Attachment 4

Transport Impact Statement

TRANSPORT IMPACT STATEMENT

Corner of Marlboro Road and Gladstone Avenue

Swan View

March 2023

Rev D

HISTORY AND STATUS OF THE DOCUMENT

Revision	Date issued	Reviewed by	Approved by	Date approved	Revision type
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Rev B	13.01.2023	M Kleyweg	M Kleyweg	16.01.2023	Proposed Layout Amended
Rev C	16.03.2023	M Kleyweg	M Kleyweg	16.03.2023	Proposed Layout Amended
Rev D	28.03.2023	M Kleyweg	M Kleyweg	29.03.2023	Additional Information Provided

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Appendices

1. Executive Summary

Site Context

- The project location is No. 40 Marlboro Road, Swan View.
- The subject Lot 72 Marlboro Road is occupied by the Swan View Shopping Centre.
- The proponent seeks to construct a childcare centre with a capacity for 82 children, which will replace a section of the existing parking and traffic circulation area.

Technical Findings

- The total additional impact of the proposed development is 358 VPD, 66 VPH in the AM peak and 57 VPH in the PM peak.
- According to the WAPC Guidelines, the proposed development will have a moderate impact on the surrounding network.
- There are four major routes for accessing and egressing the development:
  - To/from the east via Gladstone Avenue
  - To/from the west via Gladstone Avenue
  - To/from the north via Marlboro Road
  - To/from the south via Marlboro Road

Relationship with Policies

- According to Local Planning Scheme No. 4, the existing shopping centre and the proposed development will require 278 parking bays.
- Currently, there are 295 car parking bays at the shopping centre.
- The construction of the proposed childcare requires removing 31 bays (30 bays impacted by the building and 1 additional bay will be removed to accommodate the rigid truck movement) and adding 16 new bays.
- The reorganised parking area will have 280 parking bays available to both the shopping and childcare centres.
- Therefore, after the completion of the Childcare centre, there will be a surplus of 2 parking bays for the entire development (inclusive of the existing shopping centre and proposed childcare centre).
- KCTT have provided a breakdown of expected arrivals and maximum required parking bays for each hour in section 2.7., showing that a maximum of 7 visitor bays will be required in the peak hour during the drop-off period.
- The proposed parking arrangement can meet the cumulative parking demand of the subject site.
- Building Code of Australia ACROD Provision – the proposed development will meet the requirement for 1 ACROD bay.

Conclusion

- As stated above, the additional traffic attracted to the subject site is expected to increase by a maximum of 358 vehicular trips per day and 66 vehicular trips in the peak hour.
- The existing Swan View Shopping Centre currently generates up to 5,000 VPD (rough estimation).
- Therefore, the additional traffic is only a fraction of the existing, and it will be dispersed when distributed to all four crossovers to Gladstone Avenue and Marlboro Road.

- Other surrounding roads would absorb significantly less traffic than Gladstone Avenue and Marlboro Road; therefore, the impact on other roads can be considered negligible.
- In summary, KCTT believes that the proposed development will not negatively impact the surrounding road network.

2. Transport Impact Statement

2.1 Location

Lot Number	Lot 72
Street Number	No. 40
Road Name	Marlboro Road
Suburb	Swan View
Description of Site	The Swan View Shopping Centre occupies the subject lot. The proposed development includes an addition of a childcare centre with a capacity for 82 children, replacing a section of the existing parking area.

2.2 Technical Literature Used

Local Government Authority	Shire of Mundaring
Type of Development	Individual Development
Is the NSW RTA Guide to Traffic Generating Developments Version 2.2 October 2002 (referenced to determine trip generation/attraction rates for various land uses) referenced?	YES
Which WAPC Transport Impact Assessment Guideline should be referenced?	Volume 4 - Individual Developments
Are there applicable LGA schemes for this type of development?	YES
If YES, Nominate:	
Name and Number of Scheme	Local Planning Scheme No. 4
Are Austroads documents referenced?	YES

2.3 Land Uses

Are there any existing Land Uses	YES
If YES, Nominate:	The proposed development will be constructed within the existing Swan View Shopping Centre. All existing uses will be retained: 9 specialty stores, with a supermarket anchor tenant. According to the latest aerial imagery, GFA of the shopping centre is estimated to be 4,730m^2. For calculation purposes GLA was assumed to be 80% of the GFA = 3,784m^2.

Proposed Land Uses

How many types of land uses are proposed?	One (1)
Nominate land use type and yield	Childcare Centre - 82 children, 15 staff members (13 required educators, plus an admin and a cook)
Are the proposed land uses complementary with the surrounding land-uses?	YES

2.4 Local Road Network Information

How many roads are front of the subject site? Two (2)

Name of Roads Fronting Subject Site / Road Classification and Description:

Road 1

Road Name	Marlboro Road
Number of Lanes	two way, one lane (no linemarking), undivided
Road Reservation Width	20m
Road Pavement Width	7m
Classification	Access Road
Speed Limit	50kph or State Limit
Bus Route	YES
If YES Nominate Bus Routes	323, 327
On-street parking	NO

Road 2

Road Name	Gladstone Avenue
Number of Lanes	two way, one lane (no linemarking), undivided
Road Reservation Width	20m
Road Pavement Width	7.2m
Classification	Access Road
Speed Limit	50kph or State Limit
Bus Route	NO
If YES Nominate Bus Routes	
On-street parking	NO

2.5 Traffic Volumes

Road Name	Location of Traffic Count	Vehicles Per Day (VPD)	Vehicles per Peak Hour (VPH)		Heavy Vehicle %	Date of Traffic Count	*If older than 3 years multiply with a growth rate*
			AM Peak Time - AM Peak VPH	PM Peak Time - PM Peak VPH	*If HV count is Not Available, are HV likely to be in higher volumes than generally expected?*		
Gladstone Avenue	East of Marlboro Road *	940	08:00 – 134	14:30 – 146	2.6%	Sep 2019	1,058 (3% annual growth rate to 2023)
Marlboro Road	120m South of Morrison Road *	3,748	11:00 – 384	15:00 – 411	4.6%	Sep 2019	4,218 (3% annual growth rate to 2023)

Note - These traffic counts have been received from the Shire of Mundaring*

2.6 Vehicular Crash Information and Risk Assessment

Is Crash Data Available on Main Roads WA website?	YES
Location 1	Intersection of Marlboro Road and Gladstone Avenue
Period of crash data collection	01/01/2017 - 31/12/2021

Road / Intersection Name	SLK	Road Hierarchy	Speed Limit	Crash Statistics			
				No of KSI Crashes	No of Medical Attention Crashes	No of PDO Major Crashes	No of PDO Minor Crashes
Marlboro Road / Gladstone Avenue	N/A	Access Road / Access Road	50kph	0	0	1	0
No of MVKT Travelled at Location				approximately 5,000 VPD * 365 * 5 years * 0.4 km = 3.65 MVKT			
KSI Crash Rate				0 KSI crashes / 3.65 MVKT = 0 KSI crashes/MVKT			
All Crash Rate				1 crashes / 3.65 MVKT = 0.27 crashes/MVKT			
Comparison with Crash Density and Crash Rate Statistics				Crash rate of 0.27 crashes/MVKT is significantly lower than the network crash rate of 1.98 crashes/MVKT.			

The following table shows crash rates and crash densities in Perth Metropolitan area on local roads for the period from 2017 to 2022, as obtained from Main Roads WA on the 31st May 2022 by email request:

Crash Density and Crash Rate on Metropolitan Local Roads Network only

	All Crashes		Serious Injury Crashes (Fatal+Hospital)	
	Average Annual Crash Density (All Crashes/KM)	Average Annual Crash Rate (All Crashes/MVKT)	Average Annual Crash Density (Ser. Inj. Crashes/KM)	Average Annual Crash Rate (Ser. Inj. Crashes/MVKT)
Metro Local Roads - Midblock	2.51	0.95	0.12	0.05
Metro Local Roads - All	5.23	1.98	0.24	0.09

Note: Based on 5-years data for the period 2017 to 2021.

2.7 Vehicular Parking

Local Government	Shire of Mundaring
Local Government Document Utilised	Local Planning Scheme No. 4

Description of Parking Requirements in accordance with Scheme:

Child Care Premises - 1 space per every 8 children allowed under maximum occupancy, plus 1 space per employee or staff member

Shop: 1 space per 15 m2 GLA in the Local Centre zone.

KCTT have measured the shopping centre from the latest aerial imagery: 4,730m^2 of GFA. For the purpose of the below calculations, GLA is assumed to be 80% of GFA = 3,784m^2.

Calculation of Parking

Land Use	Requirements	Yield	Total Parking
Existing Shopping Centre	1 space per 15m^2 GLA	80% (4,730m^2) = 3,784m^2 GLA*	252.27
Proposed Childcare Centre	1 per every 8 children	82	10.25
	1 per staff member	15	15

Total Car Parking Requirement	**278***

***LPS No.4 stipulates:** *Where the car parking requirement for a use on Table 2 is not a whole number, the car parking requirement shall be the next highest whole number.*

Total Volume of Existing Parking Provided	**295**
Total Volume of Parking Removed	**-31**
Total Future Provision for the Childcare Centre	**+16**
Total Future Parking Provision at the Swan View Shopping Centre	**280**

Justification

According to Local Planning Scheme No. 4, the existing shopping centre and the proposed development will require 278 parking bays.

Currently, there are 295 car parking bays at the shopping centre.

The new development requires the removal of 31 bays (30 bays impacted by the building, and 1 additional bay will be removed to accommodate the rigid truck movement) and adding 16 new bays.

The revised layout will have 280 parking bays; therefore, after the completion of the childcare centre, there will be a surplus of 2 parking bays for the entire development (inclusive of the existing shopping centre and proposed childcare centre).

The southern section of parking should be allocated to staff members only. Drop-off parking should be arranged at the parking area on the western side of the building. This is important as the Coles' delivery vehicle will use the aisle south of the Childcare Centre to leave the subject site. Therefore, there should not be a high parking turnover in this area.

Given the nature of the proposed land use and site context, the following points inform KCTT's opinion that the proposed car parking provision can meet the development demands:

- It is expected that some staff members could cycle/walk or be dropped off to work, therefore not requiring a parking bay for their shift. Not all staff members will work at one time.
- It is highly unlikely that the childcare centre would operate at its maximum capacity at all times.
- The peak time for childcare centres is typically a 2-hour period. The average length of stay, as stated in NSW RTA - Guide to Traffic Generating Developments, is 6.8 minutes. Our experience in surveying dwell times for childcare centres outside of commercial zones confirms this finding. Even assuming conservative

10 minutes average length of stay, the actual arrival/departure rate of parents' vehicles is likely to be spread throughout the 2-hour peak time. The AM peak is likely to be the peak development period as most parents drop off their children before going to work, whereas the PM peak tends to be more spread out with pick-up times depending on when parents become available.

The following table was derived through many years of practice and research in this field that our office completed. We have worked with several established childcare providers who have provided sign-in data for a full week. The percentages outlined below have emerged as the current average arrival/departure pattern. As per our transport impact assessment, the estimated average dwell time is 10 minutes, which is significantly higher than the dwell time suggested by NSW RTA Guide to Traffic Generating Developments.

