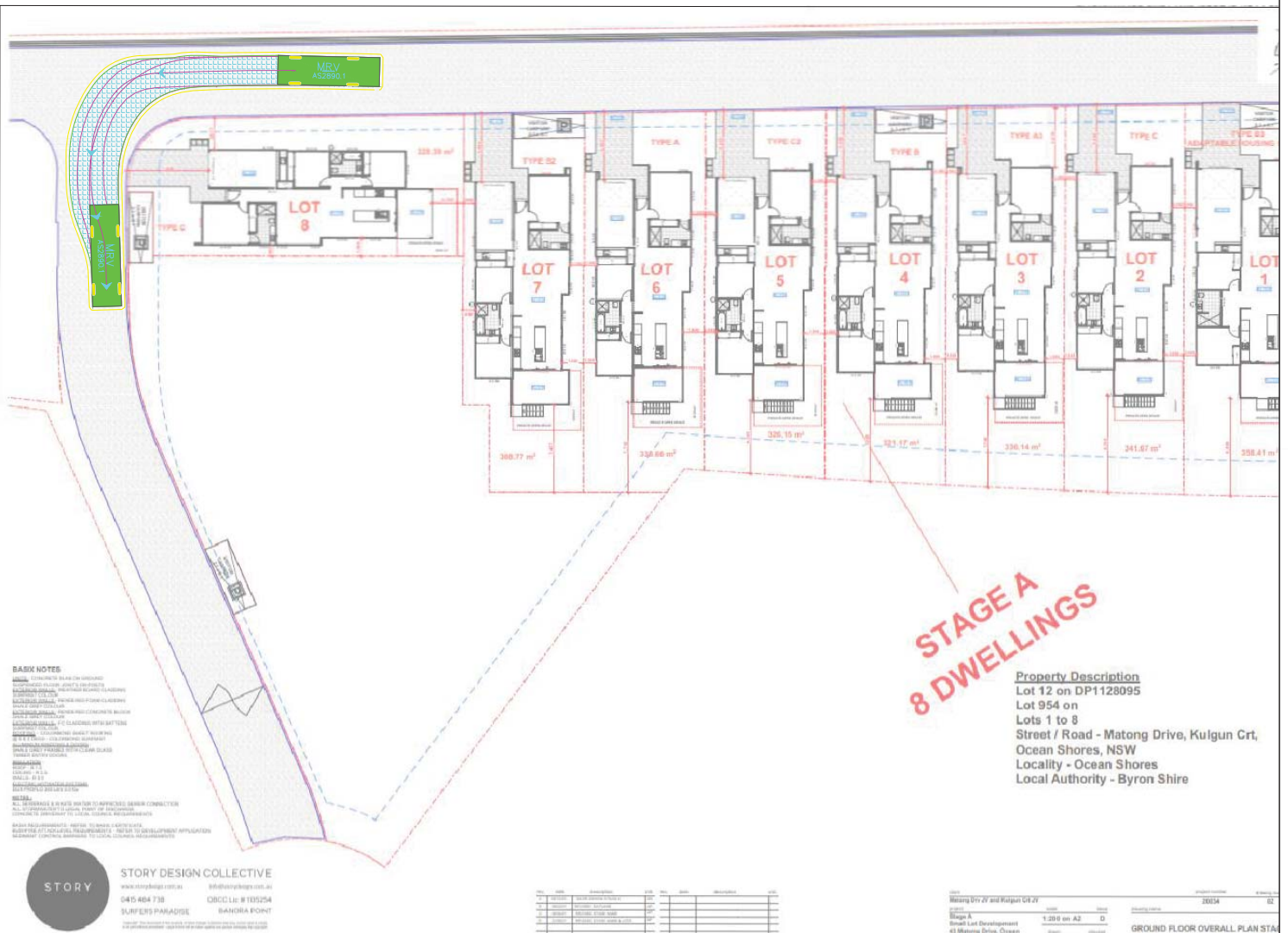


MRV
meters
Width : 2.50
Track : 2.50
Lock to Lock Time : 6.0
Steering Angle : 38.7

