ACOUSTICS AND AIR

ALDI MERIMBULA

OPERATIONAL NOISE IMPACT ASSESSMENT

REPORT NO. 99204-M3
VERSION A

SEPTEMBER 2017

PREPARED FOR

ALDI STORES
10 BURANDO ROAD
PRESTONS NSW 2170

WILKINSON MURRAY

DOCUMENT CONTROL

Version	Status	Date	Prepared By	Reviewed By
A	Draft	27 September 2017	Nic Hall	John Wassermann
A	Final	29 September 2017	Nic Hall	John Wassermann

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GLOSSARY OF ACOUSTIC TERMS

Most environments are affected by environmental noise which continuously varies, largely as a result of road traffic. To describe the overall noise environment, a number of noise descriptors have been developed and these involve statistical and other analysis of the varying noise over sampling periods, typically taken as 15 minutes. These descriptors, which are demonstrated in the graph below, are here defined.

Maximum Noise Level (L_{Amax}) – The maximum noise level over a sample period is the maximum level, measured on fast response, during the sample period.

L_{A1} – The L_{A1} level is the noise level which is exceeded for 1% of the sample period. During the sample period, the noise level is below the L_{A1} level for 99% of the time.

L_{A10} – The L_{A10} level is the noise level which is exceeded for 10% of the sample period. During the sample period, the noise level is below the L_{A10} level for 90% of the time. The L_{A10} is a common noise descriptor for environmental noise and road traffic noise.

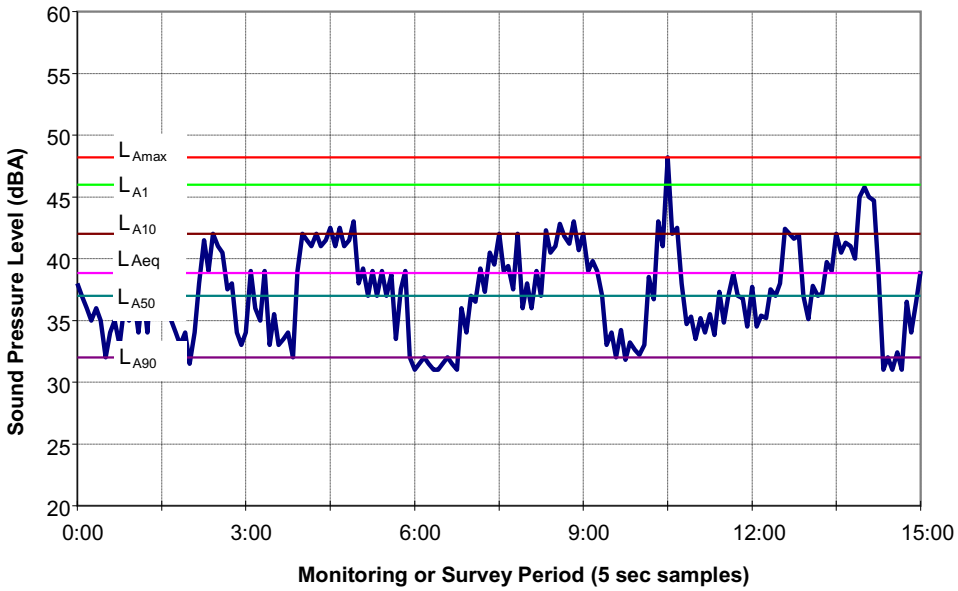
L_{A90} – The L_{A90} level is the noise level which is exceeded for 90% of the sample period. During the sample period, the noise level is below the L_{A90} level for 10% of the time. This measure is commonly referred to as the background noise level.

L_{Aeq} – The equivalent continuous sound level (L_{Aeq}) is the energy average of the varying noise over the sample period and is equivalent to the level of a constant noise which contains the same energy as the varying noise environment. This measure is also a common measure of environmental noise and road traffic noise.

ABL – The Assessment Background Level is the single figure background level representing each assessment period (daytime, evening and night time) for each day. It is determined by calculating the 10th percentile (lowest 10th percent) background level (L_{A90}) for each period.

RBL – The Rating Background Level for each period is the median value of the ABL values for the period over all of the days measured. There is therefore an RBL value for each period – daytime, evening and night time.

Typical Graph of Sound Pressure Level vs Time



1 INTRODUCTION

Wilkinson Murray has been engaged by ALDI Stores (ALDI) to undertake an assessment of noise from a proposed ALDI store (the Project) to be located on Main Street, Merimbula.

This report covers noise from:

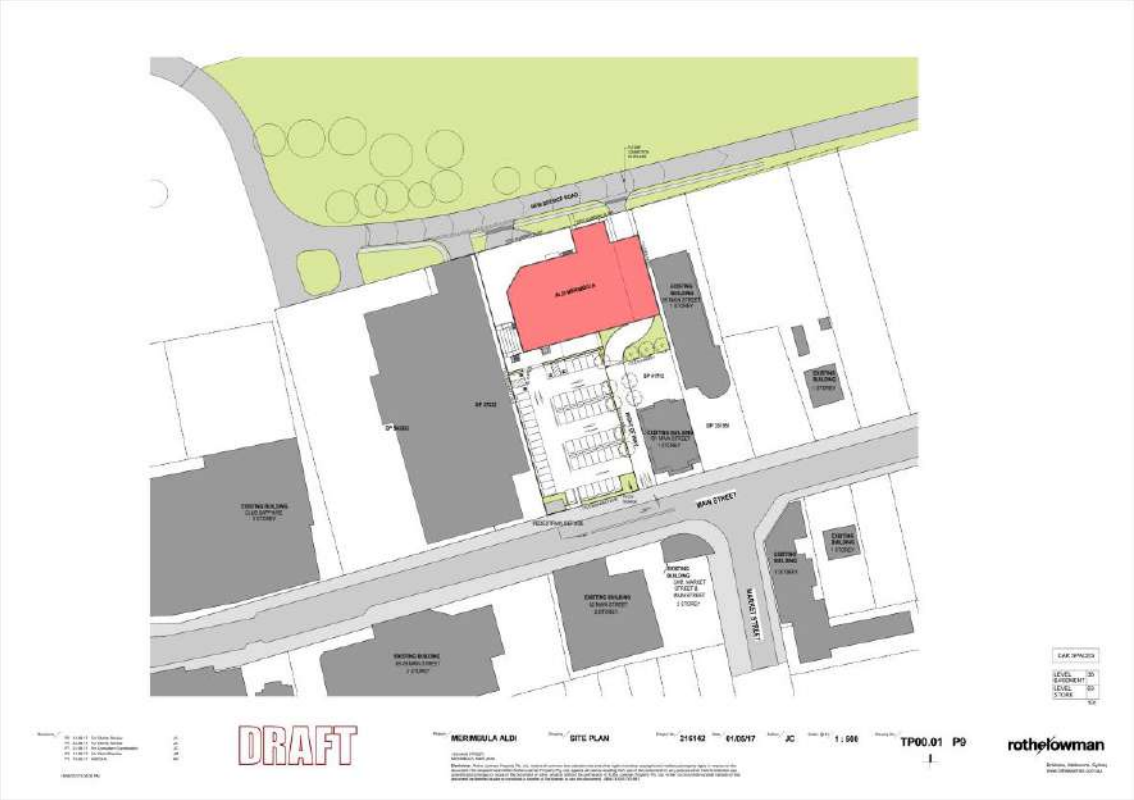
- Mechanical services;
- Carparking; and
- Delivery and Loading activities.

2 DESCRIPTION OF THE PROPOSAL

The proposed site is shown in Figure 2-1. The layout of the store is shown on Figure 2-2.

Figure 2-1 Site Location - ALDI Supermarket

Figure 2-2 Proposed Store Layout



2.1 Operating and Delivery Hours

ALDI is seeking approval for the store to trade between 7:00am and 10:00pm, seven days a week. However, it is unlikely that the store would trade all hours. The preferred trading hours of the store would be:

- 8:00am to 7:00pm Monday to Wednesday;
- 8:00am to 8:00pm Thursday;
- 8:00am to 7:00pm Friday;
- 8:00am to 7:00pm Saturday; and,
- 8:00am to 7:00pm Sunday.

Approval is sought for deliveries to the store on a 24/7 basis.

2.2 Surrounding Land Use and Sensitive Receivers

The land use surrounding the site is predominantly commercial. The nearest and most potentially affected existing sensitive residential receivers are located to the north, east and west of the Project site. These receivers are identified in Table 2-1 and shown on Figure 2-3.

Table 2-1 Sensitive Receivers

Receiver ID	Address
R1	95 Main Street
R2	25 Sapphire Coast Drive
R3	10 Berrambool Drive

Receiver R3 is considered representative of the most potentially affected residential receivers to the north of the Project site.

Figure 2-3 Sensitive Receivers

3 EXISTING NOISE ENVIRONMENT

To establish the existing ambient background noise levels at sensitive residential receivers, unattended background noise monitoring was conducted 5 Berrambool Drive (L1) between 25 and 31 August 2017. The monitoring location is shown on Figure 3-1.

Figure 3-1 Noise Monitoring Location

The noise monitoring equipment used for these measurements consisted of an environmental noise logger set to A-weighted, fast response. This equipment is capable of remotely monitoring and storing noise level descriptors for later detailed analysis. The equipment calibration was checked before and after the survey and no significant drift was noted.

The logger determines L_{A1}, L_{A10}, L_{A90} and L_{Aeq} levels of the ambient noise. L_{A1}, L_{A10} and L_{A90} are the levels exceeded for 1%, 10% and 90% of the sample time respectively (see Appendix A for definitions). The L_{A1} is indicative of maximum noise levels due to individual noise events such as the occasional pass-by of a heavy vehicle. This is used for the assessment of sleep disturbance. The L_{A90} level is normally taken as the background noise level during the relevant period.

The Rating Background Noise Levels (RBLs) for the monitoring location are shown in Table 3-1.

Table 3-1 Rating Background Noise Levels (RBL)

Monitoring Location	RBL (dBA)		
	daytime (7.00am-6.00pm)	evening (6.00pm-10.00pm)	night time (10.00pm-7.00am)
L1 - 5 Berrambool Drive	43	41	31

Daily plots of the noise logger data can be found in Appendix A.

4 NOISE CRITERIA

4.1 Operational Noise Criteria

The *NSW Industrial Noise Policy (INP)* recommends two criteria, "Intrusiveness" and "Amenity", both of which are relevant for the assessment of noise. In most situations, one of these is more stringent than the other and dominates the noise assessment. The criteria are based on the L_{Aeq} descriptor, which is explained in the *Glossary of Acoustic Terms* at the beginning of this report.

4.1.1 Intrusiveness

The intrusiveness criterion requires that the L_{Aeq} noise level from the source being assessed, when measured over 15 minutes, should not exceed the Rating Background Noise Level (RBL) by more than 5dBA. The RBL represents the 'background' noise in the area, and is determined from measurement of L_{A90} noise levels, in the absence of noise from the source. The definition of L_{A90} and the procedure for calculating the RBL is given in the *Glossary of Acoustic Terms*.

The INP intrusiveness criteria are to be applied at residential receivers.

Table 4-1 shows the daytime intrusiveness criterion for nearby residential receivers, based on the measured RBL in Table 3-1.

Table 4-1 Intrusiveness Criteria

Receiver	Intrusiveness Criterion (dBA - $L_{Aeq,\ 15\ min}$)		
	Daytime (7.00am-6.00pm)	Evening (6.00pm-10.00pm)	night time (10.00pm-7.00am)
All nearby residential receivers	48	46	36

4.1.2 Amenity

The amenity criterion sets a limit on the total noise level from *all industrial noise sources* affecting a receiver. Different criteria apply for different types of receiver (e.g. residence, school classroom); different areas (e.g. rural, suburban); and different time periods, namely daytime (7.00am-6.00pm), evening (6.00pm-10.00pm) and night time (10.00pm-7.00am).

The noise level to be compared with this criterion is the L_{Aeq} noise level, measured over the time period in question, due to all industrial noise sources, but excluding non-industrial sources such as transportation.

Where a new noise source is proposed in an area with negligible existing industrial noise, the amenity criterion for that source may be taken as being equal to the overall amenity criterion. However, if there is significant existing industrial noise, the criterion for any new source must be set at a lower value. If existing industrial noise already exceeds the relevant amenity criterion, noise from any new source must be set well below the overall criterion to ensure that any increase in noise levels is negligible. Methods for determining a source-specific amenity criterion where there is existing industrial noise are set out in the *INP.*

Table 4-2 shows the INP amenity criteria for various receiver types, and times of day.

Table 4-2 INP Amenity Criteria

Type of Receiver	Indicative Noise Amenity Area	Time of Day	Recommended $L_{Aeq, period}$ Noise Level (dBA)	
			Acceptable	Recommended Maximum
Residence	Rural	Day[1]	50	55
		Evening[1]	45	50
		Night[1]	40	45
	Suburban	Day[1]	55	60
		Evening[1]	45	50
		Night[1]	40	45
	Urban	Day[1]	60	65
		Evening[1]	50	55
		Night[1]	45	50
School classroom – internal	All	Noisiest 1-hour period when in use	35	40
Hospital Ward				
Internal	All	Noisiest 1-hour	35	40
External	All	Noisiest 1-hour	50	55
Place of Worship – internal	All	When in use	40	45
Passive recreation area (e.g. National park)	All	When in use	50	55
Active recreation area (e.g. playground, golf course)	All	When in use	55	60
Commercial premises	All	When in use	65	70
Industrial premises	All	When in use	70	75

1. Day = 7:00am – 6:00pm; Evening = 6:00pm – 10:00pm; Night = 10:00pm – 7:00am.

4.1.3 Project Specific Noise Criteria

Table 4-3 summarises the determined project specific noise levels, with the controlling criteria shown in bold font. The amenity criteria for nearby residential receivers have been established using the 'suburban' classification.

Table 4-3 Project Specific Noise Levels

Receiver	Intrusiveness Criteria (dBA - $L_{Aeq,15min}$)			Amenity Criteria (dBA - $L_{Aeq, period}$)		
	Day[1]	Evening[1]	Night	Day[1]	Evening[1]	Night
All nearby residential receivers	**48**	**46**	**36**	55	45	40

1. Day = 7:00am – 6:00pm; Evening = 6:00pm – 10:00pm; Night = 10:00pm – 7:00am.

Review of Table 4-3 reveals that the project specific intrusiveness criteria are significantly more stringent than the amenity criteria during the day and night. $L_{Aeq, 15min}$ noise levels from a development of this type would typically be at least 3 dB higher than $L_{Aeq, period}$ noise levels and, therefore, the evening intrusiveness criterion of 46 dBA ($L_{Aeq, 15min}$) is more stringent than the evening amenity criterion of 45 dBA ($L_{Aeq, period}$). at all times of the day.

4.1.4 Sleep Disturbance Screening Levels

With respect to operational noise at night time (10:00pm-7:00am), it is possible for events of short duration, but high intensity to cause sleep disturbance; without significantly affecting $L_{Aeq, 15min}$ noise levels.

The EPA's *Noise Guide for Local Government* (NGLG) notes that:

> *"Currently, there is no definitive guideline to indicate a noise level that causes sleep disturbance and more research is needed to better define this relationship. Where likely disturbance to sleep is being assessed, a screening test can be applied that indicated the potential for this to occur.*
>
> *For example, this could be where the subject noise exceeds the background noise level by more than 15 dBA. The most appropriate descriptors for a source relating to sleep disturbance would be $L_{A1, 1 minute}$ (the level exceeded for 1% of the specified time period of 1 minute) or L_{Amax} (the maximum level during the specified time period) with measurement outside the bedroom window."*

Based on the above advice, sleep disturbance screening levels have been established for the identified sensitive receptors and are shown in Table 4-4.

Table 4-4 Sleep Disturbance Screening Levels

Receiver	Night Time RBL (dBA)	Sleep Disturbance Screening Level (dBA - $L_{A1,1min}$ / L_{Amax})
All nearby residences	31	46

5 ASSESSMENT OF IMPACTS

The assessment of potential operational noise impacts on nearby receivers are detailed in the following sections.

5.1 Noise Modelling Methodology and Assumptions

Operational noise emissions from the Project have been modelled using the "CadnaA" acoustic noise prediction software, using the ISO 9613 noise prediction algorithm. Factors that are addressed in the noise modelling are:

- Equipment noise level emissions and locations;
- Shielding from structures;
- Noise attenuation due to geometric spreading;
- Ground absorption;
- Atmospheric absorption; and,
- Meteorological effects.

5.2 Operational Noise Assessment

The following section identifies the most significant sources of L_{Aeq} noise levels associated with the Project and presents the predicted noise levels at nearby receivers.

5.2.1 Operational Noise Sources and Scenarios

The most significant sources of $L_{Aeq,\ 15min}$ noise levels comprise mechanical plant, car park activities and truck deliveries.

Mechanical plant, specifically refrigeration and air conditioning equipment, would be installed on the roof of the store, towards the rear of the building. Based on generic Aldi data from other stores, the sound power level of the equipment is assumed to be:

- Refrigeration condensers and compressors – 82dBA daytime and 79dBA night time;
- Air conditioning to all areas of the store including offices, back of house and trading area – 83dBA whilst the store is open.

The L_{Aeq} sound power level associated with car park activity is predicted to be 96 dBA for 200 vehicles per hour (Bavarian State Agency for the Environment 2007, "Parking Area Noise", 6th Edition, Bavarian State Ministry for the Environment, Germany). It should be noted that this sound power level incorporates all vehicle-associated activities including; cars starting, doors and boots closing, trolley movements and people talking.

The traffic impact assessment prepared for the Project indicates that the peak one hour traffic generation of the Project would be 176 vehicle movements. Approximately 60% of vehicle entries would be from Main Street and the remainder would be from the Service Road. Approximately 40% of exit movements would be onto Main Street and 60% onto the Service Road. There are 63 parking spaces proposed for the above ground car-park and 38 spaces proposed for the

basement car-park. For assessment purposes, it is assumed that the distribution of car-park movements would be consistent with the proportion of total parking spaces for the respective car-parks.

ALDI delivery vehicles will access the site via the Service Road, directly to the north of the site, and deliver to the loading dock at the rear of the building. Delivery vehicles will be 19m articulated vehicles, which will drive onto the site in a forward direction, use a reversing bay to stop and then reverse into the dock. They will leave the dock in a forward direction.

Assumed sound power levels for the ALDI truck are based on Wilkinson Murray's measurements of ALDI trucks at many sites since 1999. Purpose-built ALDI loading docks are typically designed so that the truck fills the dock opening, thereby minimising noise egress from the loading dock. The L_{Aeq} noise level, when averaged over a 15-minute period, associated with a truck manoeuvring is assumed to be 88dBA.

The key operational noise sources for each assessment period are summarised in Table 5-1.

Table 5-1 Noise Assessment Scenarios

Source	Day	Evening	Night
Air conditioning	Active (SWL = 83 dBA)	Active (SWL = 83 dBA)	Inactive
Refrigeration	Active (SWL = 82 dBA)	Active (SWL = 82 dBA)	Active (SWL = 79 dBA)
Car-park	Active (176 veh/hr)	Active (176 veh/hr)	Inactive
Truck delivery	Active (SWL = 88 dBA)	Active (SWL = 88 dBA)	Active (SWL = 88 dBA)

1. Day = 7:00am – 6:00pm; Evening = 6:00pm – 10:00pm; Night = 10:00pm – 7:00am.

5.2.2 Predicted Operational $L_{Aeq, 15min}$ Noise Levels

The operational scenarios outlined above have been modelled and the predicted noise levels at nearby receivers are presented in Table 5-2.

Table 5-2 Predicted $L_{Aeq, 15min}$ operational noise levels at nearby receivers

Receiver	Predicted $L_{Aeq, 15min}$ Noise Level			Criteria			Complies?
	Day[1]	Evening[1]	Night[1]	Day[1]	Evening[1]	Night[1]	
R1	41	41	20	48	46	36	yes
R2	27	27	23	48	46	36	yes
R3	27	27	25	48	46	36	yes

1. Day = 7:00am – 6:00pm; Evening = 6:00pm – 10:00pm; Night = 10:00pm – 7:00am.

Review of Table 5-2 indicates that $L_{Aeq, 15min}$ noise levels at the most potentially affected receivers are predicted to comply with the established criteria at all times.

5.3 Sleep Disturbance Assessment

The most significant short duration, high intensity noise events associated with the operation of the Project would be due to delivery vehicles.

ALDI have always instructed drivers on appropriate driving behaviour for noise sensitive sites. L_{Amax} noise levels as low as 98dBA have been measured in controlled tests with levels up to 109dBA measured at non-sensitive sites. These measurements have been undertaken by WMPL. At sensitive locations where drivers are aware of noise issues, the typical L_{Amax} is 105dBA. Although levels below 100dBA are feasible, a level of 105dBA has been found to be a realistic maximum noise level for general deliveries.

The predicted L_{Amax} noise levels at the most affected receivers due to delivery vehicles are presented in Table 5-3.

Table 5-3 Predicted L_{Amax} Noise Levels at Sensitive Receptors

Receiver	Predicted L_{Amax} Noise Level	Screening Level	Complies?
R1	41	46	Yes
R2	35	46	Yes
R3	41	46	Yes

Table 5-3 indicates that L_{Amax} noise levels are predicted to comply with the established screening level at nearby residential receivers. Accordingly, no further assessment of potential sleep disturbance impacts is warranted.

6 CONCLUSION

An ALDI store is proposed to be developed on Main Street, Merimbula. Wilkinson Murray has been engaged to prepare an operational noise impact assessment for the Project.

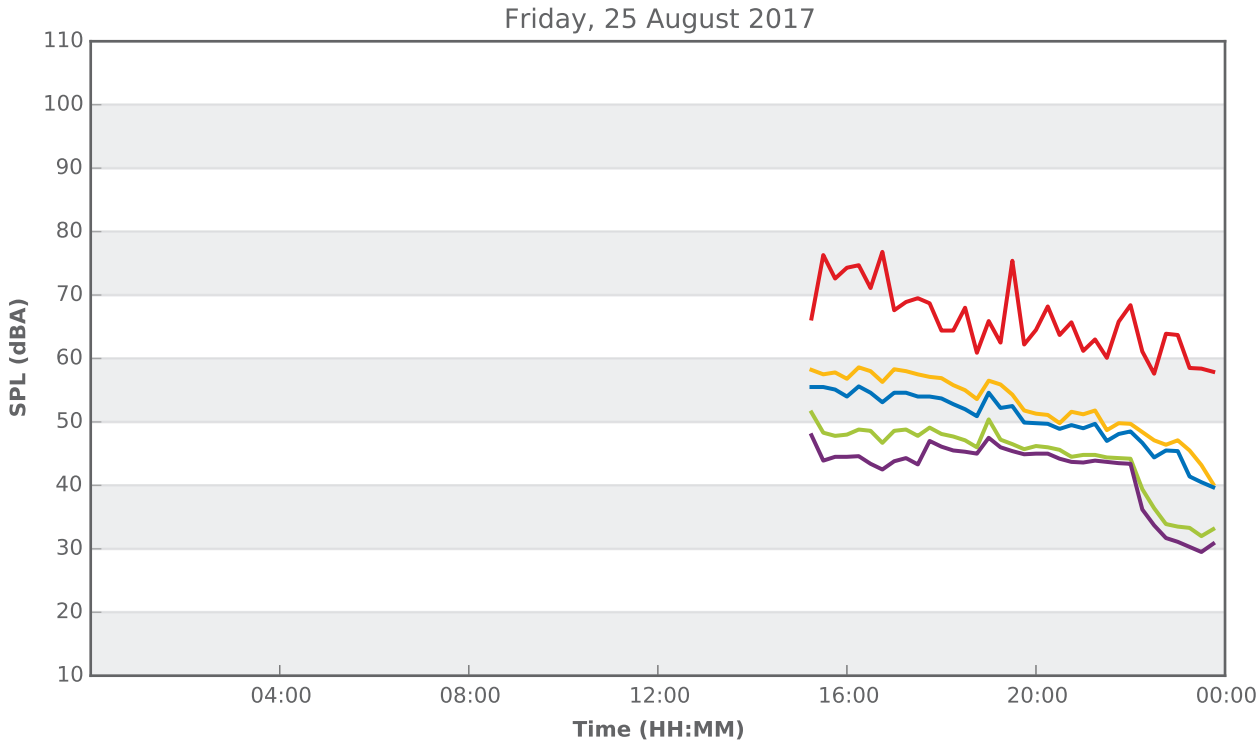
The noise impact assessment has been conducted in general accordance with relevant NSW Government noise policies and guidelines.

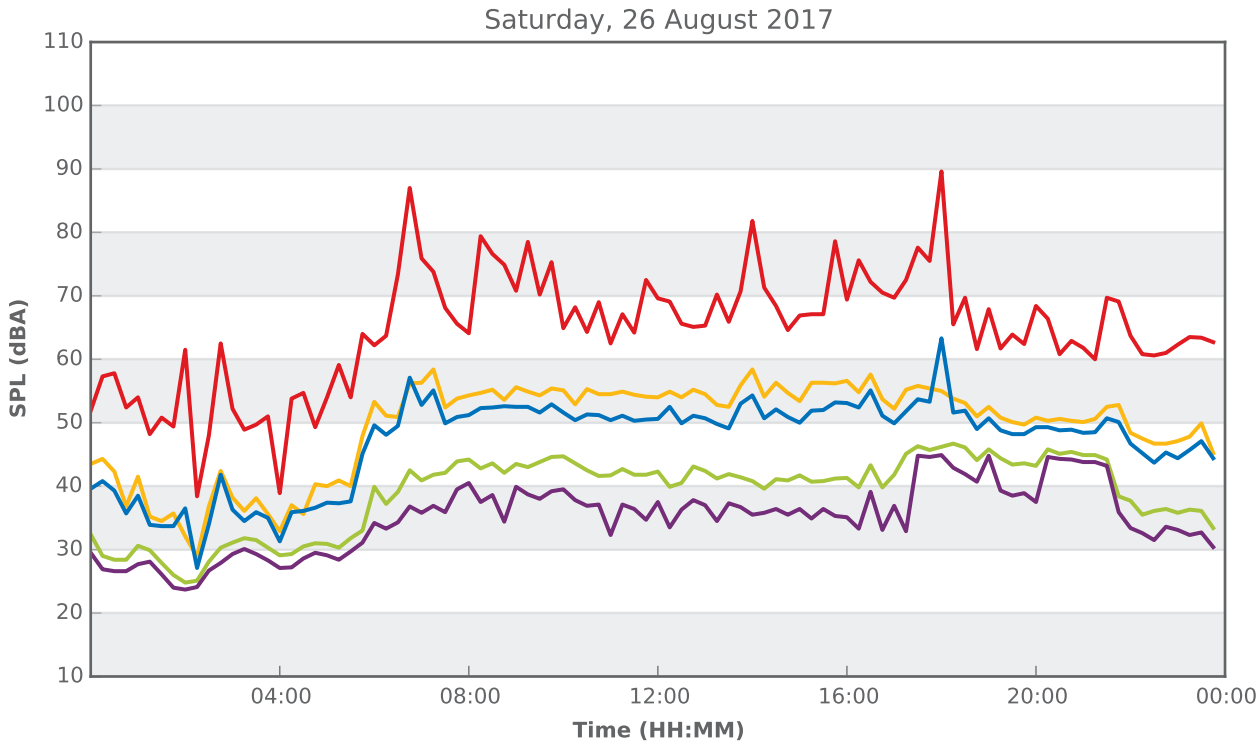
Noise levels at the most potentially affected residential receivers due to the operation of the Project are predicted to comply with all established criteria.

APPENDIX A

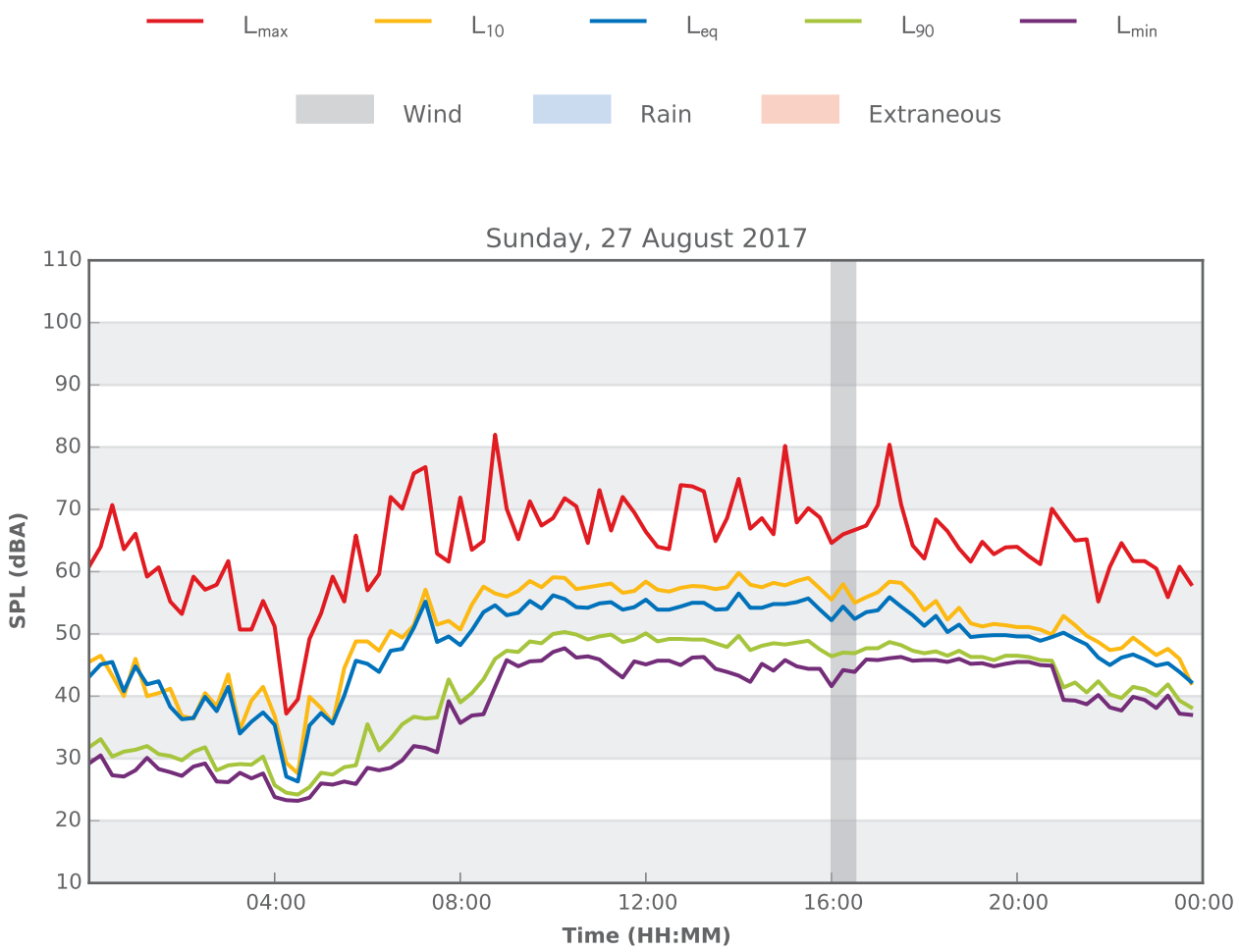
NOISE MEASUREMENT RESULTS

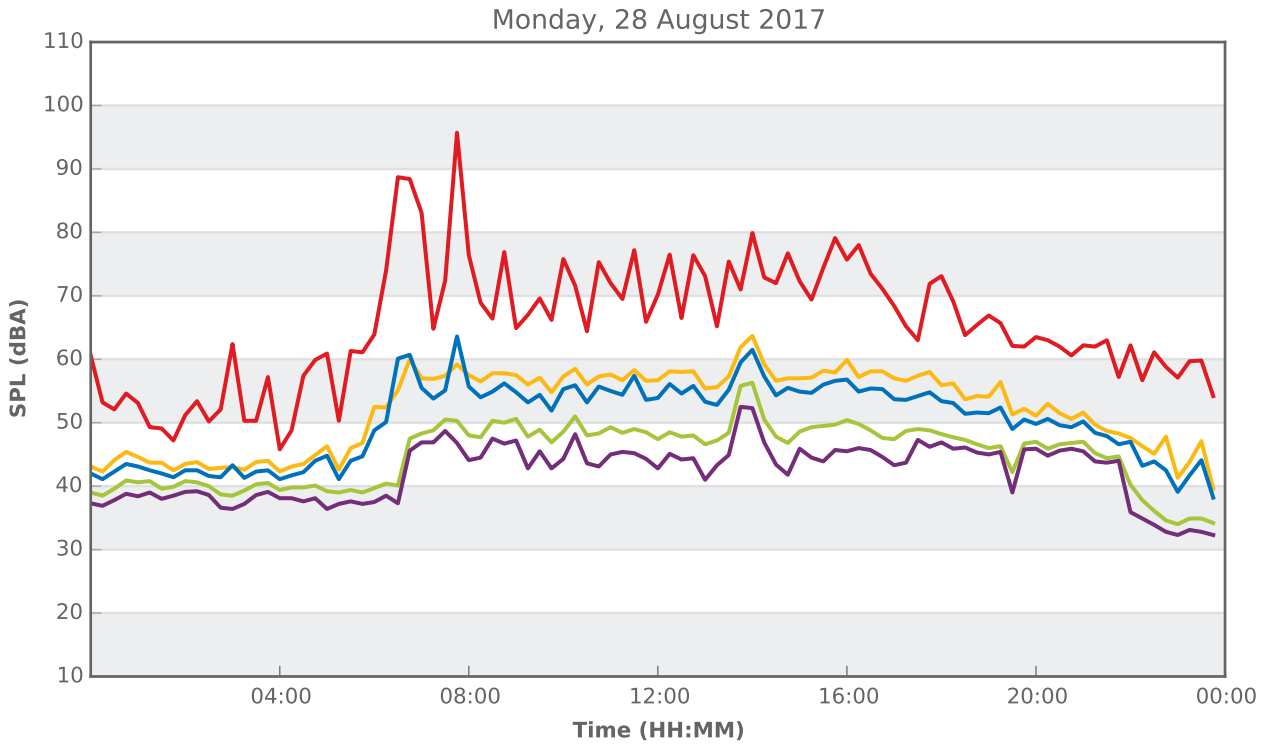
5 Berrambool Drive, Berrambool





5 Berrambool Drive, Berrambool





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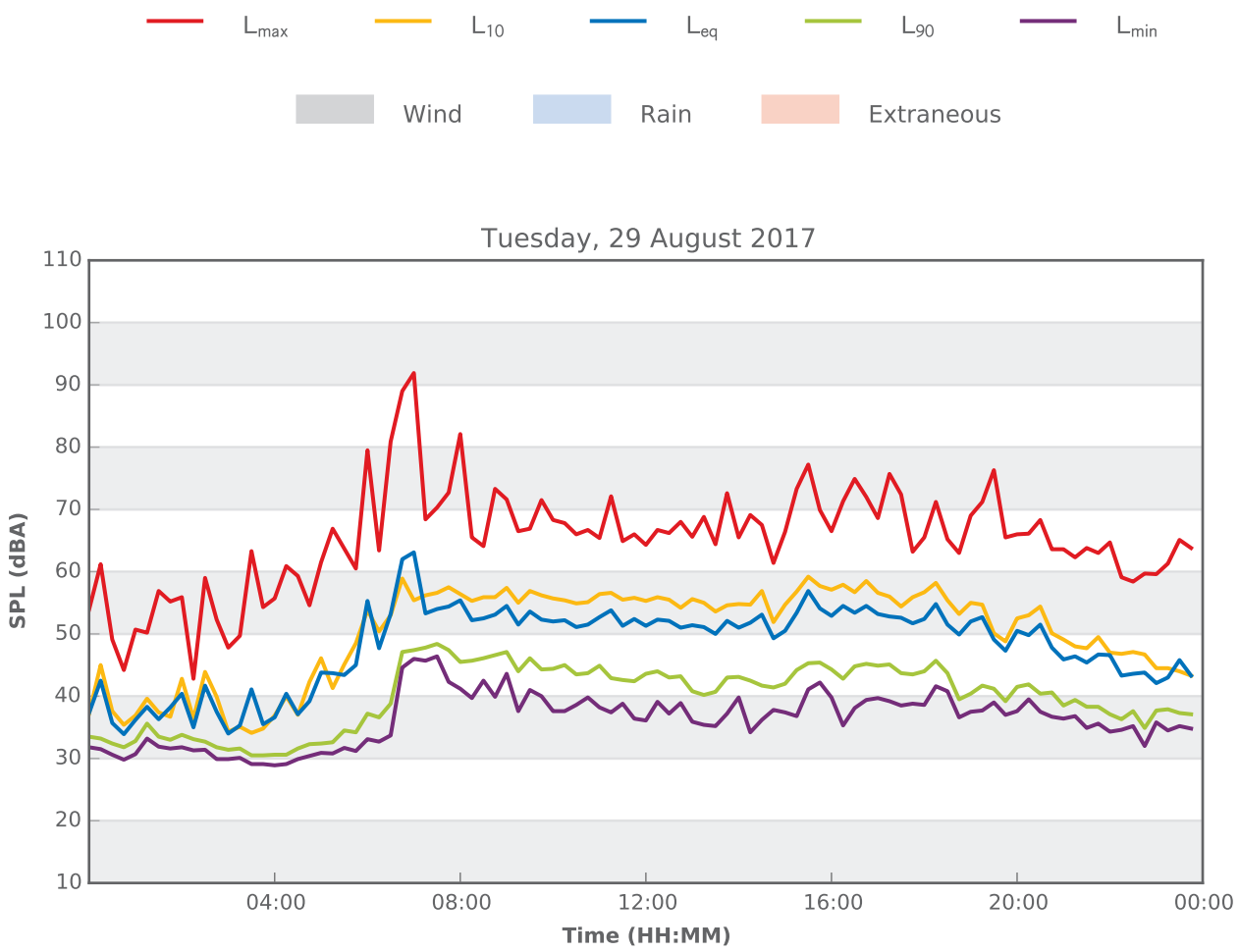

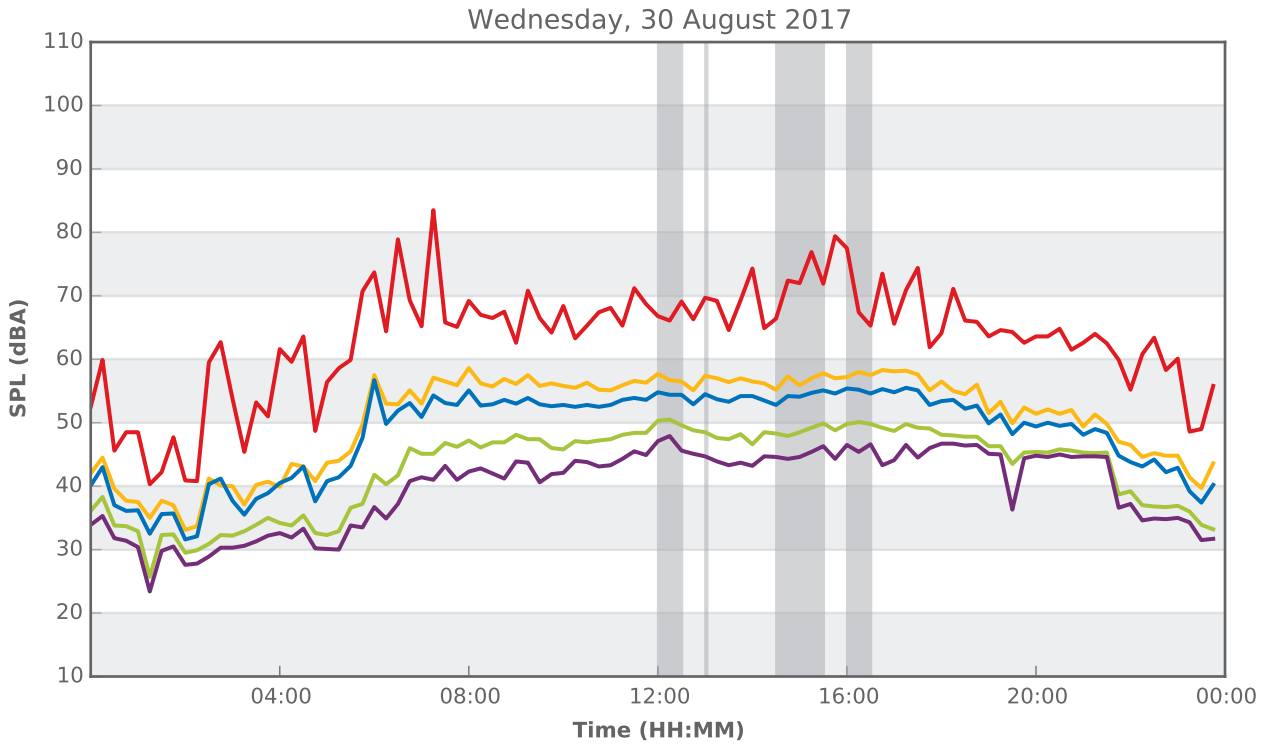

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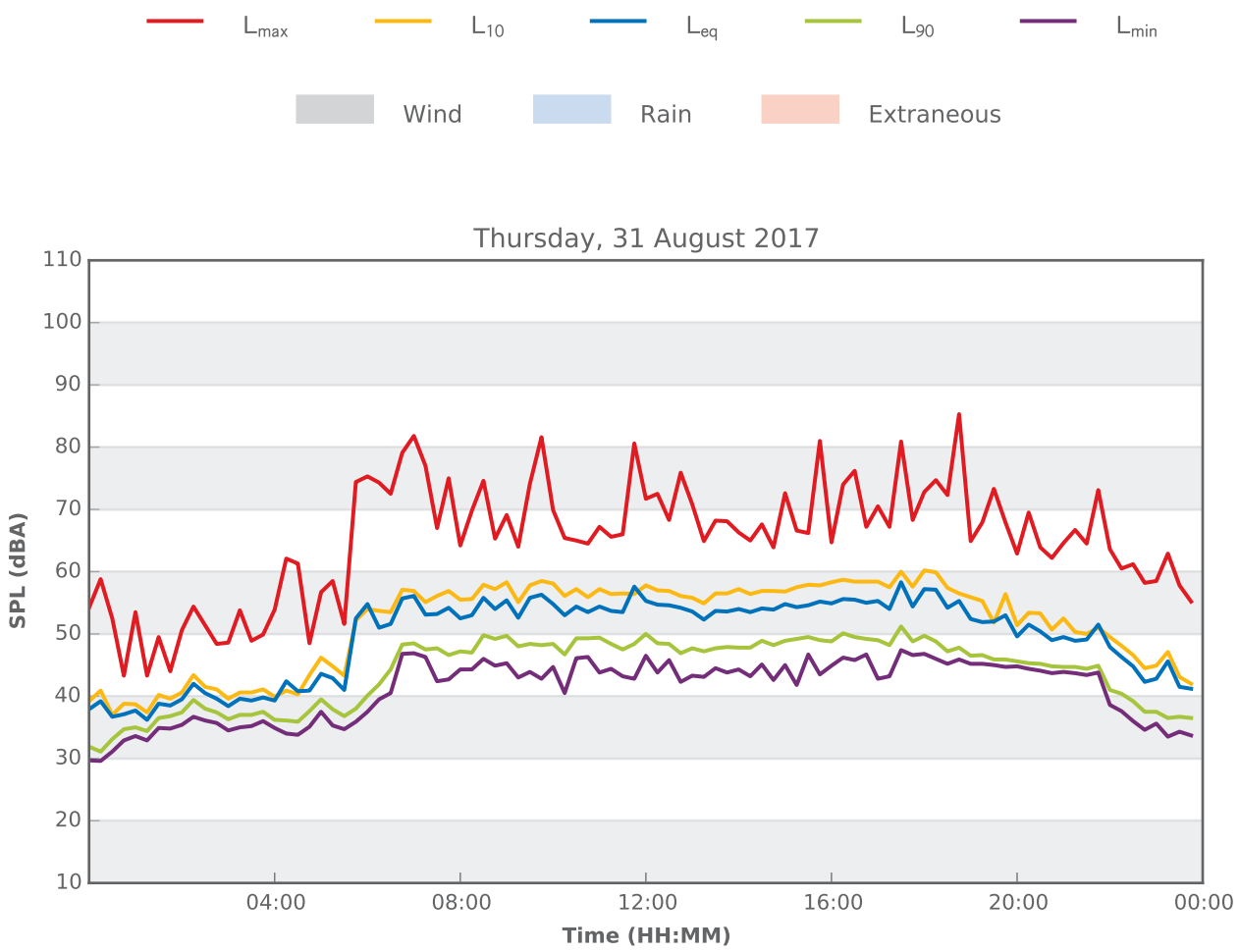
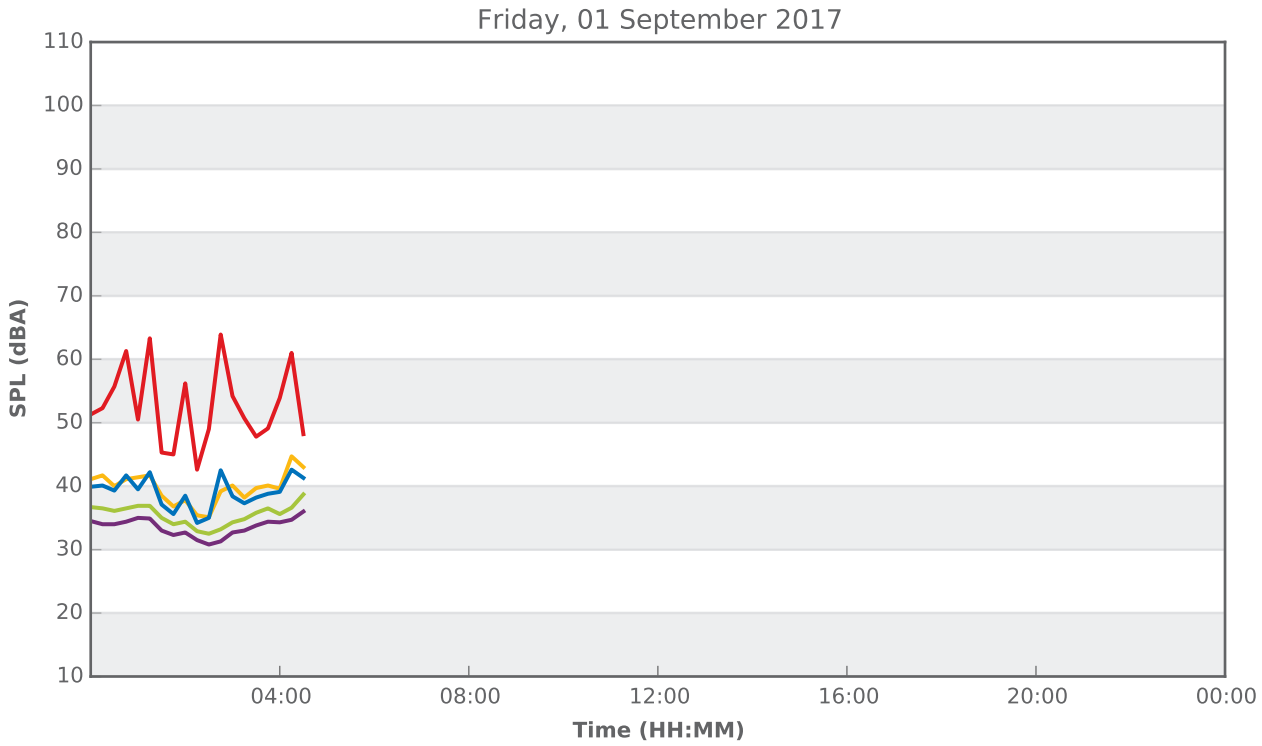




ALDI STORES

TRAFFIC IMPACT REVIEW OF PROPOSED ALDI RETAIL STORE, 103 MAIN STREET, MERIMBULA, NSW

SEPTEMBER 2017

CHRISTOPHER HALLAM & ASSOCIATES PTY LTD

PO BOX 265, KURRAJONG NSW 2758

Telephone: 02 4573 1045

E-mail: chris@christopherhallam.com

JOB: 3703

1.0 INTRODUCTION

1.1 Background

Aldi Stores propose to develop an Aldi retail store at 103 Main Street, Merimbula. The plans of the proposed store are provided in Annexure A. The site is currently occupied by a vacant building, a parking area and an unoccupied dwelling at the rear. The parking area is in public use.