While this pattern shows that up to 95% of children attend for the day (as practically recorded), the distribution still does not allow for siblings to attend the centre. Furthermore, the distribution assumes that all children in attendance are driven to the childcare in a separate personal vehicle (not walked or brought on bicycles); therefore, the distribution below has a degree of conservativism.

In our previous experience, we have come across data indicating that siblings usually make up 15-25% of attendees. More than one child will be brought in a single vehicle in these cases, reducing the parking requirement.

The table below was developed on the following assumptions:

- The arrival percentage is derived from data provided to KCTT and described above.
- It was assumed there were no siblings in the centre.
- It was assumed that all children in attendance would be driven to the centre.

Sign-in Time	Extracted Arrival Percentages (of the maximum number of children)	Expected Number of Children Signing In	Parking demand (assumed dwell time 10 minutes per vehicle)
07:00 - 07:30	13.97%	11	4
07:30 - 08:30	**40.55%**	**33**	7
08:30 - 09:30	30.68%	25	5
09:30 - 10:30	7.67%	6	1
After 10:30	1.37%	1	1
Total:	94.25%	77 children (82 children = 100% capacity)	

The table above shows that the parking demand is the strongest in the period 07.30 - 08:30.

When applied to the subject development with the assumed dwell time of 10 minutes per vehicle, the subject childcare centre would require a maximum of 7 car bays to cater for the expected parking demand of pick-up / drop-off function.

Based on the above, KCTT believes the proposed capacity will be adequate to cater to all parking requirements.

Have Vehicle Swept Paths been checked for Parking? YES

KCTT have checked the proposed parking bays with a B99 passenger vehicle. The navigability of the existing loading area was confirmed. The proposed childcare centre will not negatively impact the navigability of the parking area.

2.8 Compliance with AS2890.1:2004 and AS2890.6

Number of Parking Bays on-site	16
Are Austroads documents referenced?	YES
If YES, Nominate:	• Australian/New Zealand Standard, Parking facilities, Part 1: Off-street car parking - Originated as AS 2890.1—1986. • Australian/New Zealand Standard, Parking facilities, Part 6: Off-street parking for people with disabilities - Originated as AS2890.6
Proposed development User Class	User Class 1A (Residential, domestic and employee parking) User Class 3 User Class 4

AS2890.1:2004 Off-street car parking AS2890.6 Off-street parking for people with disabilities						
Parking Bay Type	Parking Bay Length		Parking Bay Width		Aisle Width	
	Required	Proposed	Required	Proposed	Required	Proposed
All bays at 90°	5.4m	5.4m	2.6m	2.6m	5.8m	6m and more
ACROD Parking	5.4m	5.4m	2.4m–ACROD 2.4m–shared space	2.4m–ACROD 2.4m–shared space	5.8m	6m and more

Does the parking area meet the requirements set in AS2890.1:2004?	KCTT reviewed the layout for the proposed development and concluded that car parking bays dimensions and aisle width generally comply with the Australian Standard AS/NZS 2890.1/2004.
Does the parking area meet the requirements set in AS2890.6?	YES
Other relevant findings	The southern section of parking should be allocated to staff members only to minimise maneuvering through the day, as delivery vehicles travel along this route. Drop-off parking should be arranged at the parking area on the western side of the building. Refer to Appendix 3 for comments and recommendations.

2.9 Bicycle Parking

Local Government	Shire of Mundaring
Reference Document Utilised	Local Planning Scheme No. 4

Description of Parking Requirements in accordance with Scheme:

There are no requirements for bicycle parking in the LPS No. 4.

Total Volume of Bicycle Parking Provided by Proponent	N/A

Justification

There are no bicycle parking spaces proposed at the subject development.

2.10 ACROD Parking

Class of Building	Class 9b
Reference Document Utilised	Building Code of Australia

Description of Parking Requirements:

Class 9b — (b) Other assembly building — (i) up to 1000 carparking spaces; - 1 space for every 50 carparking spaces or part thereof

Parking Requirement in accordance with regulatory documents

Land Use	Requirements	Yield	Total Parking
Childcare Centre	*1 space for every 50 carparking spaces or part thereof*	16	1
	Total Volume of ACROD Parking Required		**1**

Total Volume of ACROD Parking Provided by Proponent	**1**

Justification

The proposed development will meet the requirement for 1 ACROD bay.

2.11 Delivery and Service Vehicles

Guideline Document used as reference	NSW RTA Guide to Traffic Generating Developments

Requirements

Other uses - 1 space per 2,000m2

Parking Requirement in accordance with regulatory documents

Land Use	Minimum Requirements	Yield	Total Parking
Childcare Centre	*1 space per 2,000m2*	563m^2	1
	Total Volume of Service and Delivery Parking Required		1

Total Volume of Service and Delivery Parking Provided by Proponent	N/A

Justification

Waste can be collected within the current practice of the local centre. The provision of a dedicated delivery bay is not required for this type of development. Outside of peak hours, all visitors' bays are likely to be empty and can be used in these periods for deliveries with a passenger vehicle.

2.12 Calculation of Development Generated / Attracted Trips

What are the likely hours of operation?	Child Care Centre – 06:30-18:30
What are the likely peak hours of operation?	07:30 - 08:30 and 16:30 - 17:30
Do the development generated peaks coincide with existing road network peaks?	YES
If YES, Which:	Partially both peak times
Guideline Document Used	NSW RTA Guide to Traffic Generating Developments
Rates from above document:	***Child Day Care:*** • *AM Peak - 0.8 VPH per child* • *PM Peak - 0.7 VPH per child* It should be noted that these rates are given for a 2-hour peak period. For this report, KCTT assumes that the two-hour traffic volume will be attracted to the development in a one-hour period, representing the peak for the subject site.

Given that the WAPC Transport Assessment Guidelines and NSW RTA Guide to Traffic Generating Developments do not offer daily vehicular trip generation rate for the proposed land use KCTT have assumed the following to apply:

Childcare centre

Vehicular daily trips can be assumed to be 4 VPD per child and 2 VPD per employee. Each parent will make 2 vehicular trips when dropping off the child at the daycare centre and 2 vehicular trips when picking the child up. Employees will make 1 vehicular trip arriving at work and another vehicular trip when leaving work.

In our experience, childcare centres tend to operate with an 85% utilisation rate of the licenced capacity over the year due to the number of days that children attend (this ranges from 2 to 5 days a week) and seasonal adjustments (end of the year and when people return to work from maternity leave). Therefore, this childcare facility's expected average daily operative maximum can be estimated as 70 children. Market information indicates that between 10-20% of parents tend to have more than one child at a childcare centre, so those families only account for one vehicular trip. A further percentage of parents will have older siblings attending one of the nearby schools.

However, in the calculations below, a conservative approach has been applied, showing the maximum number of children, assuming that all children are driven to the centre, and there are no siblings in the centre.

Land Use Type	Rate above	Yield	Daily Traffic Generation	Peak Hour Traffic Generation	
				AM	PM
Child Care Centre	*Daily - 4 VPD per child and 2 VPD per staff member* *AM Peak - 0.8 VPH per child* *PM Peak - 0.7 VPH per child*	82 children 15 staff members	328 30	66	57
		Total:	**358**	66	57

What is the total impact of the new proposed development?	The total additional impact of the proposed development is 358 VPD; 66 VPH in the AM peak and 57 VPH in the PM peak. According to the WAPC Guidelines, the proposed development will have a moderate impact on the surrounding network.

2.13 Traffic Flow Distribution

How many routes are available for access / egress to the site?	Four (4) Additional traffic: 358 VPD; AM 66 VPH; PM 57 VPH
Route 1	
Provide details for Route No 1	To/from the east via Gladstone Avenue
Percentage of Vehicular Movements via Route No 1	5% [18 VPD; AM 3 VPH; PM 3 VPH] All from eastern crossover on Gladstone Avenue
Route 2	
Provide details for Route No 2	To/from the west via Gladstone Avenue
Percentage of Vehicular Movements via Route No 2	20% [72 VPD; AM 13 VPH; PM 11 VPH] 50% from southern crossover on Marlboro Road; 50% from western crossover on Gladstone Avenue
Route 3	
Provide details for Route No 3	To/from the north via Marlboro Road
Percentage of Vehicular Movements via Route No 3	45% [161 VPD; AM 30 VPH; PM 26 VPH] All from northern crossover on Marlboro Road
Route 4	
Provide details for Route No 4	To/from the south via Marlboro Road
Percentage of Vehicular Movements via Route No 4	30% [107 VPD; AM 20 VPH; PM 17 VPH] 50% from southern crossover on Marlboro Road; 50% from western crossover on Gladstone Avenue

Note - For a more detailed plans of the estimated vehicular traffic volumes and distribution please refer to the plans provided in Appendix 2.

2.14 Vehicle Crossover Requirements

Are vehicle crossovers required onto existing road networks?	YES
How many existing crossovers?	Four - Two on Marlboro Road and Two on Gladstone Avenue
How many proposed crossovers?	None

If there are greater numbers of new crossovers, than existing, provide justification:

The proposed addition to the subject site does not include any work. The previously approved crossovers will not be redesigned, and no new crossovers are to be added.

2.15 Public Transport Accessibility

How many bus routes are within 400 metres of the subject site?	Five (5)
How many rail routes are within 800 metres of the subject site?	None

Bus Route	Description	Peak Frequency	Off-Peak Frequency
313	Midland Station - Jane Brook via Morrison Road and Talbot Road	3-5 times a day	No Saturday, Sunday and Public Holiday service
314	Midland Station (Circular Route) via Talbot Road and Morrison Road	30 minutes	60 minutes
323	Midland Station - Swan View via Innamincka Road	25 minutes	60 minutes
324	Midland Station (Circular Route) via Morrison Road and Talbot Road	20 minutes	60 minutes
327	Midland Station - Swan View via Blanchard Road and Morrison Road	60 minutes (6 times a day)	No Saturday, Sunday and Public Holiday service

Walk Score Rating for Accessibility to Public Transport

31 | Some Transit. A few nearby public transportation options.

2.16 Pedestrian Infrastructure

Describe existing local pedestrian infrastructure within a 400m radius of the site:

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Marlboro Road; Gladstone Avenue
"Walking Trail"	Along Woodbridge Creek Reserve
Does the site have existing pedestrian facilities	YES
Does the site propose to improve pedestrian facilities?	NO

What is the Walk Score Rating?

50 | Somewhat Walkable. Some errands can be accomplished on foot.