DESIGN VEHICLE



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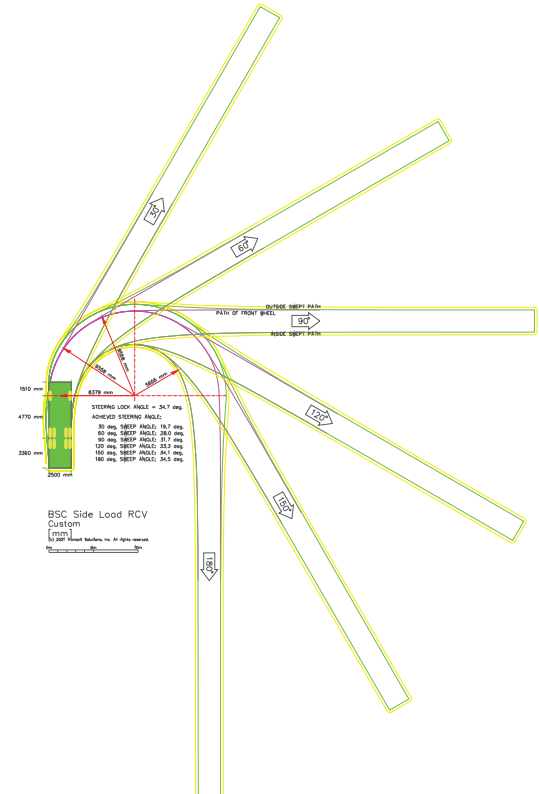
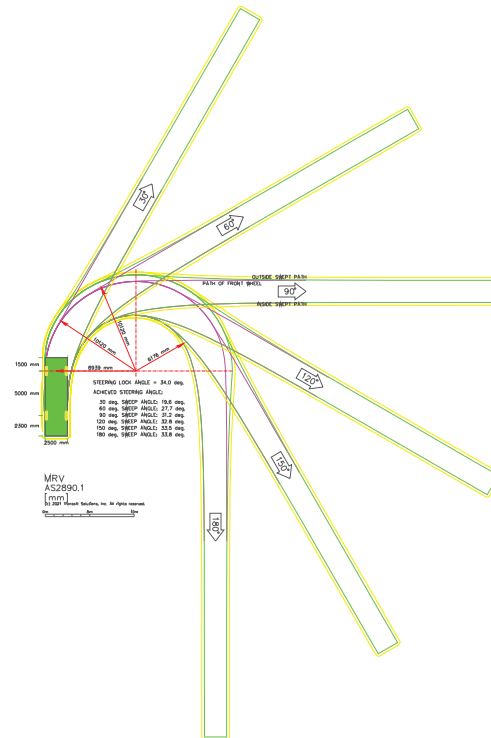
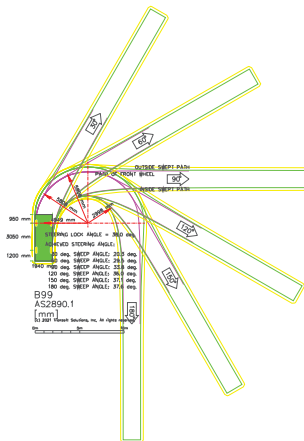


REVISIONS		
Issue	Revisions/Descriptions	Date
001	Sweep Path Assessment	30.03.2021
002	Updated Plans	14.07.2021
003	Updated Plans	30.07.2021

ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date


Project	2 Kulgun Crt Ocean Shores Res Development TIA
Title	MRV - Internal Circulation 2

Design	A.S	Drawn	A.S	Checked	B.J
CONCEPT ONLY					Date
					30.07.2021
Project Number	P4619	Sheet Number	3	Issue	003



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REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	Swept Path Assessment	A.S	30.03.2021
002	Updated Plans	A.S	14.07.2021
003	Updated Plans	A.S	30.07.2021