1.2 Scope of Report

Christopher Hallam & Associates Pty Ltd were commissioned by Aldi Stores to undertake the Traffic Impact Study. This study has been undertaken in accordance with the RMS *Guide to Traffic Generating Developments.*

The study is set out in the following Sections:

- Section 2 reviews the current situation with the road network, peak period traffic flows, intersection capacity, seasonal trends in traffic volumes and the current land uses in the vicinity of the site;
- Section 3 first describes the proposal, reviews access and layout, including service vehicle access, car parking, traffic generation and the external impact of the generated traffic at adjacent intersections;
- Section 4 sets out the Conclusions.

Further information is provided in the Annexures:

- Annexure A shows the architects plans
- Annexure B shows the results of the traffic surveys at adjacent intersections
- Annexure C reproduces SIDRA intersection modelling outputs.

2.0 CURRENT SITUATION

2.1 Land Use

The site is 103 Main Street, Merimbula. It contains a currently vacant building, a vacant dwelling at the rear and a parking area currently used as a public parking area that was previously associated with the vacant building. To the East there is a small commercial building, with a driveway and parking area. This building contains an accountants' office, a beauty salon and a pizza shop. On the western side of the site there is an expanded Woolworths shopping centre under construction. Further to the West there is a club – Club Sapphire, on the corner of Main Street and Sapphire Coast Drive. Along the southern side of Main Street there are retail developments, including an existing Woolworths opposite their redevelopment site.

Main Street intersects with Market Street just east of the site. Main and Market Streets are the main shopping streets of Merimbula.

Just to the east of the site there are low scale recreation and community developments, plus the Merimbula RSL Club on the southern side.

2.2 Road Network

Bega Valley Development Control Plan 2013 sets out on its Figure 2.10 the *Merimbula Town Centre: Traffic Access and Principles.* This shows Main Street and Market Street as local town centre streets. South of Monaro Street, Market Street is indicated to be a Regional Road, after the construction of a CBD Bypass. At the present time, Merimbula Drive through to its eastern junction with Market Street, and Market Street south of this junction function as the Regional Road. Sapphire Coast Drive and Merimbula Drive west of Sapphire Coast Drive form the balance of the Regional Road network.

There is a service road behind the subject site that is currently under construction. This "Service Road No.1" will directly link into the rear of the subject site, providing vehicular access to the site. This service road will also provide access to the Woolworths development currently under construction. Woolworths will have driveways off both Main Street and Service Road No.1. We understand that this service road will be completed in early 2018. Its junction with Sapphire Coast Drive will provide for left and right turn movements into and out of the service road.

In the long term, Service Road No.2 is proposed, commencing where Service Road No.1 accesses the Aldi site and continues further to the East, before turning to intersect with Main Street on the eastern side of the Old School Museum. We understand that the construction of this service road is not scheduled at this point in time. Our traffic analysis of

the proposed Aldi development assumes that Service Road No.1 will be completed, but that Service Road No.2 will not be completed.

The site frontage is to Main Street, where it is proposed to have access via the existing right of way driveway between the site – 103 Main Street – and the building at 101 Main Street. Main Street has kerbside parking along its southern side. Along the northern side there is some kerbside parking, although in front of the site there is a bus stop, with no kerbside parking between 103 Main Street and the eastern side of its junction with Market Street. Main Street provides one travel lane per direction.

At the junction of Main and Market Streets, the approaches are essentially single travel lanes from Market Street and Main Street East, but Main Street West effectively has two lanes, due to the bus stop and No Standing restrictions. This means that when vehicles are stopped waiting to turn right into Market Street, following eastbound vehicles can travel past. With the Market Street approach, there is some queuing space for the right turn vehicles, usually allowing left turn vehicles to turn left without restriction from the right turn queue.

The western end of Main Street intersects with Sapphire Coast Drive in a priority-controlled T-junction. The Main Street approach has separate lanes for left and right turns. Sapphire Coast Drive South effectively has two lanes, for through and for right turn traffic. From the North, Sapphire Coast Drive has a left-turn slip lane to provide a free-flowing movement. Vehicles turning right into Main Street have to give way to the left-turn flow from the North.

The speed limit in the town centre is 50 km/hr.

2.3 Traffic Flows

To provide a basis for assessing the traffic implications of the proposed development, traffic counts were undertaken on the afternoon of Friday 23 June 2017 and the morning of Saturday 24 June 2017. These counts were undertaken at the junctions of Main Street with Market Street, and with Sapphire Coast Drive. The hours of peak activity over the survey periods were Friday 3.45-4.45pm and Saturday 11.00am-12,00noon. It is recognised that traffic conditions in June will be different to traffic conditions during the height of the Summer school holidays. Summer traffic flows would be higher, and the peaks might occur at different times. The counts as undertaken reflect local residents plus some tourists accessing the town centre. Seasonal issues are further discussed.

The peak hour flows are shown in Annexure B. At the Main Street/Market Street junction the main movements are the left turn out of Market Street and the complimentary right turn into Market Street. Other movements have moderate flows, with a relatively low movement from Market Street into Main Street East. Past the subject site the eastbound flow was 370 veh/hr on the Friday and 330 veh/hr on the Saturday. The Main Street westbound flows were similar, at 330 veh/hr on the Friday and 320 veh/hr on the Saturday.

During the traffic count at the Main Street/Market Street junction, a small number of movements were observed into/out of the parking area on the site and into/out of the driveway right of way that the Aldi development will utilise.

At the junction of Main Street with Sapphire Coast Drive, on the Friday the major movement was northbound in Sapphire Coast Drive, but with all other movements substantial, with the left turn into Main Street being the next highest movement. On the Saturday the highest movements were also the northbound movement in Sapphire Coast Drive and the left turn into Main Street.

An indication of seasonal variations in traffic flows can be seen from the traffic flow data collected by the Roads & Maritime Services at the Princes Highway just north of its junction with the Snowy Mountains Highway. This is the closest RMS permanent counting station near Merimbula. We have considered the weekly traffic flows in 2015 and 2016 for the week in June 2017 that our intersection counts were undertaken, and the weekly traffic flows in 2015 and 2016 for the Summer holiday weeks in January. In both years the January average two-way weekly traffic flows on the Princes Highway were 16% higher than in June of these years. These figures reflect holiday traffic moving up and down the Coast. In Merimbula the population is about 3900 people, but with substantial tourist accommodation. In our assessment of Summer traffic patterns, we have accordingly increased the June 2017 traffic counts by 20%. This is essentially a sensitivity test of varying seasonal traffic conditions.

2.4 Intersection Operation

The current operation of the two Main Street intersections has been assessed using the SIDRA model. The layout of the intersections as modelled is shown in Annexure C, together with the Movement Summaries from the model.

Table 2.1 reproduces a Table in the RMS *Guide to Traffic Generating Developments,* providing a guide to the SIDRA outputs. Table 2.2 presents the results of the analysis at the Main Street/Market Street intersection while Table 2.3 presents the results of the analysis at the Main Street/Sapphire Coast Drive intersection. Friday 3.45-4.45pm results are given first, with Saturday 11.00am-12.00noon results in brackets

TABLE 2.1 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabouts	Give Way & Stop signs
A	<14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident Study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode

TABLE 2.2 SIDRA Analysis of Current (June 2017) Operation of Main & Market Streets Intersection: Friday 3.45-4.45pm (Saturday 11.00am-12.00noon)

Approach	Movement	Avg Delay (secs.veh)	Level of Service	95% Queue (metres)
Market	Left	5 (5)	A (A)	4 (4)
St South	Right	8 (8)	A (A)	2 (2)
Main St	Left	5 (5)	A (A)	0 (0)
East	Thru	0 (0)	A (A)	0 (0)
Main St	Thru	0 (0)	A (A)	0 (0)
West	Right	6 (6)	A (A)	7 (6)
ALL	All	3.6 (3.6)	Na (na)	7 (6)

Table 2.2 indicates that this priority-controlled intersection is currently functioning in the Friday afternoon peak hour with a good level of service (good operation) and with low levels of delay, averaging less than 4 seconds for the intersection as a whole. In the Saturday morning peak hour delays are very similar, maintaining a good level of service. Over both periods the 95%ile Back of Queue for the right turn from Main Street West into Market Street was no more than 7m.

TABLE 2.3 SIDRA Analysis of Current (June 2017) Operation of Main Street & Sapphire Coast Drive: Friday 3.45-4.45pm (Saturday 11.00am-12.00noon)

Approach	Movement	Avg Delay (secs/veh)	Level of Service	95%ile Queue (metres)
Main St	Left	5 (5)	A (A)	3 (3)
East	Right	12 (10)	A (A)	11 (8)
Sapphire Coast	Left	5 (5)	A (A)	0 (0)
Drive North	Thru	0 (0)	A (A)	0 (0)
Sapphire Coast	Thru	0 (0)	A (A)	0 (0)
Drive South	Right	7 (7)	A (A)	4 (4)
ALL	All	3.9 (3.7)	Na (na)	11 (8)

Table 2.3 indicates that in both current peak periods this intersection is functioning with low delay levels and a good level of service on all movements. The average intersection delays of less than 4 seconds are low.

3.0 TRAFFIC IMPLICATIONS OF PROPOSED DEVELOPMENT

3.1 Description

Annexure A shows the proposed Site Plan, Ground Level Store Plan and Basement Level Plan for the development, prepared by Rothe Lowman Architects. This indicates primary access off Main Street and secondary access off Service Road No.1, currently under construction. The proposed gross floor area is 1286.5 square metres. A total of 101 car parking spaces are proposed, with 63 spaces out front at Ground level and 38 spaces in the Lower Ground level.

3.2 Access and Layout

Access

In reviewing the proposed development, we have considered *Bega Valley Development Control Plan 2013.* We have also considered the Pre-lodgement discussions with Bega Valley Shire Council's Development Advisory Panel, which were held on 25 May 2017. For site access, this Panel meeting recommended that access off Main Street be restricted to left-turn IN and left-turn OUT. This is the proposal. The minutes of the Panel meeting commented in part: *"The provision of a physical barrier (potentially incorporating a pedestrian refuge) would likely be required in Main Street to prevent a right turn manoeuvre into the site from Main Street. It was noted that Council's Local Traffic Committee was currently giving consideration to the relocation of the existing pedestrian refuge which services the existing Woolworths supermarket in Main Street...."*

Council's Local Traffic Committee met on 7 June 2017 and discussed the design of the pedestrian refuge which will service the existing and proposed Woolworths development sites. " *It was noted that it would be likely that some traffic control device would be required in Main Street to service any proposed development and further consideration of this matter (including potential for the provision of a second pedestrian refuge) can be given once the traffic impact assessment for the Aldi supermarket has been completed."*

The difficulty with installing a median and/or pedestrian refuge adjacent to the site entrance is that it would also affect the driveway opposite, into the parking area for the developments on the southern side. If Council considered such restrictions on right turn movements for developments on both sides of Main Street was appropriate, then a median and/or refuge could be installed. We discussed this issue with Council's Senior Development Engineer and we agreed that this will need to be considered by Council when they are assessing the development proposal, and have the Traffic Impact Assessment to guide them. We certainly fully agree with the restriction on right-turn movements, with the proximity of the driveway to the Market Street intersection, and to traffic flows generally.

With site access available from both Main Street and from Sapphire Coast Drive, via Service Road No.1, the capacity of the access is satisfactory.

Layout

Looking at the Ground Level Store Plan in Annexure A, the parking will be accessed off the Right of Way via aisles each being 6.6m wide, with no blind aisles and an easy circulation pattern. Parking spaces will be 2.6m wide, with the layout meeting the requirements of AS/NZS2890.1-2004. There is an internal pedestrian path from Main Street to the building entrance. The disabled parking spaces include shared areas next to them, as required by the Standard.

The Basement parking area is similarly well designed, with a through-flow circulation, with spaces 2.6m wide and aisle width of 6.6m, meeting AS/NZS2890.1-2004. A pedestrian path is proposed through this area.

The straight ramp from the Store level Right of Way to the Basement level will have a centre gradient of 1:5 (20%), with 2.0m long transitions at each end. With the total length of this ramp, including the transitions being less than 20m, this design will meet AS/NZS2890.1-2004, and hence will be satisfactory.

Servicing

Servicing will be off Service Road No.1 directly to the rear of the site. Service vehicles will be 19m articulated vehicles, which will drive onto the site in a forwards direction, use a reversing bay to stop and then reverse into the dock. They will leave the dock in a forwards direction. With the use of Service Road No.1, they will use Sapphire Coast Drive to enter and leave, and will not need to use Main Street.

The dock is entirely separate to the car parking area and hence there will be no conflicts with customer traffic. With this separation, the time of day that servicing occurs does not matter. The dock will be available for deliveries on a 24 hours a day basis.

3.3 Car Parking

The car parking area to be used by the Aldi store is outlined in the plans in Annexure A. This indicates a parking capacity of 101 spaces. *Bega Valley Development Control Plan 2013* requires parking for commercial premises at the rates of one space per 25 sq m gross floor area for ground floor area . For the proposed Aldi development, with a gross floor area of 1286.5 sqm, this Code requires a minimum of 52 spaces. Hence, the provision of 101 spaces will exceed this requirement and will thus be very satisfactory.

Parking for disabled persons will also be provided, with 6 spaces included in the total of 101 spaces. Bega Valley DCP recommends parking for disabled persons should be one space plus 1 per 25 spaces provided. If the DCP requirement of 52 spaces was used as the basis, this would require 1 + 2.5 spaces, so 6 spaces meets the DCP requirement. In addition, bicycle parking will be provided near the entrance to the building. The DCP requires one space per 200 sq m gross floor area, so 8 spaces are required. The plans show 8 bicycle parking spaces, and hence will be satisfactory.

The minutes of the Pre-lodgement discussions with Council's Development Advisory Panel noted:

"It was noted that consideration was being given to the potential for timed parking within the development. It was recommended that the proponents discuss this matter further with Council's Manager Health, Building and Compliance Services, Mr Jeff Tipping.

We consider that it is not necessary in the initial development of the supermarket and its associated parking area that parking be time-restricted. It would be a matter for on-going monitoring. An advantage of this development proposal is that the parking supply of 101 spaces significantly exceeds the DCP requirement for 52 spaces, so there should be less pressure on parking. That being said, it would not be desirable for staff of other developments in the town centre use the Aldi parking area for their commuter parking. We recommend that the parking usage be monitored after the supermarket is open, and if adequate parking is not available to Aldi customers, then time-controlled parking restrictions be considered.

3.4 External Traffic Impact

Traffic Generation

The best method of estimating the traffic generation of a new development is to survey the traffic generation of an existing similar development. We have previously surveyed the traffic generation of the Aldi store at the Old Hume Highway, Mittagong, with the traffic generation surveyed on Thursday afternoon and Saturday morning. The peak hours were 4.00-5.00pm on the weekday and 11.15am-12.15pm on the Saturday. This Aldi store is next to other shops. The survey covered the basement and Highway level driveways, so that traffic from other shops was excluded. This Mittagong Aldi had the following peak traffic generation:

Movement	Thursday PM	Saturday AM
IN	53	82
OUT	37	94
Total	90 veh/hr	176 veh/hr

The Thursday was the appropriate peak weekday for the Mittagong location. At Merimbula, the Friday is considered a more appropriate day for the weekday peaks, given the influence of recreational traffic on top of local traffic. This is borne out with the traffic patterns observed at the RMS permanent counting stations on the Princes Highway, where Friday had the highest daily flows of the week.

The Mittagong Aldi has a total floor area of 1445 sq m. With the total area proposed at Merimbula of 1286.5 sq m, the traffic generation figures need to be increased pro rata with floor area – a factor of 1286/1445 = 0.889. We note that the population of Merimbula was 3,850 in 2009 (UBD *NSW Cities and Towns,* 17th Edition) , while the same reference gives the population of Mittagong as 6,200 persons. We also note that there is an existing Woolworths in the town centre, with its expansion under construction. For these reasons we consider that the traffic generation based on the Aldi Mittagong store is appropriate and should not underestimate the generation.

Based on the inbound/outbound patterns observed at Mittagong, the resulting peak traffic generation at the Merimbula store will be:

Movement	Friday PM	Saturday AM
IN	58	90
OUT	41	103
Total	99	193

Traffic Distribution

Based on Aldi market research, the residential locations of future shoppers (for year 2023) will be:

- Merimbula 40%
- Bega 23%
- Tathra 11%
- Eden 13%
- Rural west 13%

We have used this research to determine the likely roads used coming to and leaving the site. With the restriction on Main Street access to left-turns only, there will be some diversions to access the site. However the access via Service Road No.1, where both left and right-turns will be possible will make this rear access attractive for some shoppers. There will also be some use of Merimbula Drive between Market Street and Sapphire Coast Drive in a westbound direction to either allow a left-turn entry from Main Street East or Market Street South, or an exit back to Merimbula Drive west of Sapphire Coast Drive.

The RMS *Guide to Traffic Generating Developments* talks of passing traffic diverted into shopping centres, where the shopping centre traffic is not additional to the existing traffic on the Highway, but is existing traffic that is diverted into the centre, so that, for example, eastbound driver turns left into Aldi, visit the site and exit making a left turn to continue eastbound along Main Street. We have made no discount for such passing trade. We have added 100% of the site traffic generation onto the road network, again to give a conservative impact assessment.

External Traffic Impact

Table 3.1 reproduces the relevant Table from the RMS *Guide to Traffic Generating Developments,* illustrating how impacts at intersections can be quantitatively assessed.

TABLE 3.1 LEVEL OF SERVICE CRITERIA FOR INTERSECTIONS

Level of Service	Average Delay per Vehicle (secs/veh)	Traffic Signals, Roundabouts	Give Way & Stop signs
A	<14	Good operation	Good operation
B	15 to 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 to 42	Satisfactory	Satisfactory, but accident Study required
D	43 to 56	Operating near capacity	Near capacity & accident study required
E	57 to 70	At capacity; at signals incidents will cause excessive delays Roundabouts require other control mode	At capacity, requires other control mode

The current Friday afternoon and Saturday morning peak hours are 3.45-4.45pm and 11.00am-12.00noon respectively. These peak hours have been used as the impact assessment peak hours. Current flows in this Friday afternoon period are moderate, as they are for the Saturday morning peak hour.

The Main Street access driveway has been assessed using the SIDRA traffic model. Table 3.2 sets out the results of this modelling, for the Friday afternoon peak hour and the Saturday morning peak hour, assuming that all movements are permitted. The Saturday results are shown in brackets. This analysis has been undertaken using the projected Summer traffic conditions, with our June traffic counts in Main Street increased by 20%.

TABLE 3.2 SIDRA Analysis of Main Street Access - Summer

Friday 3.45-4.45pm (Saturday 11.00-12.0noon)

Approach	Move	Avg Delay (secs/veh)	Level of Service	95%ile Queue (m)
Main St	Thru	0 (0)	A (A)	0 (0)
East	NRT			
Aldi	Left	6 (6)	A (A)	1 (1)
	NRT			
Main St	Left	6 (6)	A (A)	0 (0)
West	Thru	0 (0)	A (A)	0 (0)
ALL	All	0.4 (0.7)	Na (na)	1 (1)

Table 3.2 shows satisfactory delay levels on all movements, with a level of service of A on all. Within the Aldi site, the internal queuing will be satisfactory.

At the adjacent intersection of Main and Market Streets, the Summer traffic flows have first been assessed, followed by Summer conditions with Aldi traffic added. Table 3.3 summarises the results

for Friday in Summer (June 2017 flows increased by 20%), followed by the Summer situation with Aldi traffic added. More detailed results are provided in Annexure C.

TABLE 3.3 SIDRA Analysis of Main & Market Streets – Friday 3.45-4.45pm

Summer - June + 20% (Summer plus Aldi)

Approach	Move	Avg Delay (secs/veh)	Level of Service	95%ile Queue (m)
Market St	Left	5 (5)	A (A)	5 (5)
South	Right	9 (10)	A (A)	3 (3)
Main St	Left	5 (5)	A (A)	0 (0)
East	Thru	0 (0)	A (A)	0 (0)
Main St	Thru	0 (0)	A (A)	0 (0)
West	Right	6 (7)	A (A)	9 (9)
ALL	All	3.8 (3.9)	na (na)	9 (9)

Looking at Table 3.3, the level of service on all movements is A, the highest level. On the Main Street West approach, the 95%ile Back of Queue figure of 9m – say two vehicles – would not reach the Aldi driveway. A car stopped level with the centreline of Market Street would have queuing space behind of about 20m before the queue became level with the eastern edge of the Aldi driveway. Some drivers leaving the Aldi site would weave across to make a right turn into Market Street.

Table 3.4 presents equivalent information for the Saturday morning peak hour.

TABLE 3.4 SIDRA Analysis of Main & Market Streets – Saturday 11.00am-12.00noon

Summer – June+20% (Summer plus Aldi)

Approach	Move	Avg Delay (secs/veh)	Level of Service	95%ile Queue (m)
Market St	Left	5 (5)	A (A)	5 (5)
South	Right	9 (9)	A (A)	2 (3)
Main St	Left	5 (5)	A (A)	0 (0)
East	Thru	0 (0)	A (A)	0 (0)
Main St	Thru	0 (0)	A (A)	0 (0)
West	Right	6 (6)	A (A)	7 (9)
ALL	All	3.7 (3.9)	na (na)	7 (9)

Table 3.4 shows very similar results to Table 3.3, with Saturday morning delays similar to the Friday afternoon delays. A good level of service will remain, with the queue back from the right turn into Market Street similar to the Friday afternoon queue. Again, some drivers leaving Aldi will weave across to make a right turn into Market Street. The analysis of the Aldi driveway did not indicate substantial queues to the left turn out of the site, taking into account the passing eastbound traffic, so presumably they can find a gap to move into the right turn lane.

The western end of Main Street meets Sapphire Coast Drive in a priority-controlled T-junction. Table 3.5 sets out the analysis results for the Friday afternoon peak hour, with the base analysis being for Summer traffic conditions (June + 20%), and then Summer traffic with Aldi traffic added.

TABLE 3.5 SIDRA Analysis of Main Street & Sapphire Coast Drive – Friday 3.45-4.45pm

Summer – June+20% (Summer plus Aldi)

Approach	Move	Avg Delay (secs/veh)	Level of Service	95%ile Queue (m)
Main St	Left	5 (5)	A (A)	4 (4)
East	Right	17 (19)	B (B)	19 (21)
Sapphire Coast	Left	5 (5)	A (A)	0 (0)
Drive North	Thru	0 (0)	A (A)	0 (0)
Sapphire Coast	Thru	0 (0)	A (A)	0 (0)
Drive South	Right	7 (7)	A (A)	6 (7)
ALL	All	4.7 (5.0)	na (na)	19 (21)

Table 3.5 indicates that the operation of this intersection will remain satisfactory, for the Summer base traffic and for Summer with Aldi traffic added.

Table 3.6 provides equivalent information for the Saturday morning peak hour at this intersection.

TABLE 3.6 SIDRA Analysis of Main Street & Sapphire Coast Drive – Saturday 11.00am-12.00nn

Summer – June+20% (Summer plus Aldi)

Approach	Move	Avg Delay (secs/veh)	Level of Service	95%ile Queue (m)
Main St	Left	5 (5)	A (A)	3 (3)
East	Right	13 (16)	A (B)	13 (16)
Sapphire Coast	Left	5 (5)	A (A)	0 (0)
Drive North	Thru	0 (0)	A (A)	0 (0)
Sapphire Coast	Thru	0 (0)	A (A)	0 (0)
Drive South	Right	8 (8)	A (A)	5 (7)
ALL	All	4.3 (4.6)	Na (na)	13 (16)

Table 3.6 indicates similar results to the Friday afternoon, with marginally lower delay levels and a satisfactory level of service being maintained.

The new intersection of Sapphire Coast Drive and the new Service Road No.1 has not been analysed. We understand that a traffic analysis was undertaken prior to its design. In any event, the traffic from the new Woolworths development would be substantially greater than the traffic from the Aldi development.

In conclusion, the external traffic implications of the proposed Aldi supermarket will be satisfactory.

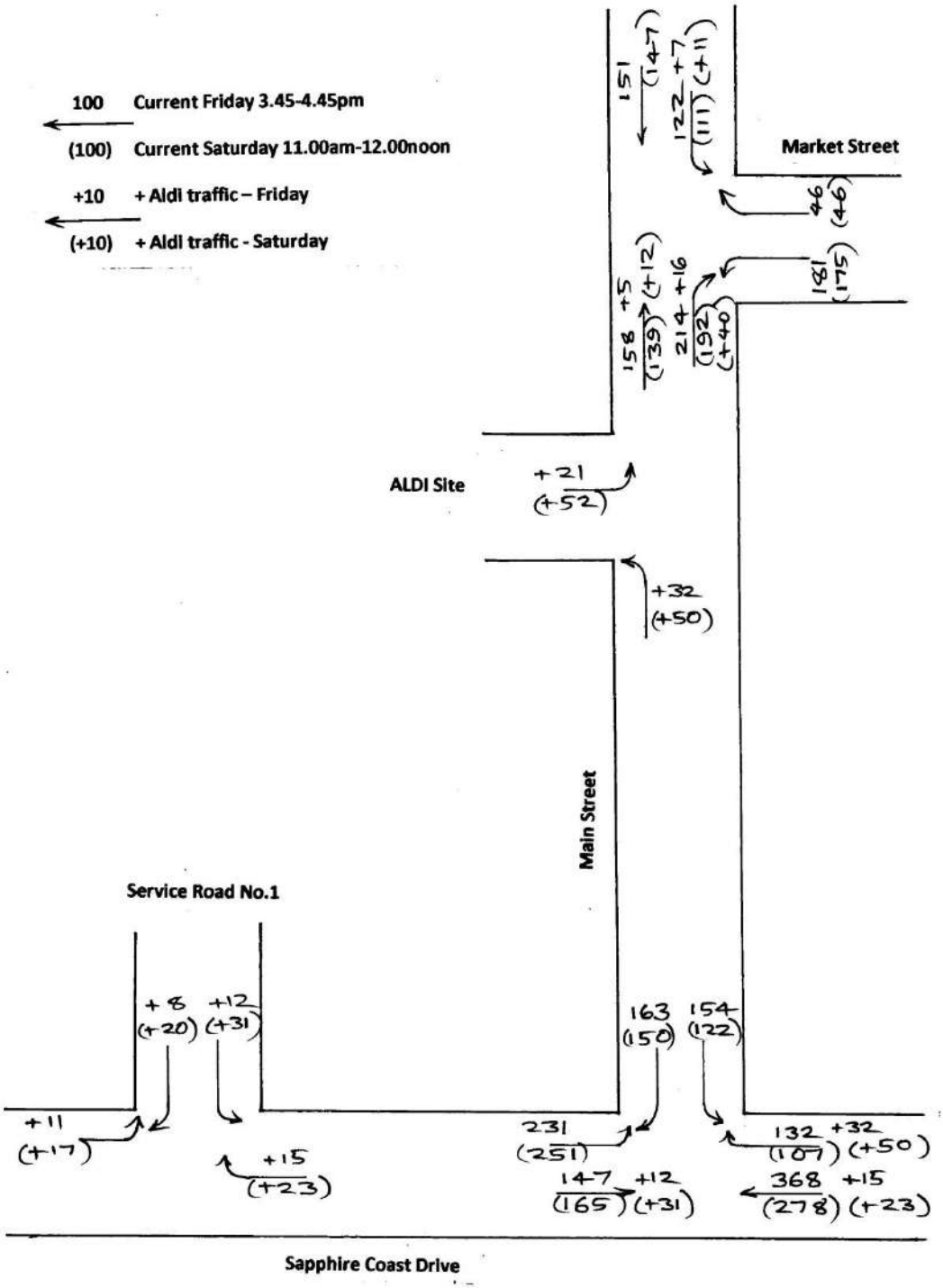
4. CONCLUSIONS

1. Aldi Stores propose to develop an Aldi supermarket at 103 Main Street, Merimbula. The site was previously developed, but is currently vacant, apart from a parking area that is in use.
2. The plans of the proposal are shown in Annexure A. This outlines the Aldi food store to have a gross floor area of 1286.5 sqm, ground level parking area with 63 spaces and a Basement level parking area with 38 spaces.
3. The site layout provides for the main access driveway off Main Street with a left-turn IN and left-turn OUT access only. This driveway will be on a Right of Way that extends through the site and connects at the rear to the Service Road No.1 that is currently being constructed. This service road will intersect with Sapphire Coast Drive, where both left-turn and right-turn movements will be permitted.
4. Parking will be provided with access off the Right of Way. The layout of these driveways and parking areas meets the requirements of AS/NZS2890.1-2004. The two parking areas will provide easy and convenient circulation. Parking spaces for disabled persons will be located immediately in front of the store and will meet the requirements of AS/NZS 2890.6 – 2009. Bicycle parking will also be provided.
5. Servicing will be undertaken by vehicles up to 19m long semi-trailers, who will access the site from Sapphire Coast Drive, via the new Service Road No.1. The loading dock is at the rear of the site. Service vehicle movements will be completely separate from customer parking movements.
6. The site will provide a total of 101 car parking spaces for the Aldi store. Based on *Bega Valley DCP 2013,* a total of 52 spaces are required. The proposed parking supply significantly exceeds this number and thus will provide additional parking for peak Summer visits. The possibility of imposing time restrictions on this parking can be considered after the development is operating.
7. The peak period traffic generation of the proposal has been estimated, based on another Aldi regional store, with the figures increased pro rata with the floor areas. Based on market research, the new traffic has been distributed accordingly, with 40% from Merimbula, 34% from towns to the North, 13% from Eden to the South and 13% from the rural West.
8. The external traffic impact has first been assessed at the Main Street site driveway, and then at the adjacent intersection of Main and Market Streets. For the Friday afternoon and Saturday morning peak hours, with base traffic (counted in June 2017) increased to reflect higher Summer flows, the addition of the Aldi traffic will see the driveway and intersection remain operating in a satisfactory manner. No changes to the intersection of Main and Market Street are recommended.
9. The provision of a central median with or without a pedestrian refuge, across the driveway (Right of Way) was discussed with Council staff. Given the interaction with the access along the southern side of Main Street and the proximity of the Market Street intersection, it was agreed that any decision on such a median or refuge be deferred to the development assessment stage.

10. The intersection of Main Street with Sapphire Coast Drive has also been assessed for peak Summer conditions, without and with the Aldi traffic added. This intersection will continue to operate with a good level of service, with no changes required.
11. We conclude that the traffic implications of the proposed Aldi store will be satisfactory.

ANNEXURE A PLAN

ANNEXURE B TRAFFIC COUNTS



ANNEXURE C SIDRA MODELLING OUTPUTS

MOVEMENT SUMMARY

▽ Site: Aldi Access Main Street

Friday 3.45-4.45pm +ALDI summer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Main Street East											
5	T1	419	2.0	0.218	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		419	2.0	0.218	0.0	NA	0.0	0.0	0.00	0.00	60.0
North: Aldi											
7	L2	22	0.0	0.014	6.0	LOS A	0.1	0.4	0.27	0.54	52.8
Approach		22	0.0	0.014	6.0	LOS A	0.1	0.4	0.27	0.54	52.8
West: Main St West											
10	L2	34	0.0	0.131	5.6	LOS A	0.0	0.0	0.00	0.08	57.6
11	T1	469	2.0	0.131	0.0	LOS A	0.0	0.0	0.00	0.04	59.6
Approach		503	1.9	0.131	0.4	NA	0.0	0.0	0.00	0.04	59.5
All Vehicles		944	1.9	0.218	0.4	NA	0.1	0.4	0.01	0.03	59.5

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Aldi Access Main Street

Saturday 11.00-12.00nn +ALDI summer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: Main Street East											
5	T1	406	2.0	0.211	0.0	LOS A	0.0	0.0	0.00	0.00	60.0
Approach		406	2.0	0.211	0.0	NA	0.0	0.0	0.00	0.00	60.0
North: Aldi											
7	L2	55	0.0	0.033	6.0	LOS A	0.1	0.9	0.25	0.55	52.8
Approach		55	0.0	0.033	6.0	LOS A	0.1	0.9	0.25	0.55	52.8
West: Main St West											
10	L2	53	0.0	0.123	5.6	LOS A	0.0	0.0	0.00	0.13	57.2
11	T1	418	2.0	0.123	0.0	LOS A	0.0	0.0	0.00	0.06	59.4
Approach		471	1.8	0.123	0.6	NA	0.0	0.0	0.00	0.07	59.2
All Vehicles		932	1.8	0.211	0.7	NA	0.1	0.9	0.01	0.07	59.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Friday 3.45-4.45pmCURRENT
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	191	2.0	0.147	5.1	LOS A	0.6	4.0	0.26	0.54	46.0
3	R2	48	0.0	0.067	8.1	LOS A	0.3	1.9	0.56	0.72	44.3
Approach		239	1.6	0.147	5.7	LOS A	0.6	4.0	0.32	0.57	45.6
East: Main St East											
4	L2	128	0.0	0.070	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	159	0.0	0.083	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		287	0.0	0.083	2.0	NA	0.0	0.0	0.00	0.24	48.4
West: Main St West											
11	T1	166	0.0	0.087	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	225	2.0	0.210	6.0	LOS A	0.9	6.6	0.41	0.62	45.4
Approach		392	1.2	0.210	3.5	NA	0.9	6.6	0.24	0.36	47.2
All Vehicles		918	0.9	0.210	3.6	NA	0.9	6.6	0.18	0.38	47.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Saturday11.00-12.00nnCURRENT
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	184	2.0	0.141	5.1	LOS A	0.5	3.9	0.25	0.53	46.0
3	R2	48	0.0	0.062	7.6	LOS A	0.3	1.8	0.54	0.70	44.6
Approach		233	1.6	0.141	5.6	LOS A	0.5	3.9	0.31	0.57	45.7
East: Main St East											
4	L2	117	0.0	0.064	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	155	0.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		272	0.0	0.081	2.0	NA	0.0	0.0	0.00	0.23	48.5
West: Main St West											
11	T1	146	0.0	0.076	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	202	2.0	0.185	5.9	LOS A	0.8	5.7	0.39	0.61	45.4
Approach		348	1.2	0.185	3.4	NA	0.8	5.7	0.23	0.35	47.2
All Vehicles		853	0.9	0.185	3.6	NA	0.8	5.7	0.18	0.37	47.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Friday 3.45-4.45pmCURRENTsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	228	2.0	0.181	5.3	LOS A	0.7	5.1	0.29	0.55	45.9
3	R2	58	0.0	0.093	9.3	LOS A	0.4	2.6	0.61	0.79	43.7
Approach		286	1.6	0.181	6.1	LOS A	0.7	5.1	0.36	0.60	45.4
East: Main St East											
4	L2	154	0.0	0.084	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	191	0.0	0.099	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		344	0.0	0.099	2.0	NA	0.0	0.0	0.00	0.24	48.4
West: Main St West											
11	T1	200	0.0	0.104	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	271	2.0	0.268	6.4	LOS A	1.2	8.6	0.47	0.67	45.2
Approach		471	1.1	0.268	3.7	NA	1.2	8.6	0.27	0.38	47.1
All Vehicles		1101	0.9	0.268	3.8	NA	1.2	8.6	0.21	0.39	47.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Friday 3.45-4.45pm+ALDI summer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	228	2.0	0.181	5.3	LOS A	0.7	5.1	0.29	0.55	45.9
3	R2	58	0.0	0.097	9.5	LOS A	0.4	2.7	0.62	0.80	43.6
Approach		286	1.6	0.181	6.1	LOS A	0.7	5.1	0.36	0.60	45.4
East: Main St East											
4	L2	161	0.0	0.088	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	191	0.0	0.099	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		352	0.0	0.099	2.1	NA	0.0	0.0	0.00	0.24	48.4
West: Main St West											
11	T1	205	0.0	0.107	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	287	2.0	0.287	6.5	LOS A	1.3	9.4	0.48	0.68	45.2
Approach		493	1.2	0.287	3.8	NA	1.3	9.4	0.28	0.39	47.1
All Vehicles		1131	0.9	0.287	3.9	NA	1.3	9.4	0.21	0.40	47.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Saturday11.00-12.00nnCURRENTsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	221	2.0	0.174	5.3	LOS A	0.7	4.9	0.29	0.55	45.9
3	R2	58	0.0	0.086	8.6	LOS A	0.3	2.4	0.59	0.76	44.1
Approach		279	1.6	0.174	6.0	LOS A	0.7	4.9	0.35	0.59	45.5
East: Main St East											
4	L2	140	0.0	0.077	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	185	0.0	0.097	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		325	0.0	0.097	2.0	NA	0.0	0.0	0.00	0.23	48.5
West: Main St West											
11	T1	176	0.0	0.092	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	242	2.0	0.235	6.3	LOS A	1.0	7.4	0.45	0.65	45.3
Approach		418	1.2	0.235	3.6	NA	1.0	7.4	0.26	0.38	47.2
All Vehicles		1022	0.9	0.235	3.7	NA	1.0	7.4	0.20	0.39	47.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Main Street & Market Street

Saturday11.00-12.00nn+ALDIsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Market St											
1	L2	221	2.0	0.174	5.3	LOS A	0.7	4.9	0.29	0.55	45.9
3	R2	58	0.0	0.093	9.2	LOS A	0.4	2.6	0.61	0.79	43.7
Approach		279	1.6	0.174	6.1	LOS A	0.7	4.9	0.35	0.60	45.5
East: Main St East											
4	L2	152	0.0	0.083	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	185	0.0	0.097	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		337	0.0	0.097	2.1	NA	0.0	0.0	0.00	0.24	48.4
West: Main St West											
11	T1	188	0.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	284	2.0	0.279	6.4	LOS A	1.3	9.1	0.47	0.67	45.2
Approach		473	1.2	0.279	3.9	NA	1.3	9.1	0.28	0.40	47.0
All Vehicles		1088	0.9	0.279	3.9	NA	1.3	9.1	0.21	0.40	47.0

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Friday 3.45-4.45pm CURRENT
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	162	2.0	0.124	5.1	LOS A	0.5	3.4	0.25	0.53	46.0
3	R2	172	2.0	0.319	12.0	LOS A	1.5	10.8	0.71	0.92	42.4
Approach		334	2.0	0.319	8.7	LOS A	1.5	10.8	0.48	0.73	44.1
East: Saphire Coast Drive North											
4	L2	243	2.0	0.133	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	155	2.0	0.082	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		398	2.0	0.133	2.8	NA	0.0	0.0	0.00	0.32	47.9
West: Saphire Coast Drive South											
11	T1	387	2.0	0.204	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	139	2.0	0.147	6.6	LOS A	0.6	4.3	0.47	0.67	45.2
Approach		526	2.0	0.204	1.8	NA	0.6	4.3	0.12	0.18	48.6
All Vehicles		1258	2.0	0.319	3.9	NA	1.5	10.8	0.18	0.37	47.1

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Saturday 11.00-12.00nn CURRENT
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	128	2.0	0.100	5.2	LOS A	0.4	2.6	0.26	0.54	46.0
3	R2	158	2.0	0.255	10.0	LOS A	1.1	8.1	0.65	0.86	43.4
Approach		286	2.0	0.255	7.8	LOS A	1.1	8.1	0.48	0.71	44.5
East: Saphire Coast Drive North											
4	L2	264	2.0	0.144	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	174	2.0	0.092	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		438	2.0	0.144	2.8	NA	0.0	0.0	0.00	0.32	47.9
West: Saphire Coast Drive South											
11	T1	293	2.0	0.154	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	113	2.0	0.125	6.8	LOS A	0.5	3.5	0.48	0.68	45.1
Approach		405	2.0	0.154	1.9	NA	0.5	3.5	0.13	0.19	48.5
All Vehicles		1129	2.0	0.255	3.7	NA	1.1	8.1	0.17	0.37	47.2

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Friday 3.45-4.45pmCURRENTsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	195	2.0	0.154	5.2	LOS A	0.6	4.2	0.28	0.55	45.9
3	R2	206	2.0	0.489	17.2	LOS B	2.6	18.6	0.82	1.06	40.0
Approach		401	2.0	0.489	11.4	LOS A	2.6	18.6	0.56	0.81	42.7
East: Saphire Coast Drive North											
4	L2	292	2.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	185	2.0	0.098	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		477	2.0	0.159	2.8	NA	0.0	0.0	0.00	0.32	47.8
West: Saphire Coast Drive South											
11	T1	465	2.0	0.246	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	166	2.0	0.193	7.2	LOS A	0.8	5.7	0.52	0.72	44.9
Approach		632	2.0	0.246	1.9	NA	0.8	5.7	0.14	0.19	48.5
All Vehicles		1509	2.0	0.489	4.7	NA	2.6	18.6	0.21	0.40	46.6

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Friday 3.45-4.45pm+ALDIsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	195	2.0	0.155	5.3	LOS A	0.6	4.3	0.29	0.55	45.9
3	R2	206	2.0	0.535	19.4	LOS B	2.9	20.7	0.85	1.09	39.0
Approach		401	2.0	0.535	12.5	LOS A	2.9	20.7	0.58	0.83	42.1
East: Saphire Coast Drive North											
4	L2	292	2.0	0.159	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	198	2.0	0.104	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		489	2.0	0.159	2.7	NA	0.0	0.0	0.00	0.31	47.9
West: Saphire Coast Drive South											
11	T1	481	2.0	0.254	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	200	2.0	0.236	7.4	LOS A	1.0	7.1	0.54	0.74	44.8
Approach		681	2.0	0.254	2.2	NA	1.0	7.1	0.16	0.22	48.3
All Vehicles		1572	2.0	0.535	5.0	NA	2.9	20.7	0.22	0.40	46.4

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Saturday 11.00-12.00nn CURRENTsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	154	2.0	0.124	5.3	LOS A	0.5	3.3	0.29	0.55	45.9
3	R2	189	2.0	0.373	13.2	LOS A	1.9	13.4	0.74	0.96	41.8
Approach		343	2.0	0.373	9.7	LOS A	1.9	13.4	0.54	0.78	43.5
East: Saphire Coast Drive North											
4	L2	317	2.0	0.173	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	208	2.0	0.110	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		525	2.0	0.173	2.8	NA	0.0	0.0	0.00	0.32	47.9
West: Saphire Coast Drive South											
11	T1	352	2.0	0.186	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	135	2.0	0.166	7.5	LOS A	0.7	4.7	0.53	0.74	44.7
Approach		486	2.0	0.186	2.1	NA	0.7	4.7	0.15	0.20	48.4
All Vehicles		1355	2.0	0.373	4.3	NA	1.9	13.4	0.19	0.39	46.9

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▽ Site: Saphire Coast Drive & Main Street

Saturday 11.00-12.00nn +ALDIsummer
Giveway / Yield (Two-Way)

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Main Street											
1	L2	154	2.0	0.128	5.4	LOS A	0.5	3.4	0.32	0.57	45.8
3	R2	189	2.0	0.435	15.9	LOS B	2.2	15.8	0.80	1.02	40.5
Approach		343	2.0	0.435	11.2	LOS A	2.2	15.8	0.59	0.82	42.8
East: Saphire Coast Drive North											
4	L2	317	2.0	0.173	4.6	LOS A	0.0	0.0	0.00	0.53	46.6
5	T1	241	2.0	0.127	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		558	2.0	0.173	2.6	NA	0.0	0.0	0.00	0.30	48.0
West: Saphire Coast Drive South											
11	T1	376	2.0	0.198	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R2	187	2.0	0.240	7.9	LOS A	1.0	7.1	0.57	0.78	44.5
Approach		563	2.0	0.240	2.6	NA	1.0	7.1	0.19	0.26	48.0
All Vehicles		1464	2.0	0.435	4.6	NA	2.2	15.8	0.21	0.41	46.7

Level of Service (LOS) Method: Delay (RTA NSW).
Vehicle movement LOS values are based on average delay per movement
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

TEL 02 . 9477 . 4000
E-mail: michael@michaelfrost.com.au
MICHAEL FROST & ASSOCIATES PTY LTD
ABN 58 003 297 578
PO Box 795
HORNSBY
NSW 1630

Our Ref: 117042 L001

28th August 2017

Principle Certifying Authority

Dear Sir

RE: CERTIFICATION OF DESIGN FOR D.A. SUBMISSION

SUBJECT PREMISES ALDI MERIMBULA MAIN STREET MERIMBULA.