2.17 Cyclist Infrastructure

Are there any PBN Routes within an 800m radius of the subject site? YES

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Marlboro Road; Gladstone Avenue; Damascus Drive
"Good Road Riding Environment"	Gladstone Avenue; Salisbury Road; Talbot Road; Blanchard Road; Myles Road;
"Perth Bicycle Network - Continuous Signed Routes"	SE3 - Balfour Road

Are there any PBN Routes within a 400m radius of the subject site? YES

Classification	Road Name
"Other Shared Path (Shared by Pedestrians and Cyclists)"	Marlboro Road; Gladstone Avenue;
"Good Road Riding Environment"	Gladstone Avenue; Salisbury Road
Does the site have existing cyclist facilities?	YES
Does the site propose to improve cyclist facilities?	NO

2.18 Site-Specific Issues and Proposed Remedial Measures

How many site-specific issues need to be discussed?	One (1)
Site-Specific Issue No 1	Parking Requirement
Remedial Measure / Response	According to Local Planning Scheme No. 4, the existing shopping centre and the proposed development will require 278 parking bays. Currently, there are 295 car parking bays at the shopping centre. Upon completion of the Childcare centre, the parking area will have 280 parking bays, constituting a surplus of 2 parking bays for the entire development (inclusive of the existing shopping centre and proposed childcare centre).

Appendix 1

The Layout of the Proposed Development

PROPOSED CHILDCARE CENTRE
40 MARLBORO ROAD, SWAN VIEW, WA

DRAWING REGISTER PLANNING

SHEET NUMBER	SHEET NAME	ISSUE	DESCRIPTION	DATE
DA00	COVER SHEET	C	UDPATED DA SUBMISSION SET	17/04/2023
DA01	EXISTING CONDITIONS / DEMOLITION PLAN	C	UDPATED DA SUBMISSION SET	17/04/2023
DA02	SITE PLAN	C	UDPATED DA SUBMISSION SET	17/04/2023
DA03	FLOOR PLAN	C	UDPATED DA SUBMISSION SET	17/04/2023
DA04	ELEVATIONS	C	UDPATED DA SUBMISSION SET	17/04/2023
DA05	SECTIONS	C	UDPATED DA SUBMISSION SET	17/04/2023

GENERAL NOTES

DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT. PREPARATION OF SHOP DRAWINGS OR MANUFACTURING. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALING.

VERIFY LOCATION OF EXISTING SERVICES BEFORE COMMENCEMENT.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA, BUILDING ACT 1975 AS AMENDED, STANDARD BUILDING BY-LAWS AND RELEVANT AUSTRALIAN STANDARDS.

ISSUE	DESCRIPTION	DATE
C	UDPATED DA SUBMISSION SET	17/04/2023
B	DA SUBMISSION SET	15/03/2023
A	PRELIMINARY DA SET	02/03/2023

insite ARCHITECTS
4/120 Upper Heidelberg Road, Ivanhoe VIC 3079
t (03) 9499 8174
www.insitearchitects.com.au

CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: COVER SHEET

SCALE:

DATE: APR 23

DRAWN: CW/SS

PRINTED: 17/04/2023 1:05:05 PM

CHECKED: AH

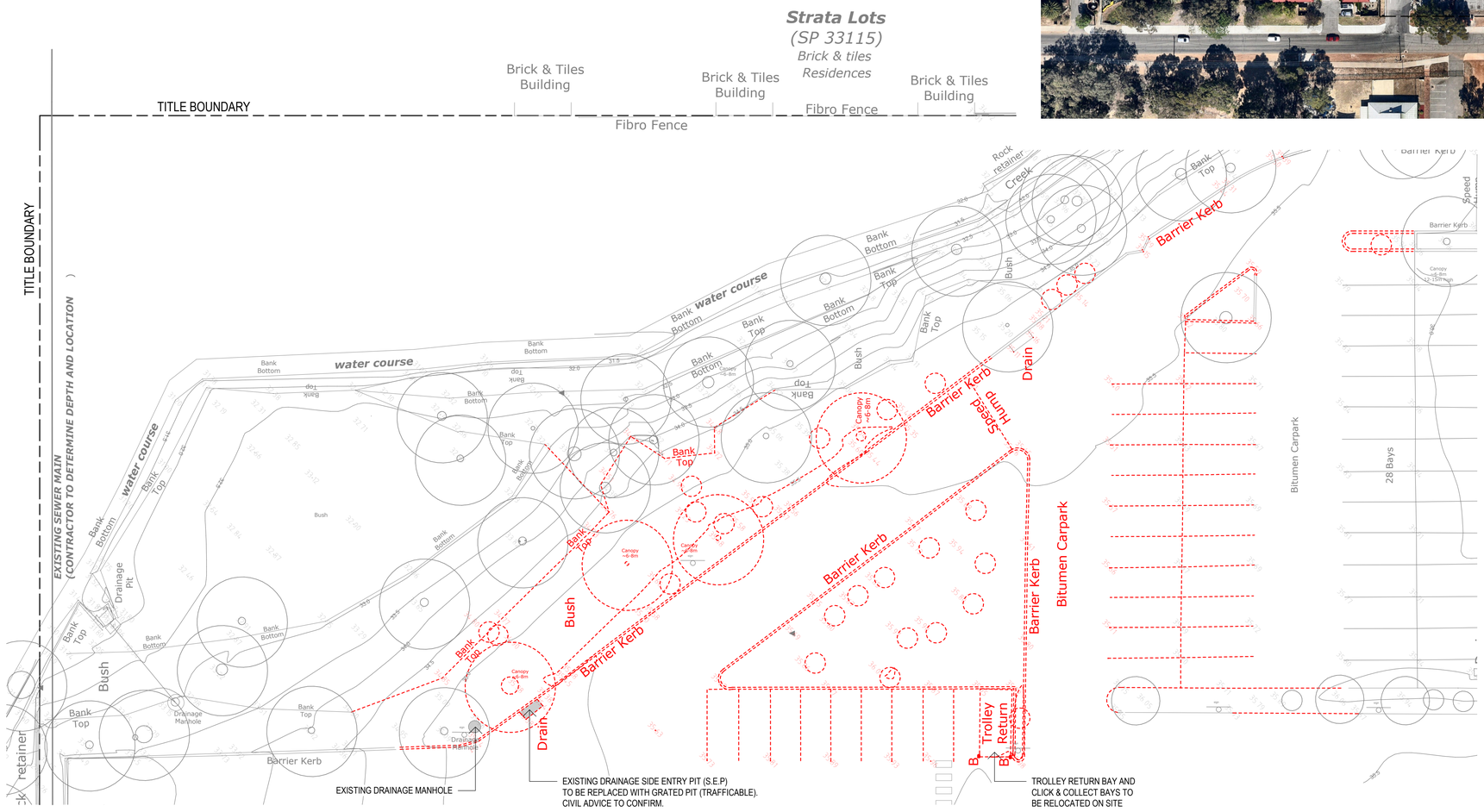
JOB No.: J0000811

DA00/C

D/A ISSUE

NOTE:
EXISTING CONDITIONS INFORMATION OBTAINED FROM SURVEY PREPARED BY ST SPATIAL CONSULTING SURVEYORS - DWG. NO: 20086-01 DATED 10/06/2020

1 SITE AERIAL
1 : 1000



2 DEMOLITION PLAN (part site)
1 : 200

LEGEND

- EXISTING TREE TO BE RETAINED & PROTECTED
- EXISTING SMALL TREE TO BE RETAINED & PROTECTED
- EXISTING TREE TO BE REMOVED
- EXISTING SMALL TREE TO BE REMOVED
- EXISTING STRUCTURE TO BE DEMOLISHED

GENERAL NOTES

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ISSUE	DESCRIPTION	DATE
C	UDPATED DA SUBMISSION SET	17/04/2023
B	DA SUBMISSION SET	15/03/2023
A	PRELIMINARY DA SET	02/03/2023

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nido EARLY SCHOOL

CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: EXISTING CONDITIONS / DEMOLITION PLAN

SCALE:	As indicated@A1	**DATE:**	APR 23
DRAWN:	CW/SS	**PRINTED:**	17/04/2023 1:05:07 PM
CHECKED:	AH	**JOB No.:**	J0000811

DA01/C
D/A ISSUE

NOTE:
EXISTING CONDITIONS INFORMATION OBTAINED FROM SURVEY PREPARED BY ST SPATIAL CONSULTING SURVEYORS - DWG. NO: 20086-01 DATED 10/06/2020

CHILDCARE CENTRE ANALYSIS

OPERATION HOURS 6:30am to 6:30pm Monday to Friday
with up to four days open on the weekend for open days

GROUP ROOM 1	0-24months	12 PLACES	3 EDUCATORS
GROUP ROOM 2	24-36months	15 PLACES	3 EDUCATORS
GROUP ROOM 3	24-36months	15 PLACES	3 EDUCATORS
GROUP ROOM 4	36+ months	20 PLACES	2 EDUCATORS
GROUP ROOM 5	36+ months	20 PLACES	2 EDUCATORS
			+ 2 STAFF
		82 PLACES	15 STAFF (minimum at capacity)