Scale @ A3				1:600
ENGINEERING CERTIFICATION (RPEQ)				
Name	Signature	No.	Date	

Project		Design	Drawn	Checked
2 Kulgun Crt Ocean Shores Res Development TIA		A.S	A.S	B.J
Title Vehicle Turning Templates		CONCEPT ONLY		Date 30.07.2021
		Project Number	Sheet Number	Issue
		P4619	6	003



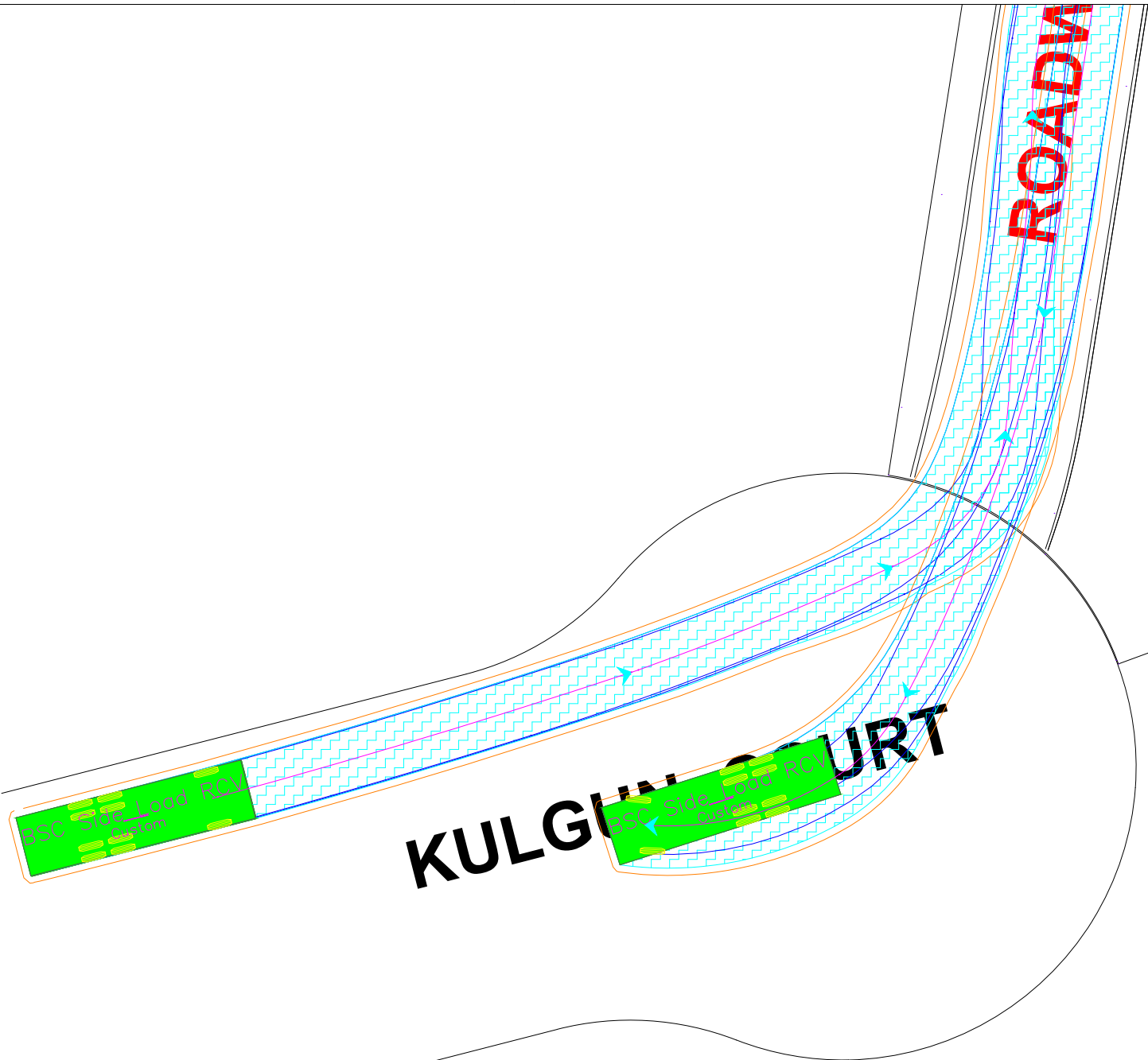
Notes:

- RPEQ certification relates only to vehicle movements and does not review, approve or certify any associated service vehicle management procedures to be employed as a part of the waste collection process or any design elements outside those directly related to vehicle movement.
- A height clearance of 4.5m shall be maintained for all areas of service vehicle movements
- Note the Kulgun Court cul-de-sac is not to scale and is included only for indicative purposes

Vehicle Clearance (300mm)



Vehicle Clearance (600mm)




FUTURE
STATION

DESIGN VEHICLE

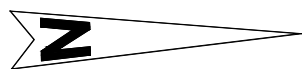


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REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	Swept Path Assessment	H.T	05.04.2024

Scale @ A3		<div><div>024681012</div><div>1:250</div></div>	
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date
B.James	<div></div>	26224	05.04.2024

Project		Design	Drawn	Checked
Kulgun Court Ocean Shores Revised TIA		H.T	H.T	B.J
Title		CONCEPT ONLY		Date
				05.04.2024
Kulgun Court Ingress and Egress		Project Number	Sheet Number	Issue
		P6428	1	001



Notes:

- RPEQ certification relates only to vehicle movements and does not review, approve or certify any associated service vehicle management procedures to be employed as a part of the waste collection process or any design elements outside those directly related to vehicle movement.
- A height clearance of 4.5m shall be maintained for all areas of service vehicle movements

Vehicle Clearance (300mm)



Vehicle Clearance (600mm)