.

Pursuant to the provisions of **Clause A2.2 of the Building Code of Australia 2016**I hereby certify that the design for the above mentioned project will be in accordance with normal engineering practice and will meet the requirements of the Building Code of Australia, the Environmental Planning and Assessment Regulation, relevant Australian Standards particular the design is in accordance with the following:

Services	**Building Code of Australia**	**Australian Standards**	**Other**
Fire Hydrants	E1.3 – 2016	2419.1 – 2005	
Fire Hose Reel Service	E1.4 - 2016	2441-2005	
Plumbing Services	F2-2016	3500 - 2003	National Construction Code 2016 Plumbing Code of Australia Councils Sustanable Design Principles.

M · F · A
HYDRAULIC, CIVIL & FIRE PROTECTION CONSULTANTS

Downpipes and Gutters	F1.1-2015	3500.2003	Plumbing Code of Australia 2015Bega Valley Council Stormwater Management.

I am an appropriately qualified and competent person in this area and as such can certify that the design and performance of the design systems comply with the above and be detailed on the design drawings and specification.

I possess Indemnity Insurance to the satisfaction of the building owner or my principal.

Full Name of Certifier: **MICHAEL FROST**
Qualifications: **HYDRAULIC AND FIRE PROTECTION CONSULTANT M.A.H.S.C.A. M.I.PA.**
Address of Certifier: **SUITE 1, 11-15 FLORENCE STREET HORNSBY**
Business Telephone No: 9477 4000

Signature: _____

Yours faithfully
MICHAEL FROST & ASSOCIATES PTY LTD

MICHAEL FROST
DIRECTOR

Drawing Register

No.	Title	Rev	No.	Title	Rev
TP00.00	COVER SHEET	P7			
TP00.01	SITE PLAN	P11			
TP00.02	SITE SURVEY	P7			
TP00.03	DEMOLITION PLAN	P4			
TP01.01	LEVEL NEW SERVICES RD PLAN	P8			
TP01.02	LEVEL BASEMENT PLAN	P12			
TP01.03	LEVEL DOCK PLAN	P8			
TP01.04	LEVEL STORE PLAN	P12			
TP01.05	ROOF PLAN	P8			
TP02.01	ELEVATIONS	P11			
TP02.02	ELEVATIONS	P3			
TP03.01	SECTIONS	P10			
TP04.01	SHADOWS	P8			
TP04.02	GFA & NLA PLAN	P4			
TP04.03	SIGNAGE PLAN	P4			
TP06.01	NOTIFICATION PLAN	P4			
TP07.01	DEVELOPMENT SUMMARY	P4			

SUPERSEDED

General Notes

The following notes shall be read in conjunction with all design documents, schedules & specifications including but not limited to architectural, structural and services drawings and specifications, and any principal's project requirements documents relating to this project.
All documents to be read in conjunction with & comply with all reports including but not limited to bldg surveyor, acoustics, fire & esd reports.
All work shall comply with NCC/ relevant authority requirements and Australian Standards (AS.) Codes for trades.
Do not scale off this drawing.
Contractor shall verify all dimensions on site.
Contractor shall report any discrepancy in the documents to the architect for clarification prior to the affected work proceeding.
Contractor to confirm setout with architect prior to construction.
All levels are to australian height datum (AHD) u.n.o.
All materials and fittings to be fixed in strict accordance with the manufacturers current specification and recommendation.
Expansion, control or construction joints for all materials/systems to be provided in accordance with manufacturers instructions. Locations of joints to be confirmed on site with architect prior to installation.
Refer to surveyors drawings check survey and detail drawing to locate and confirm all existing services, pipes poles, embankments, pits and like prior to commencing any work.
Refer to civil eng dwgs for existing and new water, drainage design and associated site works design and detail. Refer to civil eng and landscape dwgs for all roadway, paving, surface, surfaced finished surface levels.
Refer to the acoustic report for required acoustic specification & details. All acoustic requirements to meet minimum ncc u.n.o.
Refer window schedule and/or facade eng details for all glass, frame types and finishes etc.
All dimensions to be verified prior to preparation of shop drawings and commencement of construction.
Refer to elevations and/or facade engineer drawings for further finishes and panel setout information - confirm with architect prior to manufacture and/or installation.
All exposed steel to be hot dipped galvanised, refer finishes schedule for any painting requirements.
All silicon sealant to be colour matched to adjacent surface u.n.o.
All door hardware to be fixed at 1050mm a.f.f.l. u.n.o. refer door schedule for door/frame details and size.
All glazing to comply with current versions of AS 1288 and AS 2047.
Ensure flush transition between different floor finishes, provide flush aluminium angle between different floor surfaces.
Any services penetrating a fire rated/ acoustic wall or slab are to be appropriately sealed to NCC/authority approved method/materials in accordance with minimum frl/acoustic/ fire engineering requirements u.n.o.
Ceiling framing systems documented are indicative only. Framing installation to comply with manufacturers recommendations & set out accordingly for design/documentation intent.
Fire indexes of materials, linings and surface finishes to comply with C1.10 of NCC.
All wall types including but not limited to linings and insulation is to be full height to underside of slab u.n.o. ensure stud gauge/centres is suitable for proposed installation in accordance with manufacturers installation requirements.

MERIMBULA ALDI

Project
103 MAIN STREET,
MERIMBULA, NSW, 2548

27/09/2017 4:57:37 PM

Client
ALDI STORES

PRELIMINARY
NOT FOR CONSTRUCTION

Project No	Date
216142	**14/08/17**
Drawing No.	Revisio
TP00.00	**P7**

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SUPERSEDED

CAR SPACES	
LEVEL BASEMENT	38
LEVEL STORE	63
	101

Revisions

P8	14.09.17	For Client Rreview	JM
P9	18.09.17	Draft D.A.	AK
P10	25.09.17	Internal reviewv	JM
P11	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:57:50 PM

Project: MERIMBULA ALDI
Drawing: SITE PLAN
Project No: 216142
Date: 01/05/17
Author: JC
Scale: @ A1: 1 : 500
Drawing No.: TP00.01 P11

103 MAIN STREET,
MERIMBULA, NSW, 2548

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Revisions

P4	14.09.17	For Client Rreview	JM
P5	18.09.17	Draft D.A.	AK
P6	25.09.17	Internal reviewv	JM
P7	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:57:51 PM

Project **MERIMBULA ALDI**

Drawing **SITE SURVEY**

Project No **216142**

Date **14/08/17**

Author **JC**

Scale: @ A1 **1 : 500**

Drawing No. **TP00.02 P7**

103 MAIN STREET,
MERIMBULA, NSW, 2548

SURVEYS CONDUCTED BY:
CADDEY SEARL & JARMAN CONSULTING SURVEYORS ON 30/05/2017 AND 01/09/2017

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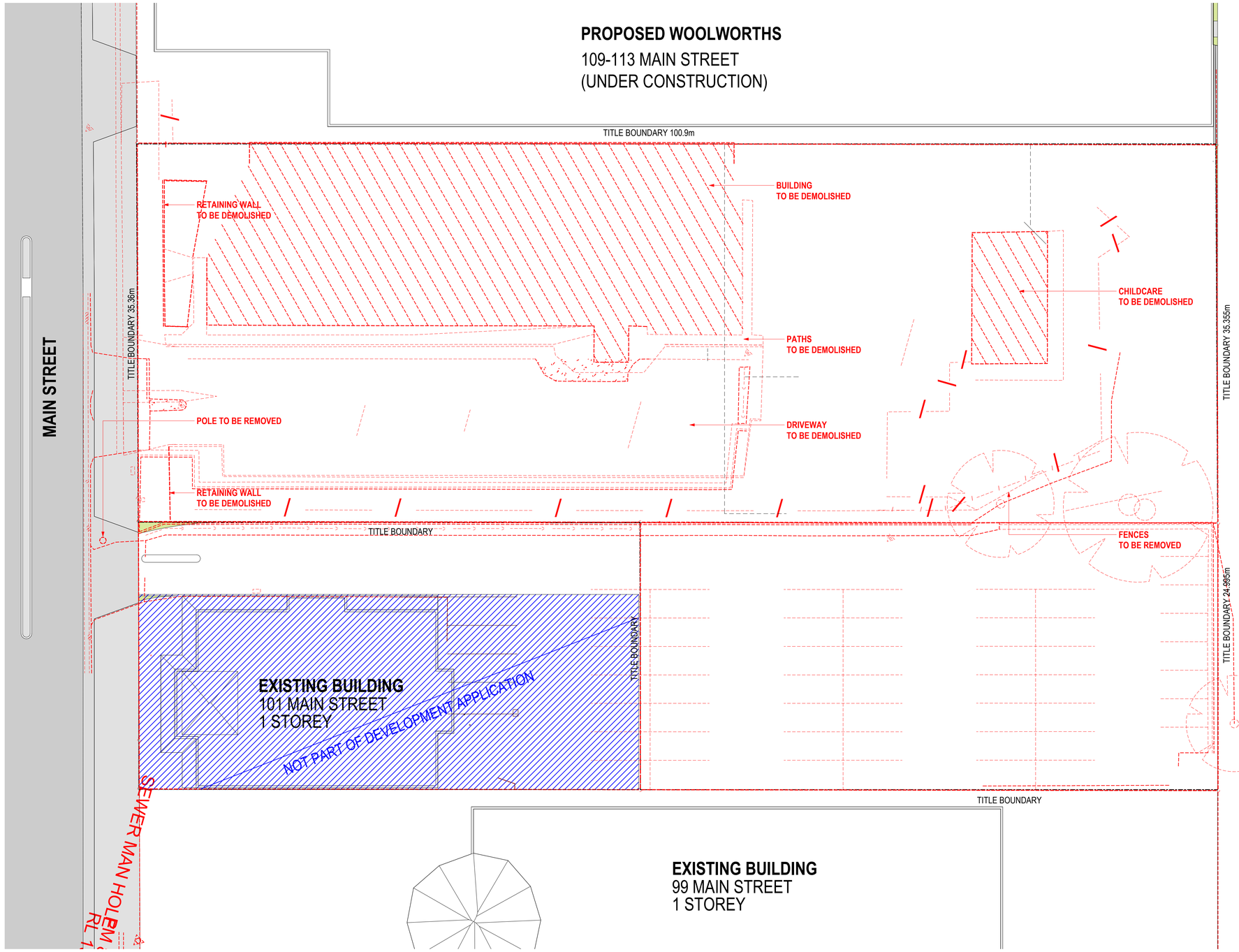

DEMOLITION NOTES

CONTRACTOR TO CONFIRM EXISTING CONDITIONS ON SITE.

CONTRACTOR TO DEMOLISH EXISTING STRUCTURE/REMOVE ALL MATERIALS. CUT AND SEAL SERVICES AS REQUIRED IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS AND A.S. CODES FOR THAT TRADE U.N.O

PROTECTION OF WORKS AS REQUIRED BY LOCAL AUTHORITIES

CLEANING OF SITE TO EPA REQUIREMENTS BY CONTRACTOR

ASBESTOS
CONTRACTOR TO ALLOW FOR COMPLETE DEMOLITION & REMOVAL OF ALL ASBESTOS PRODUCTS. ALL ASBESTOS PRODUCTS TO BE REMOVED & HANDLED AS PER RELEVANT AUSTRALIAN STANDARDS

EXTENT OF DEMOLITION WORK AS INDICATED ON THIS DRAWING & HERITAGE CONSULTANTS DRAWINGS & SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING:

REMOVAL/DEMOLITION OF ALL EXISTING FLOOR/SLABS & FOOTINGS, EXTERNAL AND INTERNAL WALLS, WINDOWS, DOORS, CLADDING, GUTTERS, DOWNPIPES, RAINWATER HEADS, CAPPINGS, FLASHING GUTTER BOARD SUPPORTS ETC. U.N.O

REMOVAL/DEMOLITION OF ALL EXISTING WORKS INCLUDING BUT NOT LIMITED TO EXTERNAL STEPS, PATHS, CARPARKS, PLANTERS & LANDSCAPING, GATES, FENCES, GARDEN WALLS, RETAINING WALLS, BOLLARDS, LIGHT BLADES SIGNS, COLUMNS ETC. U.N.O

REMOVAL/DEMOLITION OF ALL EXISTING FIXTURES AND FITTINGS INCLUDING BUT NOT LIMITED TO LIGHTS, TAPS, BASINS, WCS ETC. DISCONNECTION & REMOVAL OF EXISTING SERVICES TO BE UNDERTAKEN BY APPROPRIATE CONTRACTORS

CONTRACTOR TO MAKE GOOD DAMAGE TO ADJOINING BUILDINGS, PAVEMENT, LANEWAYS, ROADS, FENCES, KERBS, CHANNELS, SERVICES, STREET FURNITURE, CARSPACE MARKINGS ETC. (IE. ANY ADJOINING OBJECTS/MATERIALS NOT WITHIN SITE BOUNDARY) RESULTING FROM DEMOLITION WORKS.

ALL REPAIRS TO AUTHORITY REQUIREMENTS OR TO CONDITION PRIOR TO DEMOLITION. CONTRACTORS ARE RESPONSIBLE FOR RELOCATION AND CO-ORDINATION OF ROAD CARPARKING MARKINGS, TICKET MACHINES ETC.

PRELIMINARY
PRECAUTIONARY MEASURES TO BE UNDERTAKEN AS DESCRIBED IN AS.2601-2001. A "HAZARDOUS SUBSTANCES MANAGEMENT PLAN" IS TO BE IMPLEMENTED BEFORE AND DURING DEMOLITION. IF THE PRELIMINARY INVESTIGATION OF THE BUILDING IDENTIFIES ANY HAZARDOUS MATERIALS CONTAINED THEREIN. THESE MATERIALS WILL BE REMOVED AS PER THE GUIDELINES OF THE RESPONSIBLE AUTHORITY AND CLEARANCE CERTIFICATE OBTAINED BEFORE DEMOLITION COMMENCES

SAFETY FENCING
SECURITY FENCES SHALL BE PROVIDED TO THE STREET BOUNDARY OF THE DEMOLITION SITE AND ANY ADDITIONAL PRECAUTIONARY MEASURES, TAKEN AS MAY BE NECESSARY TO PREVENT UNAUTHORISED ENTRY TO THE SITE, WHERE THE DEMOLITION SITE ADJOINS A PUBLIC THOROUGHFARE THE COMMON BOUNDARY BETWEEN THEM SHALL BE FENCED FOR ITS FULL LENGTH WITH A HOARDING UNLESS THE LEAST HORIZONTAL DISTANCE BETWEEN THE COMMON BOUNDARY AND THE NEAREST PART OF THE STRUCTURE IS GREATER THAN TWICE THE HEIGHT OF THE STRUCTURE. THE FENCING SHALL BE THE EQUIVALENT OF THE CHAIN WIRE AS SPECIFIED IN AS.1725

NOTICES LETTERED IN ACCORDANCE WITH AS.1319 AND DISPLAYING THE WORDS "WARNING DEMOLITION IN PROGRESS", OR SIMILAR, SHALL BE FIXED TO THE FENCING AT APPROPRIATE PLACES TO WARN THE PUBLIC. PROVISION SHALL BE MADE FOR READY ACCESS TO THE SITE BY EMERGENCY SERVICES PERSONNEL IN THE EVENT OF FIRE OR ACCIDENT

DEMOLITION WORK
STRUCTURES SHALL BE DEMOLISHED IN THE REVERSE ORDER TO THAT OF THEIR CONSTRUCTION. THE ORDER OF DEMOLITION FOR BUILDINGS SHALL BE PROGRESSIVE, STOREY BY STOREY, HAVING PROPER REGARD TO THE TYPE OF CONSTRUCTION. NO PART OF ANY STRUCTURE SHALL BE LEFT UNSUPPORTED OR UNATTENDED IN SUCH A CONDITION THAT IT MAY COLLAPSE OR BECOME DANGEROUS. PRECAUTIONS SHALL BE TAKEN TO ENSURE THAT THE STABILITY OF ALL PARTS OF THE STRUCTURE, AND THE SAFETY OF PERSONS ON AND OUTSIDE THE SITE, WILL BE MAINTAINED IN THE EVENT OF SUDDEN AND SEVERE WEATHER CHANGES.

WALLS ON THE BOUNDARIES ARE TO BE DEMOLISHED IN A SAFE AND WORKMANSHIP LIKE MANNER. WALLS SHALL NOT BE LATERALLY LOADED BY ACCUMULATED DEBRIS OR RUBBLE, TO THE EXTENT THAT THEY ARE IN DANGER OF COLLAPSE, ALLOWABLE LOADING OF THE SUSPENDED FLOORS SHALL BE DETERMINED BY AN INDEPENDENT STRUCTURAL ENGINEER.

DUST CONTROL
THE TECHNIQUES ADOPTED FOR STRIPPING OUT AND FOR DEMOLITION SHALL MINIMISE THE RELEASE OF DUST INTO THE ATMOSPHERE. BEFORE THE COMMENCEMENT OF STRIPPING OR DEMOLITION IN AN AREA OF A STRUCTURE, ANY EXISTING ACCUMULATIONS OF DUST IN THAT AREA SHALL BE COLLECTED, PLACED IN SUITABLE CONTAINERS AND REMOVED. SELECTION OF AN APPROPRIATE COLLECTION TECHNIQUE, SUCH AS VACUUMING OR HOSING DOWN, SHALL TAKE DUE ACCOUNT OF THE NATURE OF THE DUST AND THE TYPE OF HAZARD IT PRESENTS. DUST GENERATED DURING STRIPPING, OR DURING THE BREAKING DOWN OF THE BUILDING FABRIC TO REMOVABLE SIZED PIECES, SHALL BE KEPT DAMP UNTIL IT IS REMOVED FROM THE SITE OR CAN BE OTHERWISE CONTAINED. THE USE OF EXCESS WATER FOR THIS PURPOSED SHALL BE AVOIDED.

NOISE CONTROL
NOISE SHALL BE MINIMISED AS FAR AS PRACTICABLE, BY THE SELECTION OF APPROPRIATE METHODS AND EQUIPMENT, AND BY THE USE OF SILENCING DEVICES WHEREVER PRACTICABLE TO EPA/CODE REQUIREMENTS.

NOTE:
1. ATTENTION IS DRAWN TO RECOMMENDATIONS IN AS.2436
2. HOURS OF OPERATING EQUIPMENT MAY BE RESTRICTED BY REGULATORY AUTHORITY

FIRE SERVICES
WHERE A FIRE HYDRANT SERVICE OR A FIRE HOSE REEL SERVICE IS PROVIDED IN A BUILDING, IT SHALL BE AVAILABLE AT ALL TIMES DURING THE DEMOLITION OF THE BUILDING, SO THAT ALL REMAINING STOREYS EXCEPT THE TWO UPPERMOST STOREYS, ARE SERVICED. ACCESS TO THE FIRE PROTECTION SERVICES, INCLUDING ANY BOOSTER FITTING, SHALL BE MAINTAINED AT ALL TIMES. IF A SPRINKLER SYSTEM IS INSTALLED IN A BUILDING TO BE DEMOLISHED, IT SHALL BE MAINTAINED IN AN OPERABLE CONDITION AT EACH STOREY BELOW THE TWO UPPERMOST UNSTRIPPED STOREYS.

SUITABLE PORTABLE FIRE EXTINGUISHERS SHALL BE KEPT AT ALL TIMES IN WORKING AREA AND ARE NOT PROTECTED BY OTHER FIRE SERVICES, AND MAINTAINED IN AN OPERABLE CONDITION.

ADJOINING PROPERTIES
SAFE ACCESS TO AND EGRESS FROM ADJOINING BUILDINGS SHALL BE MAINTAINED AT ALL TIMES FOR THE DURATION OF THE DEMOLITION WORK. NO DEMOLITION ACTIVITY SHALL CAUSE DAMAGE TO OR ADVERSELY AFFECT THE STRUCTURAL INTEGRITY OF ADJOINING BUILDINGS. THE EFFECTS OF VIBRATION AND CONVERSION ON ADJOINING BUILDINGS AND THEIR OCCUPANTS SHALL BE MINIMISED BY SELECTING DEMOLITION METHODS AND EQUIPMENT APPROPRIATE TO THE CIRCUMSTANCES. WHERE ANY SURFACE OF AN ADJOINING BUILDING IS EXPOSED BY DEMOLITION, THE NEED FOR WEATHERPROOFING THE EXPOSED SURFACE SHALL BE INVESTIGATED AND TEMPORARY OR PERMANENT PROTECTION PROVIDED AS APPROPRIATE. PRECAUTIONS SHALL BE TAKEN TO MINIMISE THE SPREADING OF MUD AND DEBRIS BY VEHICLES LEAVING THE SITE.

GENERAL
OPENINGS IN EXISTING WALLS AND FLOORS, THROUGH WHICH THERE IS A RISK OF PERSONS FALLING TO LOWER LEVEL, SHALL BE EITHER PROPERLY GUARDED OR BOARDED OVER AND THE BOARDING SECURED AGAINST UNAUTHORISED OR ACCIDENTAL REMOVAL. PRECAUTIONS SHALL BE TAKEN TO PREVENT GLASS FROM FALLING ON ANY PERSON IN OR OUTSIDE THE BUILDING. DEMOLISHED MATERIAL SHALL NOT BE ALLOWED TO FALL FREELY OUTSIDE THE STRUCTURE UNLESS IT IS CONFINED WITHIN A CHUTE OR SIMILAR ENCLOSURE, WHICH IS CLEAR OF OBSTRUCTIONS TO OBJECTS FALLING FREELY.

DEMOLISHED MATERIAL SHALL BE REMOVED PROGRESSIVELY FROM THE SITE AND AT ANY TIME, SHALL NOT BE ALLOWED TO ACCUMULATE TO THE EXTENT THAT IT PRESENTS A HAZARD TO THE PUBLIC OR TO SITE PERSONNEL.

ALL DRAWINGS TO BE READ IN CONJUNCTION WITH HERITAGE CONSULTANTS DRAWINGS AND SPECIFICATIONS

SITE PROTECTION/SHORING LEGEND
PERMANENT SITE SHORING
TEMPORARY SITE SHORING
NOTE:
REFER STRUCTURAL ENGINEERS DRAWINGS FOR ALL SITE PROTECTION AND SHORING DETAILS

NOTE: SEE CIVIL ENGINEERS DRAWING FOR EXTENT OF DEMOLITION

Revisions

P1	14.09.17	For Client Rreview	JM
P2	18.09.17	Draft D.A.	AK
P3	25.09.17	Internal reviewv	JM
P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:57:59 PM

LEGEND

TREES TO BE REMOVED

STRUCTURES TO BE DEMOLISHED

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **DEMOLITION PLAN**
Project No: **216142**
Date: **12/09/17**
Author: **JN**
Scale: @ A1 **1 : 200**
Drawing No.: **TP00.03 P4**

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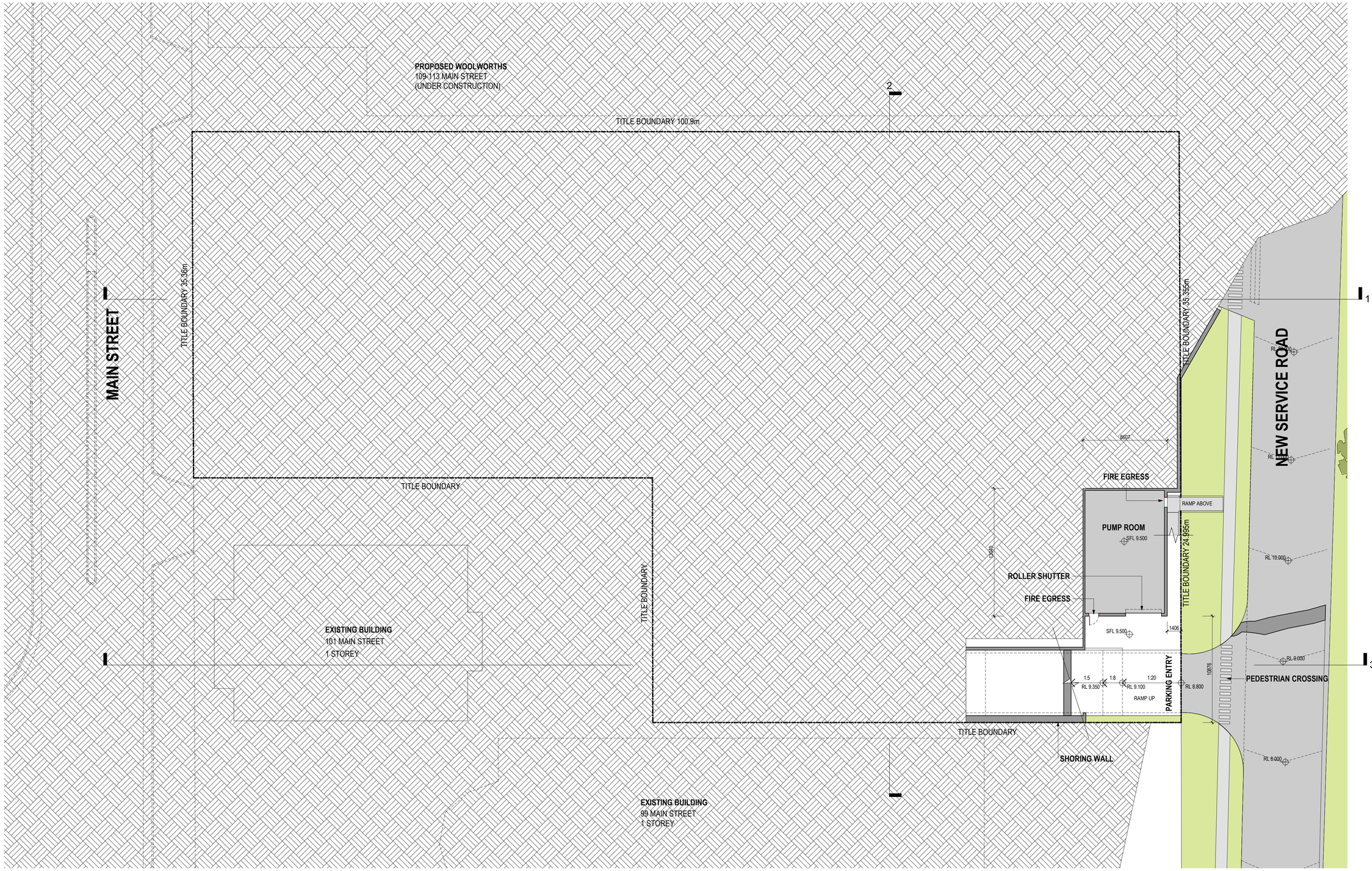

Revisions

P5	18.09.17	Draft D.A.	AK
P6	25.09.17	Coordination	JM
P7	25.09.17	Internal reviewv	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:58:05 PM

Project: **MERIMBULA ALDI**

Drawing: **LEVEL NEW SERVICES RD PLAN**

Project No: **216142**

Date: **14/08/17**

Author: **JC**

Scale: @ A1 **1 : 200**

Drawing No.: **TP01.01 P8**

103 MAIN STREET,
MERIMBULA, NSW, 2548

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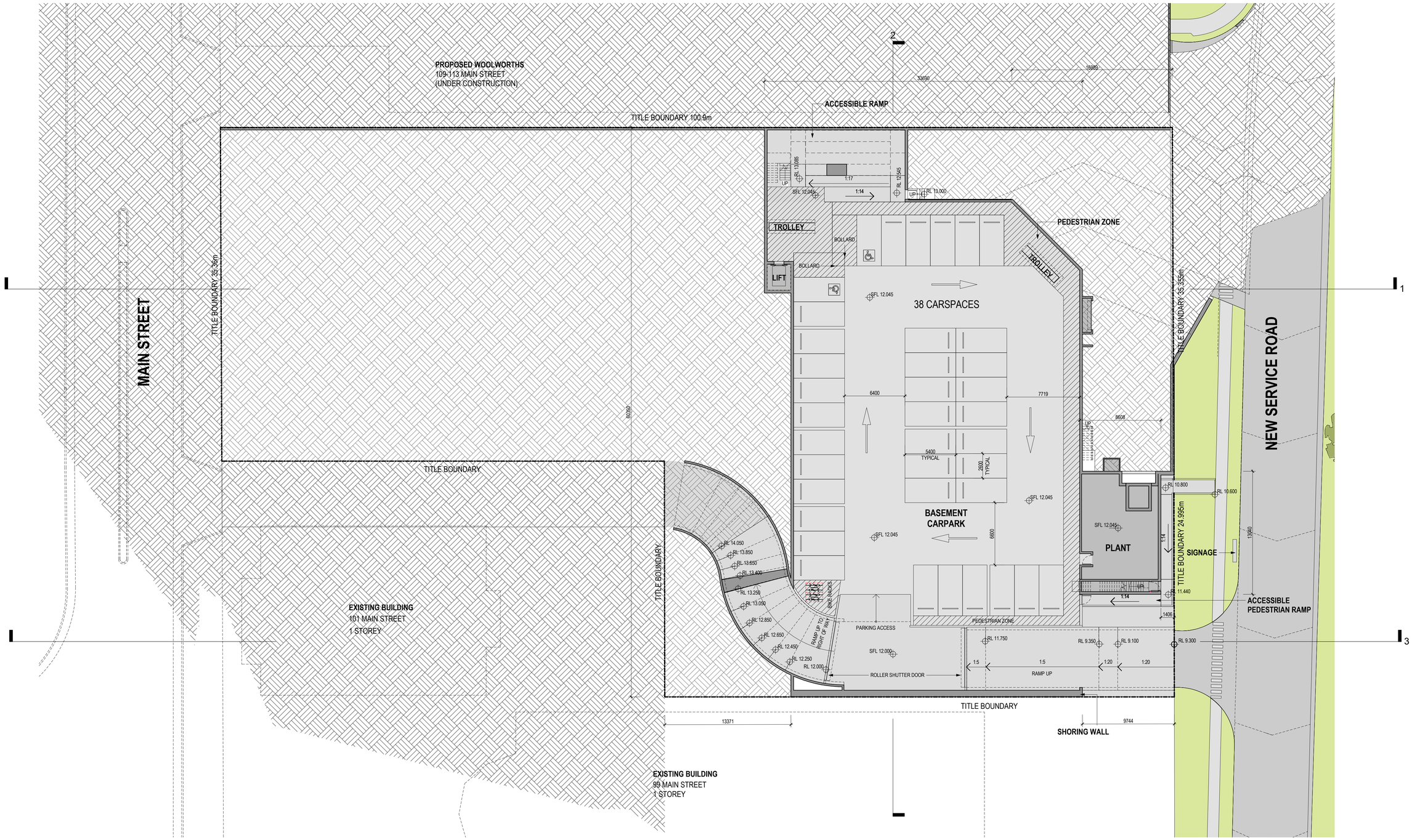

CAR SPACES	
LEVEL BASEMENT	38
LEVEL STORE	63
	101

Revisions

P9	18.09.17	Draft D.A.	AK
P10	25.09.17	Coordination	JM
P11	25.09.17	Internal review	JM
P12	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:58:15 PM

Project: **MERIMBULA ALDI**

Drawing: **LEVEL BASEMENT PLAN**

Project No: **216142**

Date: **03/05/17**

Author: **JC**

Scale: @ A1 **1 : 200**

Drawing No.: **TP01.02 P12**

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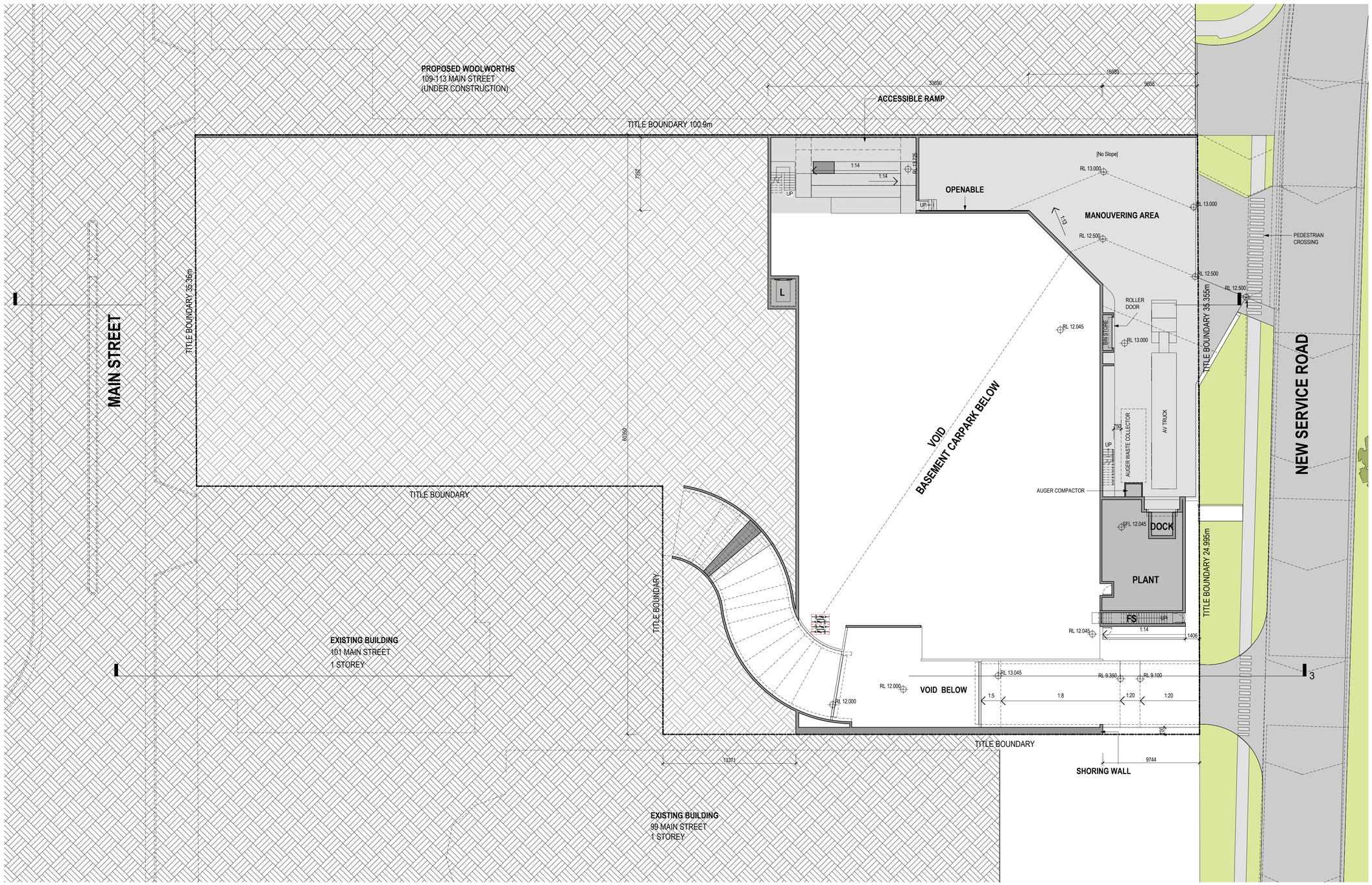

Revisions

P5	18.09.17	Draft D.A.	AK
P6	25.09.17	Coordination	JM
P7	25.09.17	Internal revirew	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:58:23 PM

Project: **MERIMBULA ALDI**

Drawing: **LEVEL DOCK PLAN**

Project No: **216142**

Date: **14/08/17**

Author: **JC**

Scale: @ A1: **1 : 200**

Drawing No.: **TP01.03 P8**

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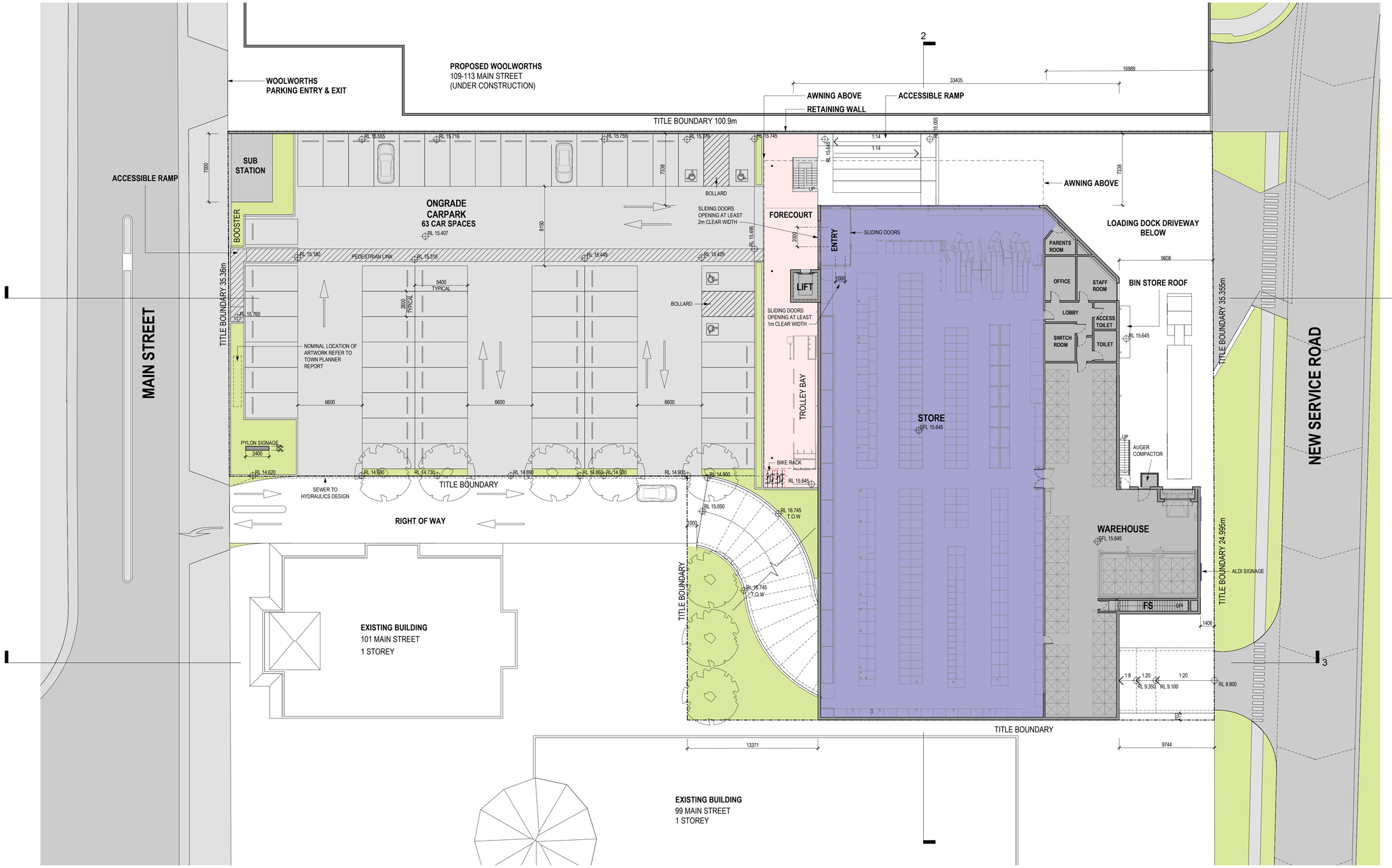
SUPERSEDED



Revisions

P9	18.09.17	Draft D.A.	AK
P10	25.09.17	Coordination	JM
P11	25.09.17	Internal reviewe	JM
P12	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:58:33 PM

Project MERIMBULA ALDI

Drawing LEVEL STORE PLAN

Project No 216142

Date 01/05/17

Author JC

Scale: @ A1 1 : 200

Drawing No. TP01.04 P12

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MERIMBULA, NSW, 2548

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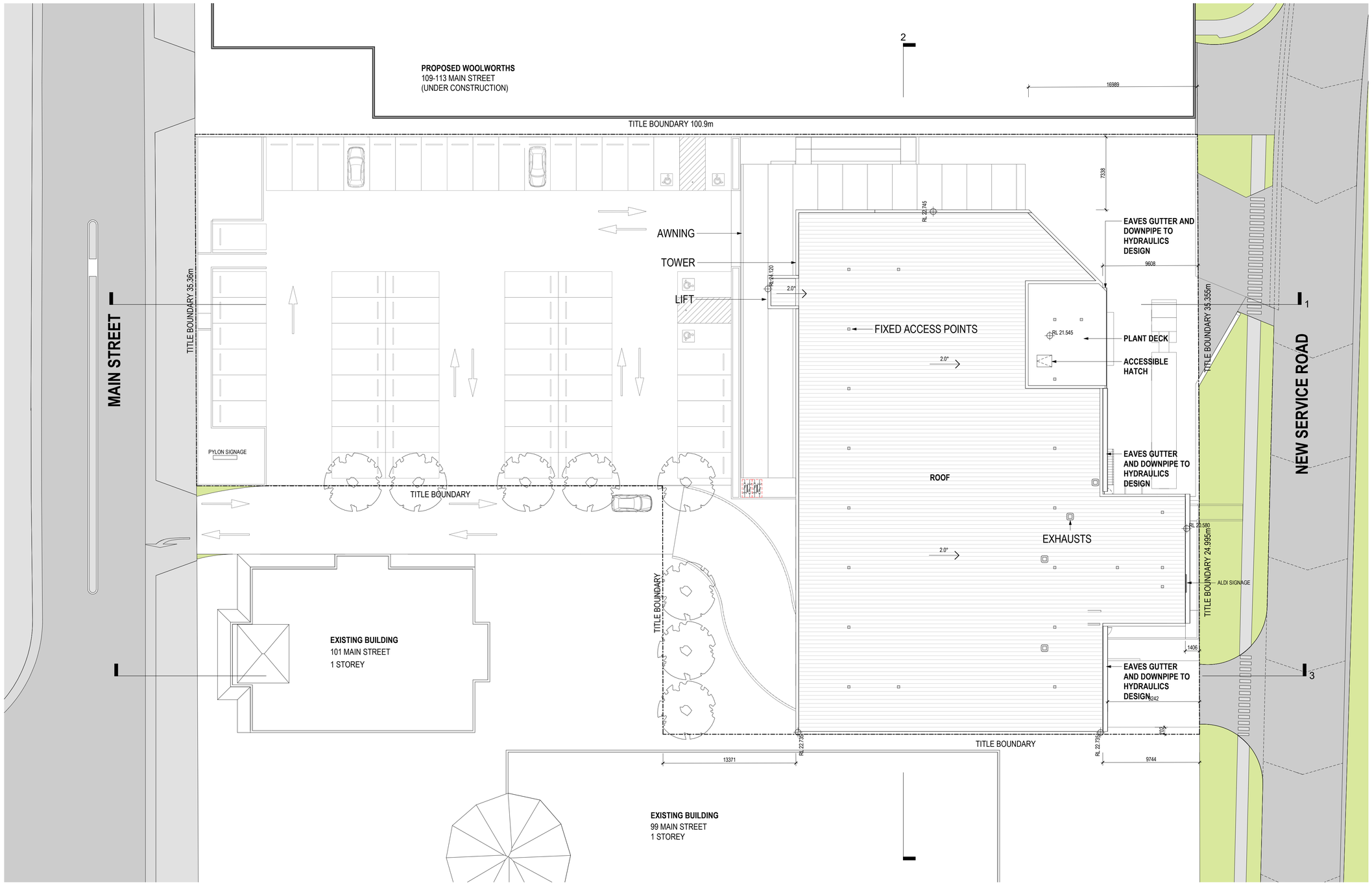