AREA ANALYSIS

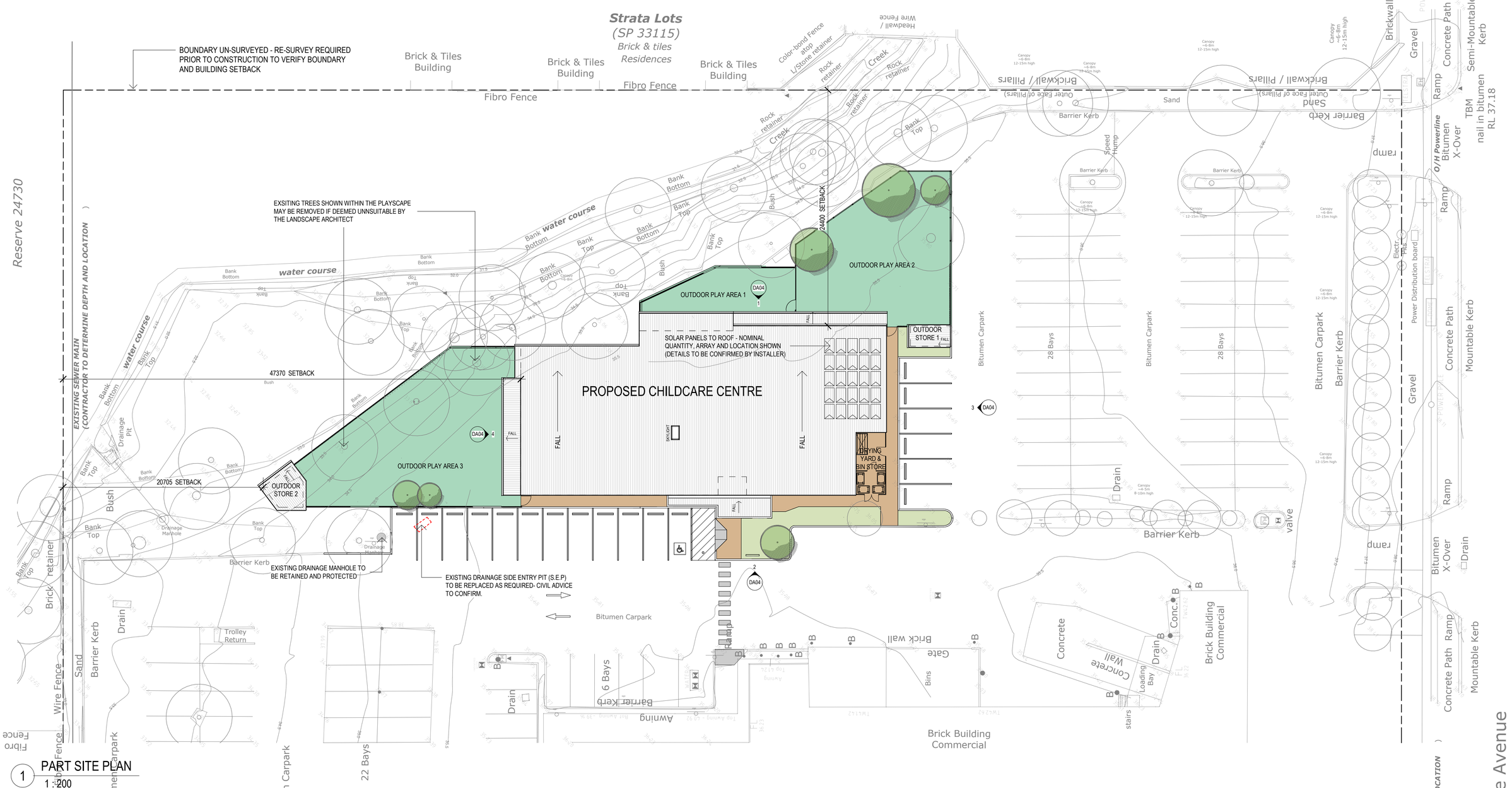
OVERALL SITE AREA 20230m²

SITE COVERAGE 625m²

BUILDING AREA 580m² gross leaseable area

LEGEND

- UNENCUMBERED PLAYSPACE
- LANDSCAPING
- BUILDING AREA
- CAR PARK
- PAVING or similar
- PROPOSED TREE nominal location shown
- EXISTING TREE TO BE RETAINED & PROTECTED
- EXISTING SMALL TREE TO BE RETAINED & PROTECTED
- +FFL 0000 — PROPOSED FLOOR FINISHED LEVEL



1 PART SITE PLAN
1 : 200

GENERAL NOTES

DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT. PREPARATION OF SHOP DRAWINGS OR MANUFACTURING. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALING.

VERIFY LOCATION OF EXISTING SERVICES BEFORE COMMENCEMENT.

ALL CONSTRUCTION TO BE IN ACCORDANCE WITH THE NATIONAL CONSTRUCTION CODE OF AUSTRALIA, BUILDING ACT 1975 AS AMENDED, STANDARD BUILDING BY-LAWS AND RELEVANT AUSTRALIAN STANDARDS.

ISSUE	DESCRIPTION	DATE
C	UDPATED DA SUBMISSION SET	17/04/2023
B	DA SUBMISSION SET	15/03/2023
A	PRELIMINARY DA SET	02/03/2023

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nido EARLY SCHOOL

CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: SITE PLAN

SCALE:	As indicated@A1	**DATE:**	APR 23
DRAWN:	CW/SS	**PRINTED:**	17/04/2023 1:05:08 PM
CHECKED:	AH	**JOB No.:**	J0000811

DA02 /C

DA ISSUE

Gladstone Avenue

DO NOT SCALE DRAWING - CONTRACTOR TO DETERMINE DEPTH AND LOCATION

LEGEND

- UNENCUMBERED PLAYSPACE
- LANDSCAPING
- BUILDING AREA
- CAR PARK
- PAVING or similar
- PROPOSED TREE nominal location shown
- EXISTING TREE TO BE RETAINED & PROTECTED
- EXISTING SMALL TREE TO BE RETAINED & PROTECTED
- +FFL 0000 PROPOSED FLOOR FINISHED LEVEL

OUTDOOR PLAY AREA 1
Places:12
Min Required:84m²
86 m²
*refer to landscape design for playscape detail
ENSURE MAX 1:8D FALL TO PLAY AREA
OUTDOOR STORAGE TO THIS YARD TO BE INCORPORATED WITHIN PLAYSCAPE

OUTDOOR PLAY AREA 2
Places:30
Min Required:210m²
211 m²
*refer to landscape design for playscape detail

OUTDOOR PLAY AREA 3
Places:40
Min Required:280m²
280 m²
*refer to landscape design for playscape detail

36+ months
GROUP 4
20 places
55.77 m² unencumbered floor area
(minimum 65.00 sqm required)
*shortfall of 9.23 m² in Shared Atelier

36+ months
GROUP 5
20 places
51.65 m² unencumbered floor area
(minimum 65.00 sqm required)
*shortfall of 13.35 m² in Shared Atelier

0-24 months
GROUP 1
12 places
40.56 m² unencumbered floor area
(minimum 39.00 sqm required)

24-36 months
GROUP 2
15 places
49.44 m² unencumbered floor area
(minimum 48.75 sqm required)

24-36 months
GROUP 3
15 places
50.24 m² unencumbered floor area
(minimum 48.75 sqm required)

COT ROOM 17 m²
PLANNING 7 m²
PREP/STORE 7 m²
CHILDREN'S TOILET 1
CHILDREN'S TOILET 2
CHILDREN'S TOILET 3
SHARED ATELIER 24 m²
PIAZZA 52 m²
KITCHEN 25 m²
FOYER 14 m²
RECEPTION 9 m²
OFFICE 11 m²
STAFF ROOM 22 m²
DIS WC & SHR
STAFF WC
LAUNDRY / CLEANERS 10 m²
DRYING YARD 12 m²
BIN STORE 7 m²
SERVICES
ENTRY
OUTDOOR STORE 1
OUTDOOR STORE 2

LEVELS AND EXTENT OF RETAINING WALLS TO BE DETERMINED AS PER CIVIL DOCUMENTS AND TO SUIT PLAYSCAPE DESIGN

EXISTING TREES SHOWN WITHIN THE PLAYSCAPE MAY BE REMOVED IF DEEMED UNSUITABLE BY THE LANDSCAPE ARCHITECT

ALARMED EMERGENCY EXIT GATE

CRASH PROTECTION WITHIN FENCE WHERE CARSPACES NOSE TO PLAYSCAPE

NOMINAL LOCATION & SIZE OF CONDENSER UNITS

NOMINAL LOCATION OF GAS & WATER METERS (PERFORATED METAL ENCLOSURE)

1200h GLASS CAPTURE FENCE

EXISTING BARRIER KERB LOCATION

EXISTING DRAINAGE MANHOLE

12 carspace 2.6 x 5.4
11 carspace 2.6 x 5.4
10 carspace 2.6 x 5.4
09 carspace 2.6 x 5.4
08 carspace 2.6 x 5.4
07 carspace 2.6 x 5.4
06 carspace 2.6 x 5.4
05 carspace 2.6 x 5.4
04 carspace 2.6 x 5.4
03 carspace 2.6 x 5.4
02 carspace 2.6 x 5.4
01 accesible carspace 2.4 x 5.4
shared area 2.4 x 5.4
18 carspace 2.6 x 5.4
17 carspace 2.6 x 5.4
16 carspace 2.6 x 5.4
15 carspace 2.6 x 5.4
14 carspace 2.6 x 5.4
13 carspace 2.6 x 5.4

1 FLOOR PLAN
1 : 100

GENERAL NOTES

DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT. PREPARATION OF SHOP DRAWINGS OR MANUFACTURING. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALING.

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nido EARLY SCHOOL

CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

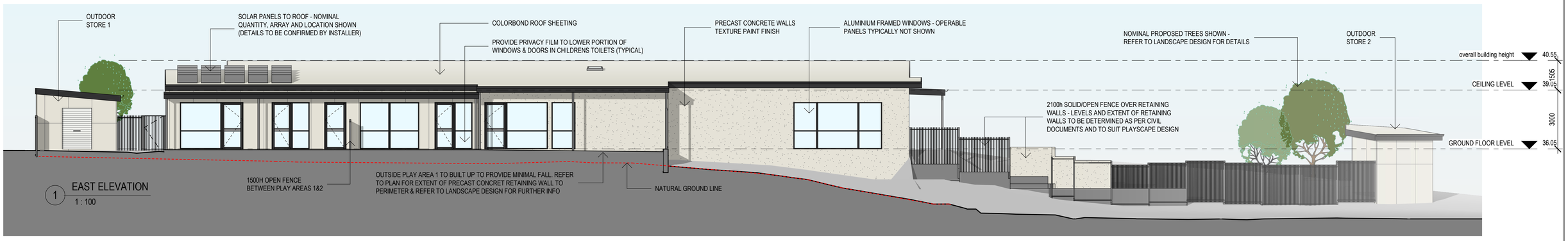
LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: FLOOR PLAN

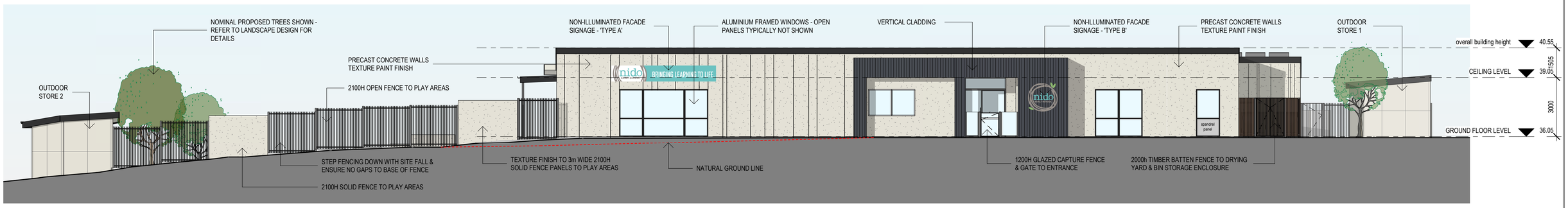
SCALE: 1 : 100@A1 DATE: APR 23
DRAWN: CW/SS PRINTED: 17/04/2023 1:05:13 PM
CHECKED: AH JOB No.: J0000811