DESIGN VEHICLE

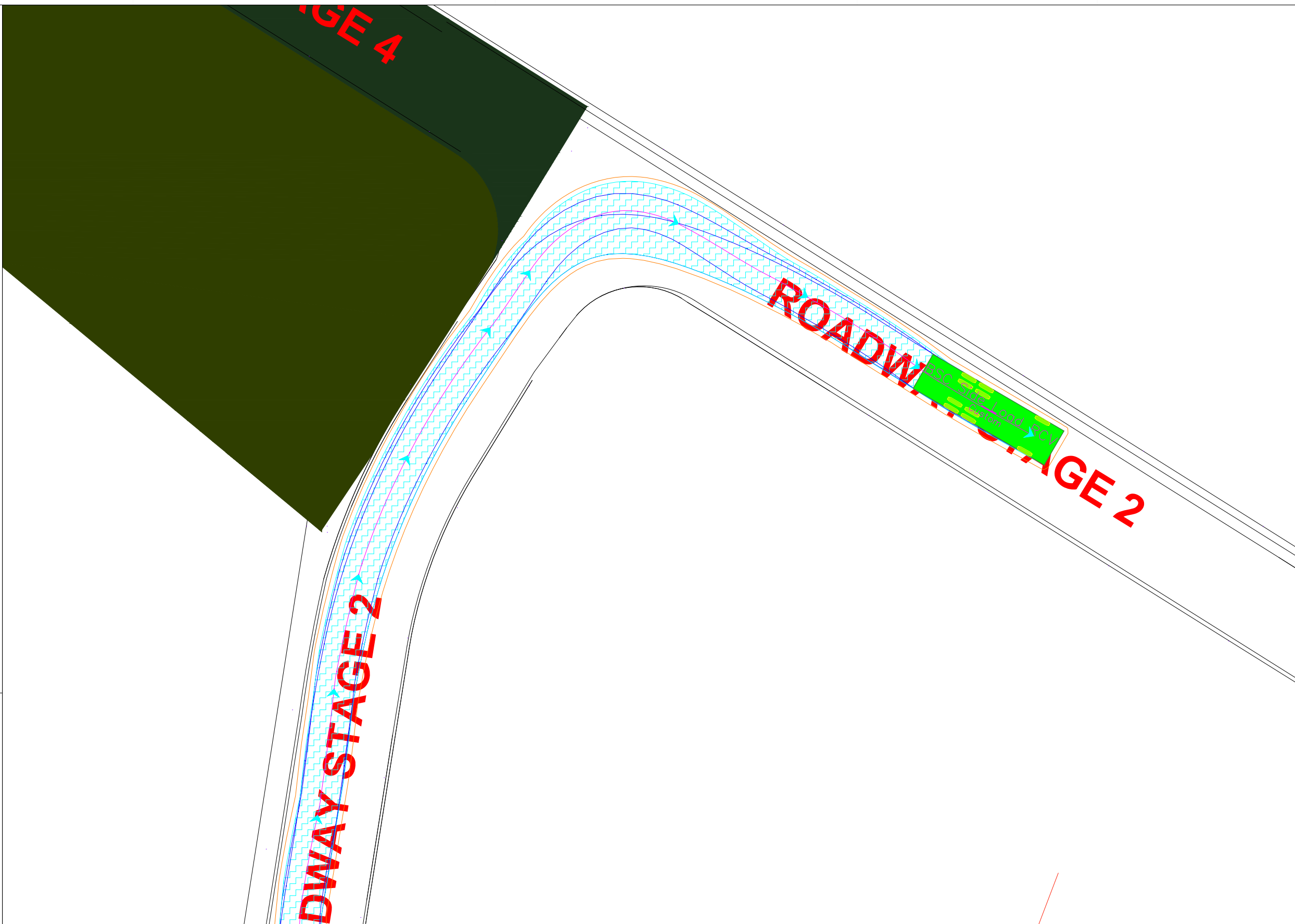


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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Assessment	H.T	05.04.2024

Scale @ A3			
1:250			
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date
B.James		26224	05.04.2024

Project		Design	Drawn	Checked
Kulgun Court Ocean Shores Revised TIA		H.T	H.T	B.J
Title		CONCEPT ONLY		
		Date	05.04.2024	
RCV Right Turn Into Internal Roadway		Project Number	Sheet Number	Issue
		P6428	2	001





Notes:

- RPEQ certification relates only to vehicle movements and does not review, approve or certify any associated service vehicle management procedures to be employed as a part of the waste collection process or any design elements outside those directly related to vehicle movement.
- A height clearance of 4.5m shall be maintained for all areas of service vehicle movements

Vehicle Clearance (300mm)



Vehicle Clearance (600mm)