Revisions

P5	14.09.17	For Client Rreview	JM
P6	18.09.17	Draft D.A.	AK
P7	25.09.17	Internal revirew	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:58:42 PM

Project **MERIMBULA ALDI**

Drawing **ROOF PLAN**

Project No **216142**

Date **29/06/17**

Author **JC**

Scale: @ A1 **1 : 200**

Drawing No. **TP01.05 P8**

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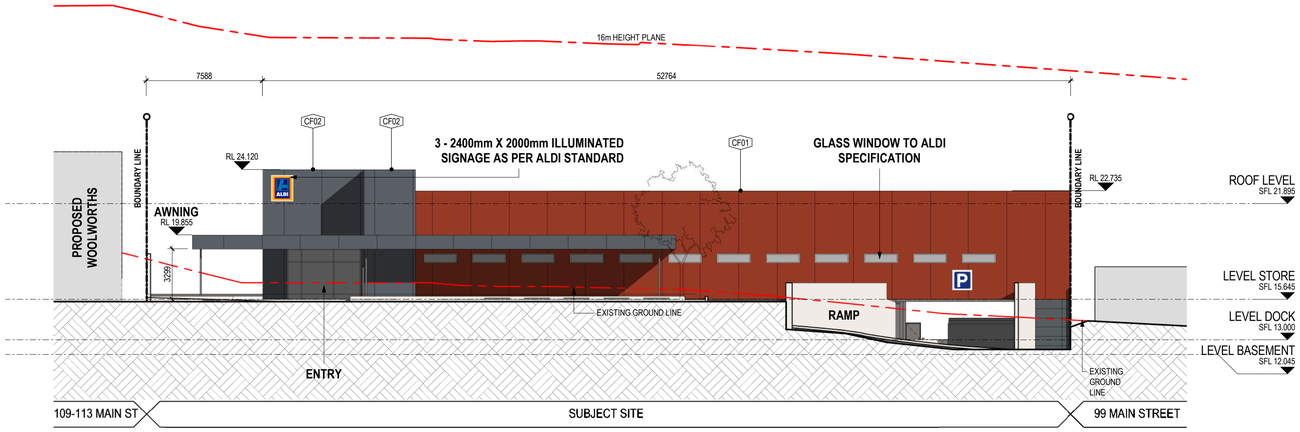
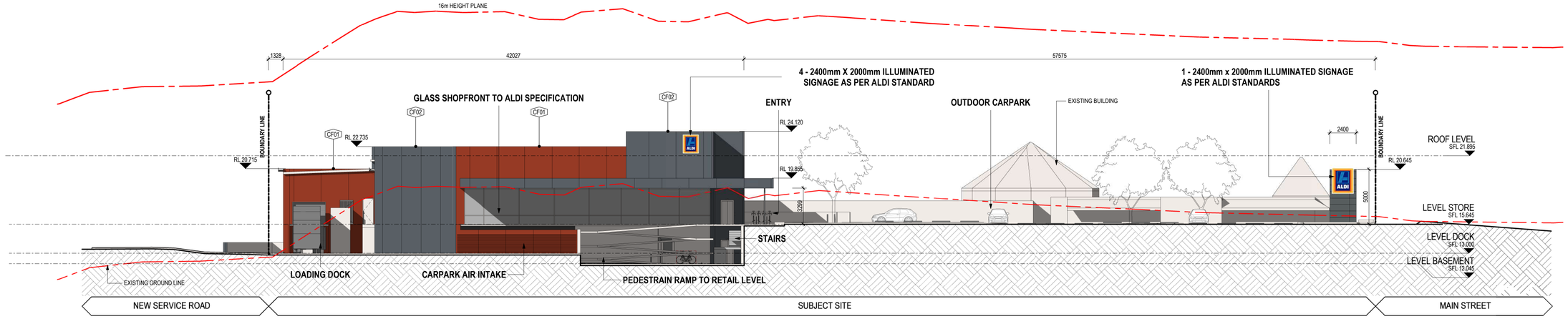


South Building Elevation



West Elevation

Revisions

P10	25.09.17	Internal reviewv	JM
P11	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
	10.10.17	D.A. Submission: Notes Added Regarding Signage	AK

10/10/2017 11:07:34 AM

FINISHES
REFER TO MATERIAL SELECTIONS FOR DESCRIPTION AND COLOUR

MF01 METAL FINISH TYPE 01

CF01 CONCRETE FINISH TYPE 01

CF02 CONCRETE FINISH TYPE 02

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **ELEVATIONS**

Project No: **216142**

Date: **03/05/17**

Author: **AK**

Scale: @ A1 **1 : 200**

Drawing No.: **TP02.01 P11**

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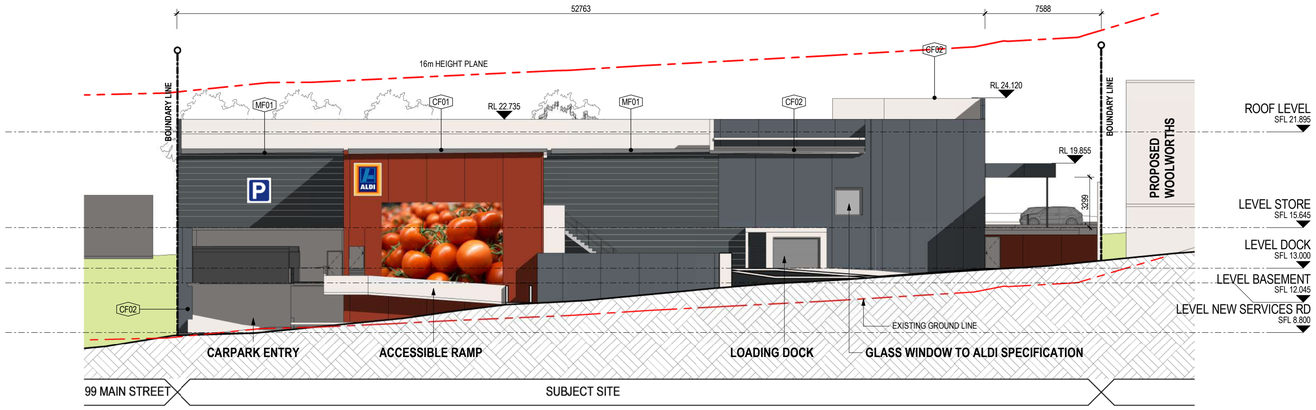
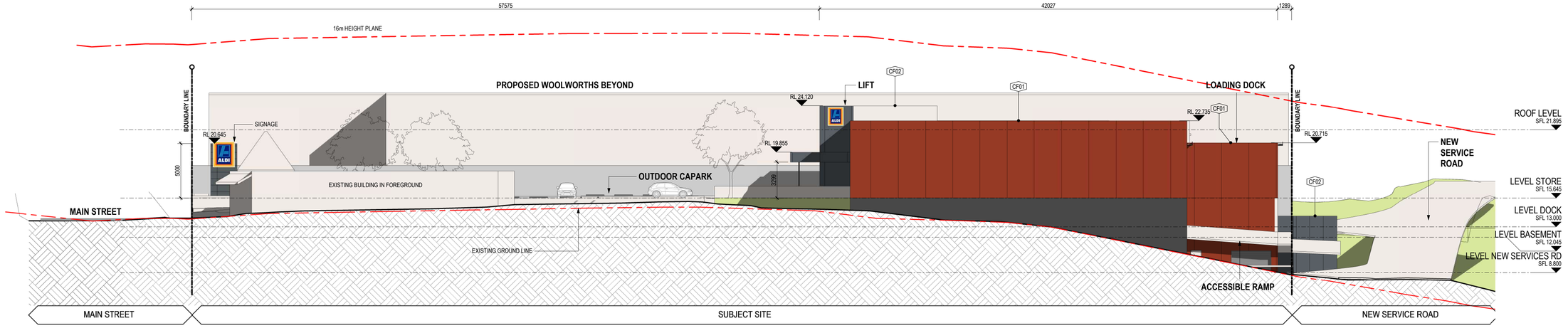


North Elevation



East Elevation

Revisions

P1	18.09.17	Draft D.A.	AK
P2	25.09.17	Internal reviewv	JM
P3	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 5:28:42 PM

FINISHES
REFER TO MATERIAL SELECTIONS FOR DESCRIPTION AND COLOUR

MF01 METAL FINISH TYPE 01

CF01 CONCRETE FINISH TYPE 01

CF02 CONCRETE FINISH TYPE 02

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **ELEVATIONS**

Project No: **216142**

Date: **18/09/17**

Author: **AK**

Scale: @ A1 **1 : 200**

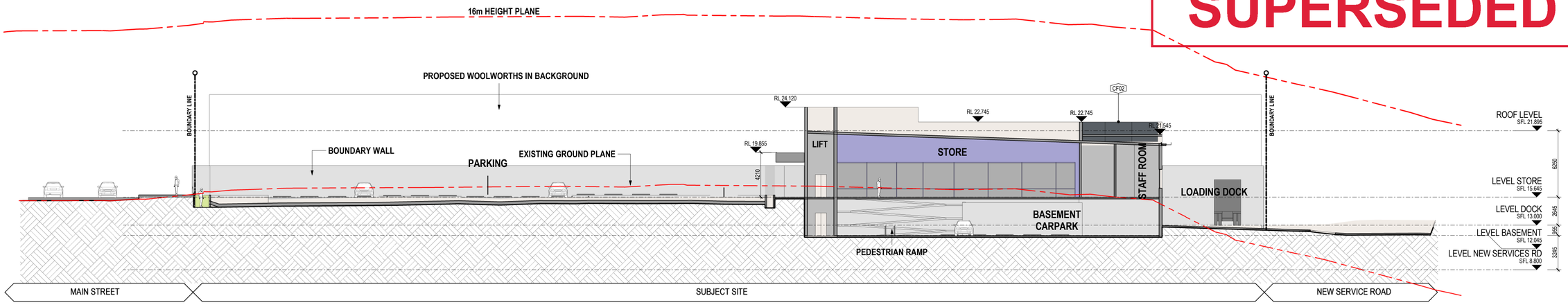
Drawing No.: **TP02.02 P3**

rothelowman

Brisbane, Melbourne, Sydney
www.rothelowman.com.au

SUPERSEDED

Section 1



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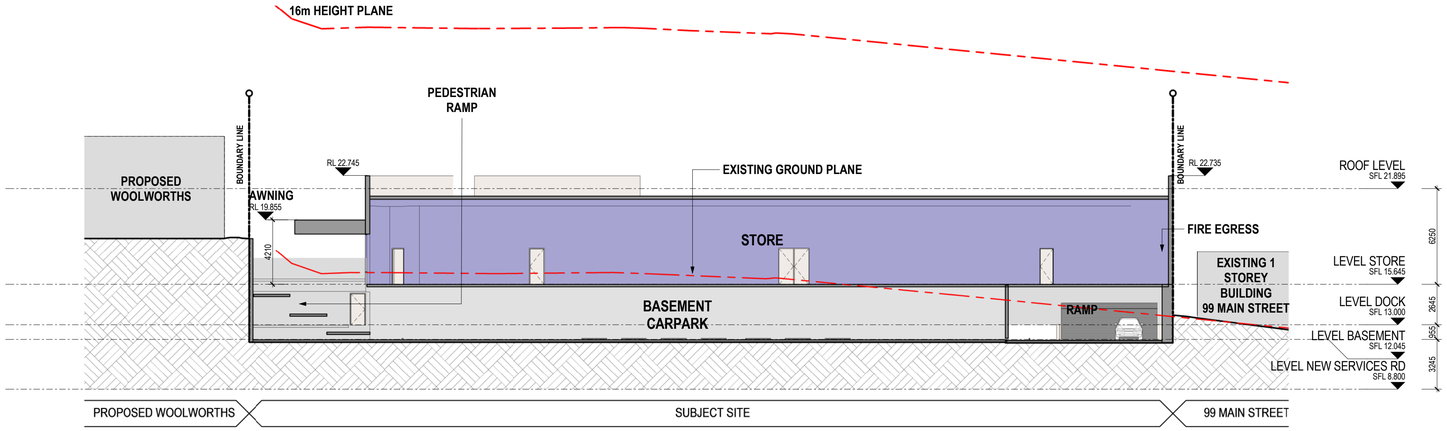
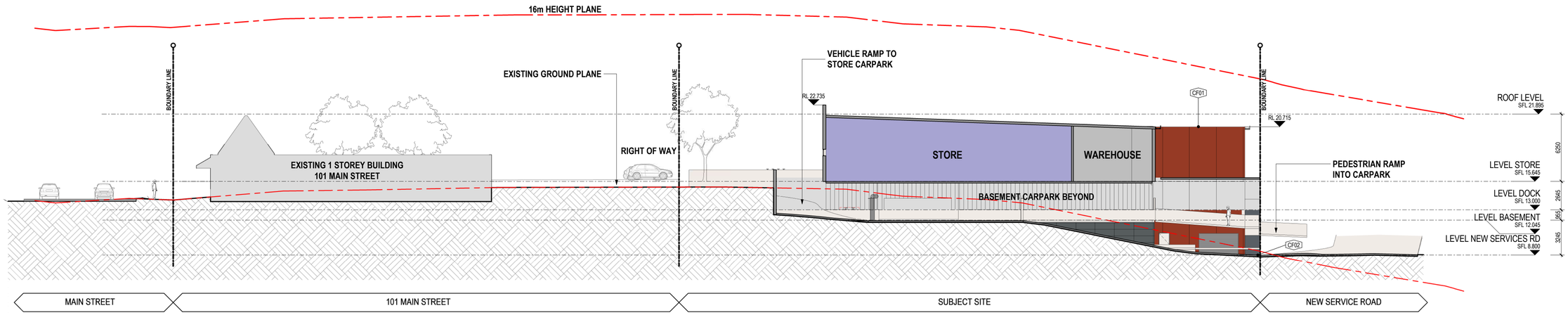


Section 3



Revisions

P7	14.09.17	For Client Rreview	JM
P8	18.09.17	Draft D.A.	AK
P9	25.09.17	Internal reviewv	JM
P10	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:59:09 PM

FINISHES
REFER TO MATERIAL SELECTIONS FOR DESCRIPTION AND COLOUR

MF01 METAL FINISH TYPE 01

CF01 CONCRETE FINISH TYPE 01

CF02 CONCRETE FINISH TYPE 02

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **SECTIONS**

Project No: **216142**

Date: **01/05/17**

Author: **AK**

Scale: @ A1 **1 : 200**

Drawing No.: **TP03.01 P10**

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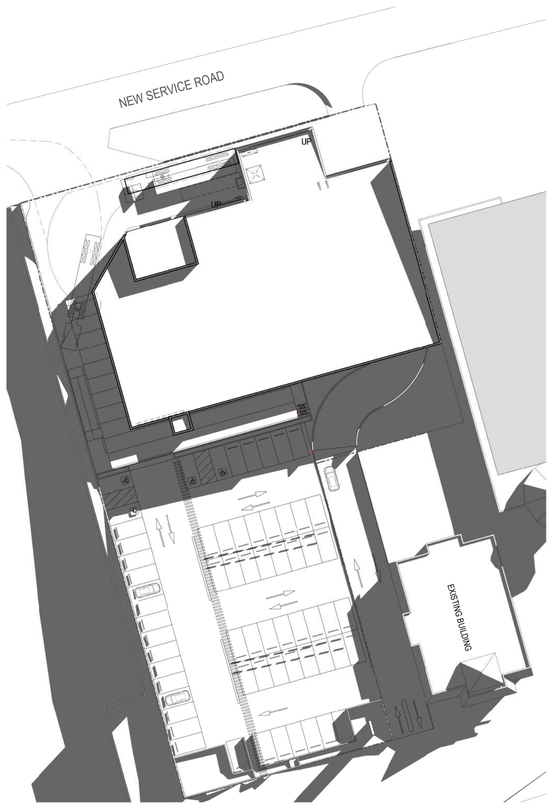
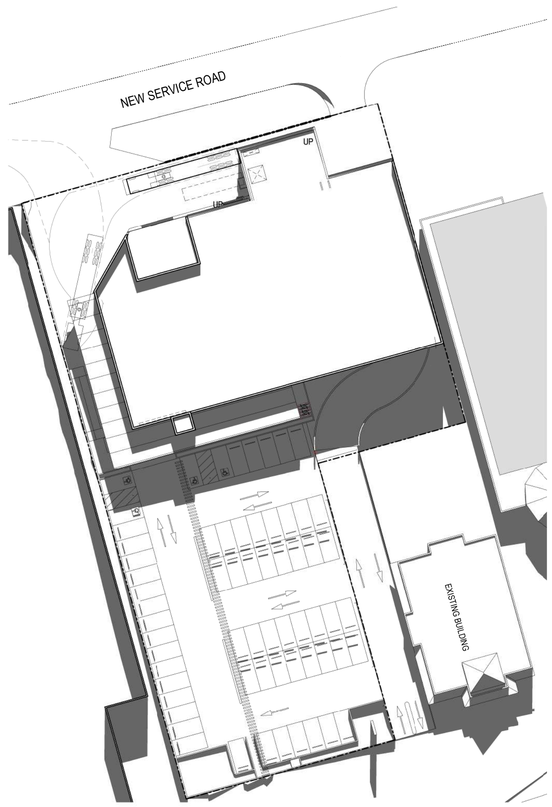
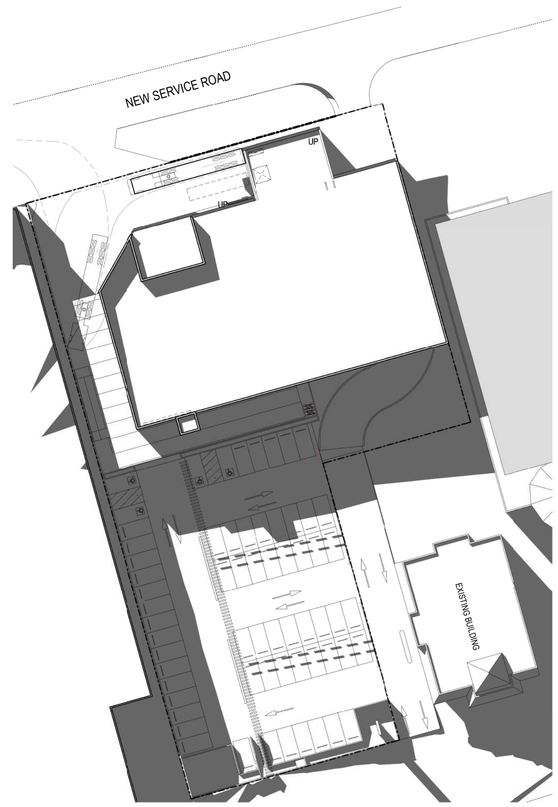


SHADOWS - WINTER SOLSTICE
0900



SHADOWS - WINTER SOLSTICE
1200



SHADOWS - WINTER SOLSTICE
1500

Revisions

P5	14.09.17	For Client Rreview	JM
P6	18.09.17	Draft D.A.	AK
P7	25.09.17	Internal reviewe	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:59:17 PM

Project **MERIMBULA ALDI**

Drawing **SHADOWS**

Project No **216142**

Date **03/05/17**

Author **JC**

Scale: @ A1 **1 : 500**

Drawing No. **TP04.01 P8**

103 MAIN STREET,
MERIMBULA, NSW, 2548

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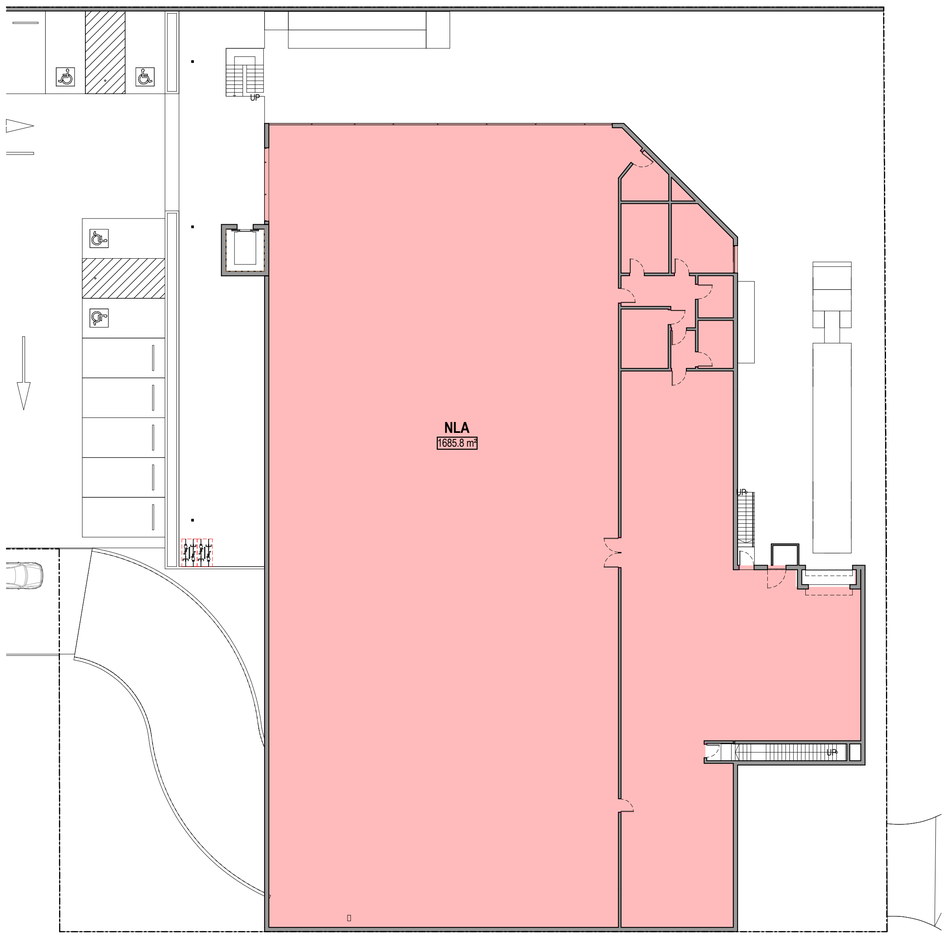
Brisbane, Melbourne, Sydney
www.rothelowman.com.au

SUPERSEDED

GFA - LEVEL STORE

GFA AREA CALCULATIONS
AREA
1286.5 m²

SITE AREA
4917.2 m²



NLA - LEVEL STORE

NLA AREA CALCULATIONS
Area
1685.8 m²

Revisions

P1	14.09.17	For Client Rreview	JM
P2	18.09.17	Draft D.A.	AK
P3	25.09.17	Internal reviewv	JM
P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:59:22 PM

Project: **MERIMBULA ALDI**

103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **GFA & NLA PLAN**

Project No: **216142**

Date: **12.09.17**

Author: **JN**

Scale: @ A1 **1 : 200**

Drawing No.: **TP04.02 P4**

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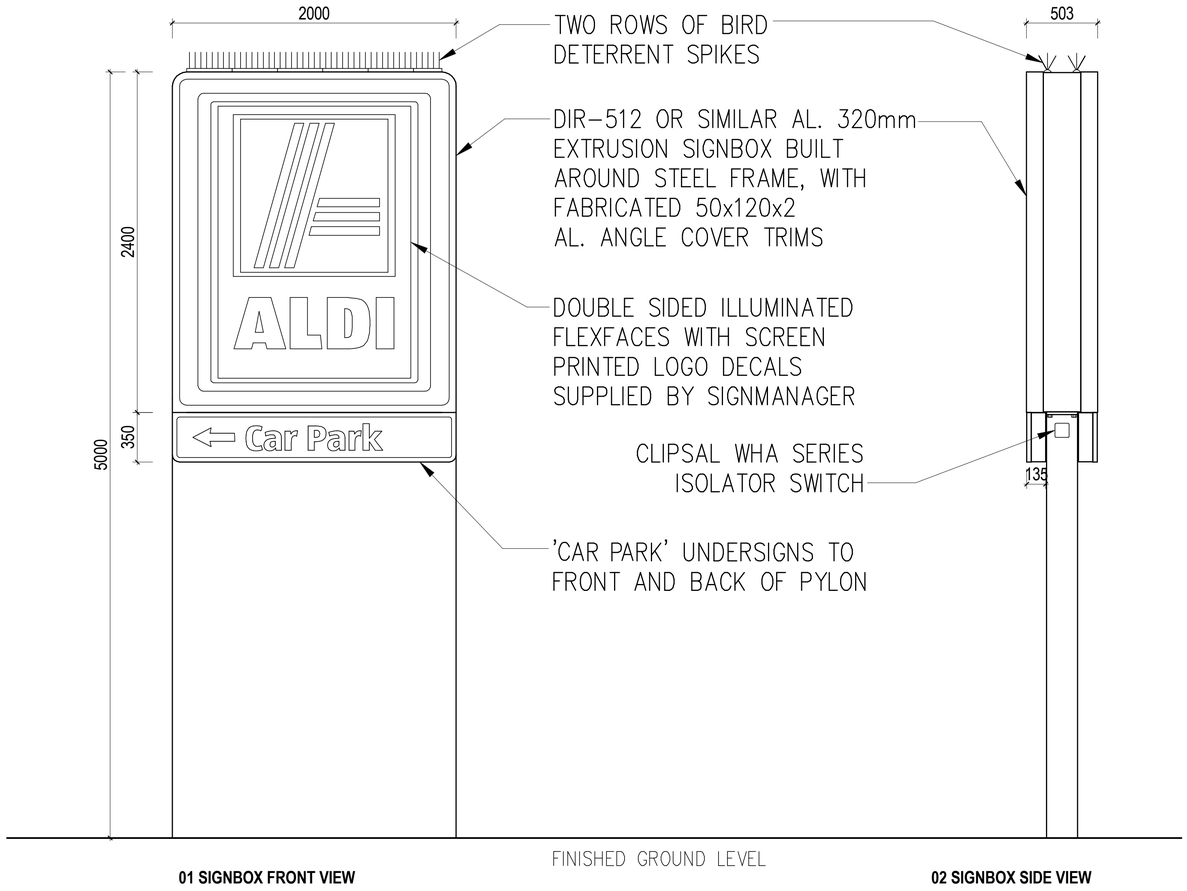
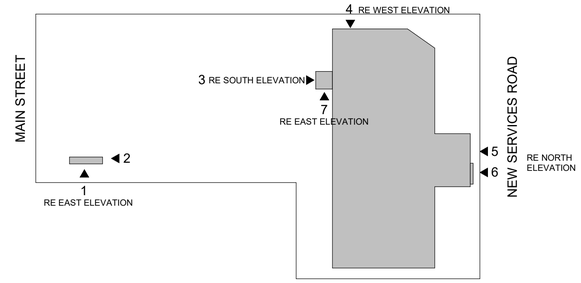
- FOR ILLUMINATED SIGNAGE FIXED ON WALLS, REFER TO ELEVATIONS AS PER KEY PLAN
- FOR SIGNAGE BOX, REFER TO THIS DRAWING
- FOR STATUTORY SIGNAGE, REFER TO ALDI STANDARD DOCUMENTS PRODUCED BY SIGNMANAGER



01 SIGNBOX FRONT VIEW

02 SIGNBOX SIDE VIEW

ALDI SIGNAGE DETAIL



KEY PLAN

ALDI SIGNAGE - MAIN STREET

Revisions

P3	25.09.17	Internal revirew	JM
P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
	10.10.17	D.A. Submission: Notes Added Regarding Signage	AK

10/10/2017 11:07:45 AM

Project: **MERIMBULA ALDI**

103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **SIGNAGE PLAN**

Project No: **216142**

Date: **09/13/17**

Author: **JN**

Scale: @ A1: **As indicated**

Drawing No.: **TP04.03 P4**

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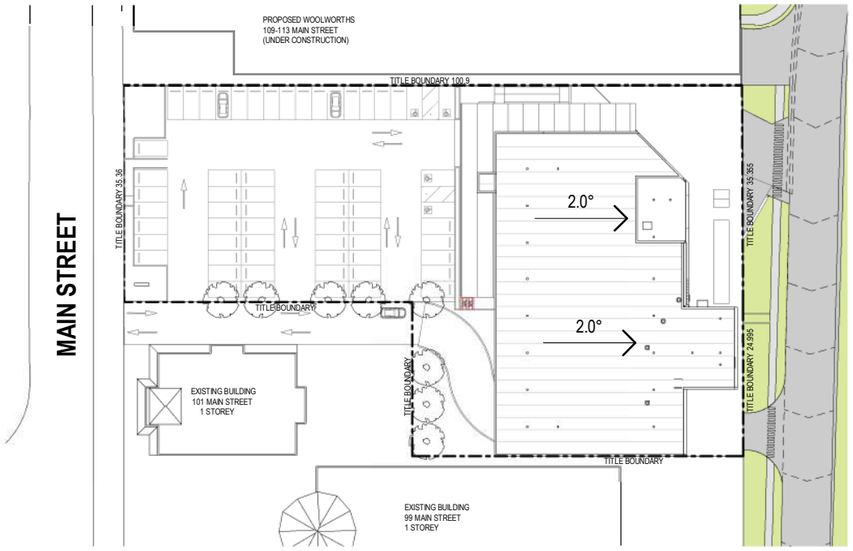
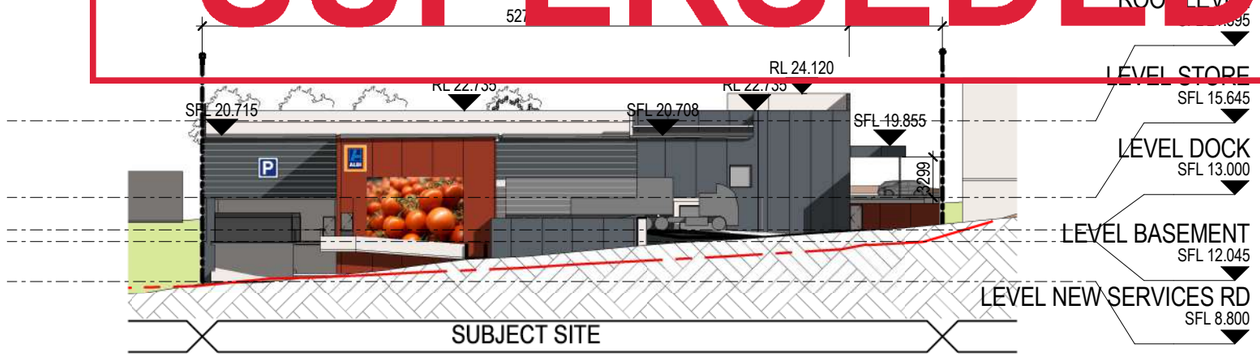
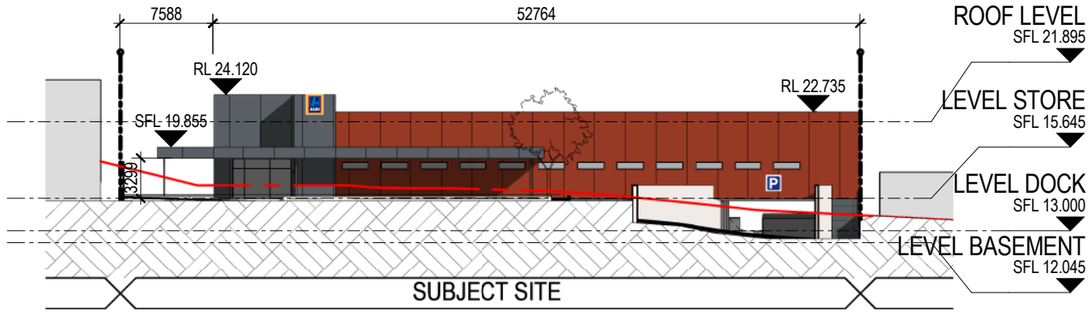


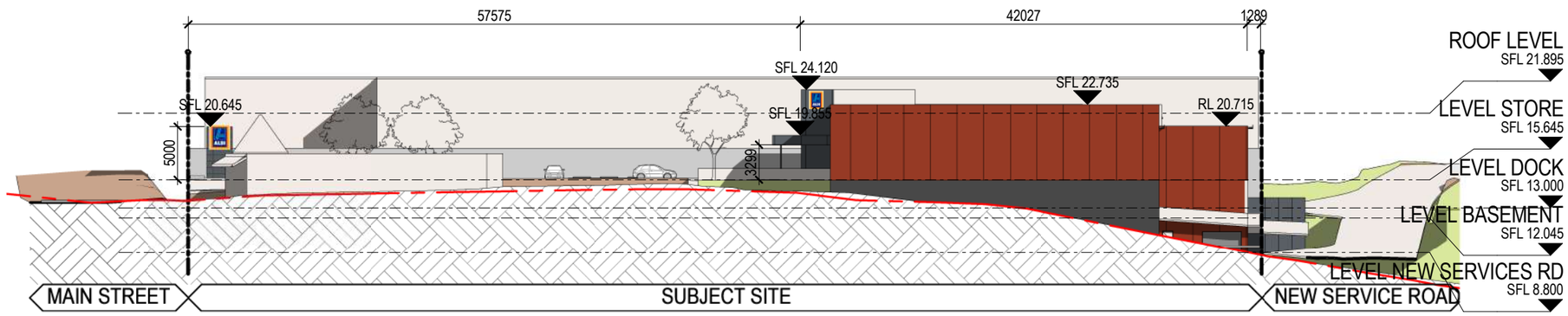
SITE PLAN



NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION

PRELIMINARY

Revisions			
P1	14.09.17	For Client Rreview	JM
P2	18.09.17	Draft D.A.	AK
P3	25.09.17	Internal revirew	JM
P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 5:29:42 PM

Project / **MERIMBULA ALDI**

103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing / **NOTIFICATION PLAN**

Project No / **216142**

Date / **12.09.2017**

Author / **JN**

Scale: @ A3 / **As indicated**

Drawing No. / **TP06.01** **P4**

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www.rothelowman.com.au

DEVELOPMENT SUMMARY

LEVEL	PARKING	NLA RETAIL	CIRCULATION/ SERVICES
LEVEL NEW SERVICES RD	0.0 m²	0.0 m²	102.0 m²
LEVEL BASEMENT	1318.5 m²	0.0 m²	188.0 m²
LEVEL DOCK	507.1 m²	0.0 m²	538.7 m²
LEVEL STORE	1772.6 m²	1201.2 m²	649.7 m²
	3598.2 m²	1201.2 m²	1478.2 m²

*For preliminary feasibility purposes. Areas are not to be used for purpose of lease or sale agreements. Layouts may not comply with building regulations or other regulatory requirements. The information contained in this schedule is believed to be correct at the time of printing. Areas are generally measured in accordance with the Property Council of Australia Method of Measurement.

NOTES AND DEFINITIONS

GFA
(Gross Floor Area) has been calculated as per the definition in the relevant Local Environmental Plan (LEP).

GEA
(Gross Envelope Area) has been calculated as the total enclosed and unenclosed area of the building at all building floor levels measured between the normal outside face of any enclosing walls, balustrades and supports.

GLA RETAIL
(Gross Lettable Area Retail) has been calculated as per the Property Council of Australia *Method of Measurement* Guidelines - Retail / Commercial.

NSA RESIDENTIAL
(Net Saleable Area Residential) has been calculated as per the Property Council of Australia *Method of Measurement* Guidelines - Residential.

SOLAR ACCESS
Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.

CROSS VENTILATION
At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.

LEVEL	CARPARKS RETAIL	BICYCLE PARKS
LEVEL BASEMENT	38	4
LEVEL STORE	63	4
	101	8

Max. Height
16m
Zone
B2

Revisions

P1	14.09.17	For Client Rreview	JM
P2	18.09.17	Draft D.A.	AK
P3	25.09.17	Internal revirew	JM
P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK

27/09/2017 4:59:33 PM

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **DEVELOPMENT SUMMARY**

Project No: **216142**

Date: **18/09/17**

Author: **AK**

Scale: @ A1

Drawing No.: **TP07.01 P4**

rothelowman

Brisbane, Melbourne, Sydney
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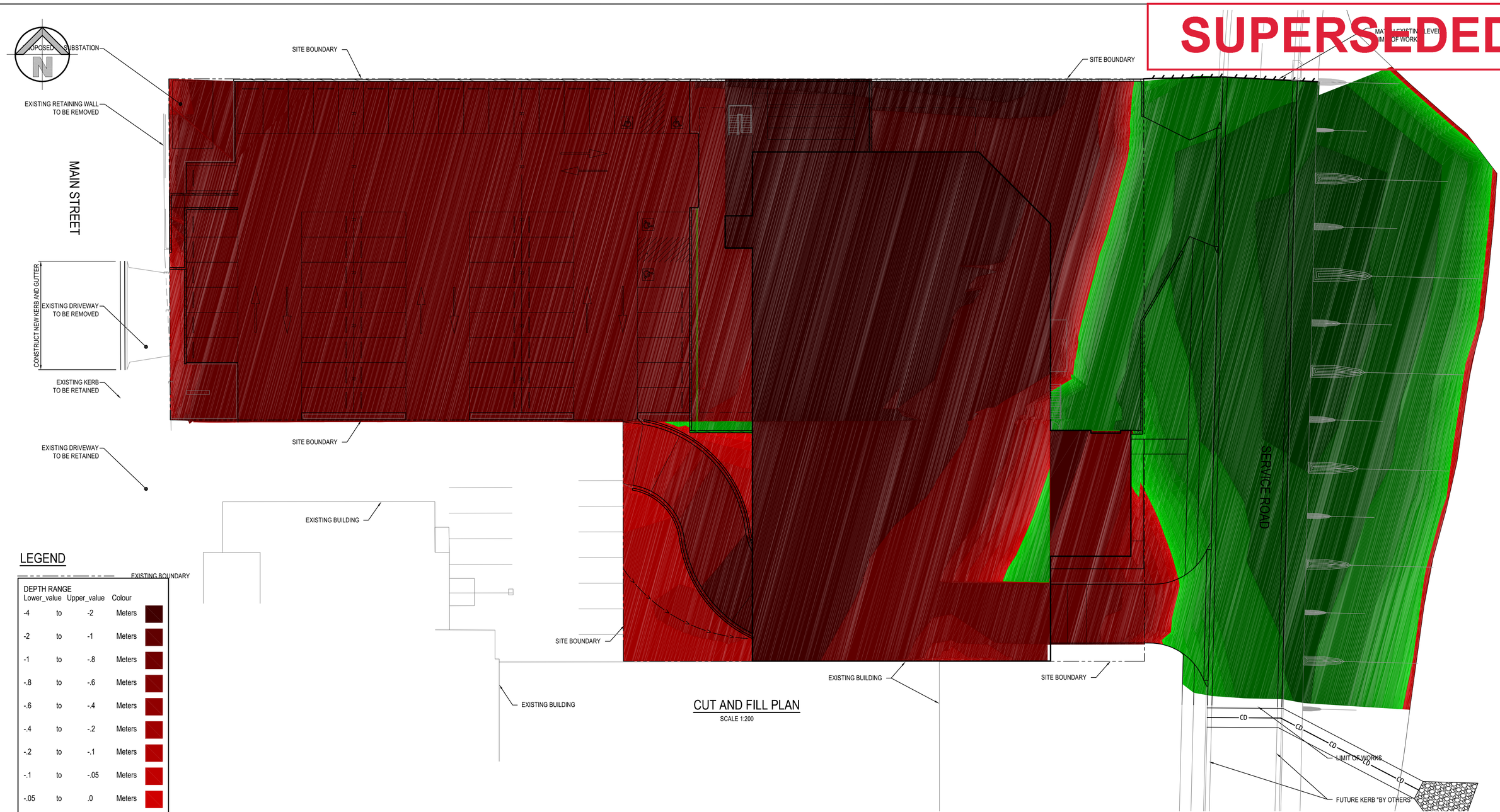
SUPERSEDED



LEGEND

DEPTH RANGE Lower_value		Upper_value	Colour
-4	to	-2	Meters
-2	to	-1	Meters
-1	to	-.8	Meters
-.8	to	-.6	Meters
-.6	to	-.4	Meters
-.4	to	-.2	Meters
-.2	to	-.1	Meters
-.1	to	-.05	Meters
-.05	to	.0	Meters
.0	to	.05	Meters
.05	to	.1	Meters
.1	to	.2	Meters
.2	to	.4	Meters
.4	to	.6	Meters
.6	to	.8	Meters
.8	to	1	Meters
1	to	2	Meters
2	to	4	Meters

0 4 8 12 16 20m
4 3 2 1
SCALE 1:200

CUT AND FILL PLAN
SCALE 1:200

EARTHWORKS QUANTITIES
(APPROXIMATE ONLY)
NOT TO BE USED FOR CONTRACTUAL PURPOSES. TENDERERS TO DETERMINE VOLUMES USING THEIR OWN METHOD OF CALCULATION.

EARTHWORKS QUANTITIES - APARTMENT BUILDING	
TOTAL AREA (0.70 ha)	
CUT	10280m³
FILL	5000m³
EXCESS OF CUT OVER FILL	5280m³
TOPSOIL STRIPPING OF 700m² NOT INCLUDED IN CALCULATION	
EXCAVATION FOR SERVICE TRENCHES NOT INCLUDED IN CALCULATION	

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	LC	LC	28.09.2017

Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW
Title: CUT AND FILL PLAN

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_BE01
Revision: 01

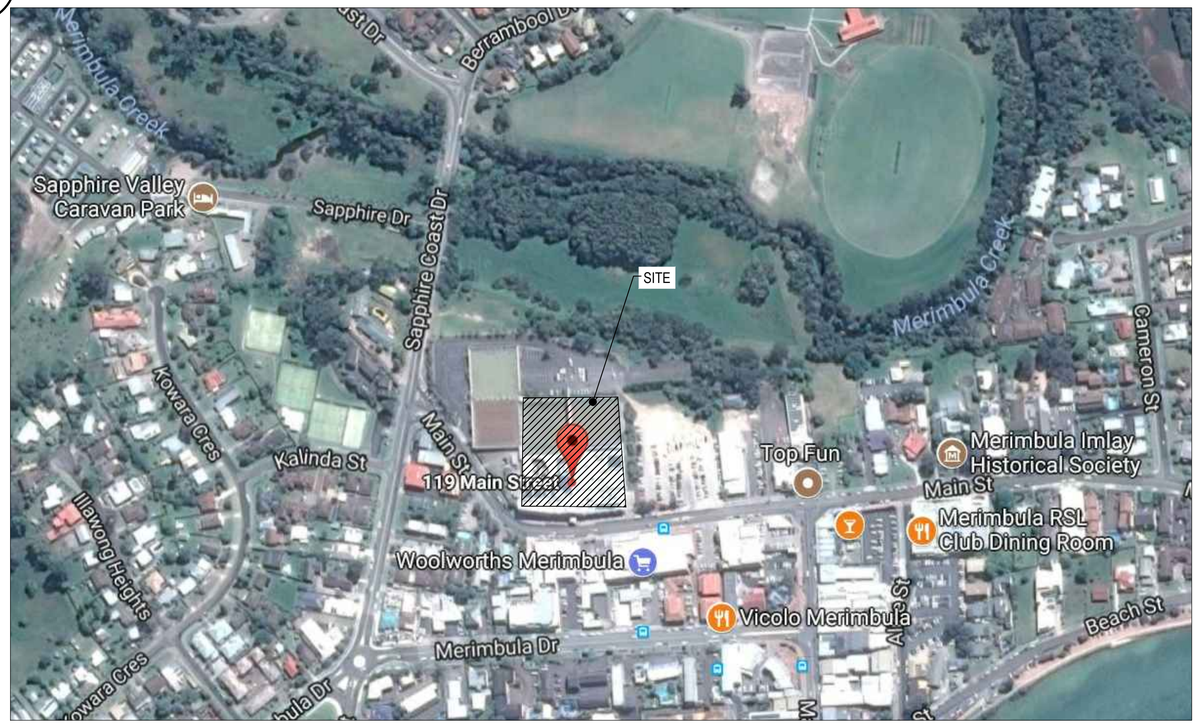
ALDI MERIMBULA
103 MAIN STREET, MERIMBULA NSW
CIVIL ENGINEERING WORKS

GENERAL NOTES:

1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BEGA VALLEY SHIRE COUNCIL SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. HENRY AND HYMAS CONSULTING PTY. LTD. CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
4. SERVICES & ACCESSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND BEGA VALLEY SHIRE COUNCIL REQUIREMENTS WHERE APPLICABLE.
9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

SEDIMENT & EROSION CONTROL NOTES

- ALL SEDIMENT CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH RESPECTIVE COUNCIL SPECIFICATIONS AND LANDCOM'S "SOIL AND CONSTRUCTION" MANUAL.
- ALL PERIMETER & SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO, OR AS THE FIRST STEP IN EARTH WORKS AND/OR CLEARING.
- THE SEDIMENT & EROSION CONTROL PLAN MAY REQUIRE FUTURE ADJUSTMENT TO REFLECT CONSTRUCTION STAGING. IT IS ALSO THE CONTRACTORS RESPONSIBILTY TO PREPARE THEIR OWN SEDIMENT AND EROSION CONTROL PLAN WHICH SUITS THE DESIGNED CONSTRUCTION STAGING.
- FILTRATION BUFFER ZONES ARE TO BE FENCED OFF AND ACCESS PROHIBITED TO ALL PLANT AND MACHINERY.
- ALL TEMPORARY EARTH BERMS, DIVERSIONS & SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED & MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING. TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE LOCATION.
- ALL TOPSOIL IS TO BE STOCKPILED ON SITE FOR REUSE (AWAY FROM TREES AND DRAINAGE LINES). MEASURES SHALL BE APPLIED TO PREVENT EROSION OF THE STOCKPILES.
- ALL EARTHWORK AREAS SHALL BE ROLLED EACH EVENING TO SEAL THE EARTHWORKS.
- ALL FILLS ARE TO BE LEFT WITH A LIP AT THE TOP OF THE SLOPE AT THE END. ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND STRAW MULCHED WITHIN 14 DAYS OF COMPLETION OF FORMATION U.N.O. BY LANDSCAPE ARCHITECTS.
- UPON COMPLETION OF ALL EARTHWORKS OR AS DIRECTED BY COUNCIL SOIL CONSERVATION TREATMENTS SHALL BE APPLIED SO AS TO RENDER AREAS THAT HAVE BEEN DISTURBED, EROSION PROOF WITHIN 14 DAYS.
- EROSION AND SILT PROTECTION MEASURES ARE TO BE MAINTAINED AT ALL TIMES.