DA03/C

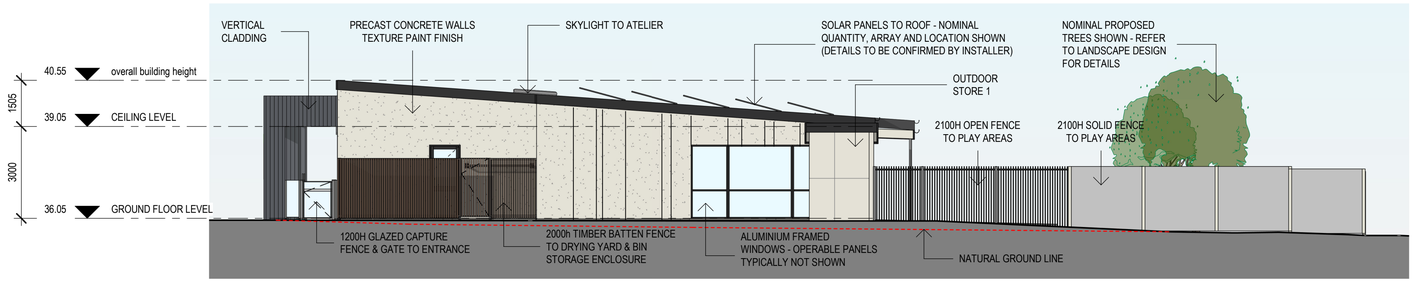
D/A ISSUE



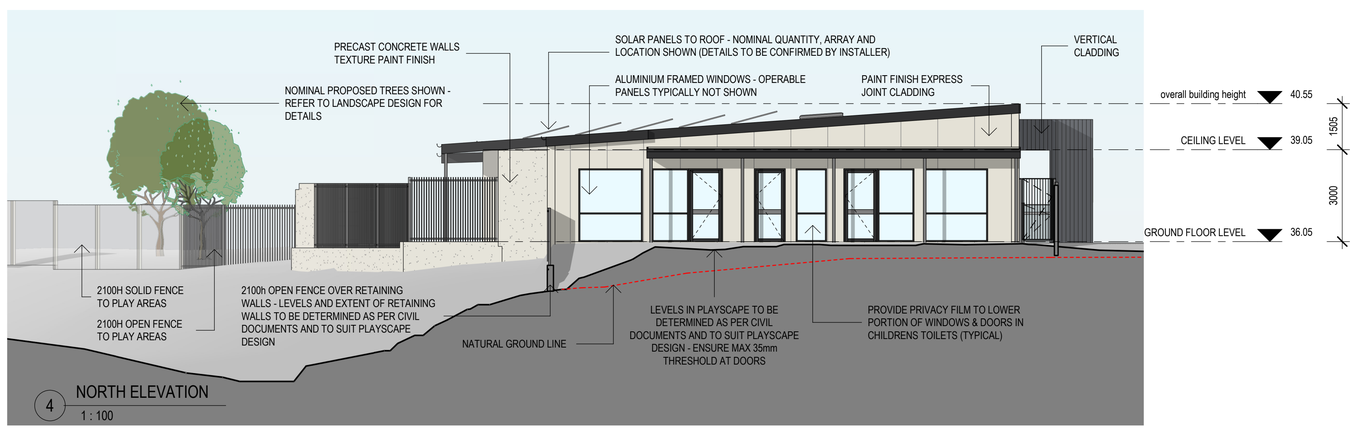
1 EAST ELEVATION
1 : 100



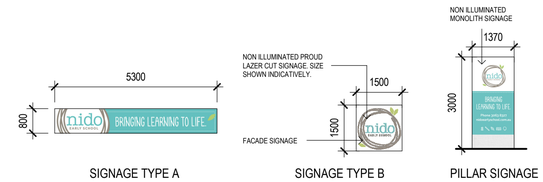
2 WEST ELEVATION
1 : 100



3 SOUTH ELEVATION (carpark)
1 : 100



4 NORTH ELEVATION
1 : 100



5 PROPOSED SIGNAGE
1 : 100

FENCE HEIGHT

ENSURE ALL PLAYSCAPE FENCING COMPLIES WITH AS1926.1 WITH MINIMUM INTERNAL HEIGHT OF 2.1m AND MINIMUM EXTERNAL HEIGHT OF 1.2m.

MATERIALS PALETTE

GENERAL NOTES

DIMENSIONS TO BE VERIFIED ON SITE PRIOR TO COMMENCEMENT. PREPARATION OF SHOP DRAWINGS OR MANUFACTURING. FIGURED DIMENSIONS TAKE PRECEDENCE OVER SCALING.

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www.insitearchitects.com.au

nido EARLY SCHOOL

CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: ELEVATIONS

SCALE: As indicated@A1 **DATE:** APR 23

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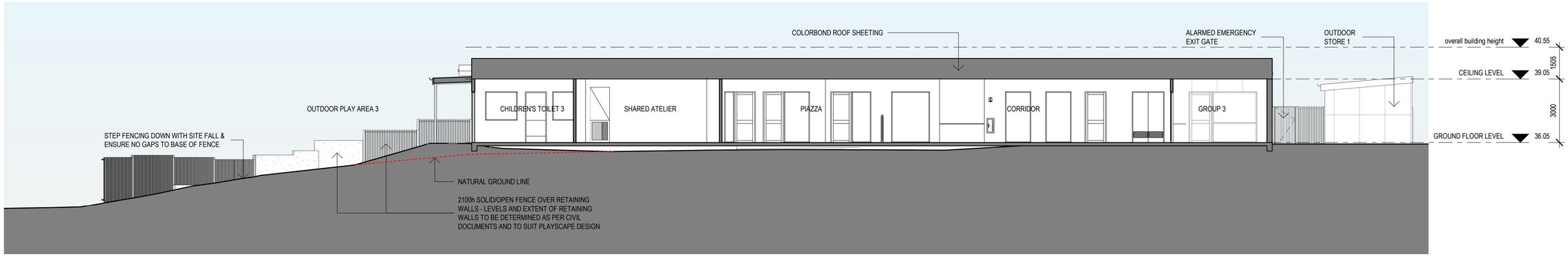
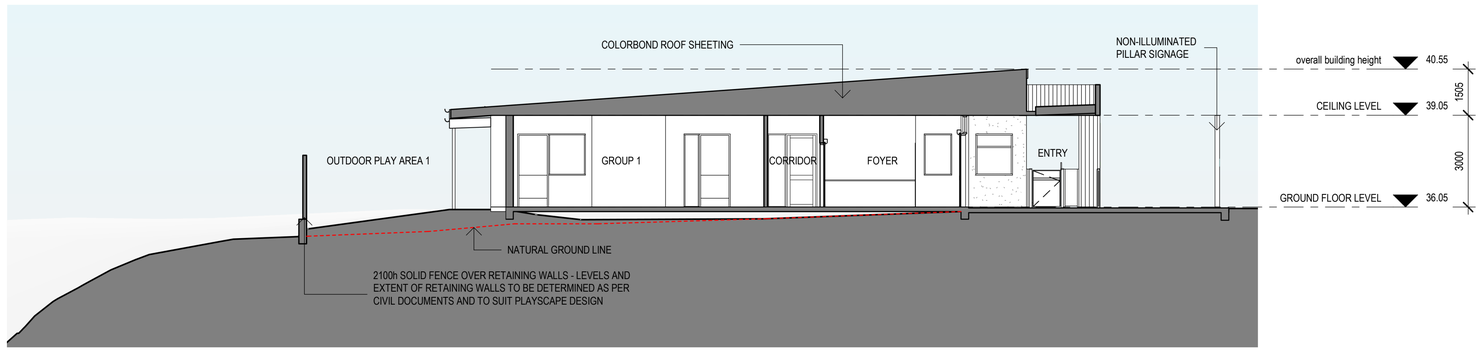
DA04/C

D/A ISSUE



1 SECTION 1
1 : 100



2 SECTION 2
1 : 100

GENERAL NOTES

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CLIENT: CHARTER HALL

PROJECT: PROPOSED CHILDCARE CENTRE (82 places)

LOCATION: 40 MARLBORO RD, SWAN VIEW, WA

DRAWING TITLE: SECTIONS

SCALE: 1 : 100@A1 **DATE:** APR 23

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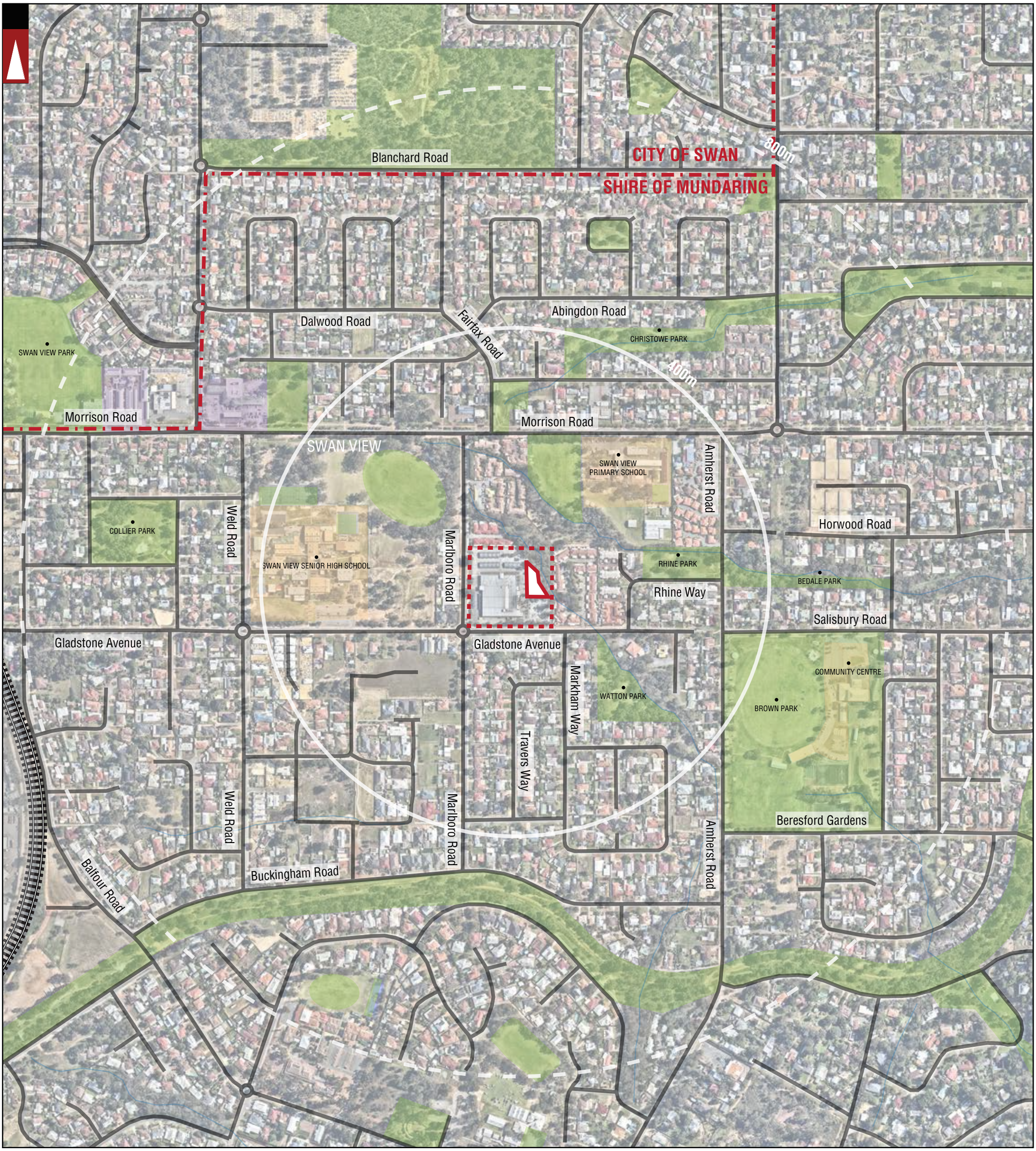
DA05/C