DESIGN VEHICLE

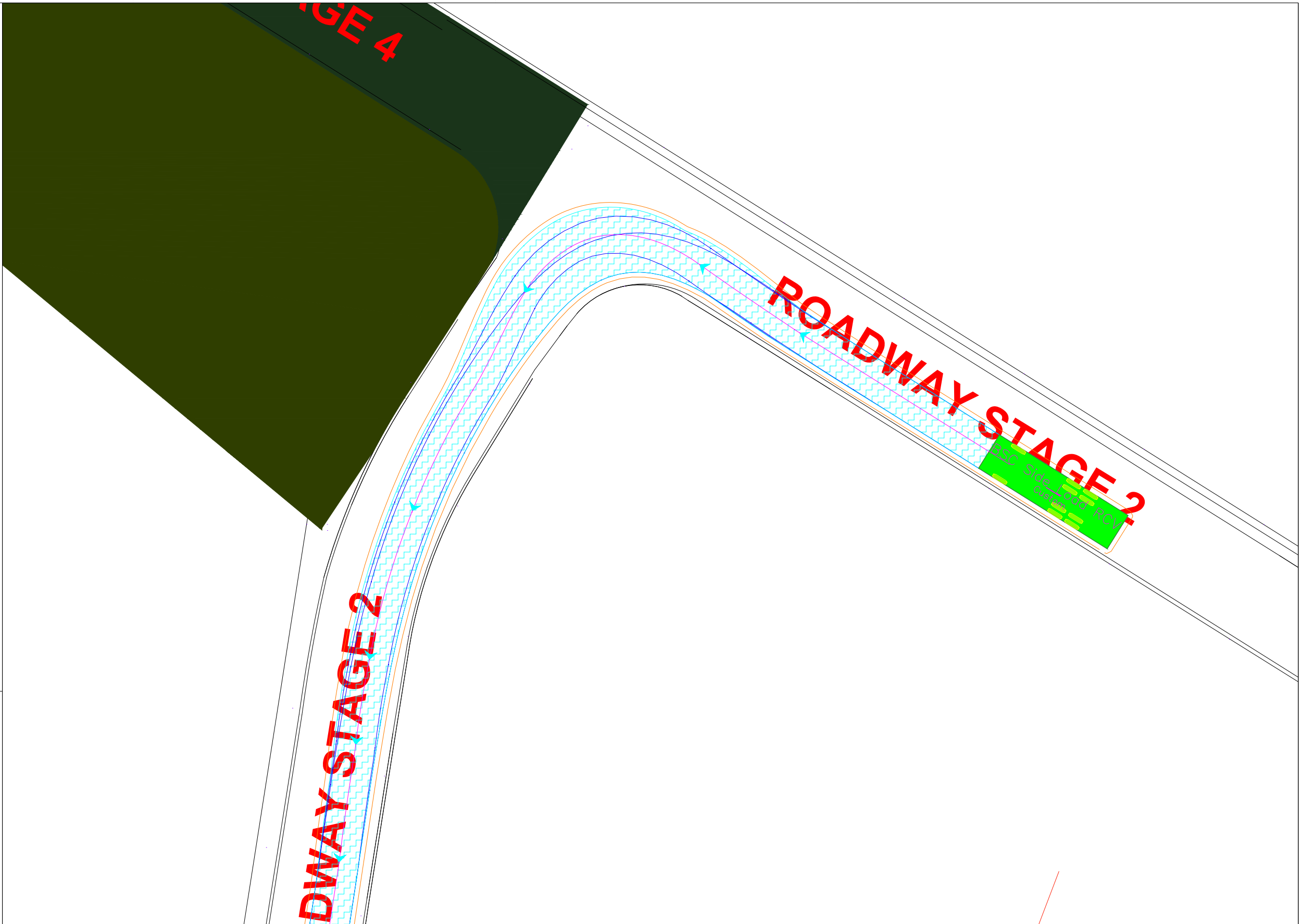


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Sydney
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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Assessment	H.T	05.04.2024

Scale @ A3			
1:250			
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date
B.James		26224	05.04.2024

Project		Design	Drawn	Checked
Kulgun Court Ocean Shores Revised TIA		H.T	H.T	B.J
Title		CONCEPT ONLY		
		Date	05.04.2024	
RCV Left Turn Out of Internal Roadway		Project Number	Sheet Number	Issue
		P6428	3	001





Notes:

- RPEQ certification relates only to vehicle movements and does not review, approve or certify any associated service vehicle management procedures to be employed as a part of the waste collection process or any design elements outside those directly related to vehicle movement.
- A height clearance of 4.5m shall be maintained for all areas of service vehicle movements