LOCALITY SKETCH

N.T.S

DRAWING SCHEDULE

17623_DA_C000	COVER SHEET, DRAWING SCHEDULE, NOTES AND LOCALITY SKETCH
17623_DA_BE01	CUT AND FILL PLAN
17623_DA_C100	OVERALL PLAN
17623_DA_C101	GENERAL ARRANGEMENT PLAN - GROUND FLOOR
17623_DA_C102	GENERAL ARRANGEMENT PLAN - BASEMENT FLOOR
17623_DA_C103	PUMP ROOM ENTRY DETAIL
17623_DA_C110	TYPICAL SECTION DETAILS
17623_DA_C150	SERVICE ROAD LONGITUDINAL SECTION
17623_DA_C200	STORMWATER MISCELLANEOUS DETAILS AND PIT SCHEDULE
17623_DA_C250	STORMWATER CATCHMENT PLAN
17623_DA_SE01	SEDIMENT EROSION CONTROL PLAN
17623_DA_SE02	SEDIMENT EROSION CONTROL DETAILS

SITEWORKS NOTES

- DATUM : A.H.D.
- ORIGIN OF LEVELS : REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
- ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE, ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND SPECIFICATIONS OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN . GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
- ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

TRAFFIC MANAGEMENT NOTES:

1. THIS TRAFFIC MANAGEMENT PLAN IS A GUIDE ONLY. THE CONTRACTOR IS TO PREPARE AN APPROVED TRAFFIC MANAGEMENT PLAN PRIOR TO COMMENCEMENT OF ANY WORKS.
2. THIS TRAFFIC MANAGEMENT PLAN HAS BEEN PREPARED FROM THE "RMS - TRAFFIC CONTROL AT WORK SITES GUIDE." USING THE TRAFFIC MANAGEMENT PLAN TCP 45, LONG TERM WORK, 2 LANE / 2 WAY, LANE CLOSURE - NO CONTROL.
3. TRAFFIC CONTROLLERS MAY BE REQUIRED FOR CERTAIN ASPECTS OF CONSTRUCTION. THESE REQUIREMENTS TO BE DETERMINED BY CONTRACTOR AND APPROPRIATE TRAFFIC CONTROL PLANS TO BE PREPARED ACCORDINGLY.

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY SEARL AND JARMAN
DATUM: AHD
ORIGIN OF LEVELS: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

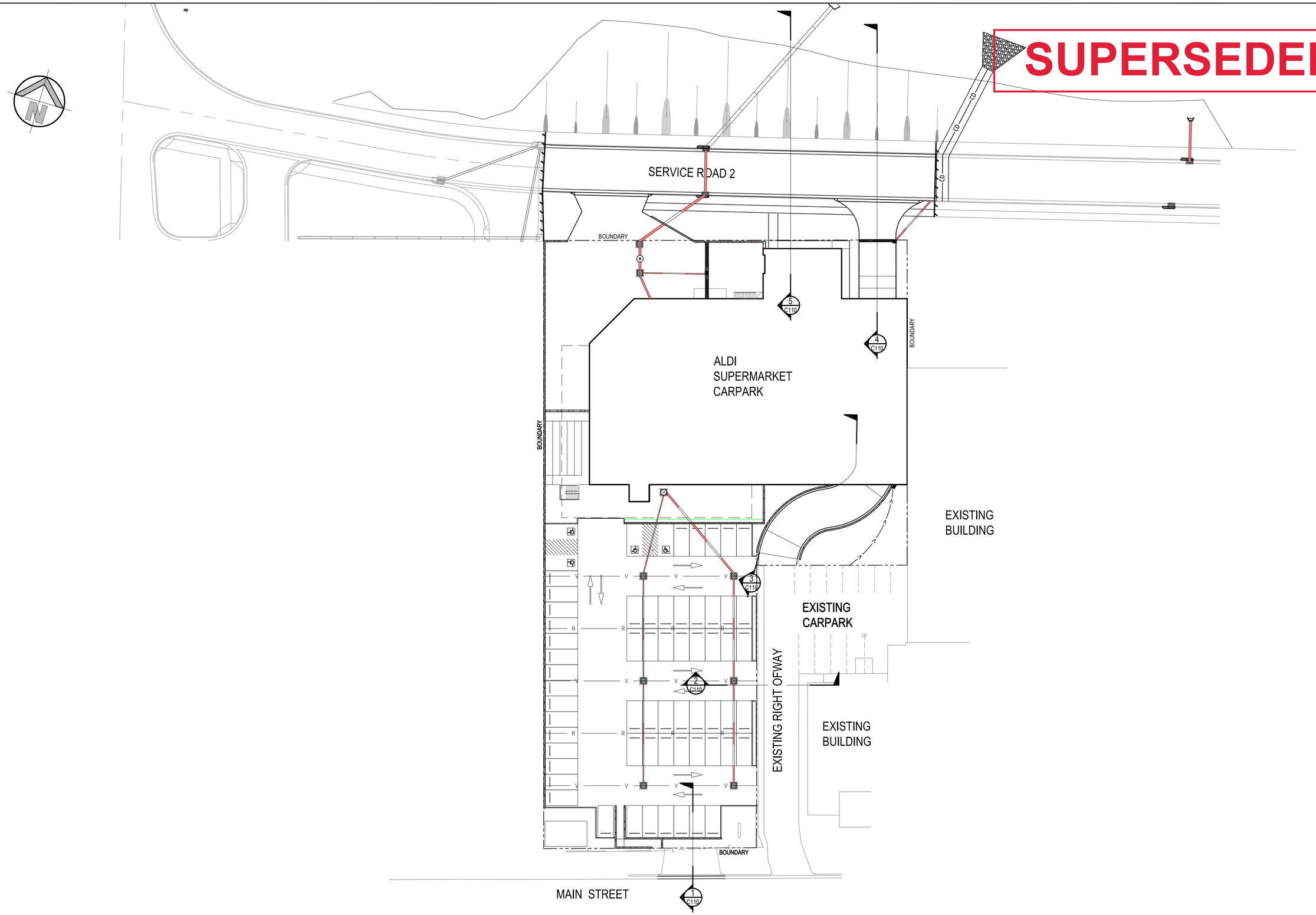
Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN STREET, MERIMBULA NSW
Title: COVER SHEET, DRAWING SCHEDULE NOTES AND LOCALITY SKETCH

Drawn	Designed	Date
J.Knight	T.Rozehnal	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	NTS@A1

Drawing number: 17623_DA_C000
Revision: 01

SUPERSEDED



0 5 10 15 20 25 30m
6 4 2
SCALE 1:300

OVERALL PLAN
SCALE 1:300

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

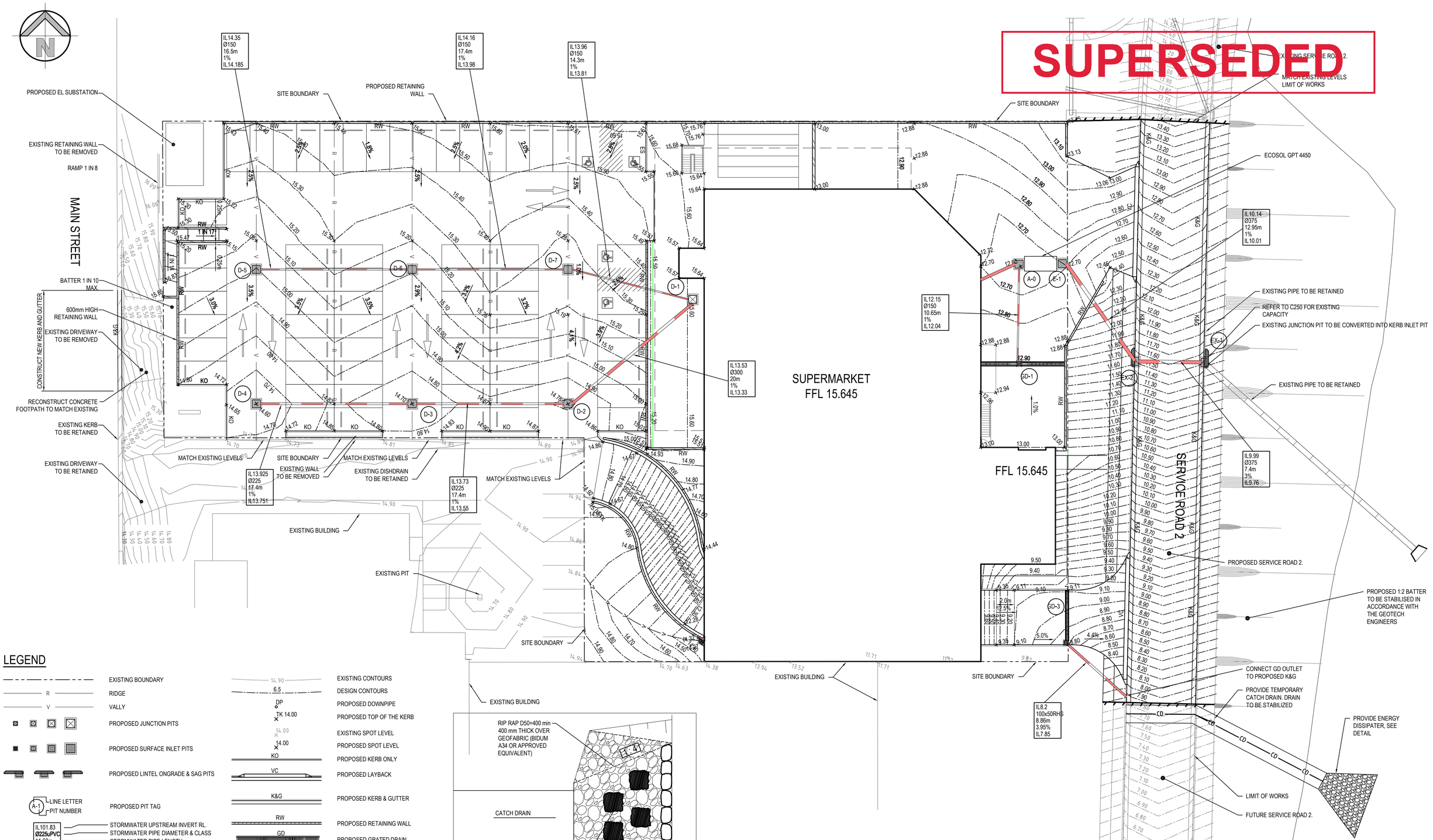
Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW
Title: OVERALL PLAN

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rezehnal	A.Francis	1:300@A1

Drawing number: 17623_DA_C100
Revision: 01



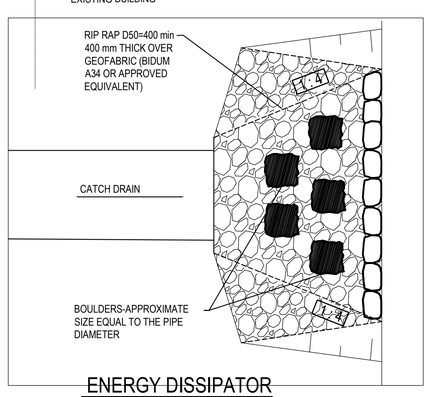
LEGEND

- EXISTING BOUNDARY
- RIDGE
- VALLY
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- LINE LETTER / PIT NUMBER — PROPOSED PIT TAG
- IL101.83 / Ø225uPVC / 11.60m / 1% / IL101.83 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SUBSOIL DRAINAGE

- EXISTING CONTOURS
- DESIGN CONTOURS
- PROPOSED DOWNPIPE
- PROPOSED TOP OF THE KERB
- EXISTING SPOT LEVEL
- PROPOSED SPOT LEVEL
- PROPOSED KERB ONLY
- PROPOSED LAYBACK
- PROPOSED KERB & GUTTER
- PROPOSED RETAINING WALL
- PROPOSED GRATED DRAIN
- PROPOSED 300mm WIDE INTEGRAL KERB
- PROPOSED INTERMEDIATE RISER (IR)
- PROPOSED FLUSHING POINT (FP)
- PROPOSED BATTER LINE
- CATCH DIVERSION DRAIN

0 4 8 12 16 20m

SCALE 1:200



ENERGY DISSIPATOR

SCALE 1:100

GENERAL ARRANGEMENT PLAN - GROUND FLOOR

SCALE 1:200

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY: CADDEY AND JARMAN

DATUM: AHD

ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

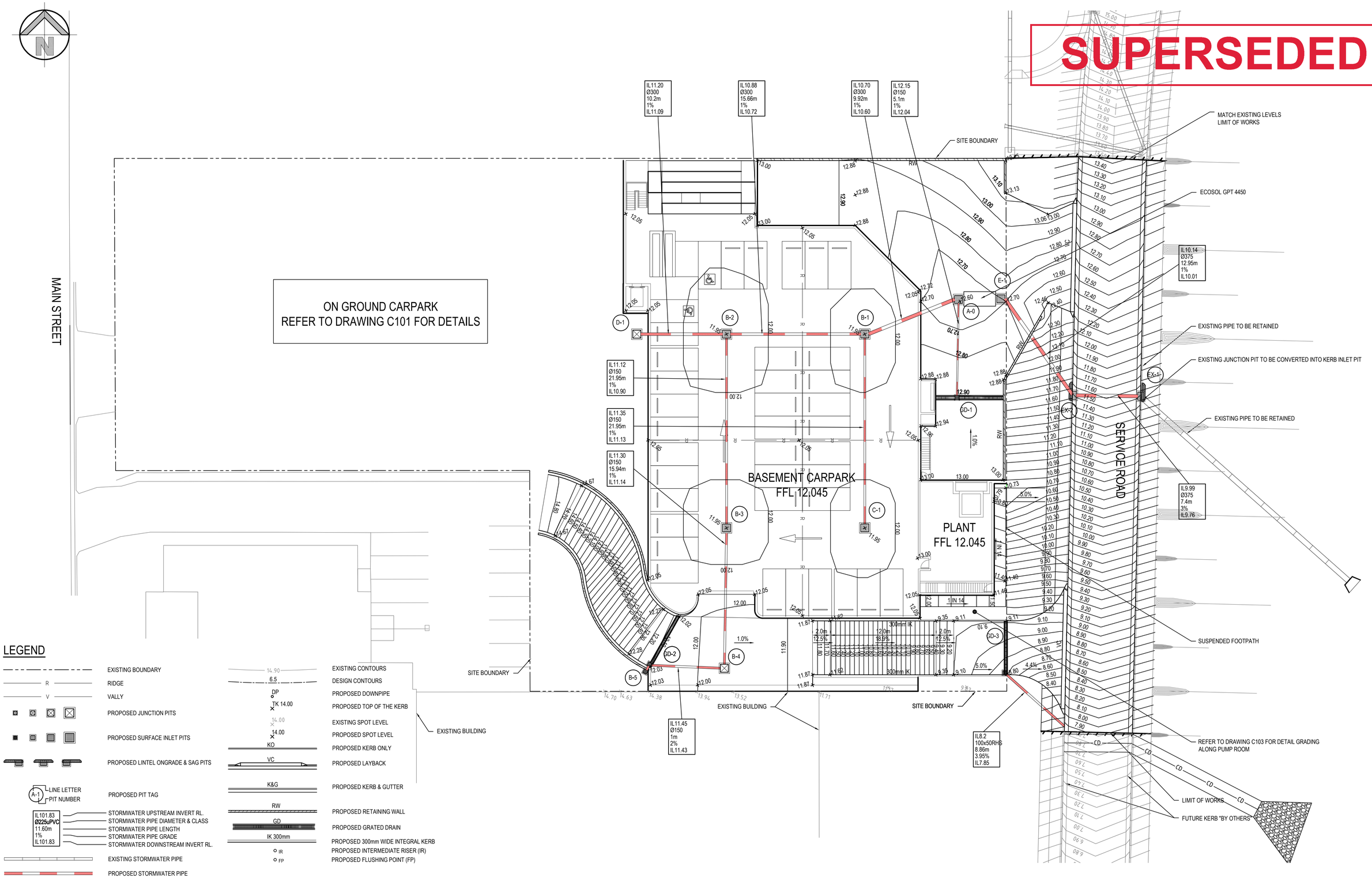
Title: GENERAL ARRANGEMENT PLAN
GROUND FLOOR

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_C101

Revision: 01

SUPERSEDED



LEGEND

- EXISTING BOUNDARY
- RIDGE (R)
- VALLY (V)
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- PROPOSED PIT TAG (A-1: LINE LETTER, PIT NUMBER)
- IL101.83 / Ø225uPVC / 11.60m / 1% / IL101.83 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SUBSOIL DRAINAGE (SS)
- EXISTING CONTOURS (14.90)
- DESIGN CONTOURS (6.5)
- PROPOSED DOWNPIPE (DP)
- PROPOSED TOP OF THE KERB (TK 14.00)
- EXISTING SPOT LEVEL (14.00)
- PROPOSED SPOT LEVEL (14.00)
- PROPOSED KERB ONLY (KO)
- PROPOSED LAYBACK (VC)
- PROPOSED KERB & GUTTER (K&G)
- PROPOSED RETAINING WALL (RW)
- PROPOSED GRATED DRAIN (GD)
- PROPOSED 300mm WIDE INTEGRAL KERB (IK 300mm)
- PROPOSED INTERMEDIATE RISER (IR)
- PROPOSED FLUSHING POINT (FP)

0 4 8 12 16 20m
4 3 2 1
SCALE 1:200

GENERAL ARRANGEMENT PLAN - BASEMENT FLOOR

SCALE 1:200@A1

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

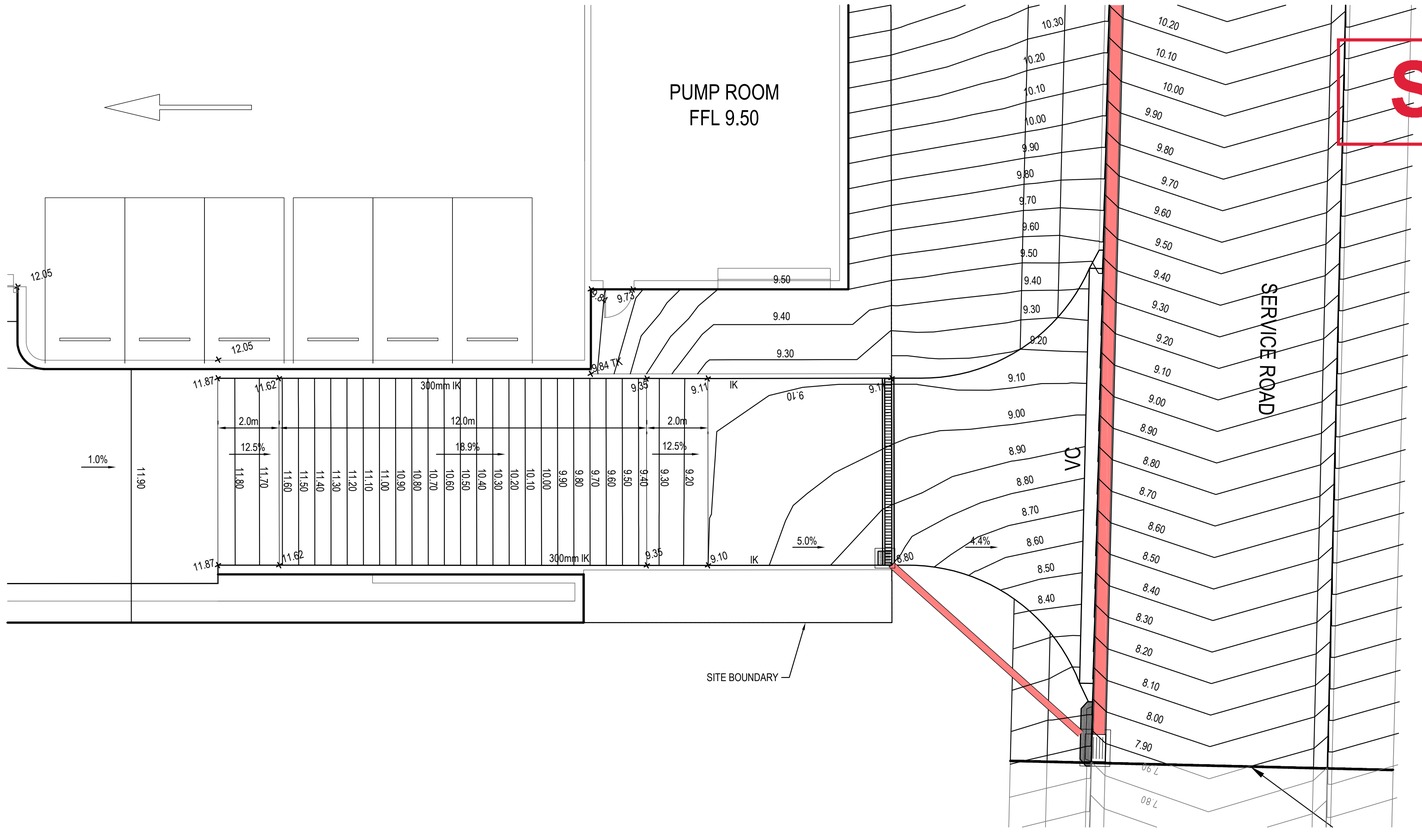
Level 5, 79 Victoria Avenue Chatswood NSW 2067
Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title: GENERAL ARRANGEMENT PLAN BASEMENT FLOOR

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_C102
Revision: 01



SUPERSEDED

PUMP ROOM ENTRY CIVIL PLAN

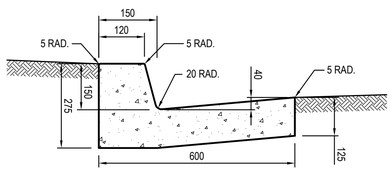
SCALE 1:100@A1

LEGEND

- EXISTING BOUNDARY
- RIDGE
- VALLY
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- PROPOSED PIT TAG (A-1: LINE LETTER, PIT NUMBER)
- IL101.83 / Ø225uPVC / 11.60m / 1% / IL101.83 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SUBSOIL DRAINAGE
- 14.90 — EXISTING CONTOURS
- 6.5 — DESIGN CONTOURS
- DP — PROPOSED DOWNPIPE
- TK 14.00 — PROPOSED TOP OF THE KERB
- 14.00 — EXISTING SPOT LEVEL
- 14.00 — PROPOSED SPOT LEVEL
- KO — PROPOSED KERB ONLY
- VC — PROPOSED LAYBACK
- K&G — PROPOSED KERB & GUTTER
- RW — PROPOSED RETAINING WALL
- GD — PROPOSED GRATED DRAIN
- IK 300mm — PROPOSED 300mm WIDE INTEGRAL KERB
- IR — PROPOSED INTERMEDIATE RISER (IR)
- FP — PROPOSED FLUSHING POINT (FP)

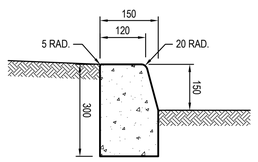
0 2 4 6 8 10m
2 1
SCALE 1:100

0 200 400 600 800 1000mm
200 100
SCALE 1:10



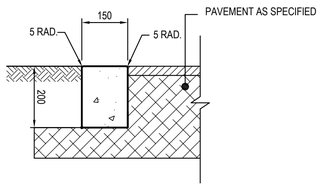
KERB & GUTTER 'K&G'

SCALE 1:10



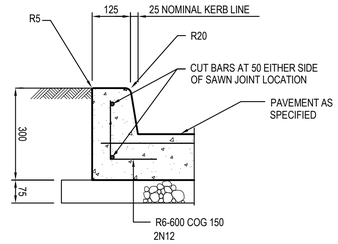
KERB ONLY 'K0'

SCALE 1:10



EDGE STRIP 'ES'

SCALE 1:10



INTEGRAL KERB (IK)

SCALE 1:10

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

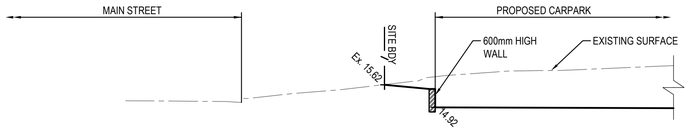
Title: PUMP ROOM ENTRY DETAIL

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS SHOWN @A1

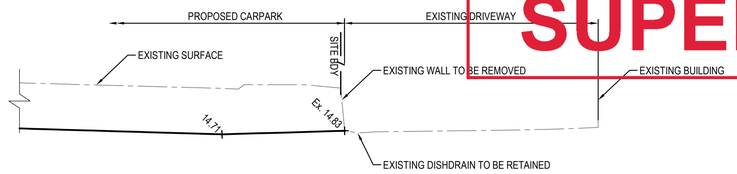
Drawing number: 17623_DA_C103

Revision: 01

SUPERSEDED



SECTION 1 C100
SCALE: 1:100 @ A1



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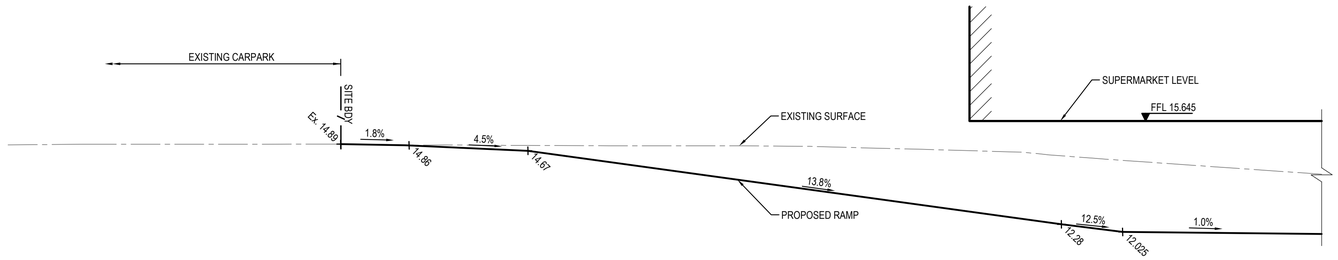
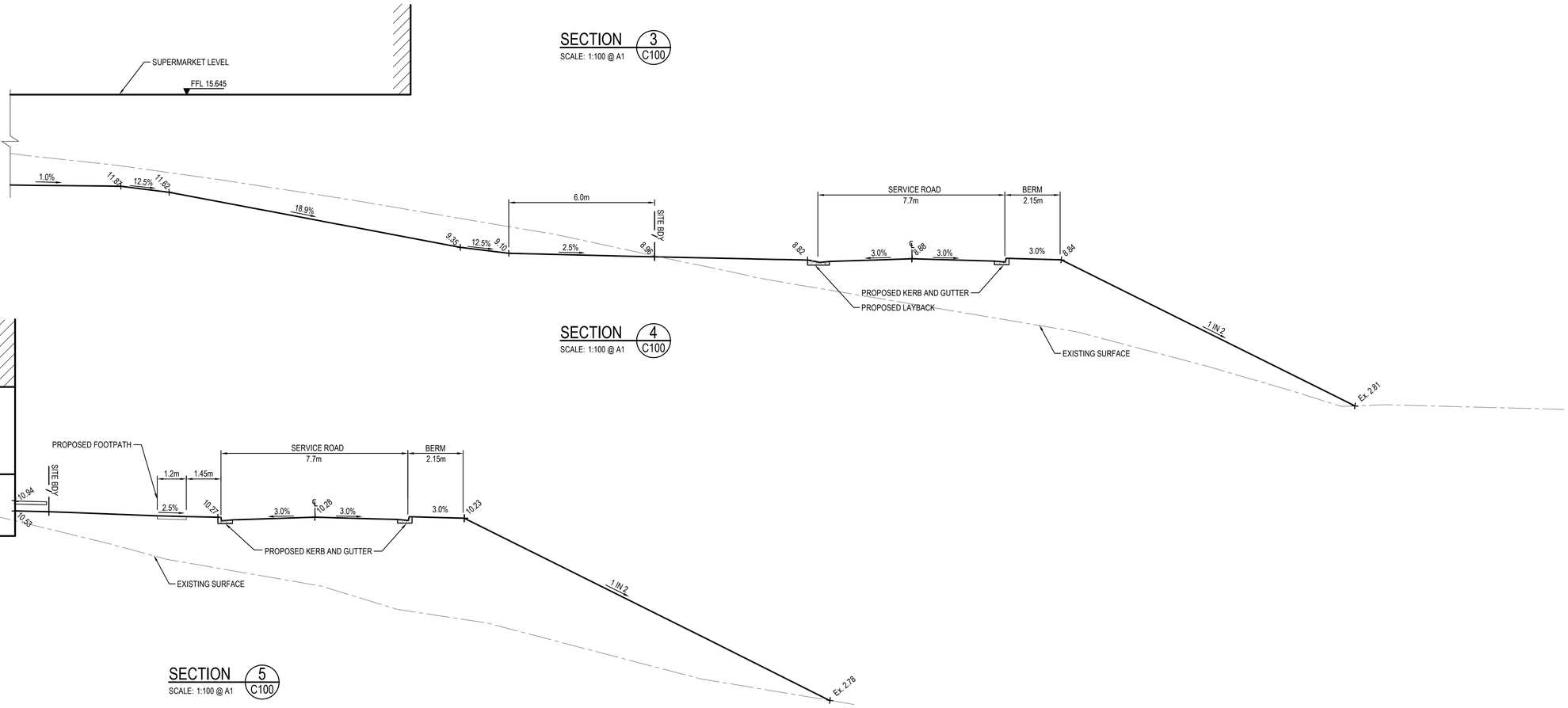


SECTION 3 C100
SCALE: 1:100 @ A1



SECTION 4 C100
SCALE: 1:100 @ A1

SECTION 5 C100
SCALE: 1:100 @ A1

0 2 4 6 8 10m
2 1
SCALE 1:100

FOR DA ONL

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	MC	TR	28.09.2017

Client
ALDI AUSTRALIA

Architect
ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

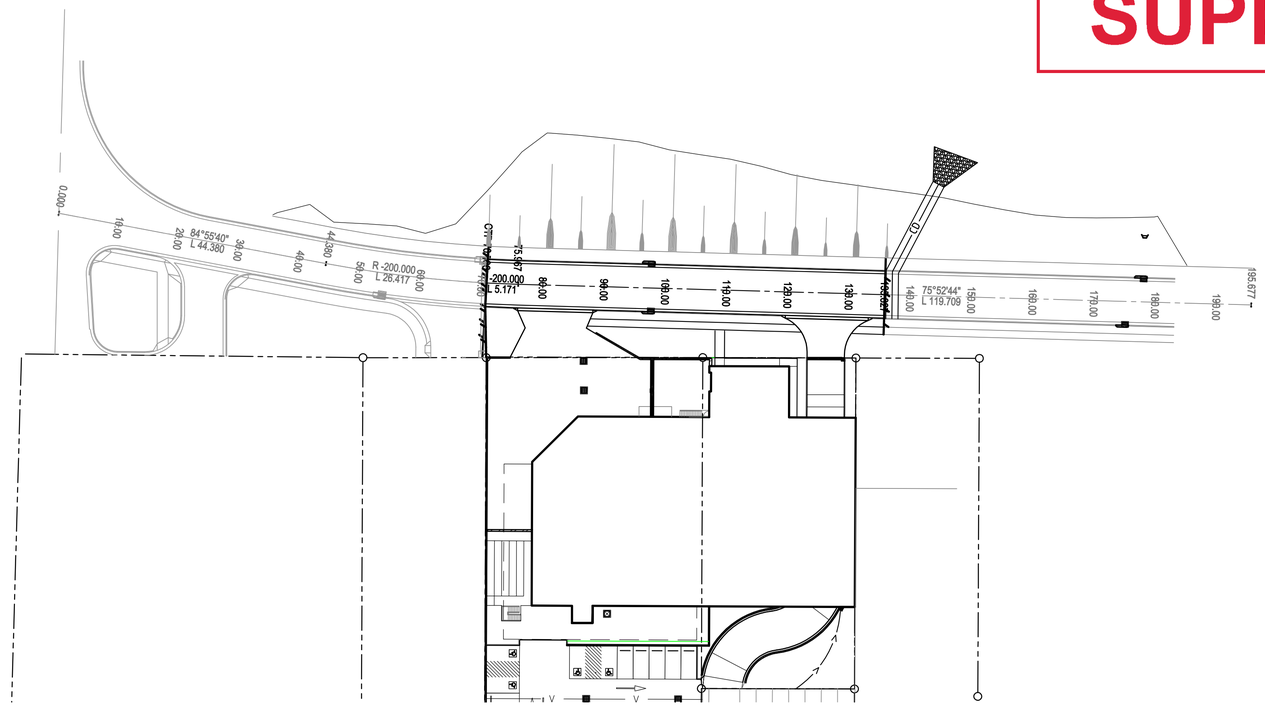
Project
ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title
TYPICAL SECTION DETAILS

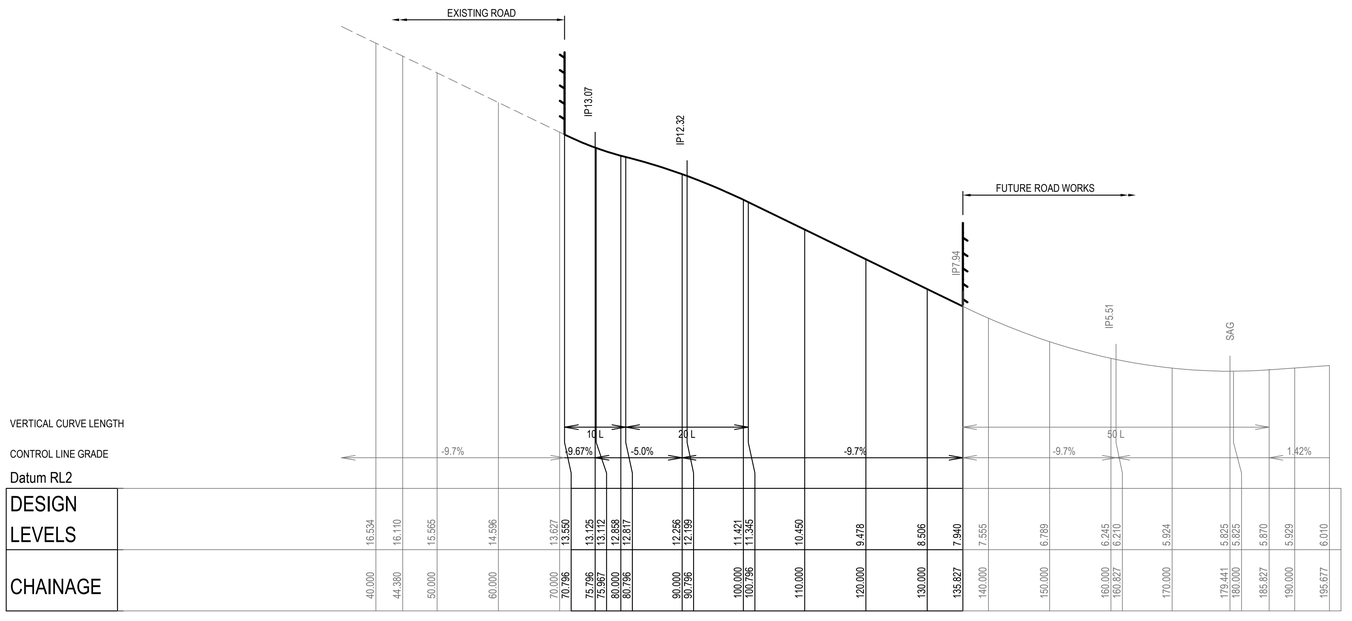
Drawn	Designed	Date
J.Knight	T.Rozehnal	20.06.2
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS SHO

Drawing number
17623_DA_C110

SUPERSEDED



SERVICE ROAD PLAN
SCALE 1:500



LONGITUDINAL SECTION - SERVICE ROAD
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

0 2 4 6 8 10m
2 1
SCALE 1:100

0 10 20 30 40 50m
10 8 6 4 2
SCALE 1:500

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	LC	LC	28.09.2017

Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title: SERVICE ROAD LONGITUDINAL SECTION

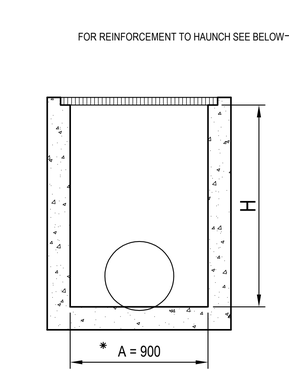
Drawn	Designed	Date
J.Knight	T.Rozehnal	20.06.2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS SHOWN @ A1

Drawing number: 17623_DA_C150
Revision: 01

TYPICAL PIT CHAMBER SIZES

IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW.

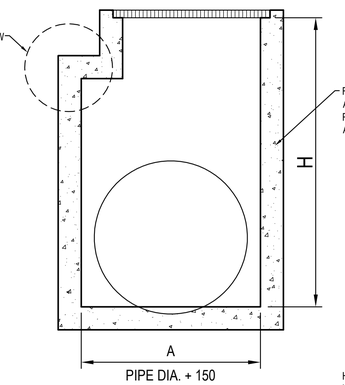
1. SELECT PIT CHAMBER USING THE STEPS BELOW:
2. SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS.
3. CHECK PIT CHAMBER SIZE TO SATISFY DEPTH TO INVERT REQUIREMENTS. CHECK PIT CHAMBER DIMENSIONS TO SATISFY THE SKEW ANGLE IN THE TABLE.



SECTION
NTS

*A = 600 FOR PIPES UP TO 375 DIA.

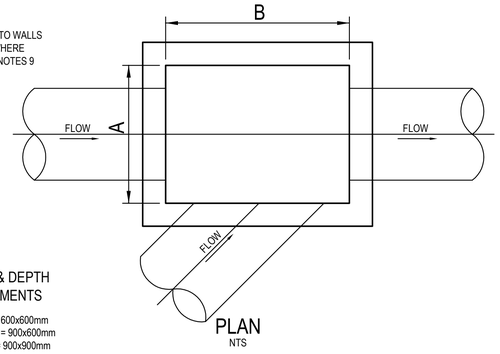
(1) PIT CHAMBER DIMENSIONS FOR PIPES UP TO 600 DIA.



SECTION
NTS

(1) PIT CHAMBER FOR PIPES GREATER THAN 600 DIA.

FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm
FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm
FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm
FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm
FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

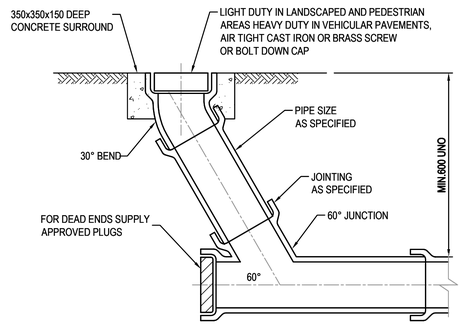


PLAN
NTS

(3) PIT CHAMBER FOR SIDE ENTRY ON SKEW

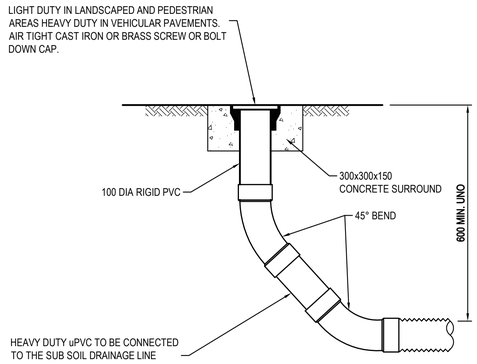
(2) PIT SIZE & DEPTH REQUIREMENTS

H = 0-900mm - AxB = 600x600mm
H = 900-1200mm - AxB = 900x600mm
H = >1200mm - AxB = 900x900mm



RODDING POINT AT 60° (RP2)

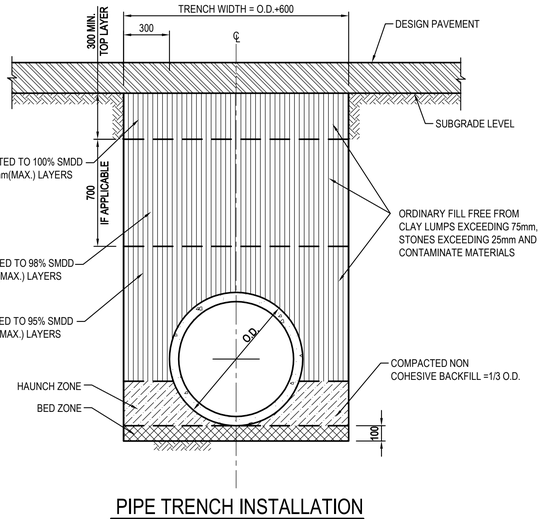
SCALE 1:10



FLUSHING POINT (FP)

SCALE 1:10

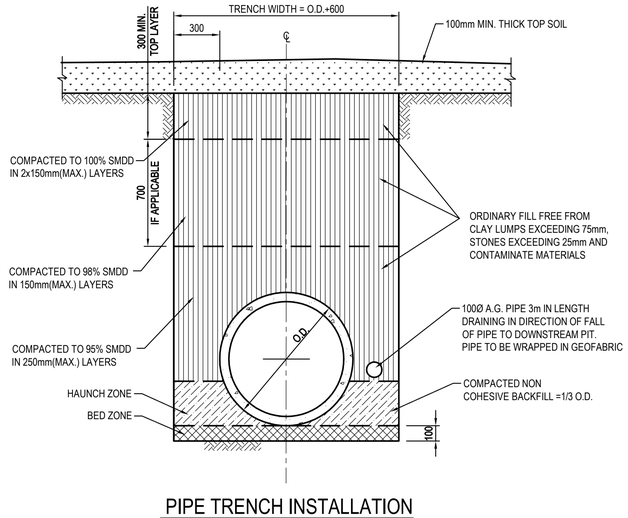
NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



PIPE TRENCH INSTALLATION BENEATH PAVEMENT

(H1 & H2 SUPPORT)

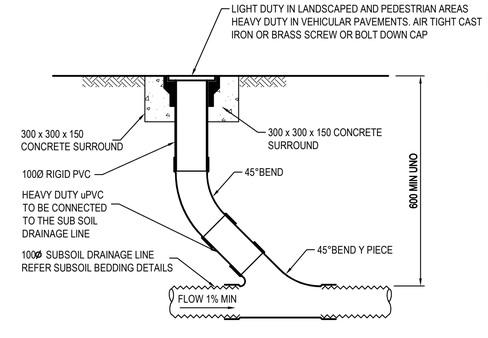
SCALE 1:20



PIPE TRENCH INSTALLATION IN LANDSCAPE AREAS

(H1 & H2 SUPPORT)

SCALE 1:20



INTERMEDIATE RISER (IR)

SCALE 1:10

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED

PIT SCHEDULE

PIT NUMBER	DESCRIPTION
EX-1 EX-2	KERB INLET PIT WITH 600x900 HINGED HEAVY DUTY GRATED LID CLASS "D" WITHIN IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
B-1 B-2 B-3 C-1 D-2 D-3 D-4 D-5 D-6 D-7	INLET PIT WITH 900x900 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
B-4 D-1	JUNCTION PIT WITH 900x900 HINGED MEDIUM DUTY GRATED LID CLASS "C" IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
B-5	INLET PIT WITH 900x900 HINGED LIGHT DUTY HEEL PROOF GRATED LID CLASS "B" IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
E-1 A-0	SURFACE INLET PIT WITH 900x900 HINGED HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
GD-2 GD-3	300mm WIDE GRATED DRAIN MEDIUM DUTY CLASS 'C' IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.
GD-1	300mm WIDE GRATED DRAIN HEAVY DUTY CLASS 'D' IN ACCORDANCE WITH LOCAL COUNCIL REQUIREMENT.