D/A ISSUE

Appendix 2

Transport Planning and Traffic Plans



PARKS AND RECREATION
WATERWAYS
PUBLIC PURPOSE
SHOPPING AREA

ROAD
Hay Street — STREET NAME
RAILWAY
ROAD BRIDGE

LOCATION BOUNDARY
DISTANCE FROM LOCATION
SHIRE OF MUNDARING — LOCAL GOVERNMENT NAME
SWAN VIEW — SUBURB NAME
LOCAL AUTHORITY BOUNDARY

LEGEND

No	DATE	AMENDMENT
A	21-12-2021	ISSUED FOR REVIEW

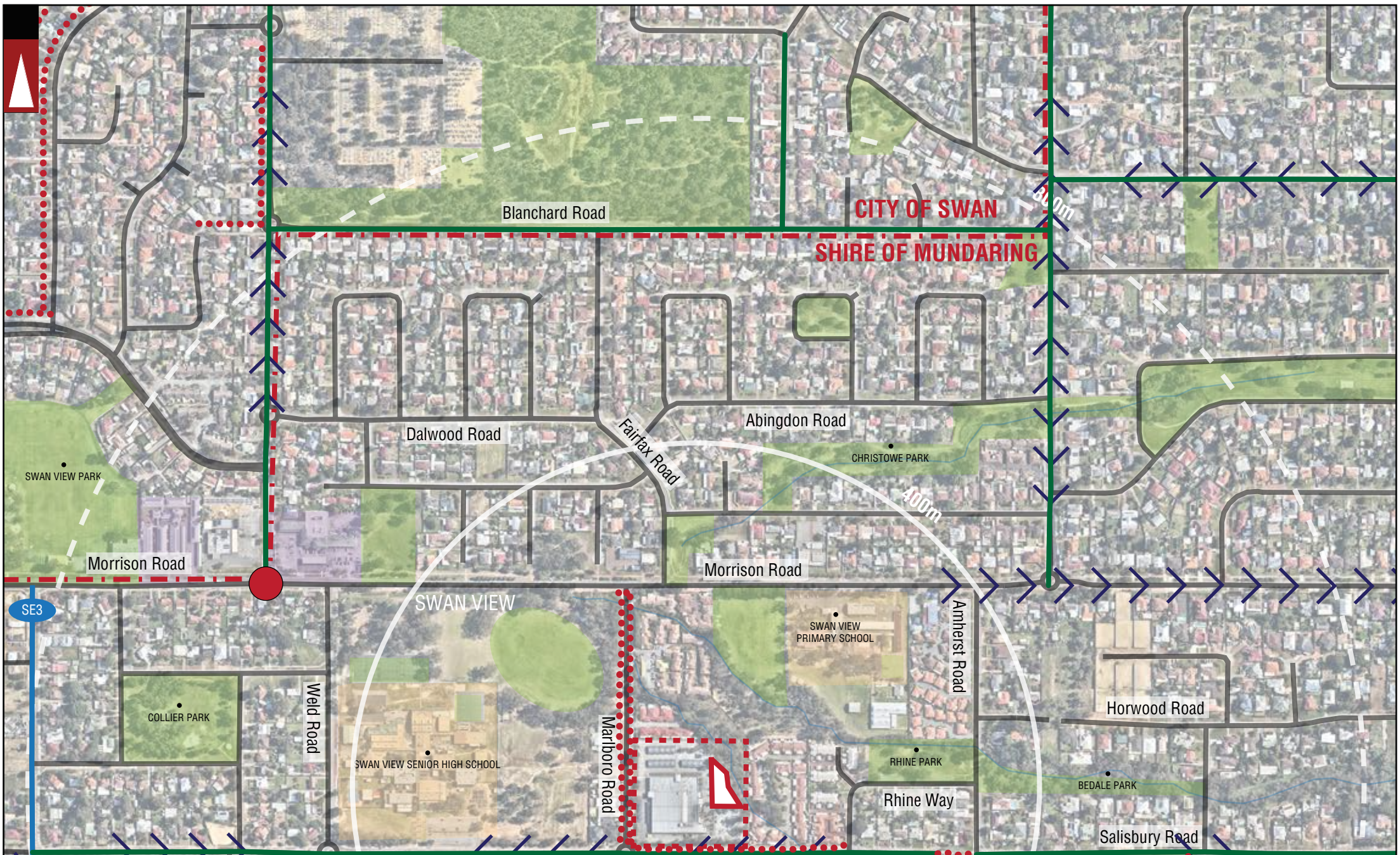
PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: LOCALITY PLAN - 800M RADIUS

DRAWING NUMBER: KC01388.000_ S01

DRAWN BY: N.M.

Civil & Traffic Engineering Consultants
Suite 7 No 10 Whipple Street Balcatta WA 6021
PH: 08 9441 2700
WEB: www.kctt.com.au
kctt



PARKS AND RECREATION
WATERWAYS
PUBLIC PURPOSE
SHOPPING AREA
ROAD
Hay Street STREET NAME
RAILWAY
ROAD BRIDGE
LOCATION BOUNDARY
DISTANCE FROM LOCATION
SHIRE OF MUNDARING LOCAL GOVERNMENT NAME
SWAN VIEW SUBURB NAME
LOCAL AUTHORITY BOUNDARY
OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)
GOOD ROAD RIDING ENVIRONMENT
NW12 PERTH BICYCLE NETWORK (PBN) - CONTINUOUS SIGNED ROUTES
GRADIENT ARROW
WALKING TRAIL
TRAFFIC LIGHT

LEGEND

No	DATE	AMENDMENT
A	21-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: BICYCLE NETWORK PLAN - 800M RADIUS

DRAWING NUMBER: KC01388.000_ S02

DRAWN BY: N.M.

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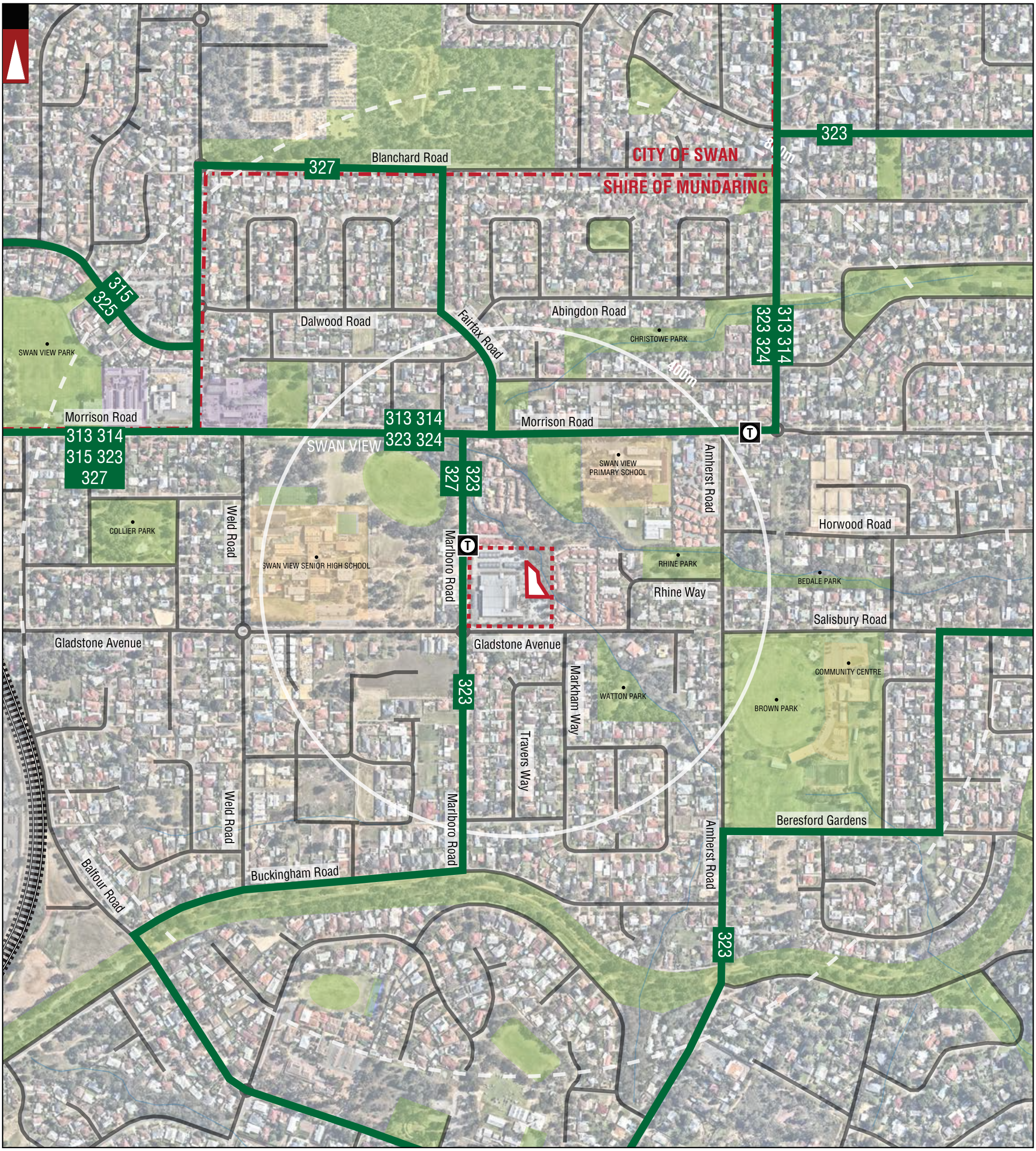

PARKS AND RECREATION
WATERWAYS
PUBLIC PURPOSE
SHOPPING AREA

ROAD
Hay Street — STREET NAME
RAILWAY
ROAD BRIDGE

LOCATION BOUNDARY
DISTANCE FROM LOCATION
SHIRE OF MUNDARING — LOCAL GOVERNMENT NAME
SWAN VIEW — SUBURB NAME
LOCAL AUTHORITY BOUNDARY

BUS ROUTES
103 — BUS ROUTE NUMBER
BUS TERMINUS

NOTE : FOR MORE INFORMATION REGARDING THE DESCRIPTION OF BUS ROUTES AND THEIR INDICATIVE PEAK AND OFF-PEAK FREQUENCIES REFER TO THE REPORT.

LEGEND

No	DATE	AMENDMENT
A	21-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: PUBLIC TRANSPORT PLAN - 800M RADIUS

DRAWING NUMBER: KC01388.000_ S03

DRAWN BY: N.M.