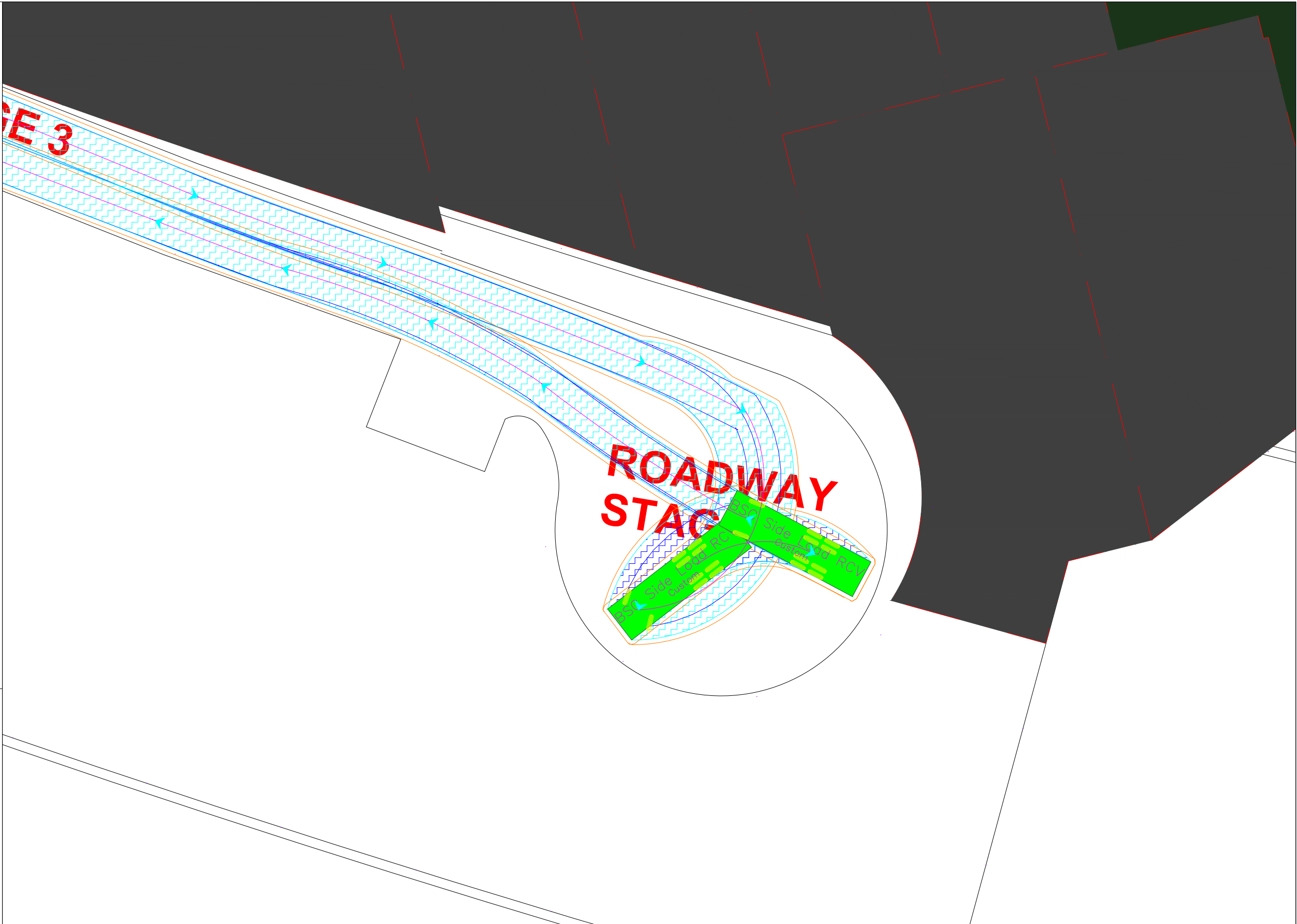
Vehicle Clearance (300mm)



Vehicle Clearance (600mm)



DESIGN VEHICLE



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REVISIONS			
Issue	Revisions/Descriptions	Drawn	Date
001	Swept Path Assessment	H.T	05.04.2024

Scale @ A3			
1:250			
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date
B.James		26224	05.04.2024

Project		Design	Drawn	Checked
Kulgun Court Ocean Shores Revised TIA		H.T	H.T	B.J
Title		CONCEPT ONLY		
		Date	05.04.2024	
RCV Turnaround		Project Number	Sheet Number	Issue
		P6428	4	001