DRAINAGE NOTES:

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.

3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.

5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.

6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.

7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.

8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC CLASS SH.

9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME.
ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU f'c=32 MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE ,U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV.MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.

10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.

11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:
- PIPE SIZE
- DEPTH TO INVERT
- SKEW ANGLE
REFER TYPICAL PIT CHAMBER DETAILS
IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.

12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.

13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH 3m).

14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.

15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.

16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.

17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.

18. ALL ROOF DRAINAGE TO BE INSTALLED IN ACCORDANCE WITH AS3500, PART 3. TESTING TO BE UNDERTAKEN AND REPORTS PROVIDED TO THE SUPERINTENDENT.

19. LOCATION OF THE DIRECT DOWN PIPE CONNECTIONS MAY VARY ON SITE TO SUIT SITE CONDITIONS, WHERE CONNECTION SHOWN ON LONG SECTIONS CHAINAGES ARE INDICATIVE ONLY.

20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O.ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.

21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.

22. ALL DIMENSION ARE IN MM UNLESS NOTED OTHERWISE.

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY: CADDEY AND JARMAN

DATUM: AHD

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	J.K.	T.R.	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

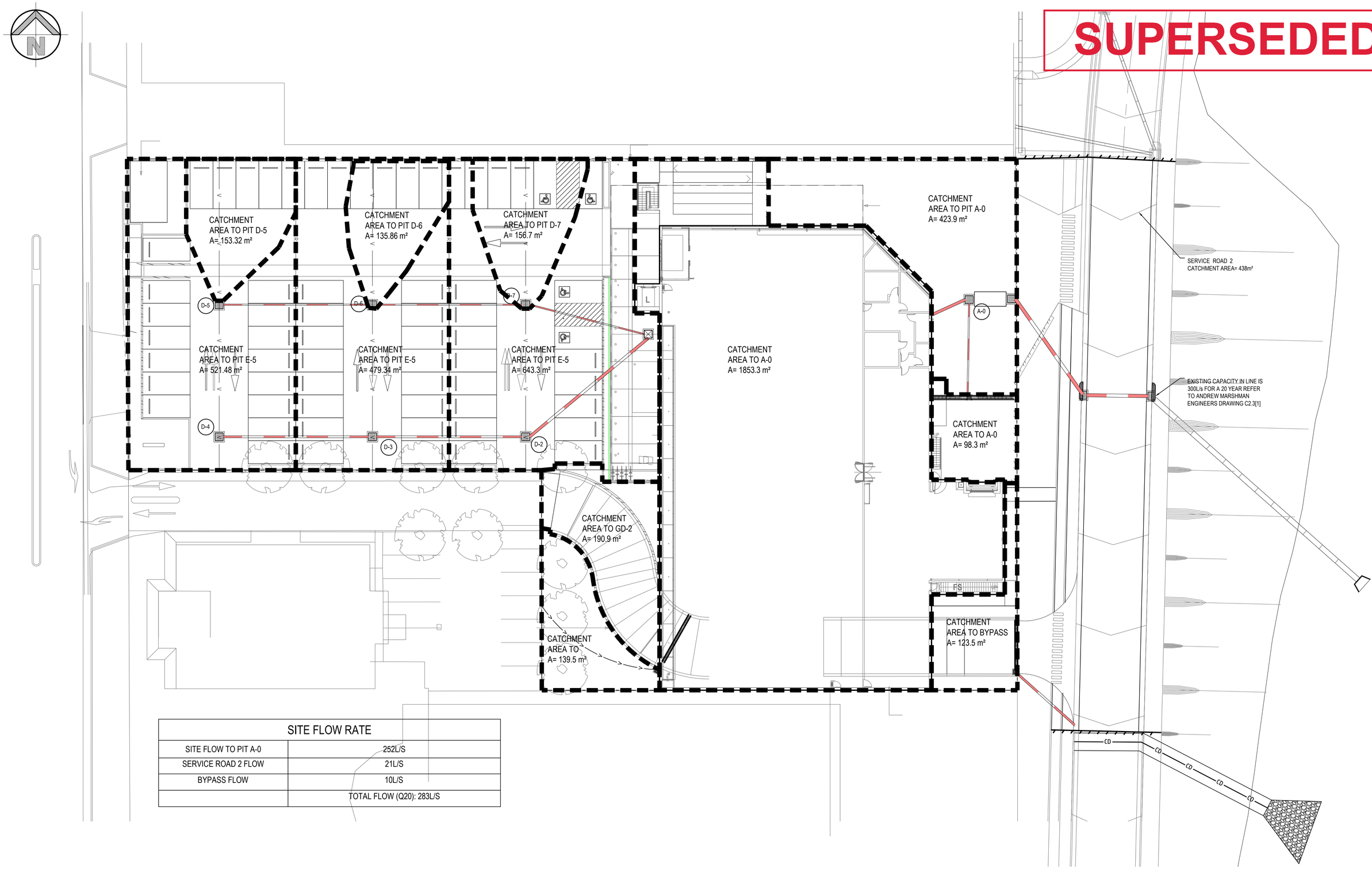
Title: STORMWATER MISCELLANEOUS DETAILS AND PIT SCHEDULE

Drawn	Designed	Date
M.Cerna	T.Rozehnal	20.06.2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS NOTED@A1

Drawing number: 17623_DA_C200

Revision: 01

SUPERSEDED



SITE FLOW RATE	
SITE FLOW TO PIT A-0	252L/S
SERVICE ROAD 2 FLOW	21L/S
BYPASS FLOW	10L/S
	TOTAL FLOW (Q20): 283L/S

0 40 80 120 160 200mm
40 20
SCALE 1:2

STORMWATER CATCHMENT PLAN

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
01	ISSUED FOR DA	J.K.	T.R.	28.09.2017

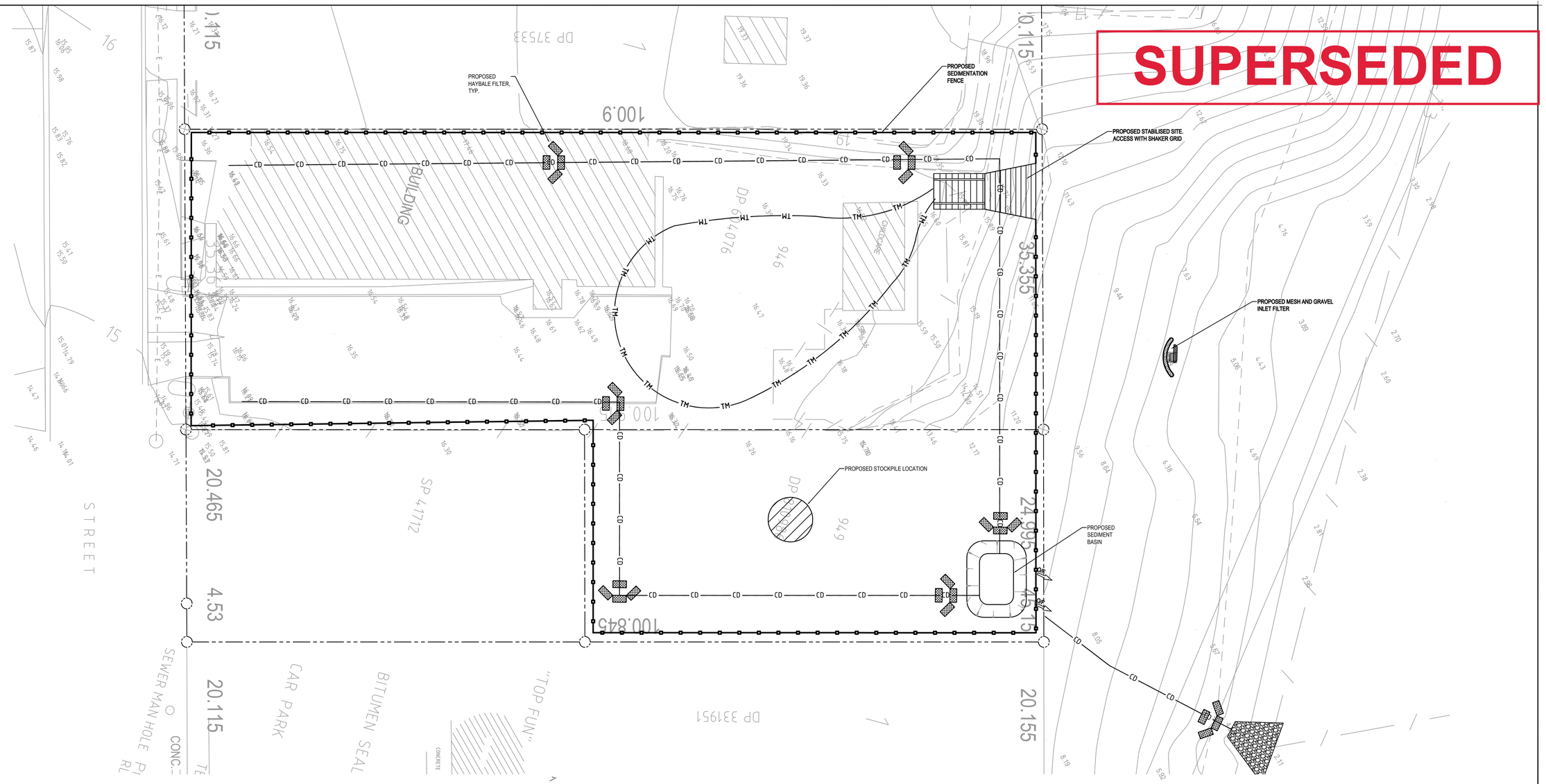
Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW
Title: STORMWATER CATCHMENT PLAN

Drawn	Designed	Date
J.Knight	T.Rozehnal	20.06.2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_C250
Revision: 01



SUPERSEDED

EROSION CONTROL REQUIREMENTS

1. CLEARLY VISIBLE BARRIER FENCING SHALL BE INSTALLED AT THE DISCRETION OF THE SITE SUPERINTENDENT TO ENSURE TRAFFIC CONTROL AND PROHIBIT UNNECESSARY SITE DISTURBANCE. VEHICULAR ACCESS TO THE SITE SHALL BE LIMITED TO ONLY THAT ESSENTIAL FOR CONSTRUCTION WORK AND SHALL ENTER THE SITE ONLY THROUGH THE STABILISED ACCESS POINT.
2. SOIL MATERIALS SHALL BE REPLACED IN THE SAME LAYERS THEY ARE REMOVED FROM THE GROUND i.e. ALL SUBSOILS ARE TO BE BURIED AND TOPSOIL IS TO BE RESPREAD ON THE SURFACE AT THE COMPLETION OF WORKS.
3. ALL DISTURBED AREAS ARE TO BE STABILISED WITHIN SEVEN WORKING DAYS OF THE COMPLETION OF LAND SHAPING. ALL DISTURBED AREAS ARE TO BE PROTECTED SO THAT THE LAND IS PERMANENTLY STABILISED WITHIN SIX MONTHS. TOPSOIL SHALL BE RESPREAD OVER THE SITE, OTHER THAN LOT RE-GRADING AREAS, TO A MINIMUM DEPTH OF 100mm ON BARE BUT TYNED SOIL SURFACES AND THE SITE SHALL BE RE-VEGETATED.

GENERAL INSTRUCTIONS

1. THIS SEDIMENT AND EROSION CONTROL WORKS FOR THE SITE SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION, 4TH EDITION (2004)" BY LANDCOM.
2. AS REQUIRED BY BEGA VALLEY SHIRE COUNCIL SEDIMENT CONTROL MEASURES WILL BE REQUIRED DURING THE CONSTRUCTION OF ALL DEVELOPMENTS/BUILDING WORKS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY THAT THE WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN AND COUNCIL'S REQUIREMENTS.
3. THE CONTRACTOR SHALL ENSURE THAT ALL SUBCONTRACTORS ARE INFORMED OF THEIR RESPONSIBILITIES IN MINIMISING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.
4. THE NON-DISTURBED PORTION OF THE CATCHMENT OUTSIDE OF OPERATING AREA IS TO BYPASS THE BASINS BY MEANS OF LINED CATCH DRAINS.
5. WHERE PRACTICABLE, THE SOIL EROSION HAZARD SHALL BE KEPT AS LOW AS POSSIBLE. LIMITATIONS TO ACCESS ARE TO BE VIA THE SEALED ACCESS ROAD UNLESS OTHERWISE APPROVED BY COUNCIL.
6. ENSURE THAT ALL DRAINS ARE OPERATING EFFECTIVELY AND SHALL MAKE ANY NECESSARY REPAIRS. REMOVE TRAPPED SEDIMENT WHERE THE CAPACITY OF THE TRAPPING DEVICE FALLS BELOW 60%.
7. CONSTRUCT ADDITIONAL EROSION OR SEDIMENT CONTROL WORKS AS MAY BE APPROPRIATE TO ENSURE THE PROTECTION OF DOWNSLOPE LANDS AND WATERWAYS.
8. MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN A FULLY FUNCTIONING CONDITION AT ALL TIMES UNTIL THE SITE IS REHABILITATED.
9. REMOVE TEMPORARY SOIL CONSERVATION STRUCTURES AS THE LAST ACTIVITY IN THE REHABILITATION PROGRAM.
10. THE SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THIS PLAN ARE FOR THE INITIAL EARTHWORKS STAGES. AS CONSTRUCTION OF THE SITE PROGRESSES GEOTEXTILE INLET FILTERS WILL BE REQUIRED TO BE INSTALLED AROUND THE PROPOSED STORMWATER PITS.
11. ENSURE THAT ALL COUNCIL PITS IN RESERVOIR ROAD WITHIN 50 m OF THE SITE ARE PROTECTED WITH MESH & GRAVEL INLET FILTERS

SEDIMENT AND EROSION CONTROL PLAN

SCALE 1:200

LEGEND

- PROPOSED SEDIMENT FENCE
- PROPOSED BOUNDARY
- PROPOSED VEHICLE SHAKER GRID
- PROPOSED STABILISED SITE ACCESS
- TM — TRAFFIC MANOEUVRING
- CD — CATCH DIVERSION DRAIN
- PROPOSED HAYBALE FILTER
- O/F — OVERLAND FLOW PATH
- PROPOSED STOCKPILE LOCATION
- PROPOSED MESH & GRAVEL INLET FILTER

FOR DA ONLY

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SURVEYED BY: CADDEY AND JARMAN
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Client: ALDI AUSTRALIA
Bushlayer: ROTHE LOWMAN

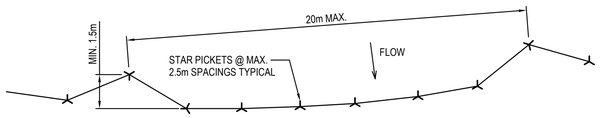
Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD,MERIMBULA NSW

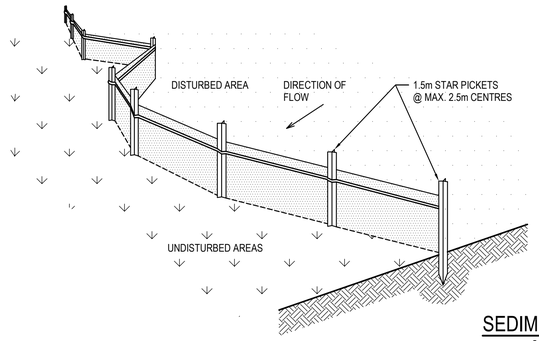
Title: SEDIMEMT EROSION CONTROL PLAN

Drawn	Designed	Date
J.Knight	T.Rozehnal	20.06.2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_SE01
Revision: 01



PLAN

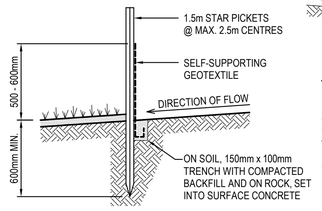


SEDIMENT FENCE

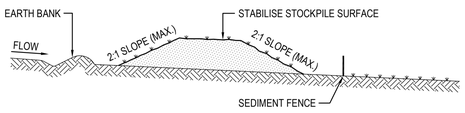
SCALE N.T.S.

SEDIMENT FENCE CONSTRUCTION NOTES:

1. CONSTRUCT SEDIMENT FENCES AS CLOSE AS POSSIBLE TO BEING PARALLEL TO THE CONTOURS OF THE SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
3. 3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
4. 4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
5. 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.



SECTION DETAIL

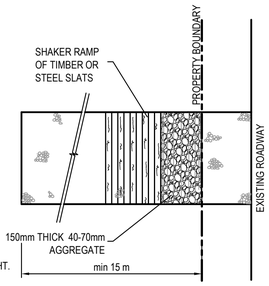


STOCKPILE CONSTRUCTION NOTES:

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION, CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.
4. WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.
5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

STOCKPILES

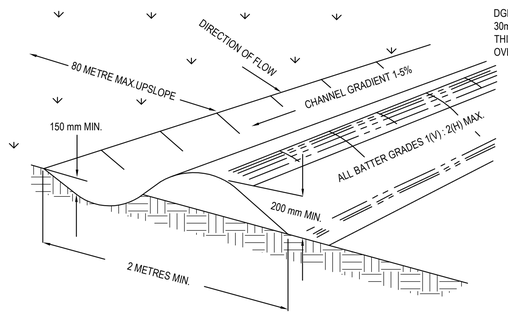
SCALE N.T.S.



PLAN

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.



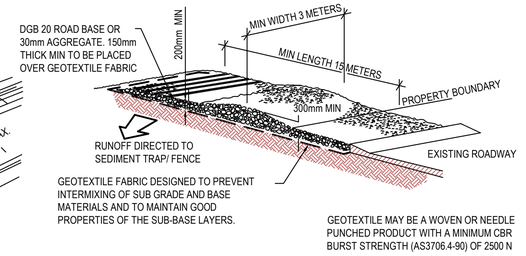
NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAC.UPSLOPE LENGTH IS 80 METERS.

CATCH DRAIN CONSTRUCTION NOTES:

1. CONSTRUCT ALONG GRADIENT AS SPECIFIED.
2. MAXIMUM SPACING BETWEEN BANKS SHALL BE 80 METRES.
3. DRAINS TO BE OF PARABOLIC OR TRAPEZOIDAL CROSS SECTION NOT V-SHAPED.
4. EARTH BANKS TO BE ADEQUATELY COMPACTED IN ORDER TO PREVENT FAILURE.
5. CONSTRUCTION IS OF A TEMPRORARY NATURE AND SHALL BE COMPACTED AT THE END A DAYS WORK OR IMMEDIATELY PRIOR RAIN.
6. ALL OUTLETS FROM DISTURBED LANDS ARE TO FEED INTO SEDIMENT BASIN OR SIMILAR.
7. DISCHARGE RUNOFF COLLECTED FROM UNDISTURBED LANDS ONTO EITHER A STABILISED OR AN UNDISTURBED DISPOSAL AISTE WITHIN THE SAME SUBCATCHMENT AREA FROM WHICH THE WATER ORIGINATED.
8. COMPACT WITH A SUITABLE IMPLEMENT IN SITUATIONS WHERE THEY ARE REQUIRED TO FUNCTION FOR MORE THAN FIVE DAYS.
9. EARTH BANKS TO BE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT WILL IMPEDE NORMAL FLOW.

CATCH DRAINS

SCALE N.T.S.



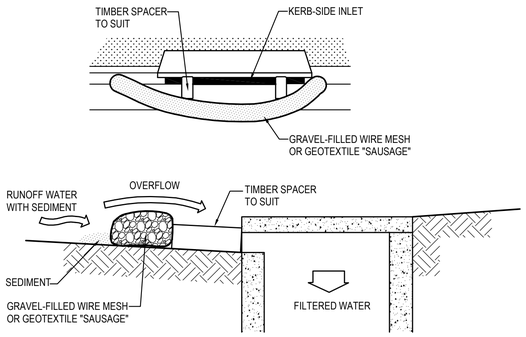
GEOTEXTILE MAY BE A WOVEN OR NEEDLE PUNCHED PRODUCT WITH A MINIMUM CBR BURST STRENGTH (AS3706.4-90) OF 2500 N

STABILISED SITE ACCESS WITH SHAKER RAMP

N.T.S.

NOTES:

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.
2. THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.
3. ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.
4. ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS MANUFACTURED BY "HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO APPLY.

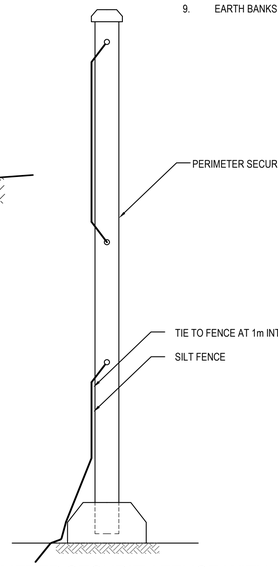


MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT AND FILL IT WITH 25mm TO 50mm GRAVEL.
2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.
3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS BETWEEN.

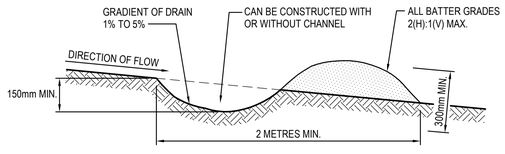
MESH & GRAVEL INLET FILTER

SCALE N.T.S.



PERIMETER SECURITY FENCE WITH WIND BARRIER & SILT FENCE

N.T.S.



NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

EARTH BANK CONSTRUCTION NOTES:

1. BUILD WITH GRADIENTS BETWEEN 1% AND 5%.
2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS-SECTIONS, NOT "V" SHAPED.
5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE.
6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS OF CONSTRUCTION.

EARTH BANK (LOW FLOW)

N.T.S.

CONSTRUCTION SEQUENCE

WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

1. INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE OFFICE.
2. CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH BLACKTOWN **COUNCIL'S** REQUIREMENTS.
3. REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
4. INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
5. CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
6. ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).

SEDIMENT BASIN SIZING

1. THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDCOM MANUAL "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", FOR SEDIMENTATION **TYPE D** SOILS. THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN CAN HANDLE. EACH BASIN SHALL BE SIZED IN ACCORDANCE WITH THE TABLE BELOW.

SEDIMENT BASIN SIZING TYPE D SOILS	
VOLUMETRIC RUNOFF COEFFICIENT, CV	0.25 (APPENDIX F - TABLE F2)
75TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	19.0 mm
CATCHMENT AREA, A	1 Ha (UNIT AREA)
SETTLING ZONE VOLUME (PER HECTARE) 10 CV A R	47.5 m³
DISTURBED CATCHMENT AREA	1 Ha (UNIT AREA)
R K LS P C	110.87m³
SEDIMENT ZONE VOLUME (0.17 A (R K LS P C)/1.3	14.5m³ < 50% SETTLING VOL
TOTAL SEDIMENT BASIN VOLUME REQUIRED :	71.25 m³/Ha

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

2. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE:

CONSTRAINT	VALUE	(SOURCE)*
RAINFALL EROSIVITY (R-FACTOR)	2350	APPENDIX B
LENGTH/SLOPE GRADIENT FACTOR, LS	0.955	APPENDIX A - TABLE A1
SOIL ERODIBILITY (K-FACTOR)	0.038	(TABLE C20)
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3 (COMPACTED)	APPENDIX A - TABLE A2
COVER FACTOR (C-FACTOR)	1.0 (DURING EARTHWORKS)	APPENDIX A - FIGURE A5
CALCULATED SOIL LOSS, A (RUSLE EQUATION)	110.87t/Ha/YR	A = R K LS P C
SOIL HYDROLOGIC GROUP	GROUP C	APPENDIX C TABLE 20
SEDIMENT TYPE	TYPE D	APPENDIX C TABLE 4
75TH PERCENTILE 5-DAY RAINFALL EVENT	19.0mm (BLACKTOWN)	TABLE 6.3A

* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

BASIN MANAGEMENT

1. THE CAPTURED STORMWATER IN THE SETTLING ZONE SHOULD BE DRAINED TO MEET THE MINIMUM STORAGE CAPACITY REQUIRED WITHIN A FIVE (5) DAY PERIOD FOLLOWING RAINFALL, PROVIDED THE ACCEPTABLE WATER QUALITY (NFR) AND TURBIDITY HAVE BEEN ACHIEVED.
2. CHEMICAL FLOCCULENT SUCH AS GYPSUM MAY BE DOSED TO AID SETTLING WITHIN 24 HOURS OF CONCLUSION OF EACH STORM. THE APPLIED DOSING RATES SHOULD ACHIEVE THE TARGET QUALITY WITHIN 36 TO 72 HOURS OF THE STORM EVENT.
3. INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL (REFER TO PEGS INSTALLED IN BASINS IN ACCORDANCE WITH THE SWMP). ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.

SOWING SEASON	SEED MIX
AUTUMN/WINTER	OATS@40KG/Ha + JAPANESE MILLET@10kg/Ha
SPRING/SUMMER	OATS@20kg/Ha + JAPANESE MILLET@20kg/Ha

NOTE : THESE PLANT SPECIES ARE FOR TEMPORARY REVEGETATION ONLY. THEY WILL ONLY PROVIDE PROTECTION FROM EROSION FOR SIX MONTHS. WHERE THE LOTS ARE TO BE LEFT UNDEVELOPED FOR A LONGER PERIOD, THE CONTRACTOR SHALL SEEK ADVICE FROM THE SITE SUPERINTENDENT AS TO MORE APPROPRIATE REVEGETATION METHODS.

REVEGETATION IN ACCORDANCE WITH THE ABOVE TABLE WILL BE ENHANCED BY ADDING LIME AT A RATE OF 4kg/TONNE OF TOPSOIL AND 7.5kg/TONNE OF SUBSOIL.

4. THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM C-FACTOR	REMARKS
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.05	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 70% GROUND COVER IS REQUIRED.
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 60% GROUND COVER IS REQUIRED.
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION.	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE. 50% GROUND COVER IS REQUIRED.

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Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
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J.Knight	T.Rozehnal	20.06.2017
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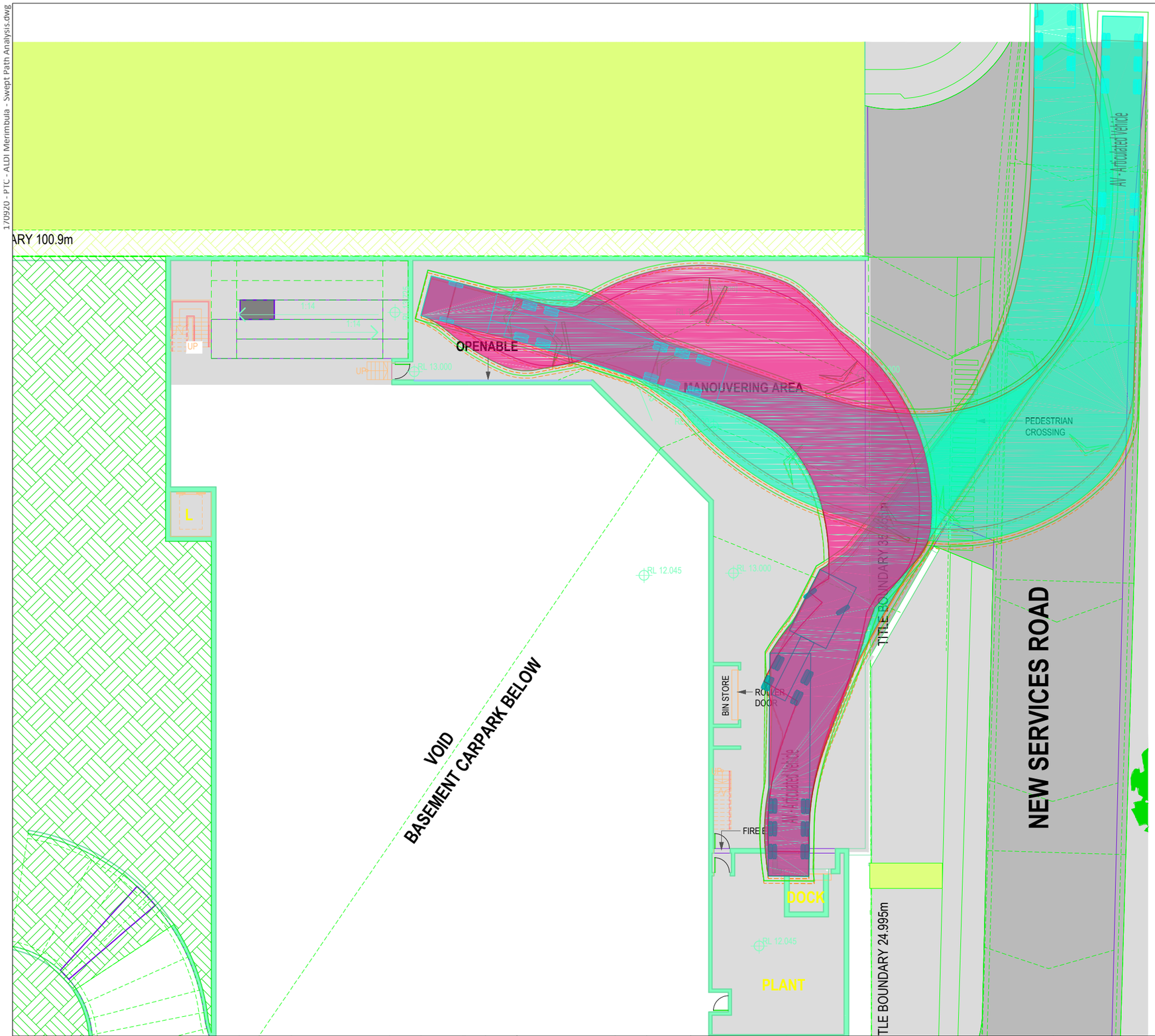
T.Rozehnal	A.Francis	NTS@A1

Drawing number: 17623_DA_SE02

Revision: 01

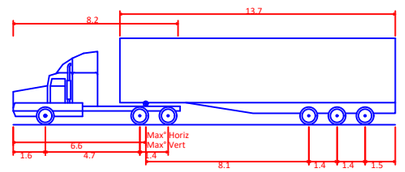
1/09/20 - PTC - ALDI Merimbula - Swept Path Analysis.dwg



COMMENTS

A3

AV - Articulated Vehicle



AV - Articulated Vehicle	
Overall Length	19.000m
Overall Width	2.500m
Overall Body Height	4.301m
Min Body Ground Clearance	0.418m
Track Width	2.500m
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	12.500m

TURNING PATH ASSESSMENT DEMONSTRATING A 19m ARTICULATED VEHICLE ENTERING AND EXITING THE LOADING AREA

Note that the entry road (labelled NEW SERVICES ROAD) is under design as at 20/09/17.

The location of the dock is also subject to change. This swept path demonstrates the ability of the trailer to enter the shown location at a straight angle.

ptc.
Suite 102, 506 Miller Street,
Cammeray NSW 2062
t +61 2 8920 0800
ptcconsultants.co

REV	DATE	COMMENT	DRAWN	REVIEWED
1	20/09/17	D.A Issue	EY	AU

PROJECT: ALDI Merimbula

DRAWING TITLE: Articulated vehicle (19m) - Swept Path

CLIENT: ROTHELOWMAN
DRG. #: PTC-004
PROJECT #: PTC2-2175
SCALE: 1:250

REV: 1

Milestone

Development Management
Town Planning

MILESTONE (AUST) PTY LIMITED
ABN 29 123 048 162

93 Norton Street, Leichhardt NSW 2040
PO Box 288, Leichhardt NSW 2040
T 02 9518 3666 F 02 9518 3933
www.milestonemanagement.com.au

Construction

MILESTONE CONSTRUCTION (AUST) PTY LIMITED
ABN 74 154 644 925 Lic 245110 C

2 March 2018

Ms Leanne Barnes
General Manager
Bega Valley Shire Council
PO Box 492
Bega NSW 2550

Attention: Mark Fowler, Development Control Planner

Dear Mr Fowler

RE: DEVELOPMENT APPLICATION NO 2017.421 – SUBMISSION OF REVISED DA
103-107 MAIN STREET, MERIMBULA NSW 2548

Acting on behalf of ALDI Stores (A Limited Partnership) (ALDI Store), Milestone (AUST) Pty Limited (Milestone) submits this Addendum Planning Summary to the Statement of Environmental Effects, dated October 2017 (Addendum) and revised DA Plans to the Bega Valley Shire Council (Council) relevant to Development Application No 2017.421 (Development Application) at the property known as 103-107 Main Street, Merimbula (Lot 949 in DP 810986 & Lot 946 in DP 604076).

A revised DA package is submitted to Council based on an amended site plan which removes the right of way associated with the property located at 101 Main Street, Merimbula (SP 41712).

This submission also acknowledges the Development Application as an Integrated Development due to the proposed new service road batter and the energy dissipater being located within 40 metres distance from the Merimbula Creek bank.

Included with this submission are the following documents for Council's Assessment:

- This Addendum Planning Summary to the Statement of Environmental Effects prepared by Milestone.
- Architectural Plan prepared by Rothelowman Architects (**Appendix A**), including:
  - Site Plan, Drawing No TP00.01, Revision P14;
  - Level Basement Plan, Drawing No TP01.02, Revision P15;
  - Level Dock Plan, Drawing No TP01.03, Revision P10;
  - Level Store Plan, Drawing No TP01.04, Revision P16;
  - Roof Plan, Drawing No TP01.05, Revision P10;
  - Sections, Drawing No TP03.01, Revision P12;
  - GFA & NLA Plan, Drawing No TP04.92, Revision P7;
  - Signage Plan, Drawing No TP04.03, Revision P6; and
  - Development Summary, Drawing No TP07.01, Revision P7.
- Landscape Plan prepared by Site Image (**Appendix B**), including:
  - Cover Sheet, Drawing No 000, Issue D;
  - Landscape Plan, Drawing No 101, Issue D; and
  - Landscape Details, Drawing No 501, Issue B.
- Civil Engineering Plan, Revision 2 prepared by Henry & Hymas (**Appendix C**).
- Cheque for Integrated Development Application payable to NSW Office of Water of $330.00.
- One (1) USB

One hard copy of the above revised documentation has been posted to Council with the USB.

1.0 BACKGROUND

A Development Application (No 2017.421) for associated earthworks and the construction and fitout of proposed building comprising an ALDI Store with associated business identification signage, landscaping and car parking at the property known as 103-107 Main Street, Merimbula was submitted to Council on 16 October 2017 supported by a Statement of Environmental Effects dated October 2017 (SEE) prepared by Milestone and architectural drawings prepared by Rothelowman Architects.

This Addendum addresses the environmental impacts of the proposed revised site plan and should be read in conjunction with the original SEE documentation. This Addendum only addresses sections of the proposed development that differ materially requiring an environmental impact assessment.

Please be advised that the following changes have been made to the proposed development:

- Revise the proposed site plan to remove the right of way associated with the property located at 101 Main Street, Merimbula (SP 41712);
- Modification of the at-grade car park entry from the existing right of way within the property known as 101 Main Street to 105-107 Main Street;
- Modification of the at-grade car park layout;
- Realignment of the vehicular access ramp from the at-grade car park to the basement car park;
- Reduction of at-grade car parking spaces from 63 to 51 spaces, resulting in the total car parking provision being reduced from 101 to 89 spaces;
- Erection of a fence along the eastern site boundary shared with 101 Main Street;
- Modification to the layout of the proposed ALDI Store forecourt;
- Correction of the gross floor area and floor space ratio calculation error;
- Increase the proposed landscaped area from 284m^2 to 307m^2.

2.0 DESCRIPTION OF THE PROPOSED DEVELOPMENT

The submission seeks to revise the at-grade car park layout, specifically the amended DA plan package seeks to:

- Revise the new ALDI Store at-grade car park egress/ingress point from the existing driveway at 101 Main Street to the property at 105-107 Main Street;
- Revise the at-grade car park layout;
- Realign the vehicular access ramp from the at-grade car park to the basement car park;
- Reduce the at-grade parking spaces from 63 to 51 spaces, resulting in a total parking provision of 89 spaces;
- Erect a fence along the eastern site boundary shared with 101 Main Street;
- Modify the proposed ALDI Store forecourt layout;
- Correct the error of gross floor area and floor space area ratio calculation; and
- Increase the proposed landscaped area from 284m^2 to 307m^2.

Table 1 provides a development summary of the modified development:

Table 1: Development Summary

	Original	Revised	Change
Car Parking	101 spaces	89 spaces	-12 spaces
Bicycle Parking	8 spaces	8 spaces	Revised location of bicycle racks adjacent to the ALDI Store forecourt
Landscaping Area	284m^2	307m^2	+23m^2
GFA	1,685.8m^2	1,685.8m^2	No change
FSR	0.26:1	0.34:1	+8%

The revised development does not seek any other changes to the original development other than the items listed above. Revised Architectural Drawings prepared by Rothelowman held at **Appendix A** of this report.

Figures 1 and 2 show the original and revised proposed site plans.

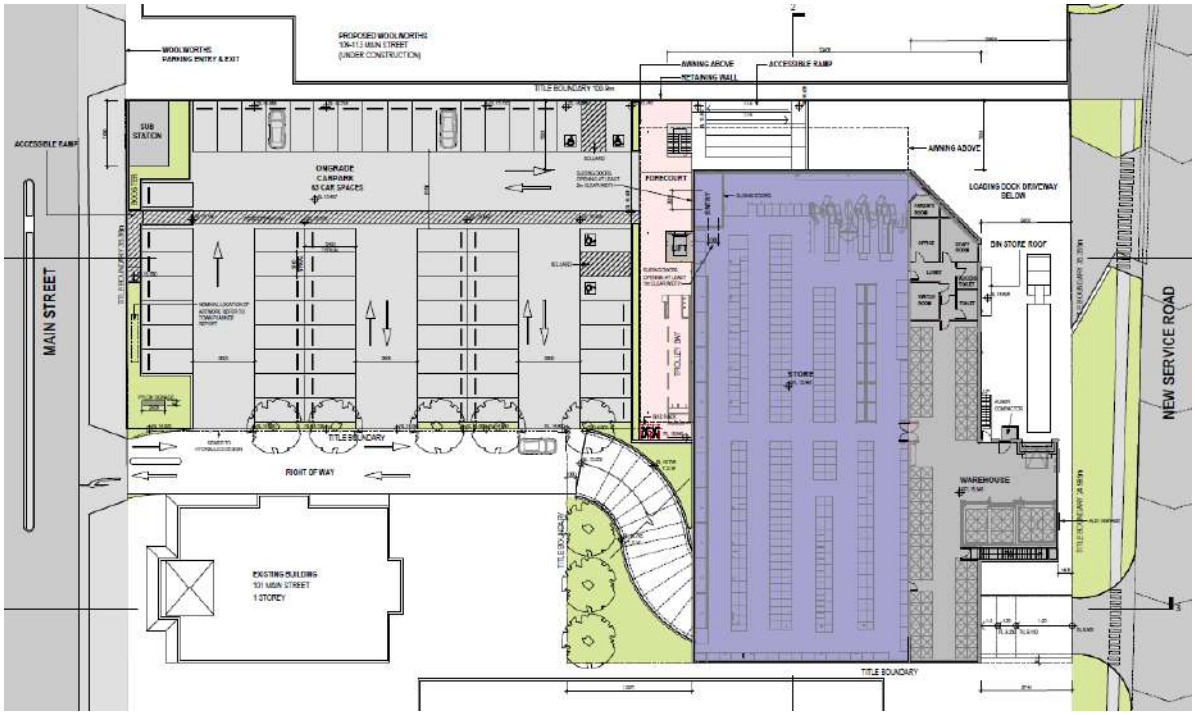


Figure 1: Original Site Plan
Source: Rothelowman Architects, 2017

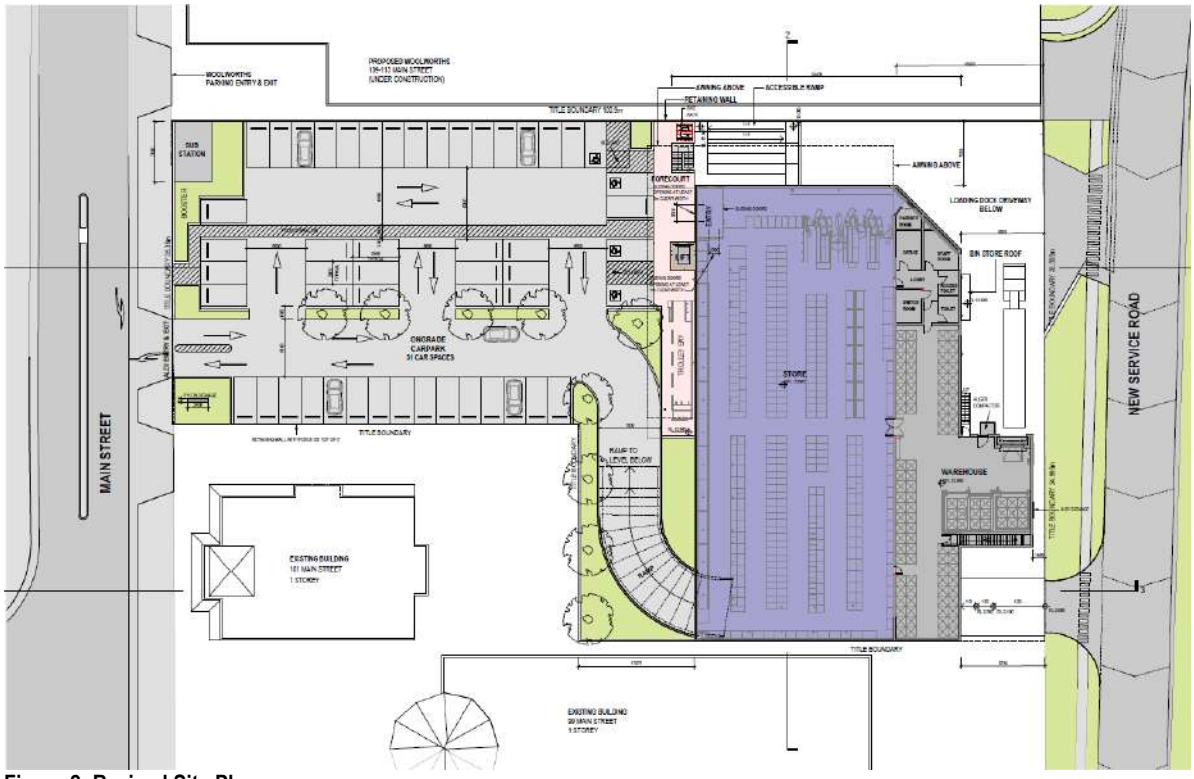


Figure 2: Revised Site Plan
Source: Rothelowman Architects, 2018

3.0 ENVIRONMENTAL IMPACT ASSESSMENT (SECTION 5 OF THE ORIGINAL SEE)

3.1 Gross Floor Area and Floor Space Ratio

The submission seeks to correct the Gross Floor Area calculation error shown on the architectural drawing No TP04.02, Revision P4. The correct Gross Floor Area is 1,685.8m^2 and the drawing No TP04.02 has been revised accordingly. Given the site area is 4,917.2m^2, the proposed development has a floor space ratio (FSR) of 0.34:1.

In accordance with the Bega Valley Local Environmental 2013 (LEP 2013), the site is not subject to a FSR development standard. LEP 2013 sets out the objectives of FSR development standard as follows:

(a) 'to establish the maximum development density and intensity of land use, taking into account the availability of infrastructure to service that site and the vehicle and pedestrian traffic that the development will generate,
(b) to ensure that buildings are compatible with the bulk and scale of the locality.'

3.2 Access and Parking

Pedestrian Access

The revised development maintains the direct pedestrian path between the proposed ALDI Store forecourt and the Main Street footpath. There is no change to the proposed pedestrian footpath along the new service road and accessible ramp to the new ALDI Store at the rear of the site.

Vehicular Access

The modified development seeks to relocate the at grade car park entry from the existing right of way at 101 Main Street to the property at 103-107 Main Street. There is no change to the proposed driveways for the rear loading dock and basement car park entry at the rear of the site.

The proposed crossover and driveway along Main Street are located approximately 25m from the intersection of Main and Market Streets and comply with the Bega Valley DCP requirement of '*driveway to be located 9m to an intersecting street*'.

The revised driveway is entirely located within the site and will exclusively serve the new ALDI Store. The proposed development has been designed to minimise traffic conflicts and create a safe environment for ALDI Store customers and employees and will continue to provide positive pedestrian safety outcomes.