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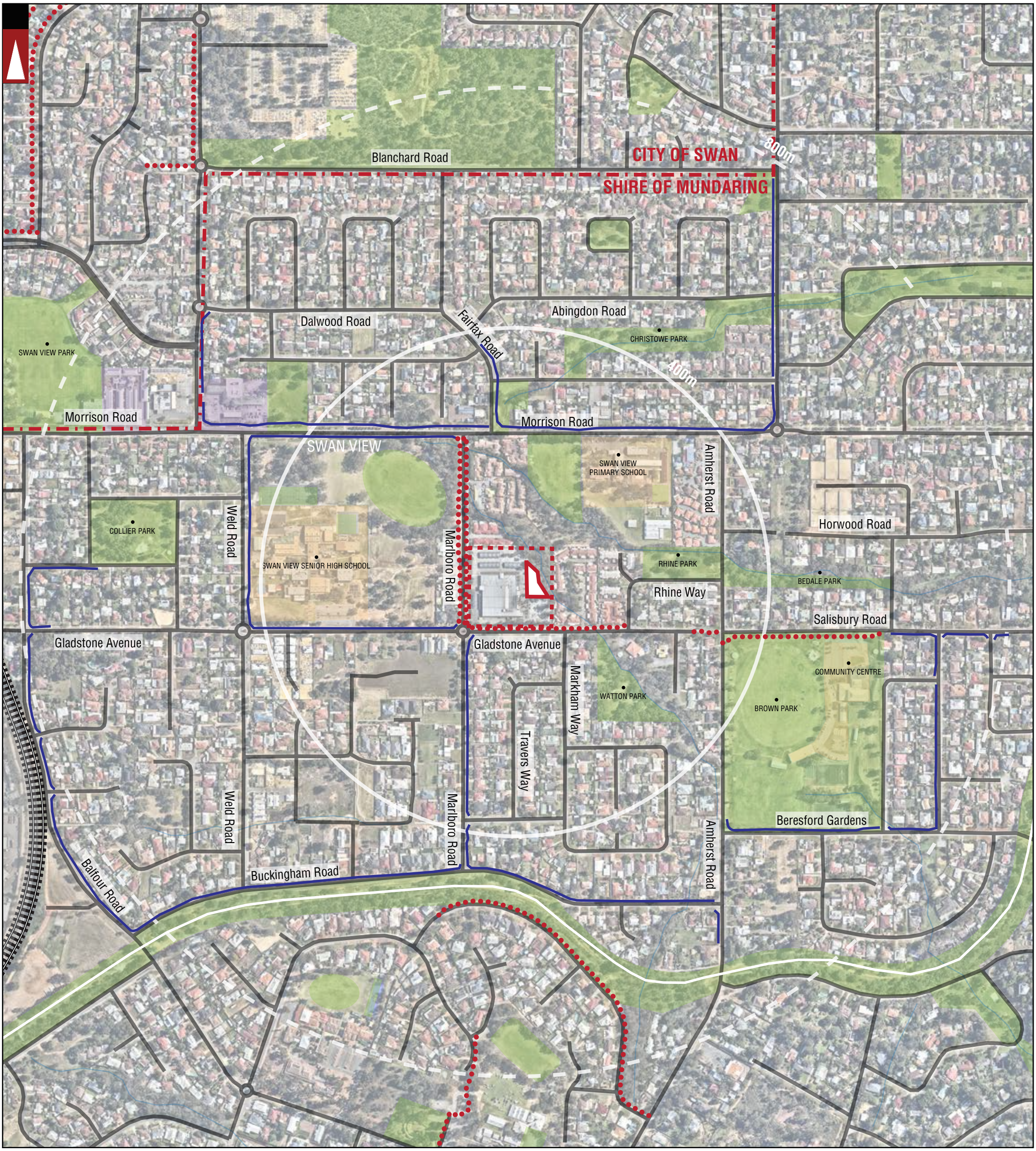

PARKS AND RECREATION
WATERWAYS
PUBLIC PURPOSE
SHOPPING AREA
ROAD
Hay Street STREET NAME
RAILWAY
ROAD BRIDGE
LOCATION BOUNDARY
DISTANCE FROM LOCATION
SHIRE OF MUNDARING LOCAL GOVERNMENT NAME
SWAN VIEW SUBURB NAME
LOCAL AUTHORITY BOUNDARY
OTHER SHARED PATH (SHARED BY PEDESTRIANS & CYCLISTS)
PEDESTRIAN PATH
WALKING TRAIL

LEGEND

No	DATE	AMENDMENT
A	21-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: PEDESTRIAN PATHS PLAN - 800M RADIUS

DRAWING NUMBER: KC01388.000_ S04

DRAWN BY: N.M.

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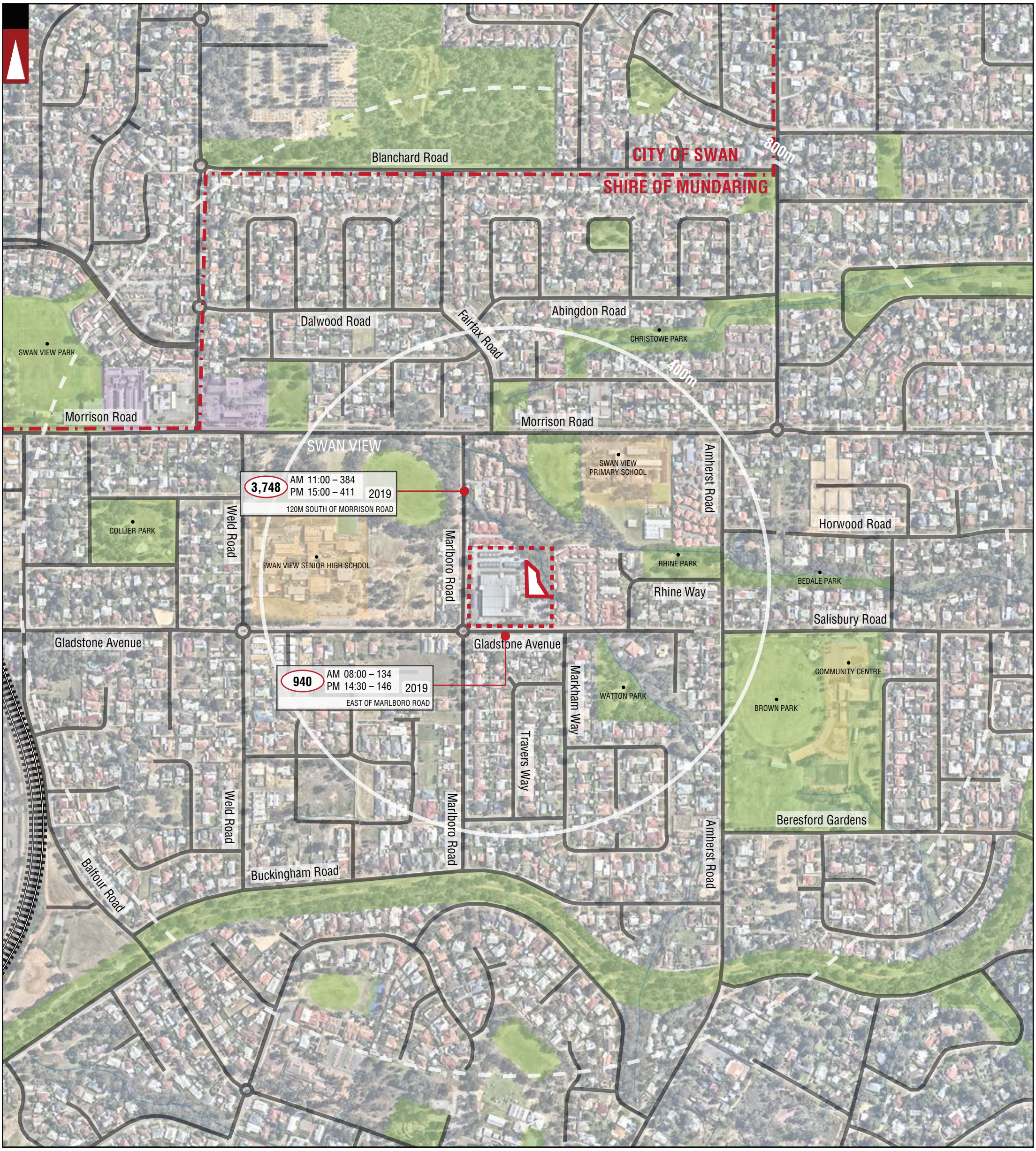

PARKS AND RECREATION
WATERWAYS
PUBLIC PURPOSE
SHOPPING AREA

ROAD
Hay Street — STREET NAME
RAILWAY
ROAD BRIDGE

LOCATION BOUNDARY
DISTANCE FROM LOCATION
SHIRE OF MUNDARING — LOCAL GOVERNMENT NAME
SWAN VIEW — SUBURB NAME
LOCAL AUTHORITY BOUNDARY

5,512 — NUMBER OF VEHICLES PER DAY
AM 1145 – 381 / PM 1630 – 480 — NUMBER OF VEHICLES PER AM PEAK HOUR / NUMBER OF VEHICLES PER PM PEAK HOUR
2014 — YEAR
EAST OF HARLOW ROAD — LOCATION

LEGEND

No	DATE	AMENDMENT
A	21-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: EXISTING TRAFFIC COUNTS - 800M RADIUS

DRAWING NUMBER: KC01388.000_ S05

DRAWN BY: N.M.

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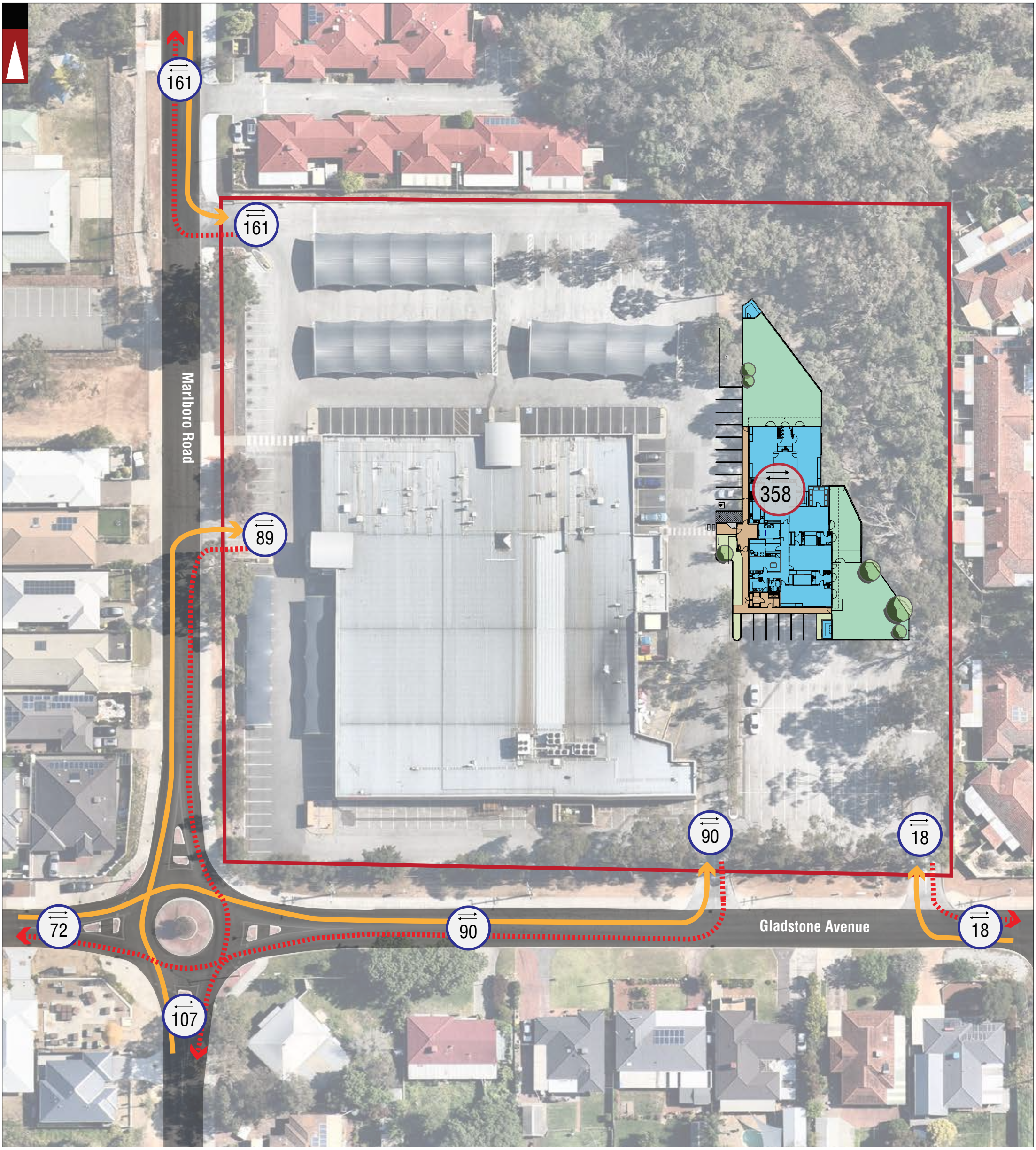

LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

1,389 Total Expected Traffic Generation from the proposed development

503 Total Expected Traffic Generation from Subject Site on the specific section of road - **IN and OUT direction**

Traffic Flow IN Direction

Traffic Flow OUT Direction

NOTE: THE PLAN IS COURTEOUSY OF INSITE ARCHITECTS

LEGEND

No	DATE	AMENDMENT
C	16-03-2023	PROPOSED LAYOUT AMENDED
B	13-01-2023	PROPOSED LAYOUT AMENDED
A	16-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: TRAFFIC FLOW DIAGRAM

DRAWING NUMBER: KC01388.000_ S06

DRAWN BY: N.M.

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Suite 7 No 10 Whipple Street Balcatta WA 6021
PH: 08 9441 2700
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LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

1,389 Total AM Peak Traffic Generation from the proposed development

503 Total AM Peak Traffic Generation from Subject Site on the specific section of road - **IN and OUT direction**

Traffic Flow IN Direction

Traffic Flow OUT Direction

NOTE: THE PLAN IS COURTEOUSY OF INSITE ARCHITECTS

LEGEND

No	DATE	AMENDMENT
C	16-03-2023	PROPOSED LAYOUT AMENDED
B	13-01-2023	PROPOSED LAYOUT AMENDED
A	16-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: TRAFFIC FLOW DIAGRAM - AM PEAK

DRAWING NUMBER: KC01388.000_ S07

DRAWN BY: N.M.

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Suite 7 No 10 Whipple Street Balcatta WA 6021

PH: 08 9441 2700
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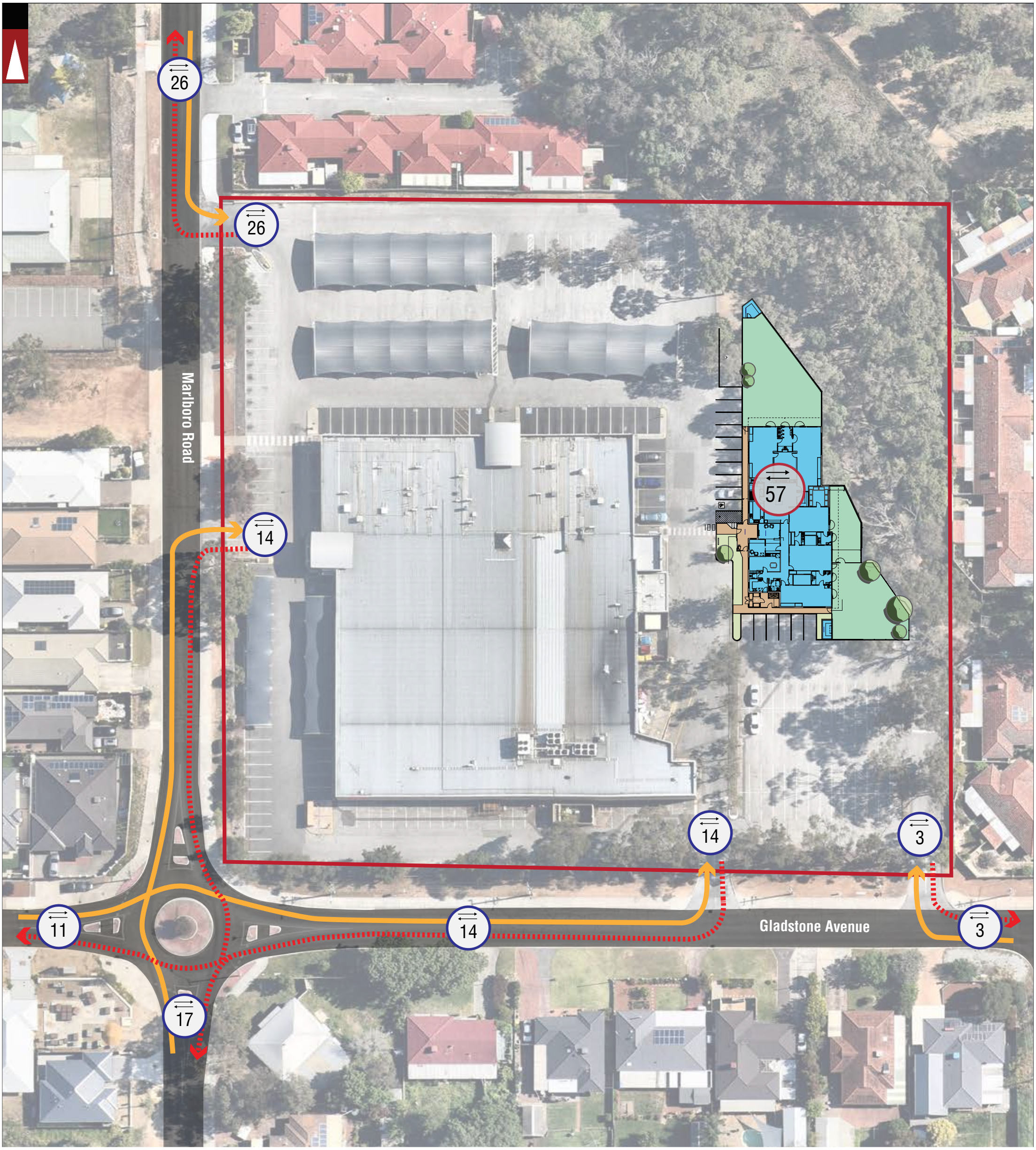


LOCATION BOUNDARY

ROAD (VARIED WITH ROAD WIDTH)

Lewis Road ROAD NAME

1,389 Total PM Peak Traffic Generation from the proposed development

503 Total PM Peak Traffic Generation from Subject Site on the specific section of road - **IN and OUT direction**

Traffic Flow IN Direction

Traffic Flow OUT Direction

NOTE: THE PLAN IS COURTEOUSY OF INSITE ARCHITECTS

LEGEND

No	DATE	AMENDMENT
C	16-03-2023	PROPOSED LAYOUT AMENDED
B	13-01-2023	PROPOSED LAYOUT AMENDED
A	16-12-2021	ISSUED FOR REVIEW

PROJECT: MARLBORO ROAD, SWAN VIEW

TITLE: TRAFFIC FLOW DIAGRAM - PM PEAK

DRAWING NUMBER: KC01388.000_ S08

DRAWN BY: N.M.

Civil & Traffic Engineering Consultants
Suite 7 No 10 Whipple Street Balcatta WA 6021

PH: 08 9441 2700
WEB: www.kctt.com.au

kctt

Appendix 3

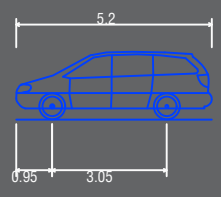
Vehicle Turning Circle Plan

Wheel stops to be installed on both proposed parking areas to prevent vehicles going over the pedestrian path.

KCTT recommend that parking south of the proposed building is allocated to staff members only because the Coles delivery vehicle is expected to use this route. These bays should not be used for drop-off.

Kerb island to be removed in this section to allow for delivery vehicles to turn around and passenger vehicles to access Childcare parking from this section.

Gladstone Avenue



Passenger vehicle (5.2 m)	
Overall Length	5.200m
Overall Width	1.940m
Overall Body Height	1.804m
Min Body Ground Clearance	0.295m
Track Width	1.840m
Lock to Lock Time	4.00s
Kerb to Kerb Turning Radius	6.300m

Lot boundary

Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
C	16-03-2023	PROPOSED LAYOUT AMENDED
B	13-01-2023	PROPOSED LAYOUT AMENDED
A	22-12-2021	ISSUED FOR REVIEW

PROJECT:
Marlboro Road, Swan View

TITLE:
Vehicle Turning Circle Plan - B99 Passenger Vehicle (5.2m)

DRAWING NUMBER:
KC01388.000_S20

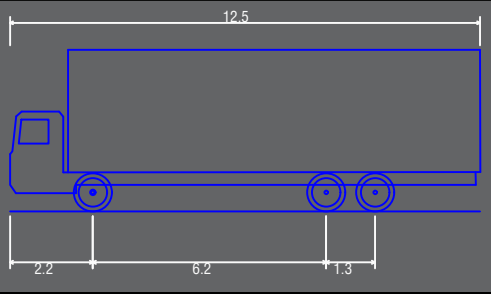
DRAWN BY:
N.M.

Civil & Traffic Engineering Consultants
Suite 7 No 10 Whipple Street Balcatta WA 6021
PH: 08 9441 2700
WEB: www.kctt.com.au

Kerb island to be removed in this section to allow for delivery vehicles to leave the loading bay and for passenger vehicles to access Childcare parking from this section.

Section of the raised island and one parking bay to be removed to allow for a comfortable turn by the delivery vehicle.

Gladstone Avenue



Single Unit Truck/Bus (12.5 m)	
Overall Length	12.500m
Overall Width	2.500m
Overall Body Height	4.300m
Min Body Ground Clearance	0.490m
Track Width	2.500m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	12.500m

Lot boundary

Wheel Path (Forward Vehicle Motion)

Vehicle Chasis Envelope (Forward Vehicle Motion)

Wheel Path (Reverse Vehicle Motion)

Vehicle Chasis Envelope (Reverse Vehicle Motion)

LEGEND

NO	DATE	AMENDMENT
C	16-03-2023	PROPOSED LAYOUT AMENDED
B	13-01-2023	PROPOSED LAYOUT AMENDED
A	22-12-2021	ISSUED FOR REVIEW

PROJECT:
Marlboro Road, Swan View

TITLE:
Vehicle Turning Circle Plan - Rigid Truck (12.5m)

DRAWING NUMBER:
KC01388.000_S21

DRAWN BY:
N.M.

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