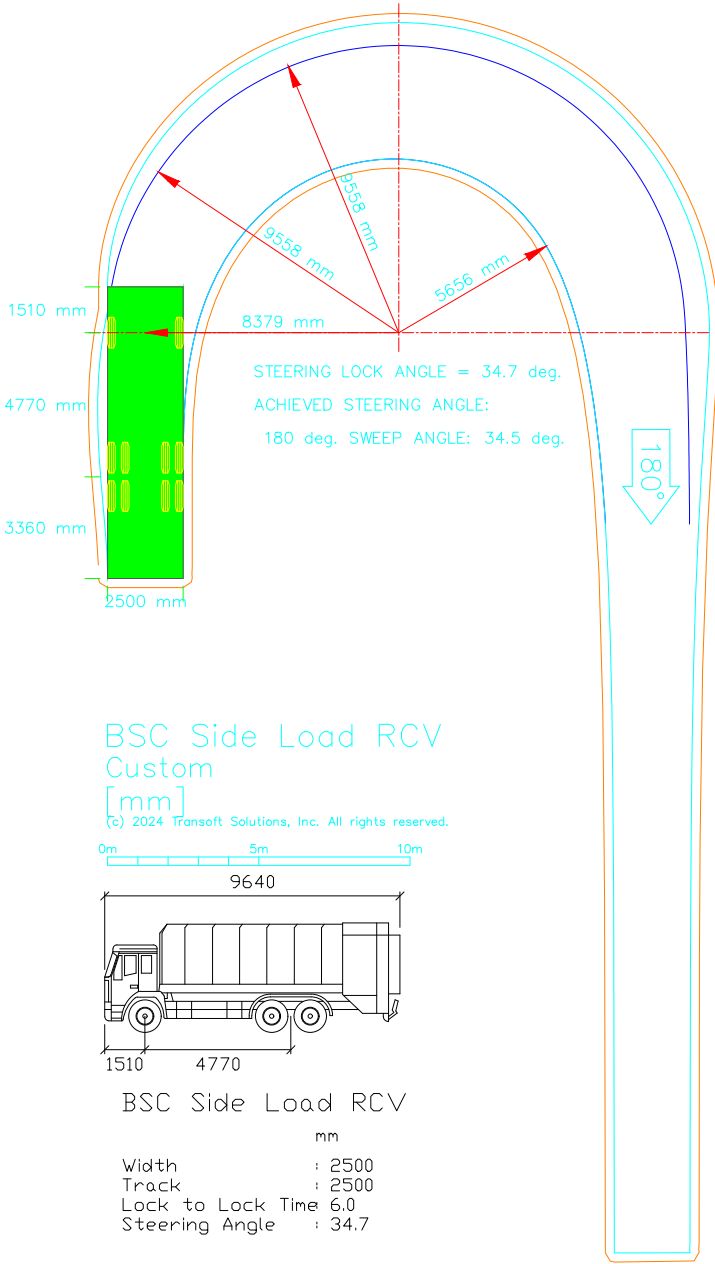


Notes:

- RCV turn template based on Byron Shire Council Side-loading Collection Vehicle as per Appendix B8.5 - Garbage Truck Dimensions for Residential Waste Collection

Vehicle Clearance (300mm)

Vehicle Clearance (600mm)



DESIGN VEHICLE



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REVISIONS		Drawn	Date
Issue	Revisions/Descriptions		
001	Swept Path Assessment	H.T	05.04.2024

Scale @ A3 0 2 4 6 8 10 12 1:250			
ENGINEERING CERTIFICATION (RPEQ)			
Name	Signature	No.	Date
B.James		26224	05.04.2024

Project Kulgun Court Ocean Shores Revised TIA	Design H.T	Drawn H.T	Checked B.J
	CONCEPT ONLY		
Title Byron Shire Council Sideload RCV Design Template	Project Number P6428	Sheet Number 5	Date 05.04.2024
	Issue 001		