Parking

The modified at-grade car park includes a total of 51 parking spaces (including 4 accessible spaces). The modified development results in an overall car parking provision of 89 spaces (including 6 accessible parking spaces). The proposed parking bays and access aisles are designed with compliance with Australian Standards *AS/NZS 2890.1 Part 1: Off-street car parking* and *AS/NZS 2890.6 Part 6: Off-street parking for people with disabilities*.

The modified car parking provision exceeds the parking requirement of 51 spaces as required by Bega Valley DCP 2013 and satisfies the requirement to provide a minimum 5 disabled parking spaces. The modified development retains the original eight (8) bicycle parking racks which are relocated to the west of the ALDI Store forecourt.

3.3 Visual Impact

There is no change to the originally proposed high quality materials and finishes and overall bulk and scale of the development. The modified driveway and car park are consolidated wholly within the site and the amended development will continue to enhances the site presentation when viewed from Main Street.

There is no change to the proposed pylon sign at the Main Street frontage. The proposed signage does not adversely interfere with vehicular and pedestrian movements. The proposed signage does not obstruct any important views of traffic, pedestrians, traffic signs, and other public safety devices.

3.4 Landscaping

The revised site plan increases the proposed overall landscaping area on the site from 284m^2 to 307m^2 and continues to include landscaping along the Main Street frontage and within the perimeter of the at-grade car park. New plantings are proposed along the shared southern boundary with the property at 101 Main Street and within the at grade car park.

The proposed landscaping works will soften the built form when viewed from public vantage points and provide necessary shading for customers and employees. The proposed plantings will provide natural screening and protect the visual amenity and privacy.

3.5 Safety and Security

The proposal includes the erection of fencing along the eastern site boundary adjacent to the property at 101 Main Street. The fencing will appropriately secure the site and parking bays and ensure there is no vehicular movement conflict between the new ALDI Store at-grade car park and the existing driveway within 101 Main Street.

4.0 INTEGRATED DEVELOPMENT

Section 4.46 of the *Environmental Planning and Assessment Act 1979 (NSW) (as amended)* states:

'integrated development is development (not being State significant development or complying development) that, in order for it to be carried out, requires development consent and one or more of the following approvals:

Act	***Provision***	***Approval***
Water Management Act 2000	*ss 89, 90, 91*	*Water use approval, water management work approval or activity approval under Part 3 of Chapter 3'*

Section 91 of the *Water Management Act 2000 (NSW)* sets out requirements for activity approvals as follows:

(1) 'There are two kinds of activity approvals, namely, controlled activity approvals and aquifer interference approvals.
(2) A controlled activity approval confers a right on its holder to carry out a specified controlled activity at a specified location in, on or under waterfront land.
(3) An aquifer interference approval confers a right on its holder to carry out one or more specified aquifer interference activities at a specified location, or in a specified area, in the course of carrying out specified activities.'

Dictionary of the *Water Management Act 2000 (NSW)* defines controlled activity and waterfront land as follows:

*'**controlled activity** means:*
(a) the erection of a building or the carrying out of a work (within the meaning of the Environmental Planning and Assessment Act 1979), or
(b) the removal of material (whether or not extractive material) or vegetation from land, whether by way of excavation or otherwise, or
(c) the deposition of material (whether or not extractive material) on land, whether by way of landfill operations or otherwise, or
(d) the carrying out of any other activity that affects the quantity or flow of water in a water source.'

***waterfront land** means:*
(a) the bed of any river, together with any land lying between the bed of the river and a line drawn parallel to, and the prescribed distance inland of, the highest bank of the river, or
(a1) the bed of any lake, together with any land lying between the bed of the lake and a line drawn parallel to, and the prescribed distance inland of, the shore of the lake, or
(a2) the bed of any estuary, together with any land lying between the bed of the estuary and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the estuary, or
(b) if the regulations so provide, the bed of the coastal waters of the State, and any land lying between the shoreline of the coastal waters and a line drawn parallel to, and the prescribed distance inland of, the mean high water mark of the coastal waters,

where the prescribed distance is 40 metres or (if the regulations prescribe a lesser distance, either generally or in relation to a particular location or class of locations) that lesser distance. Land that falls into 2 or more of the categories referred to in paragraphs (a), (a1) and (a2) may be waterfront land by virtue of any of the paragraphs relevant to that land.'

The site is approximately 60 metres south of the Merimbula Creek bank and the proposed service road is 16 metres in width, therefore the northern road alignment is approximately 44 metres south of Merimbula Creek bank and construction of the new ALDI Store and service road does not trigger an approval from NSW Office of Water.

It is acknowledged the proposed service road batter and energy dissipater with associated catch diversion drain are located within 40 metres distance from the Merimbula Creek bank. ALDI Stores will obtain an approval from NSW Office of Water prior to the commencement of constructing the road batter, energy dissipater, and catch diversion drain.

5.0 CONCLUSION

The Development Application No 421.2017 seeks Development Consent for the associated earthworks, construction and fitout of proposed building comprising an ALDI Store with associated business identification signage, landscaping and car parking at the property known as 103-107 Main Street, Merimbula (Lot 949 in DP 810986 & Lot 946 in DP 604076).

This submission seeks to replace the original architectural, civil and landscape drawings in response to the proposed revised site plan. These changes to the proposed site layout are required due Owner's Consent not being provided for the use of land at 101 Main Street.

In light of the merits of the revised development proposal and given the absence of any significant adverse environmental impacts, we recommend the proposed development be supported by Council and approved by the Panel.

Should you require further clarification regarding this matter, please do not hesitate to contact the undersigned.

Yours sincerely
Milestone (AUST) Pty Limited

Lisa Bella Esposito
Director

APPENDIX A: ARCHITECTURAL PLANS PREPARED BY ROTHELOWMAN ARCHITECTS

CAR SPACES	
LEVEL BASEMENT	38
LEVEL STORE	51
	89

Revisions

P11	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P12	30.01.18	Amended Carpark Layout	JM
P13	05.02.18	To Planners for D.A. re-submission	JM
P14	28.02.18	D.A. Re-submission	JM

28/02/2018 4:07:29 PM

Project **MERIMBULA ALDI** Drawing **SITE PLAN** Project No **216142** Date **01/05/17** Author **JC** Scale: @ A1 **1 : 500** Drawing No. **TP00.01 P14**

103 MAIN STREET,
MERIMBULA, NSW, 2548

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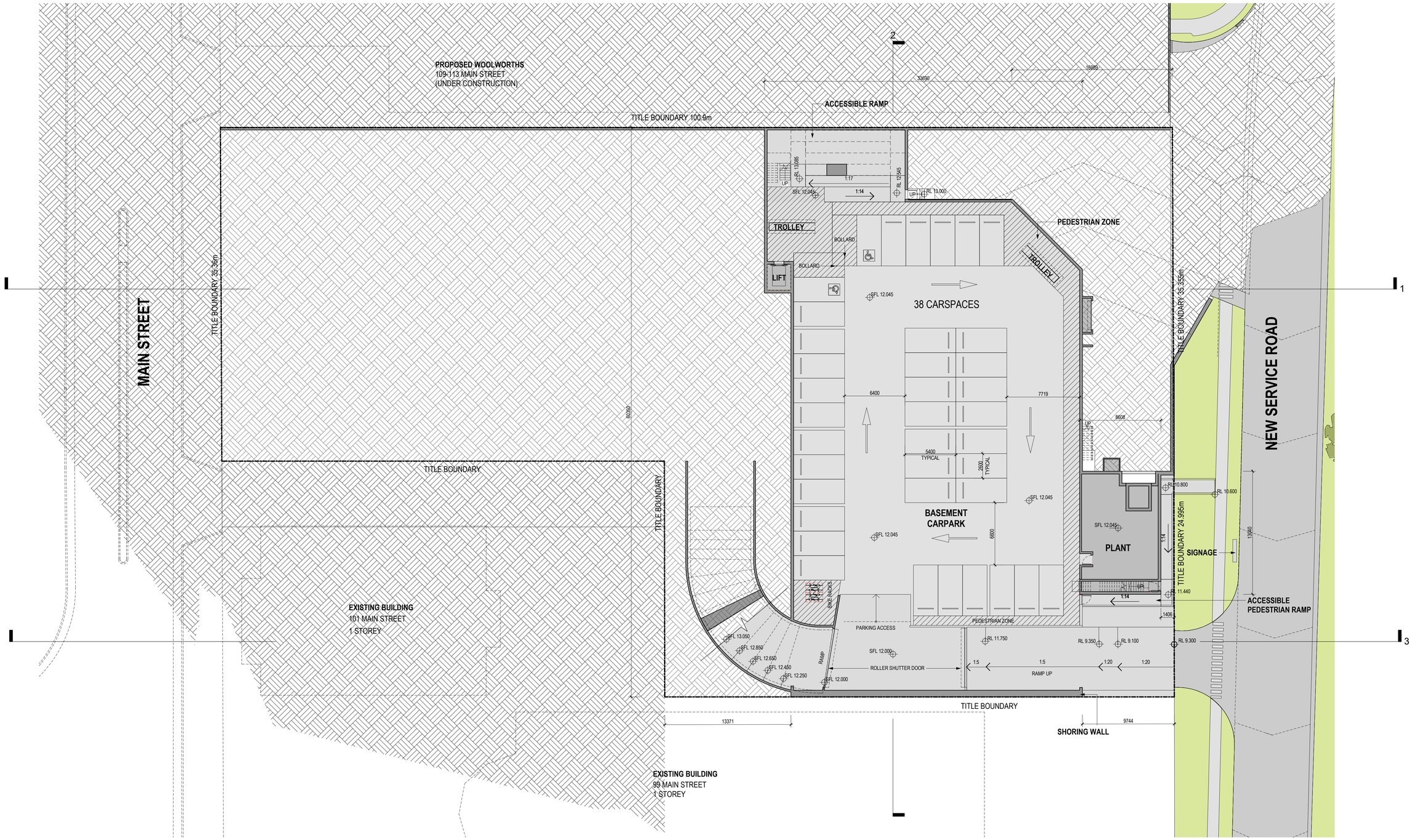

CAR SPACES	
LEVEL BASEMENT	38
LEVEL STORE	51
	89

Revisions

P12	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P13	05.02.18	To Planners for D.A. re-submission	JM
P14	28.02.18	D.A. Re-submission	JM
P15	01-0318	D.A. Re-submisison	JM

1/03/2018 12:59:31 PM

Project **MERIMBULA ALDI**

Drawing **LEVEL BASEMENT PLAN**

Project No **216142**

Date **03/05/17**

Author **JC**

Scale: @ A1 **1 : 200**

Drawing No. **TP01.02 P15**

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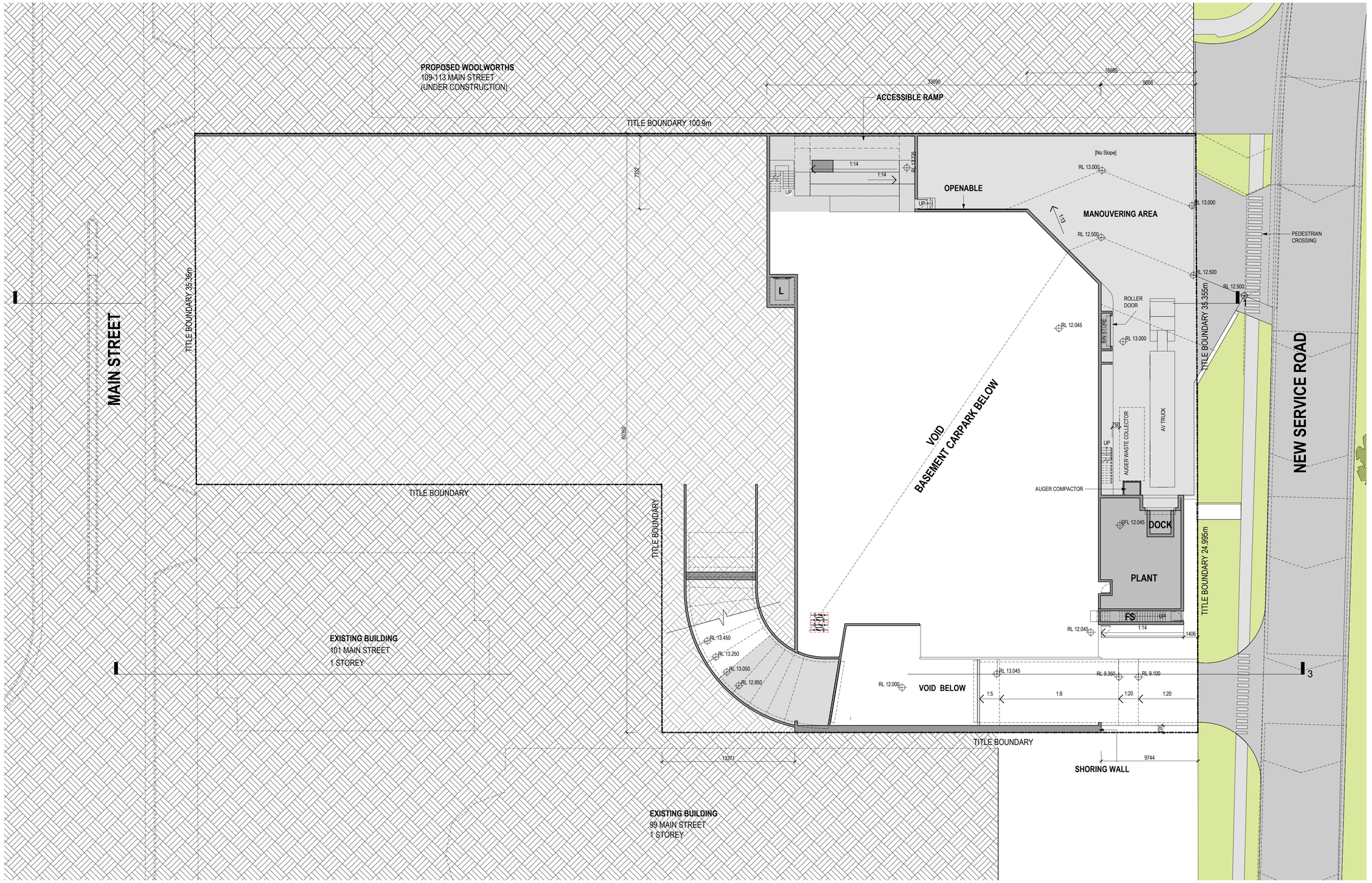

Revisions

P7	25.09.17	Internal revirew	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P9	05.02.18	To Planners for D.A. re-submission	JM
P10	28.02.18	D.A. Re-submission	JM

28/02/2018 4:07:44 PM

Project: **MERIMBULA ALDI**

Drawing: **LEVEL DOCK PLAN**

Project No: **216142**

Date: **14/08/17**

Author: **JC**

Scale: @ A1 **1 : 200**

Drawing No.: **TP01.03 P10**

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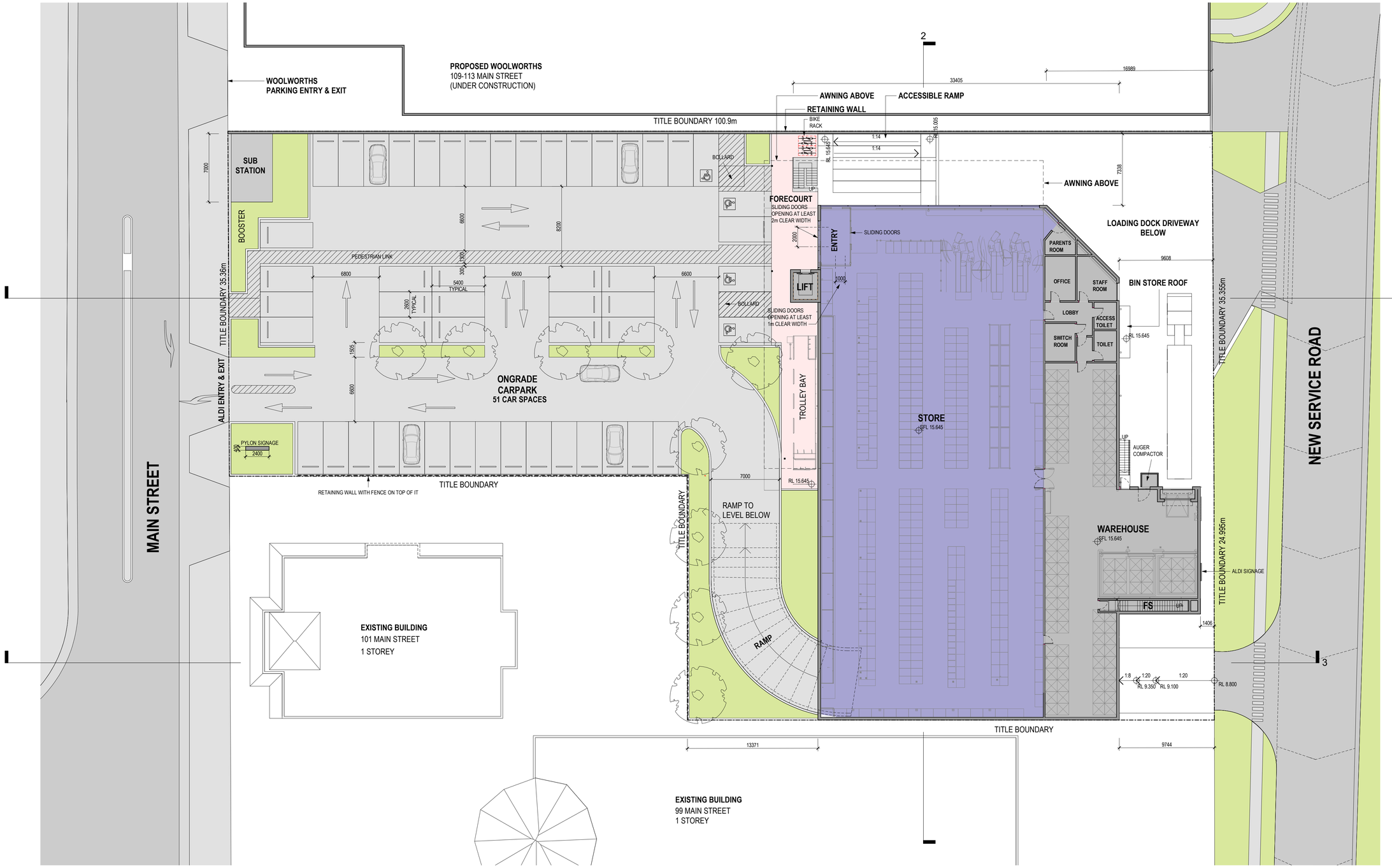

Revisions			
	27.09.17	D.A Submission	AK
P13	30.01.18	Amended Carpark Layout	JM
P14	05.02.18	To Planners for D.A. re-submission	JM
P15	15-02-18	For Civil and Landscape coordination	JM
P16	28.02.18	D.A. Re-submission	JM

28/02/2018 4:07:51 PM

Project: **MERIMBULA ALDI**

Drawing: **LEVEL STORE PLAN**

Project No: **216142**

Date: **01/05/17**

Author: **JC**

Scale: @ A1 **1 : 200**

Drawing No.: **TP01.04 P16**

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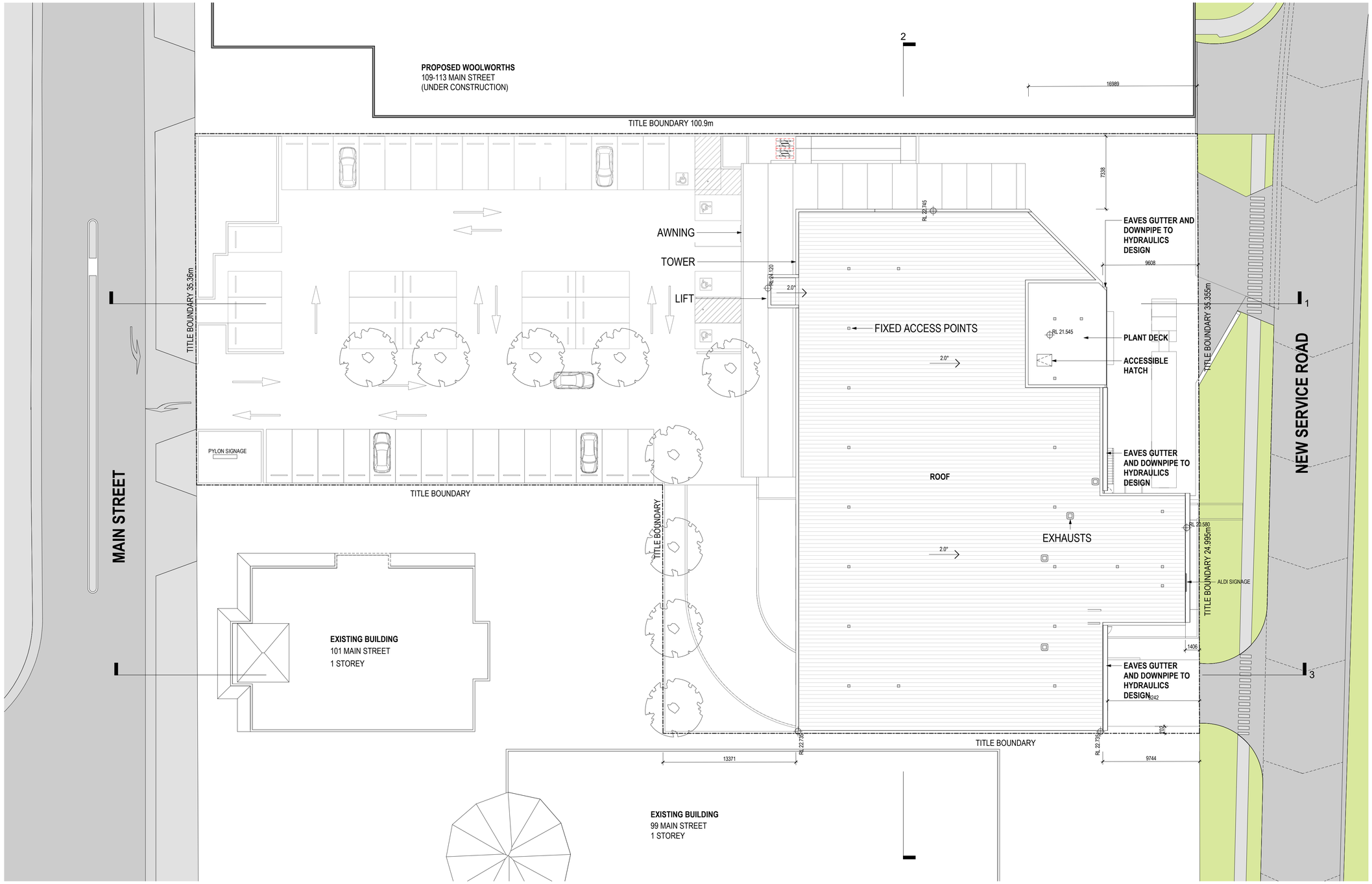

Revisions

P7	25.09.17	Internal revirew	JM
P8	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P9	05.02.18	To Planners for D.A. re-submission	JM
P10	28.02.18	D.A. Re-submission	JM

28/02/2018 4:07:59 PM

Project **MERIMBULA ALDI**

Drawing **ROOF PLAN**

Project No **216142**

Date **29/06/17**

Author **JC**

Scale: @ A1 **1 : 200**

Drawing No. **TP01.05 P10**

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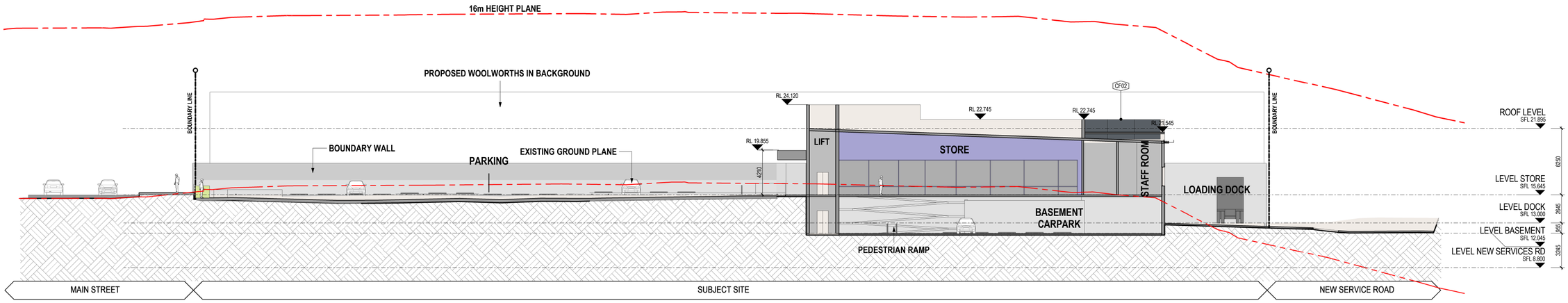
Section 1



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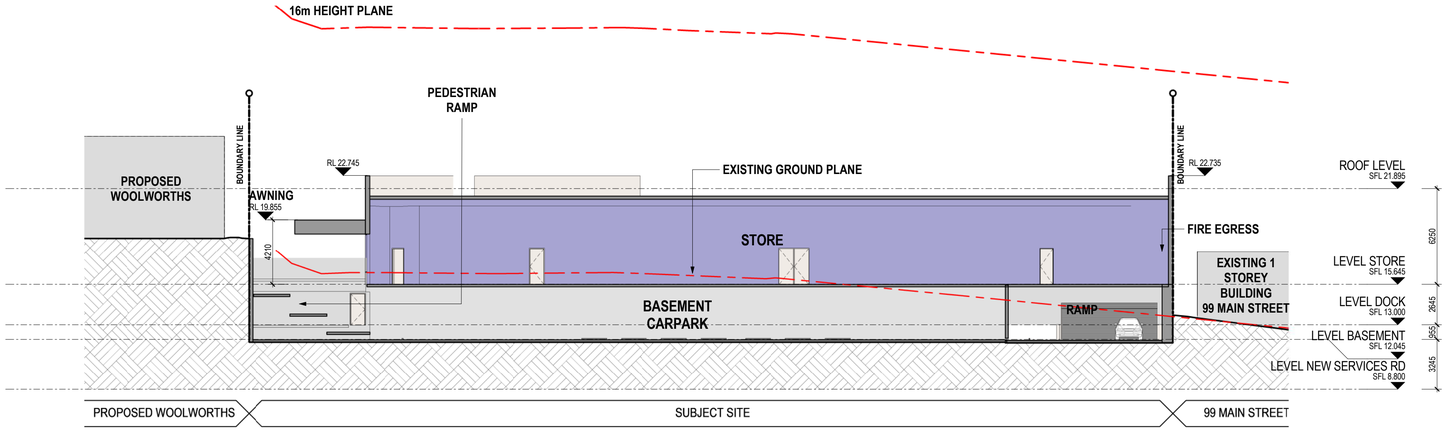

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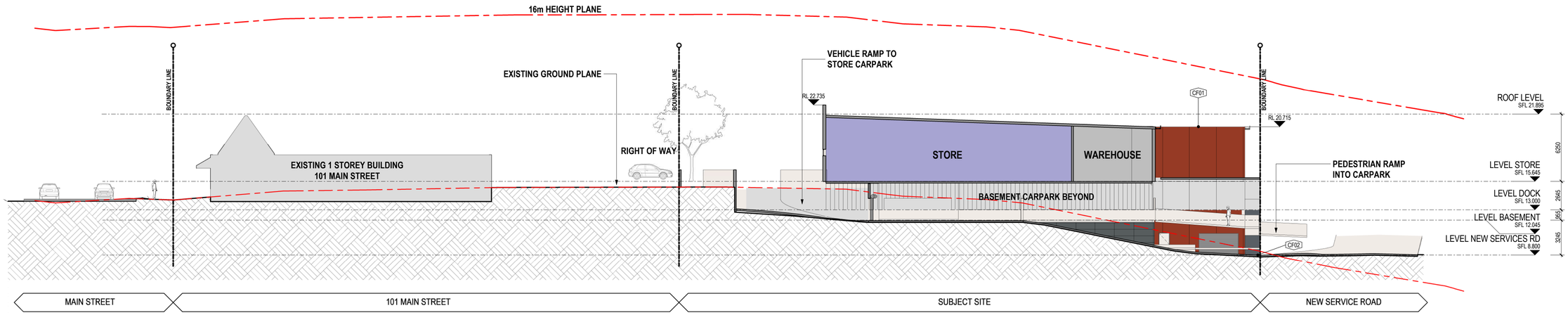

Revisions

P9	25.09.17	Internal reviewv	JM
P10	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P11	05.02.18	To Planners for D.A. re-submission	JM
P12	28.02.18	D.A. Re-submission	JM

28/02/2018 4:08:05 PM

FINISHES
REFER TO MATERIAL SELECTIONS FOR DESCRIPTION AND COLOUR

MF01	METAL FINISH TYPE 01
CF01	CONCRETE FINISH TYPE 01
CF02	CONCRETE FINISH TYPE 02

Project: **MERIMBULA ALDI**
Drawing: **SECTIONS**
Project No: **216142**
Date: **01/05/17**
Author: **AK**
Scale: @ A1 **1 : 200**
Drawing No.: **TP03.01 P12**

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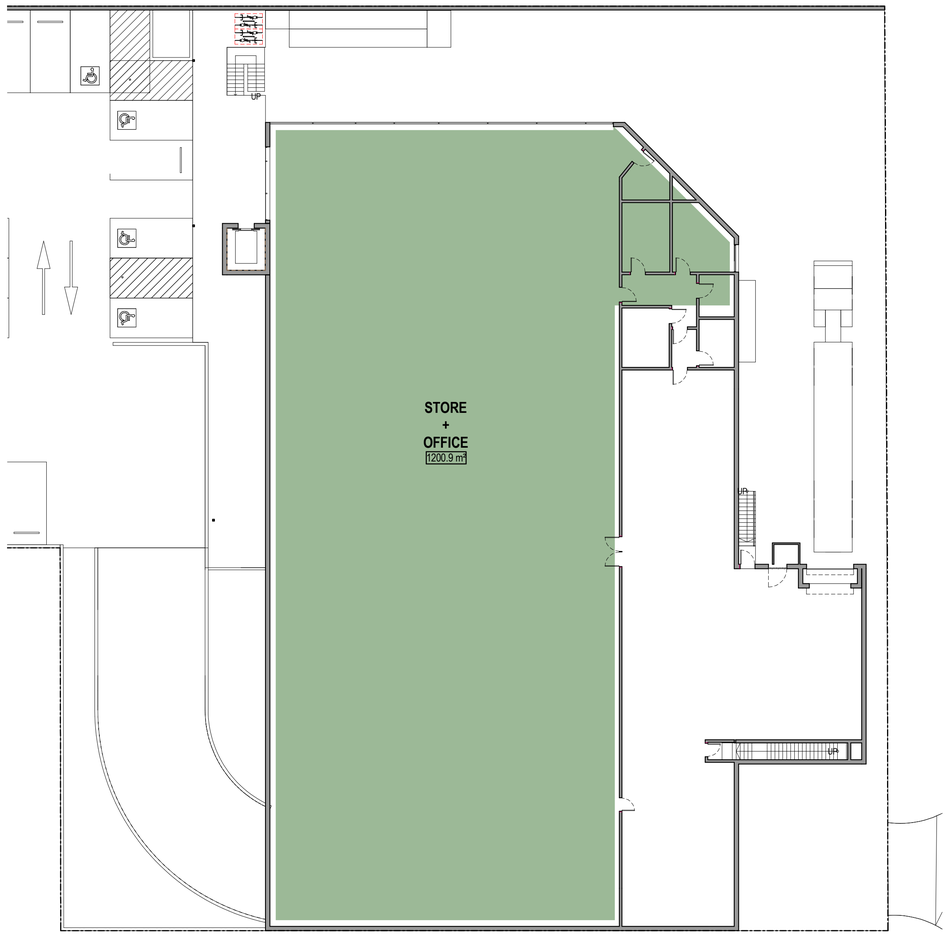
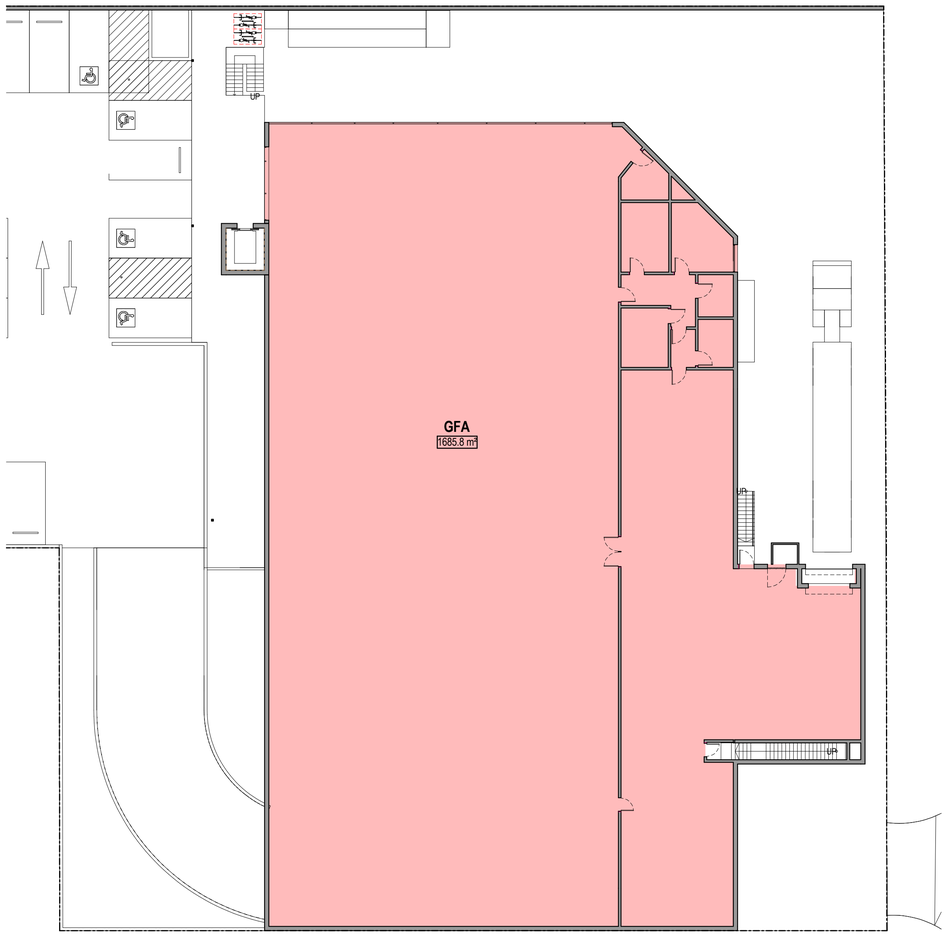


STORE + OFFICE - LEVEL STORE

GFA AREA CALCULATIONS
AREA
1200.9 m²

SITE AREA
4917.2 m²



GFA - LEVEL STORE

GFA AREA CALCULATIONS
Area
1685.8 m²

Revisions

P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P5	06.02.18	Revised areas to planner	JM
P6	07.02.1	Areas renamed for planning	JM
P7	01-0318	D.A. Re-submisison	JM

1/03/2018 12:59:34 PM

Project: **MERIMBULA ALDI**

Drawing: **STORE+OFFICE & GFA**

Project No: **216142**

Date: **12.09.17**

Author: **JN**

Scale: @ A1: **1 : 200**

Drawing No.: **TP04.02 P7**

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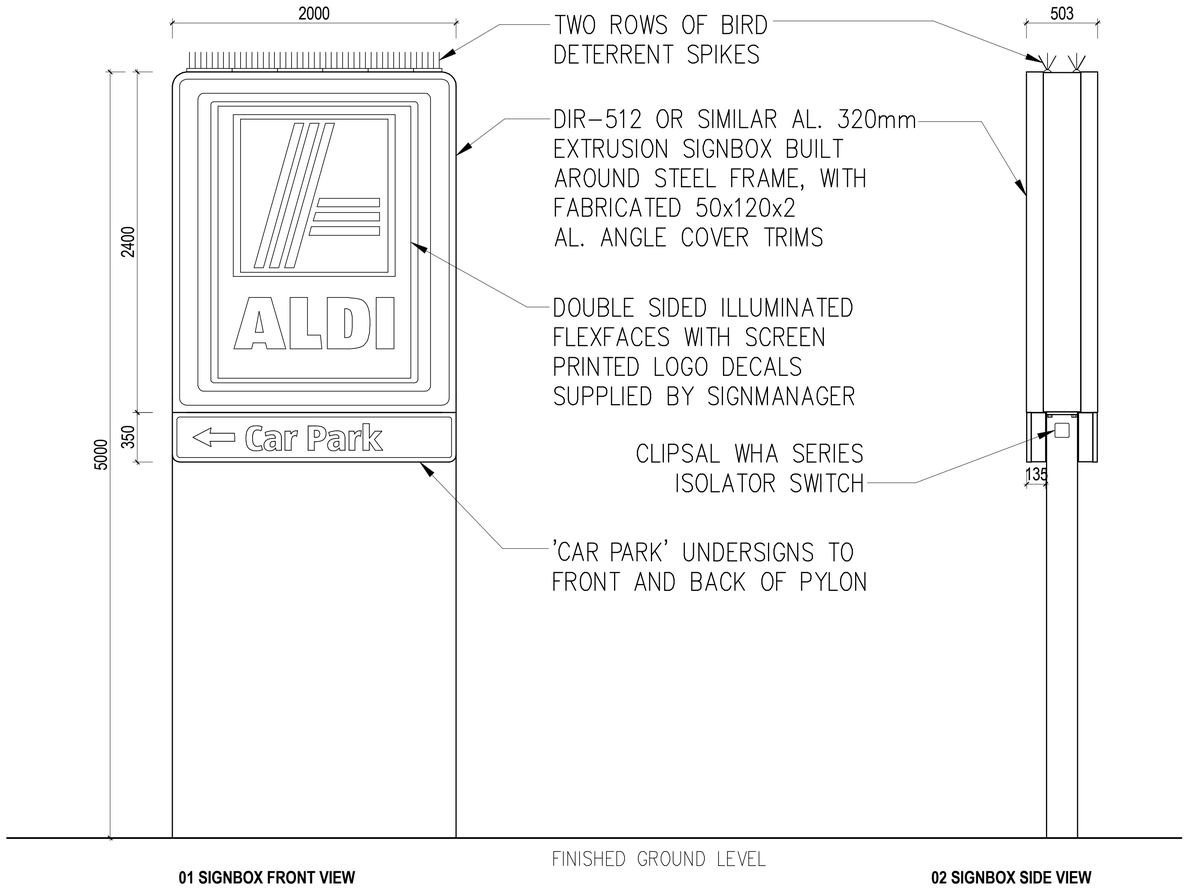
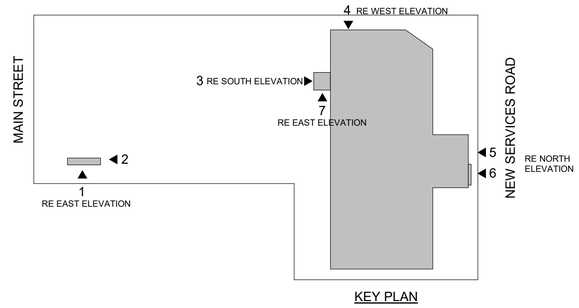
- FOR ILLUMINATED SIGNAGE FIXED ON WALLS, REFER TO ELEVATIONS AS PER KEY PLAN
- FOR SIGNAGE BOX, REFER TO THIS DRAWING
- FOR STATUTORY SIGNAGE, REFER TO ALDI STANDARD DOCUMENTS PRODUCED BY SIGNMANAGER



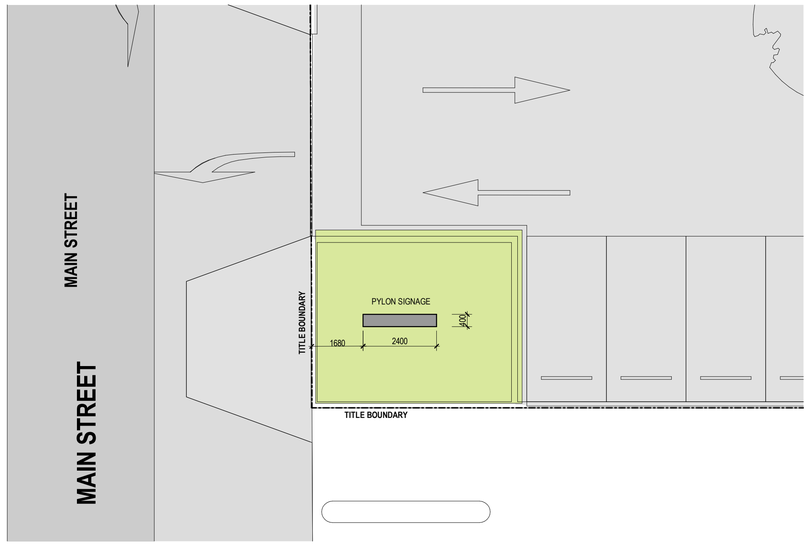
01 SIGNBOX FRONT VIEW

02 SIGNBOX SIDE VIEW

ALDI SIGNAGE DETAIL



KEY PLAN



ALDI SIGNAGE - MAIN STREET

Revisions

	27.09.17	D.A Submission	AK
	10.10.17	D.A. Submission: Notes Added Regarding Signage	AK
P5	05.02.18	To Planners for D.A. re-submission	JM
P6	28.02.18	D.A. Re-submission	JM

28/02/2018 4:08:07 PM

Project: **MERIMBULA ALDI**

Drawing: **SIGNAGE PLAN**

Project No: **216142**

Date: **09/13/17**

Author: **JN**

Scale: @ A1 **As indicated**

Drawing No: **TP04.03 P6**

103 MAIN STREET,
MERIMBULA, NSW, 2548

rothelowman

Brisbane, Melbourne, Sydney
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DEVELOPMENT SUMMARY

LEVEL	PARKING	STORE + OFFICE	CIRCULATION/SERVICES
LEVEL NEW SERVICES RD	0.0 m²	0.0 m²	102.0 m²
LEVEL BASEMENT	1327.1 m²	0.0 m²	257.4 m²
LEVEL DOCK	507.1 m²	0.0 m²	355.9 m²
LEVEL STORE	1774.1 m²	1200.9 m²	615.7 m²
	3608.2 m²	1200.9 m²	1330.9 m²

*For preliminary feasibility purposes. Areas are not to be used for purpose of lease or sale agreements. Layouts may not comply with building regulations or other regulatory requirements. The information contained in this schedule is believed to be correct at the time of printing. Areas are generally measured in accordance with the Property Council of Australia Method of Measurement.

NOTES AND DEFINITIONS

GFA
(Gross Floor Area) has been calculated as per the definition in the relevant Local Environmental Plan (LEP).

GEA
(Gross Envelope Area) has been calculated as the total enclosed and unenclosed area of the building at all building floor levels measured between the normal outside face of any enclosing walls, balustrades and supports.

GLA RETAIL
(Gross Lettable Area Retail) has been calculated as per the Property Council of Australia *Method of Measurement* Guidelines - Retail / Commercial.

NSA RESIDENTIAL
(Net Saleable Area Residential) has been calculated as per the Property Council of Australia *Method of Measurement* Guidelines - Residential.

SOLAR ACCESS
Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas.

CROSS VENTILATION
At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed.

LEVEL	CARPARKS RETAIL	BICYCLE PARKS
LEVEL BASEMENT	38	4
LEVEL STORE	51	4
	89	8

Max. Height
16m
Zone
B2

Revisions

P4	26.09.17	Client Review prior D.A. submission	JM
	27.09.17	D.A Submission	AK
P5	05.02.18	To Planners for D.A. re-submission	JM
P6	06.02.18	Revised areas to planner	JM
P7	28.02.18	D.A. Re-submission	JM

28/02/2018 4:08:08 PM

Project: **MERIMBULA ALDI**
103 MAIN STREET,
MERIMBULA, NSW, 2548

Drawing: **DEVELOPMENT SUMMARY**

Project No: **216142**

Date: **18/09/17**

Author: **AK**

Scale: @ A1

Drawing No.: **TP07.01 P7**

rothelowman

Brisbane, Melbourne, Sydney
www.rothelowman.com.au

APPENDIX B: LANDSCAPE PLANS PREPARED BY SITE IMAGE

ALDI Merimbula
103 Main St, Merimbula, NSW 2548

Development Application

DRAWINGS

DWG NO.	DRAWING TITLE	SCALE
000	COVER SHEET	
101	LANDSCAPE PLAN	1:150
501	LANDSCAPE DETAILS	AS SHOWN

PROPOSED LANDSCAPE AREAS

307m² REVISED SUBMISSION
(REV D)

284m² PREVIOUS DA SUBMISSION
(REV B)

PLANT SCHEDULE

Symbol	Botanical Name	Common Name	Height Metres	Width	Pot Size	Spacing	Quantity
	Trees						
TI	*Tristaniopsis laurina*	Water Gum	8	5	100L	As Shown	**13**
	Shrubs and Accents						
Pc	*Phormium cookianum*	Mountain Flax	1	1	300mm	As Shown	**60**
PgR	*Photinia glabra* 'Rubens'	Photinia Rubens	3	2	300mm	As Shown	**81**
	Groundcovers						
DB	*Dianella caerulea 'Breeze'*	Dianella Breeze	0.6	0.6	150mm	5/m2	**723**
Gt	*Gazania tomentosa*	Silver Leaf Gazania	0.2	0.5	150mm	5/m2	**512**

NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

LEGEND

Issue	Revision Description	Drawn	Check	Date
D	Architectural Coordination	LM	NM	01.03.2018
C	Architectural Coordination	JM	NM	09.02.2018
B	Architectural Coordination	JW	NM	26.09.2017
A	For Comment	JW	NM	28.08.2017

A1

Key Plan:

SITE IMAGE
Landscape Architects
Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia
Tel: (61 2) 8332 5600
Fax: (61 2) 9698 2877
www.siteimage.com.au

Client:
ALDI STORES

Project:
ALDI Merimbula
103 Main St
Merimbula NSW 2548

Drawing Name:
Cover Sheet

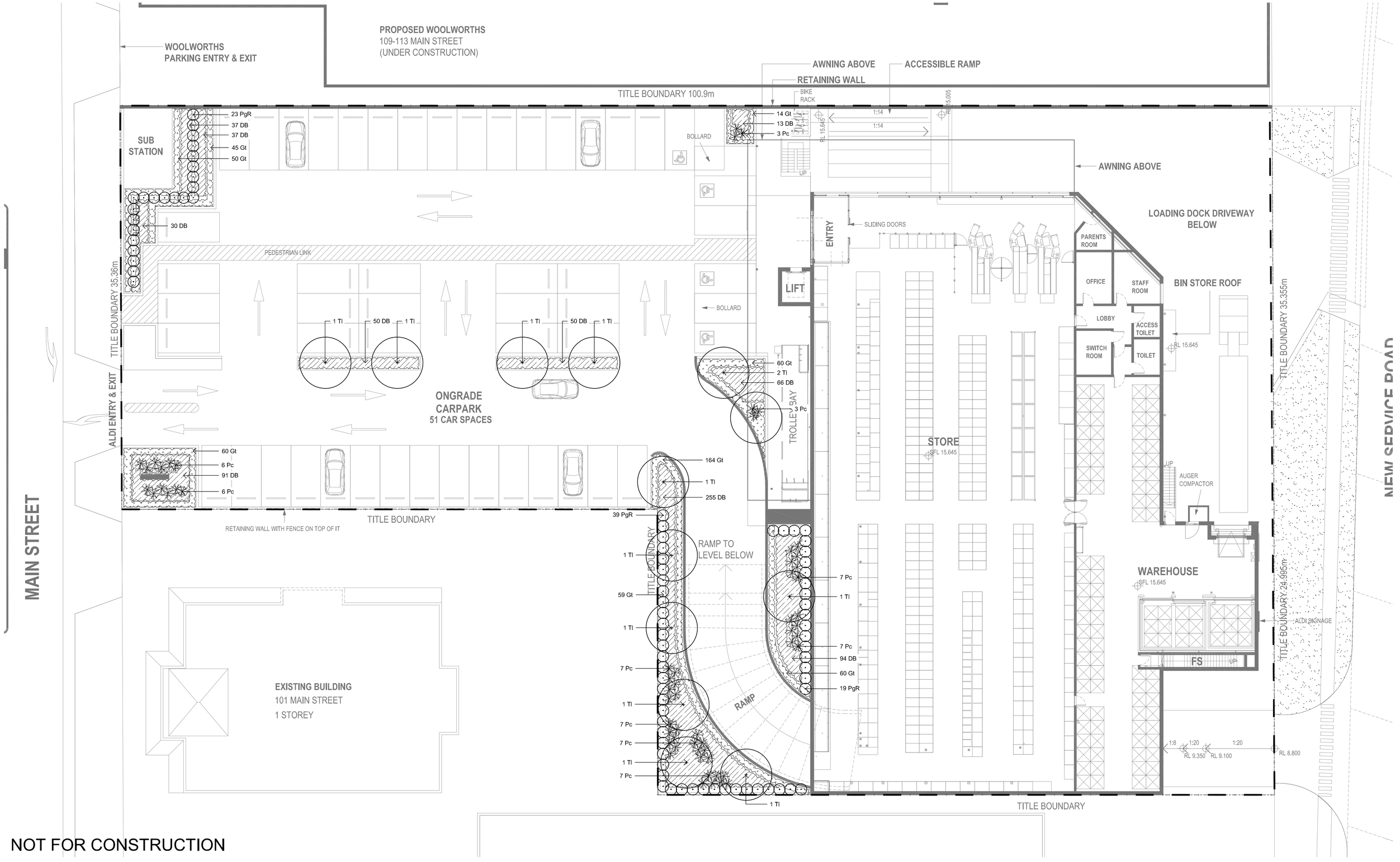
DEVELOPMENT APPLICATION

Scale:

Job Number: SS17-3622

Drawing Number: 000

Issue: D



NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

Issue	Revision Description	Drawn	Check	Date
D	Architectural Coordination	JM	NM	01.03.2018
C	Architectural Coordination	JM	NM	09.02.2018
B	Architectural Coordination	JW	NM	26.09.2017
A	For Comment	JW	NM	28.08.2017

LEGEND

- Site Boundary
- Proposed Tree
- Proposed Shrubs and Accents
- Proposed Grasses and Groundcovers
- Mulch
- Edging
- Turf

Key Plan:

SITE IMAGE
Landscape Architects
Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia
Tel: (61 2) 8332 5600
Fax: (61 2) 9698 2877
www.siteimage.com.au

Client:
ALDI STORES

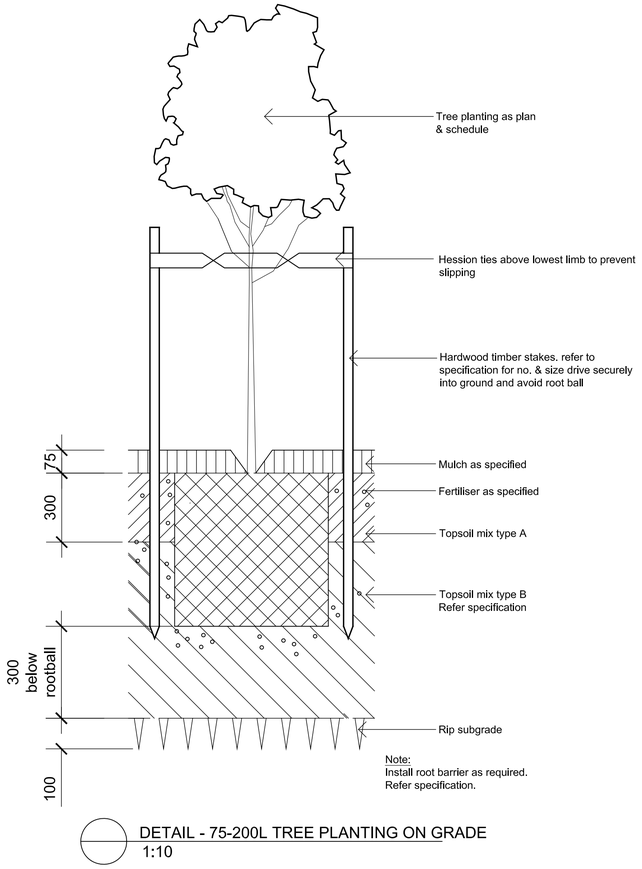
Project:
ALDI Merimbula
103 Main St
Merimbula NSW 2548

Drawing Name:
Landscape Plan

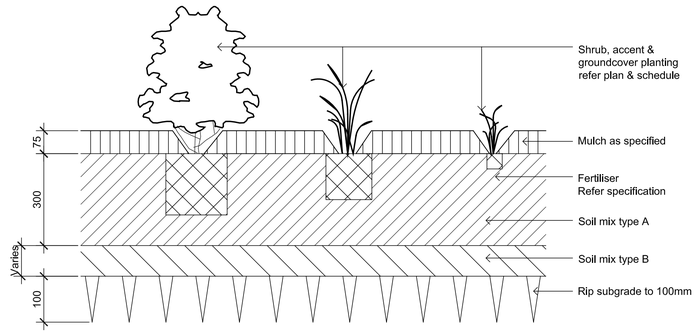
DEVELOPMENT APPLICATION

Scale: 1:150 @ A1 (0 1 2 3 4 5m)
Job Number: SS17-3622
Drawing Number: 101
Issue: D

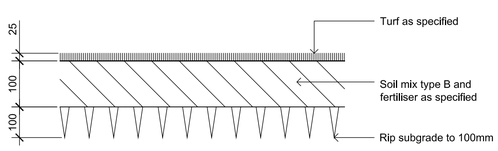
A1



DETAIL - 75-200L TREE PLANTING ON GRADE
1:10



DETAIL - SHRUB, ACCENT & GROUNDCOVER PLANTING ON GRADE
1:10



DETAIL -TURF ON EVEN GRADE
1:10

NOT FOR CONSTRUCTION

The contractor shall check and verify all work on site (including work by others) before commencing the landscape installation. Any discrepancies are to be reported to the Project Manager or Landscape Architect prior to commencing work. Do not scale this drawing. Any required dimensions not shown shall be referred to the Landscape Architect for confirmation.

LEGEND

Issue	Revision Description	Drawn	Check	Date
B	Architectural Coordination	JW	NM	26.09.2017
A	For Comment	JW	NM	28.08.2017

A1

Key Plan:

SITE IMAGE
Landscape Architects
Level 1, 3-5 Baptist Street
Redfern NSW 2016
Australia
Tel: (61 2) 8332 5600
Fax: (61 2) 9698 2877
www.siteimage.com.au

Client:
ALDI STORES

Project:
ALDI Merimbula
103 Main St
Merimbula NSW 2548

Drawing Name:
Landscape Details

PRELIMINARY

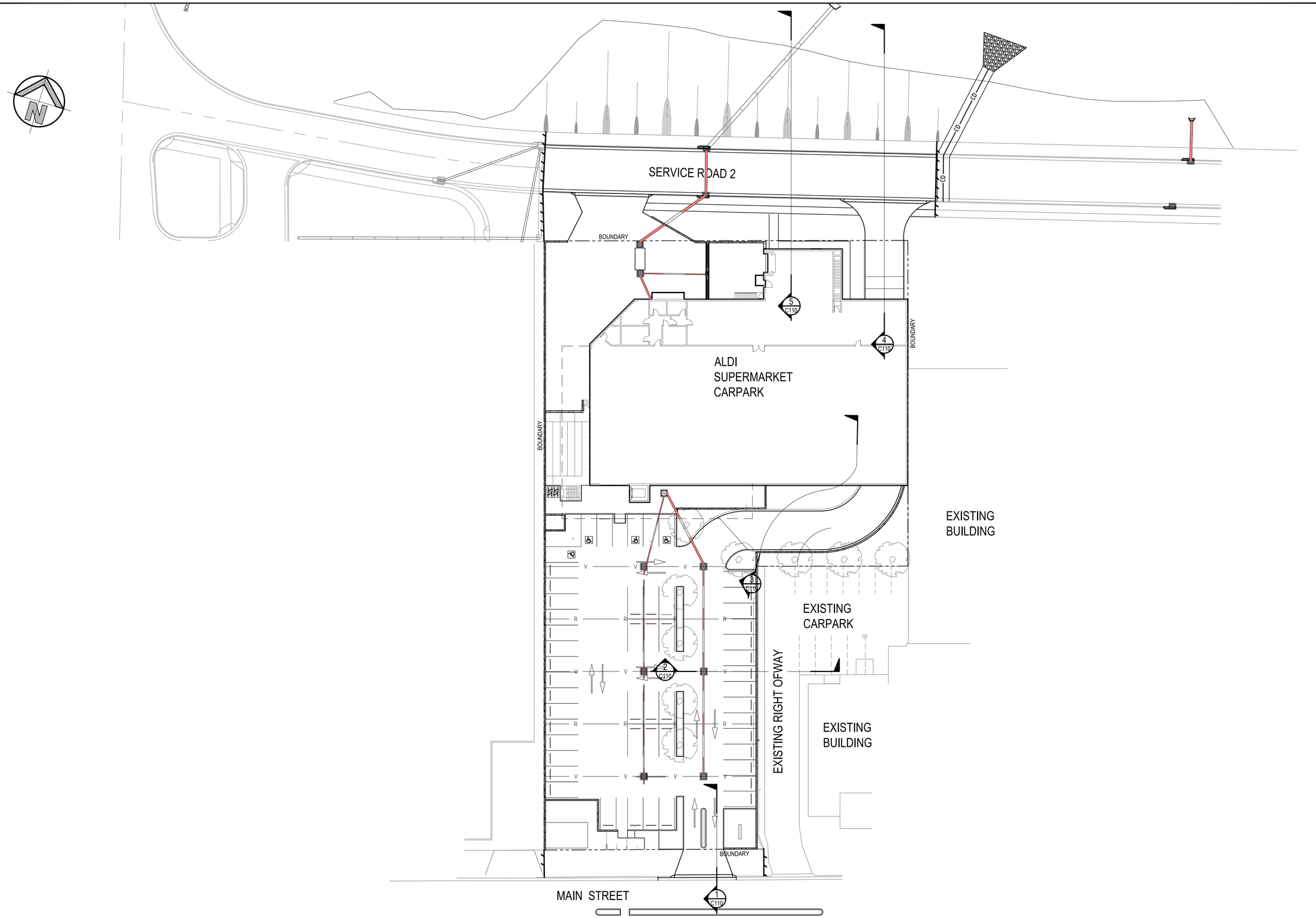
Scale:

Job Number: SS17-3622

Drawing Number: 501

Issue: B

APPENDIX C: CIVIL ENGINEERING PLANS PREPARED BY HENRY & HYMAS



0 5 10 15 20 25 30m
6 4 2
SCALE 1:300

OVERALL PLAN
SCALE 1:300

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	MC	TR	XX.02.2018
01	ISSUED FOR DA	MC	TR	28.09.2017

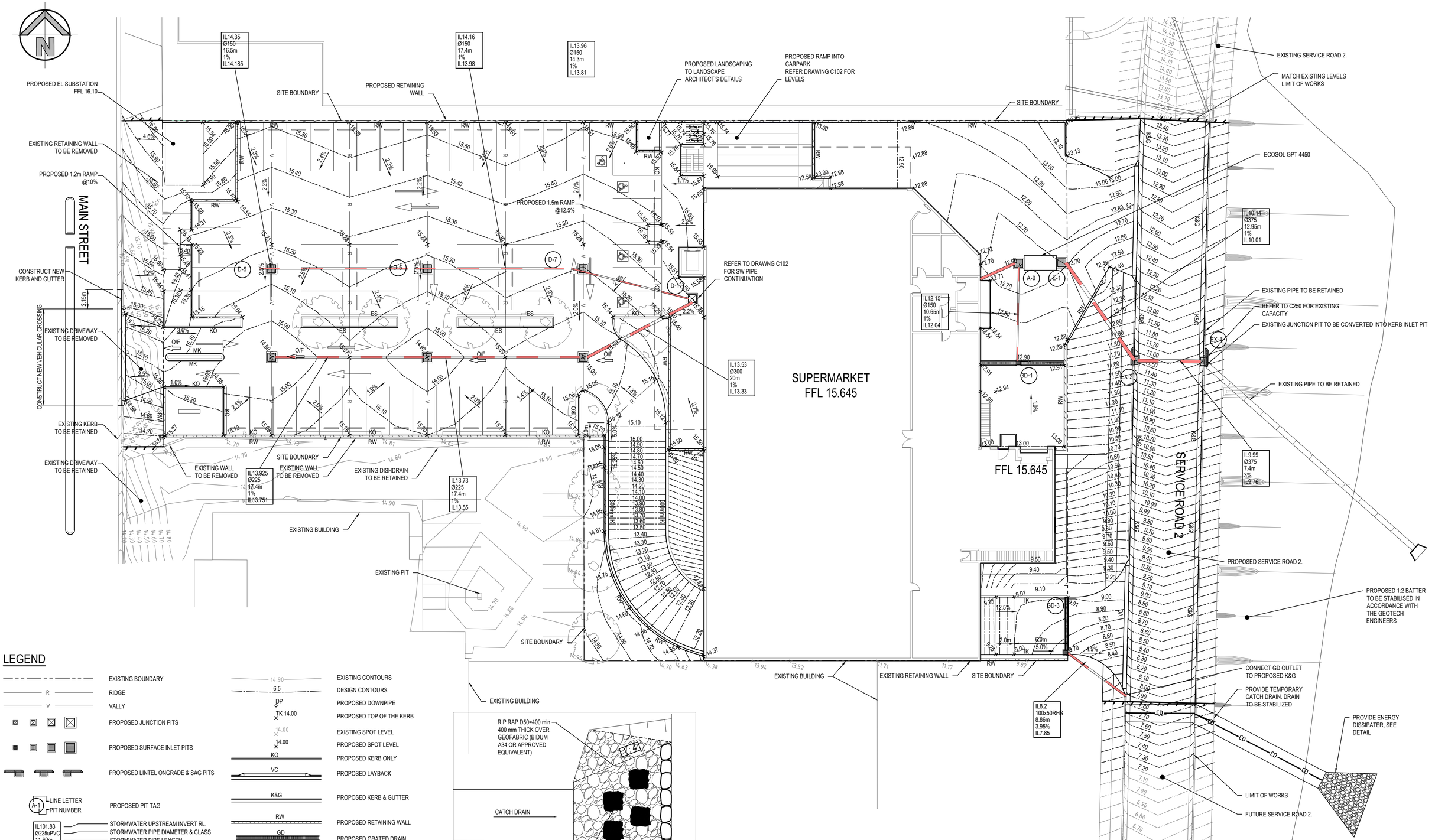
Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW
Title: OVERALL PLAN

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rezehnal	A.Francis	1:300@A1

Drawing number: 17623_DA_C100
Revision: 02

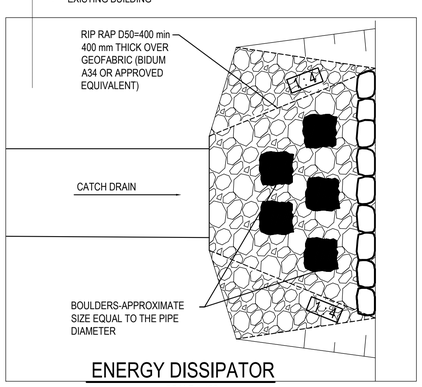


LEGEND

- EXISTING BOUNDARY
- RIDGE
- VALLY
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- PROPOSED PIT TAG (LINE LETTER / PIT NUMBER)
- STORMWATER UPSTREAM INVERT RL. (IL101.83)
- STORMWATER PIPE DIAMETER & CLASS (Ø225uPVC)
- STORMWATER PIPE LENGTH (11.60m)
- STORMWATER PIPE GRADE (1%)
- STORMWATER DOWNSTREAM INVERT RL. (IL101.83)
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SUBSOIL DRAINAGE
- EXISTING CONTOURS
- DESIGN CONTOURS
- PROPOSED DOWNPIPE
- PROPOSED TOP OF THE KERB
- EXISTING SPOT LEVEL
- PROPOSED SPOT LEVEL
- PROPOSED KERB ONLY
- PROPOSED LAYBACK
- PROPOSED KERB & GUTTER
- PROPOSED RETAINING WALL
- PROPOSED GRATED DRAIN
- PROPOSED 300mm WIDE INTEGRAL KERB
- PROPOSED INTERMEDIATE RISER (IR)
- PROPOSED FLUSHING POINT (FP)
- PROPOSED BATTER LINE
- CATCH DIVERSION DRAIN

0 4 8 12 16 20m

SCALE 1:200



ENERGY DISSIPATOR

SCALE 1:100

GENERAL ARRANGEMENT PLAN - GROUND FLOOR

SCALE 1:200

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY: CADDEY AND JARMAN

DATUM: AHD

ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	MC	TR	XX.02.2018
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au

henry&hymas

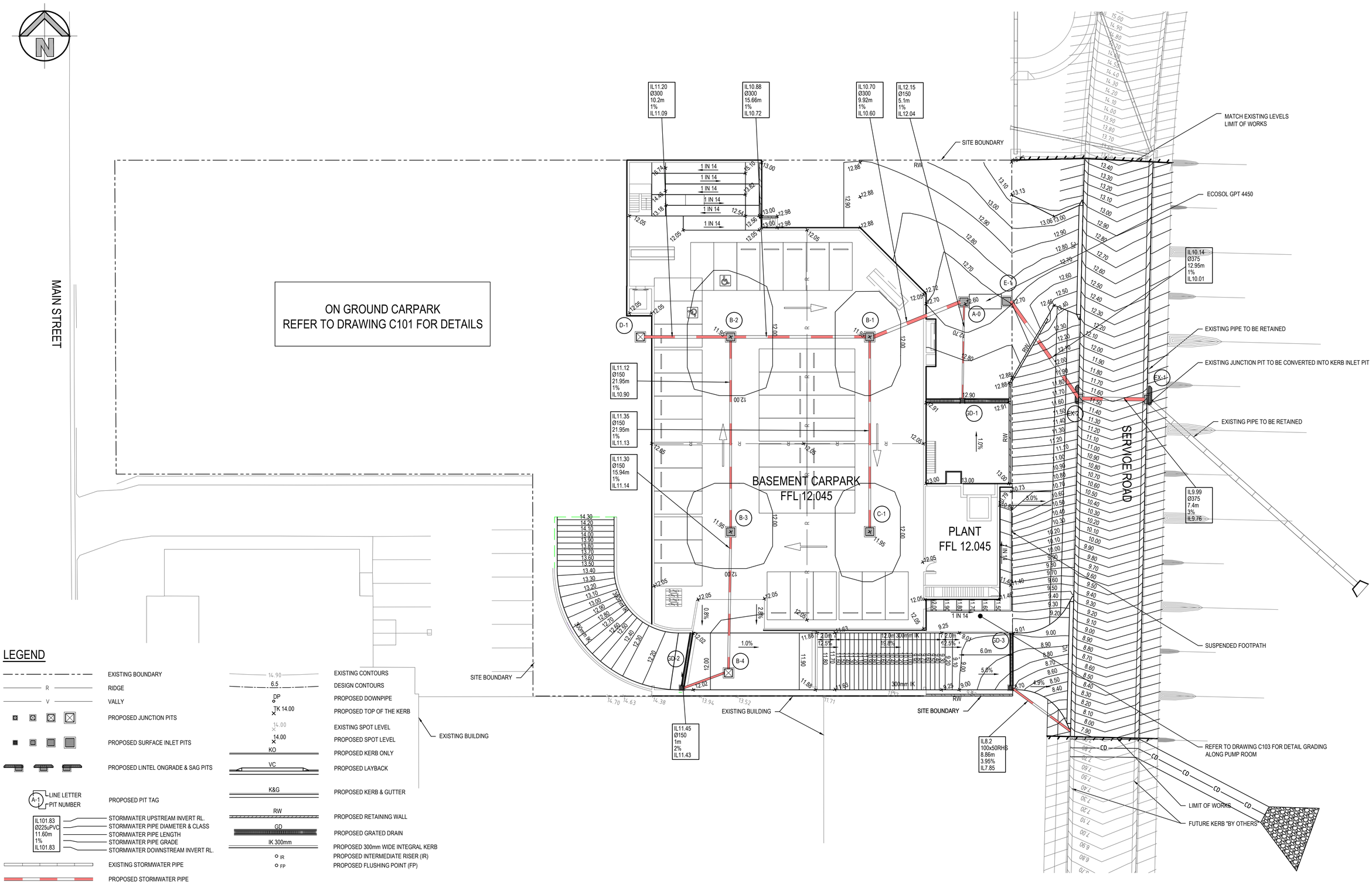
Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title: GENERAL ARRANGEMENT PLAN GROUND FLOOR

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_C101

Revision: 02



LEGEND

- EXISTING BOUNDARY
- R — RIDGE
- V — VALLY
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- A-1 — LINE LETTER / PIT NUMBER — PROPOSED PIT TAG
- IL101.83 / Ø225uPVC / 11.60m / 1% / IL101.83 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SS — SS — SUBSOIL DRAINAGE
- 14.90 — EXISTING CONTOURS
- 6.5 — DESIGN CONTOURS
- DP — PROPOSED DOWNPIPE
- TK 14.00 — PROPOSED TOP OF THE KERB
- 14.00 — EXISTING SPOT LEVEL
- 14.00 — PROPOSED SPOT LEVEL
- KO — PROPOSED KERB ONLY
- VC — PROPOSED LAYBACK
- K&G — PROPOSED KERB & GUTTER
- RW — PROPOSED RETAINING WALL
- GD — PROPOSED GRATED DRAIN
- IK 300mm — PROPOSED 300mm WIDE INTEGRAL KERB
- IR — PROPOSED INTERMEDIATE RISER (IR)
- FP — PROPOSED FLUSHING POINT (FP)

0 4 8 12 16 20m
4 3 2 1
SCALE 1:200

GENERAL ARRANGEMENT PLAN - BASEMENT FLOOR

SCALE 1:200@A1

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	MC	TR	X.02.2018
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

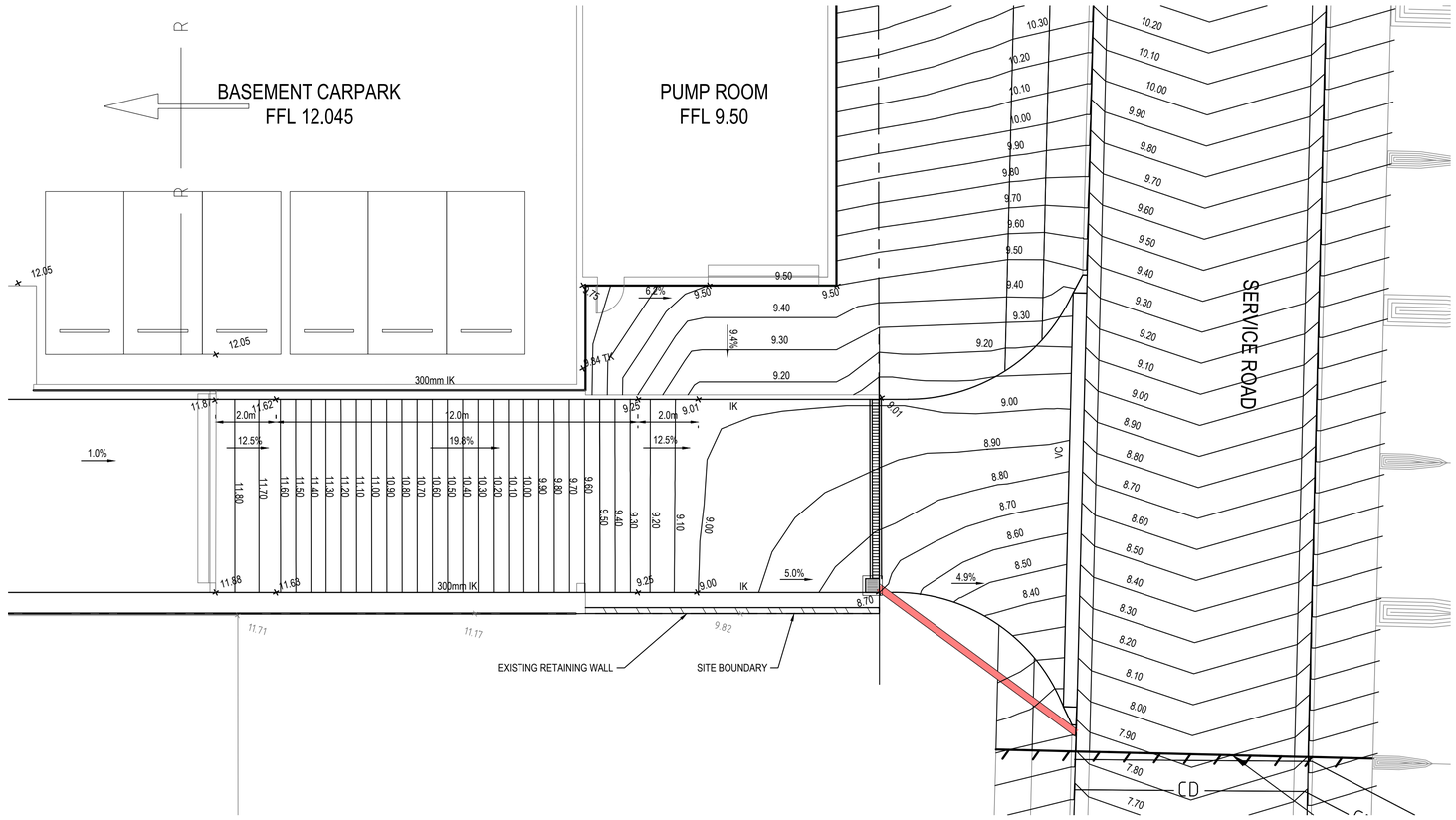
Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title: GENERAL ARRANGEMENT PLAN
BASEMENT FLOOR

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_C102
Revision: 02



PUMP ROOM ENTRY CIVIL PLAN

SCALE 1:100@A1

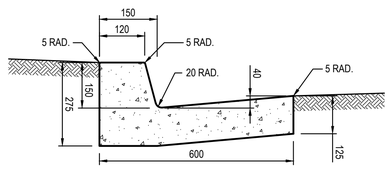
LEGEND

- EXISTING BOUNDARY
- RIDGE
- VALLY
- PROPOSED JUNCTION PITS
- PROPOSED SURFACE INLET PITS
- PROPOSED LINTEL ONGRADE & SAG PITS
- A-1 — LINE LETTER / PIT NUMBER — PROPOSED PIT TAG
- IL101.83 / Ø225uPVC / 11.60m / 1% / IL101.83 — STORMWATER UPSTREAM INVERT RL. / STORMWATER PIPE DIAMETER & CLASS / STORMWATER PIPE LENGTH / STORMWATER PIPE GRADE / STORMWATER DOWNSTREAM INVERT RL.
- EXISTING STORMWATER PIPE
- PROPOSED STORMWATER PIPE
- SS — SUBSOIL DRAINAGE

- 14.90 — EXISTING CONTOURS
- 6.5 — DESIGN CONTOURS
- DP — PROPOSED DOWNPIPE
- TK 14.00 — PROPOSED TOP OF THE KERB
- 14.00 — EXISTING SPOT LEVEL
- 14.00 — PROPOSED SPOT LEVEL
- KO — PROPOSED KERB ONLY
- VC — PROPOSED LAYBACK
- K&G — PROPOSED KERB & GUTTER
- RW — PROPOSED RETAINING WALL
- GD — PROPOSED GRATED DRAIN
- IK 300mm — PROPOSED 300mm WIDE INTEGRAL KERB
- IR — PROPOSED INTERMEDIATE RISER (IR)
- FP — PROPOSED FLUSHING POINT (FP)

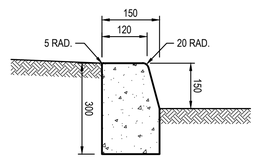
0 2 4 6 8 10m
2 1
SCALE 1:100

0 200 400 600 800 1000mm
200 100
SCALE 1:10



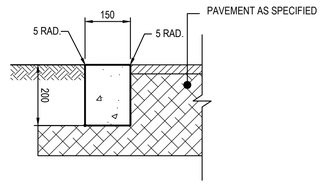
KERB & GUTTER 'K&G'

SCALE 1:10



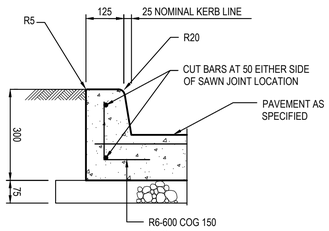
KERB ONLY 'K0'

SCALE 1:10



EDGE STRIP 'ES'

SCALE 1:10



INTEGRAL KERB (IK)

SCALE 1:10

FOR DA ONLY

SURVEY INFORMATION

SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	MC	TR	XX.02.2018
01	ISSUED FOR DA	MC	TR	28.09.2017

Client: ALDI AUSTRALIA

Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

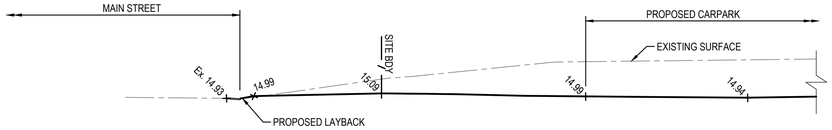
Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title: PUMP ROOM ENTRY DETAIL

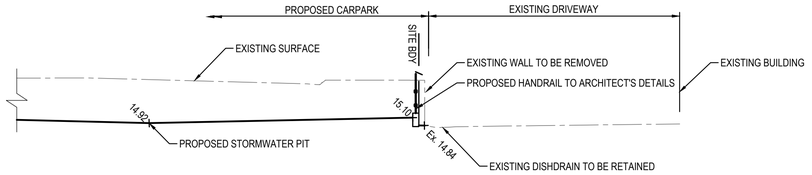
Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS SHOWN @A1

Drawing number: 17623_DA_C103

Revision: 02



SECTION 1 C100
SCALE: 1:100 @ A1



SECTION 2 C100
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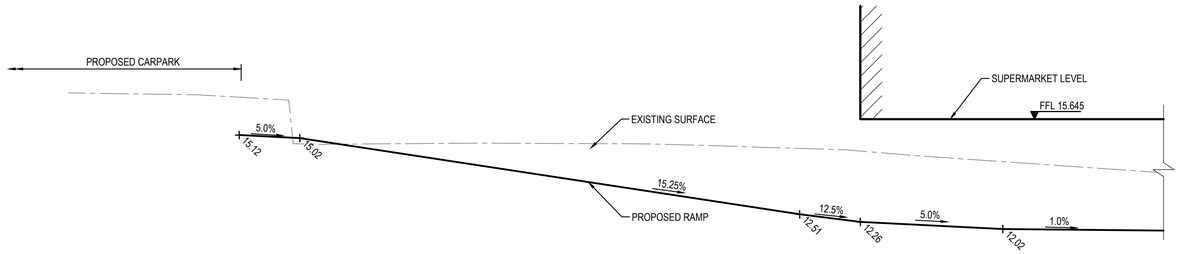

SECTION 3 C100
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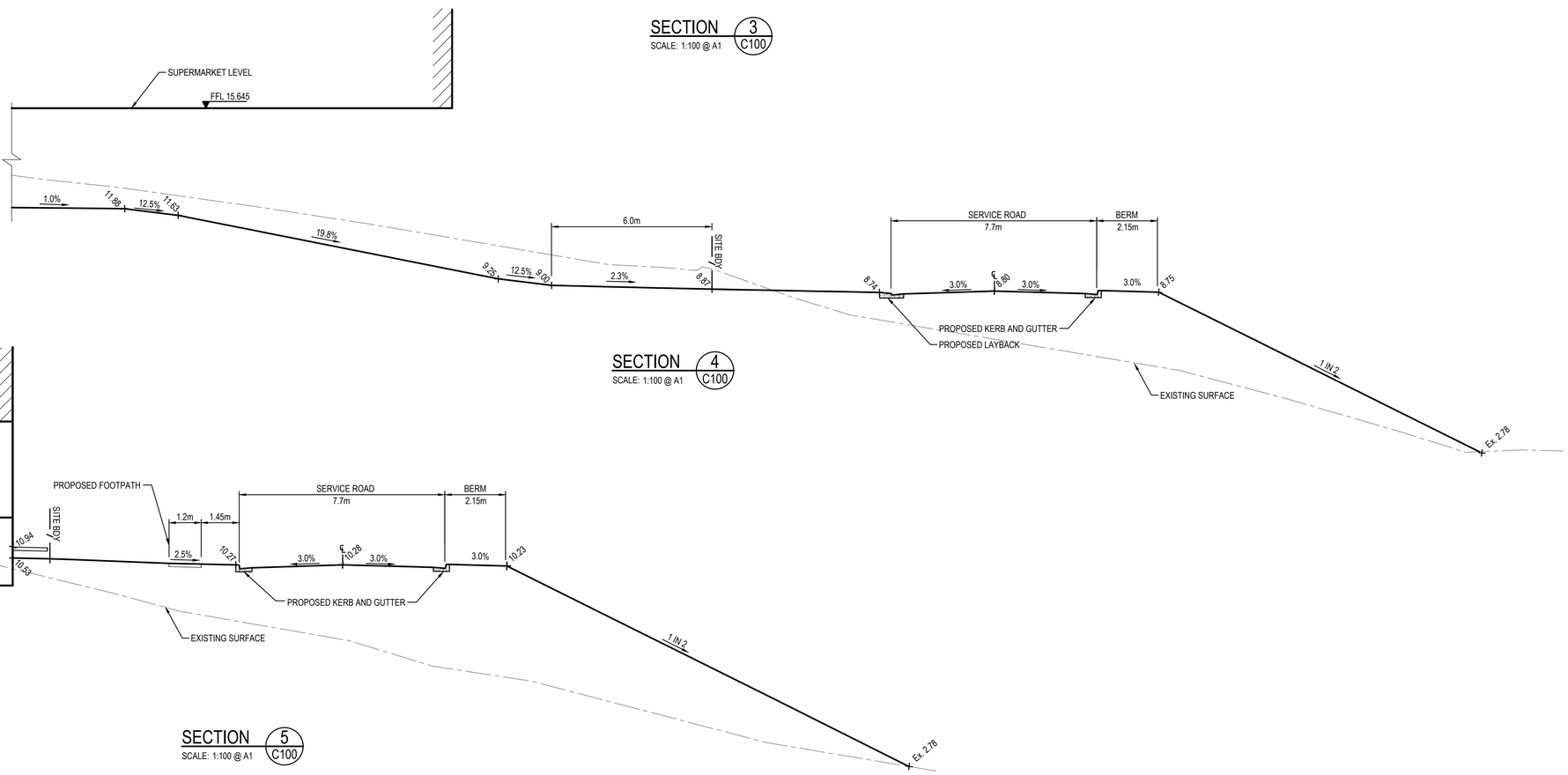


SECTION 4 C100
SCALE: 1:100 @ A1

SECTION 5 C100
SCALE: 1:100 @ A1

0 2 4 6 8 10m
2 1
SCALE 1:100

FOR DA ONLY

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	MC	TR	XX.02.2018
01	ISSUED FOR DA	MC	TR	28.09.2017

Client
ALDI AUSTRALIA

Architect
ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067

Telephone
+61 2 9417 8400
Facsimile
+61 2 9417 8337
Email
email@hhconsult.com.au
Web
www.henryandhymas.com.au

henry&hymas

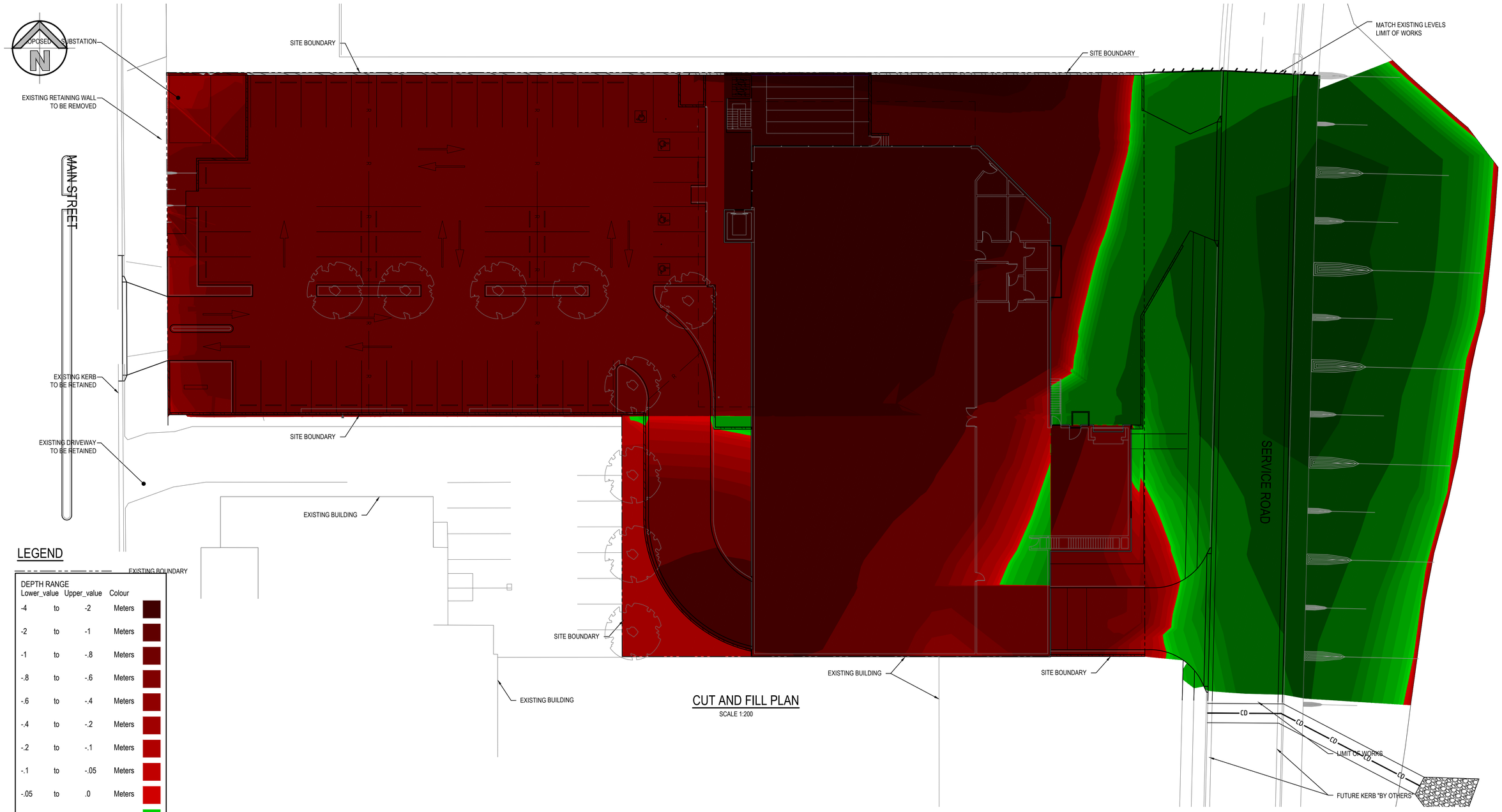
Project
ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW

Title
TYPICAL SECTION DETAILS

Drawn	Designed	Date
J.Knight	T.Rozehnal	20.06.2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	AS SHOWN @ A1

Drawing number
17623_DA_C110

Revision
02



LEGEND

EXISTING BOUNDARY

DEPTH RANGE Lower_value		Upper_value	Colour
-4	to	-2	Meters
-2	to	-1	Meters
-1	to	-.8	Meters
-.8	to	-.6	Meters
-.6	to	-.4	Meters
-.4	to	-.2	Meters
-.2	to	-.1	Meters
-.1	to	-.05	Meters
-.05	to	.0	Meters
.0	to	.05	Meters
.05	to	.1	Meters
.1	to	.2	Meters
.2	to	.4	Meters
.4	to	.6	Meters
.6	to	.8	Meters
.8	to	1	Meters
1	to	2	Meters
2	to	4	Meters

0 4 8 12 16 20m
4 3 2 1
SCALE 1:200

CUT AND FILL PLAN

SCALE 1:200

EARTHWORKS QUANTITIES

(APPROXIMATE ONLY)
NOT TO BE USED FOR CONTRACTUAL PURPOSES. TENDERERS TO DETERMINE VOLUMES USING THEIR OWN METHOD OF CALCULATION.

EARTHWORKS QUANTITIES - APARTMENT BUILDING	
TOTAL AREA (0.70 ha)	
CUT	10270m³
FILL	5005m³
EXCESS OF CUT OVER FILL	5265m³
TOPSOIL STRIPPING OF 700m² NOT INCLUDED IN CALCULATION	
EXCAVATION FOR SERVICE TRENCHES NOT INCLUDED IN CALCULATION	

FOR DA ONLY

SURVEY INFORMATION
SURVEYED BY: CADDEY AND JARMAN
DATUM: AHD
ORIGIN: SSM54787 RL15.92

REVISION	AMENDMENT	DRAWN	DESIGNED	DATE
02	RE-ISSUED FOR DA	LC	LC	XX.02.2018
01	ISSUED FOR DA	LC	LC	28.09.2017

Client: ALDI AUSTRALIA
Architect: ROTHE LOWMAN

Level 5,
79 Victoria Avenue
Chatswood NSW 2067
Telephone +61 2 9417 8400
Facsimile +61 2 9417 8337
Email email@hhconsult.com.au
Web www.henryandhymas.com.au
henry&hymas

Project: ALDI MERIMBULA
103 MAIN ROAD, MERIMBULA NSW
Title: CUT AND FILL PLAN

Drawn	Designed	Date
L.Caha	L.Caha	Jun 2017
Checked	Approved	Scale
T.Rozehnal	A.Francis	1:200@A1

Drawing number: 17623_DA_BE01
Revision: 02