# LOADING AND OPERATIONAL WASTE MANAGEMENT PLAN

## CIVITAS STAGE 3

Morgan and Murray Streets, Wagga Wagga

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# QUALITY CONTROL

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|---|---|
| **Project No** | 3175 |
| **Prepared By** | Morrison Design Partnership Pty Ltd |
| **Client:** | DAMASA |
| **Authorized By** | GO |
| | |
| **Project Address** | Morgan and Murray Streets, Wagga Wagga |
| **Site Details** | Lots 1,2,3 and 4 DP 20847<br>Lot 1, DP 550746 |
| **Site Area** | 5890m$^2$ |
| **Site Zoning** | B4 |
| **Site Owner** | DAMASA |
| **Applicant** | Manuel Donebus |
| **Pages:** | 18 |
| **File:** | *Q:\3175-Damasa-Civitas Stage 3\70 Authorities\70.10 COUNCIL\10 DA\Waste Management Plan\3175_CIVITAS Stage 3_Waste Report_V3_241023.docx* |

# VERSION HISTORY

| Version | Reason For Issue | Date |
|---|---|---|
| **V3** | DA issue | 23 October 2024 |

# INTRODUCTION

This Plan details the management of waste during the operational phase of the proposed Mixed Use retail and residential development that is Civitas Stage 3. This development consists of an 9-storey and 7-storey mixed use tower built above a shared two storey basement car park, and a separate row of 8no townhouses.

Waste audit and management strategies are recommended for new developments to provide support for the building design and promote strong sustainability outcomes for the building. All recommended waste management plans will comply with council codes and any statutory requirements.

This Operational Waste Management Plan addresses the appropriate segregation, containment and disposal of waste required with waste avoidance being the primary focus. To assist building management in achieving effective waste and recycling management, this waste management plan has three key objectives:

i. **to minimise the environmental impacts of the operations of the development on the environment** – this will be achieved by ensuring maximum diversion of waste from landfill; correct containerisation and transport of materials; correct segregation of materials into appropriate management streams; awareness among tenants of waste avoidance practices.

ii. **to minimise the impact of the management of waste within the development on local residents** – this will be achieved by ensuring waste is managed so as to avoid odour and litter and collected during suitable times.

iii. **to ensure waste is managed so as to reduce the amount landfilled and minimise the overall quantity generated** – this will be achieved by implementing systems that assist tenants to segregate appropriate materials that can be recycled; displaying signage in all tenant areas to remind and encourage avoidance and recycling to staff; and through associated signage in the retail precinct to reinforce these messages.

This Operational Waste Management Plan has been written in accordance with the Wagga Wagga Development Control Plan (DCP) 2010, specifically Part 10.8 Control item C16: Garbage collection, loading and servicing areas shall be screened and/or located so they do not impact neighbouring properties with respect to access, noise and odours. A loading management plan and waste management strategy shall be provided with any development application. This management plan has been prepared also in consideration of other aspects of industry best practice for loading and waste management in this type of development.

# WASTE GENERATION

## WASTE STREAMS

Based on the development profile, the following are the predominant waste streams that would be expected:

- General waste
- Comingled recycling
- Paper and cardboard recycling
- Liquid trade waste

Other wastes may be generated, but these would be in small volumes and irregular in terms of when generated. The management of the site will conduct a waste assessment once the site is operational to determine the additional types and quantities of wastes that may be generated. Following this, appropriate management systems will be implemented and where necessary generators advised of these management requirements.

It is not expected that significant quantities of garden waste will be generated. The appointed gardener will be required to manage this waste by disposal at a composting facility. The townhouses do no contain large garden areas so will generate only small domestic quantities of garden waste.

## WASTE GENERATION ESTIMATES

As Wagga Wagga Council does not have guidance on estimating waste and a waste minimisation policy, this report has looked to Waste generation rates specified by other councils where this building type is commonly assessed including the part D of City of Sydney “Guidelines For Waste Management in New Developments” published in 2018.

The waste generated has been considered separately for the residential units and for the retail space.

The residential units are divided as follows:
3A – 54 units
3B – 36 units
3C – 8 townhouses

The retail space is a total area of 1,449m2. It is assumed that this will be “general retailing” operating 7 days per week. If any higher waste generating tenants seek to lease these spaces they will be required to facilitate their own waste management spaces within their tenancy fit outs.

It is estimated that the development in total will generate a total of approximately 38,608 litres of waste and recyclables per week. Per stream this estimated as:

| Waste Type – Residential 3A | L / week / Unit | L / week |
|---|---|---|
| General Waste (incl. food waste) | 120 | 6,720 |
| Comingled recycling | 120 | 6,720 |
| Garden Organics | 120 | 6,720 |
| **TOTAL** | | **20,160** |

| Waste Type – Residential 3B | L / week / Unit | L / week |
|---|---|---|
| General Waste (incl. food waste) | 120 | 4,080 |
| Comingled recycling | 120 | 4,080 |
| Garden Organics | 120 | 4,080 |
| **TOTAL** | | **12,240** |

| Waste Type – Residential 3C | L / week / Unit | L / week |
|---|---|---|
| General Waste (incl. food waste) | 140 | 1,120 |
| Comingled recycling | 120 | 960 |
| Garden Organics | 120 | 960 |
| **TOTAL** | | **3,040** |

| Waste Type – General Retailing (1,449m2) | L / Day /100m2 | L / week |
|---|---|---|
| General Waste | 25 | 2,535 |
| Comingled recycling | 200 | 20,286 |
| Food waste | 5 | 507 |
| **TOTAL** | **225** | **23,328** |

## WASTE STORAGE AREA

Waste Storage Areas were calculated using the City of Sydney Waste and Recycling Space Calculator which is located here https://apps.cityofsydney.nsw.gov.au/calculators/waste-space/index.html.

### Building 3A

The tables below show the estimated waste and recycling generation rates for the residential and retail elements of Stage 3A.

**Residential multi developments**

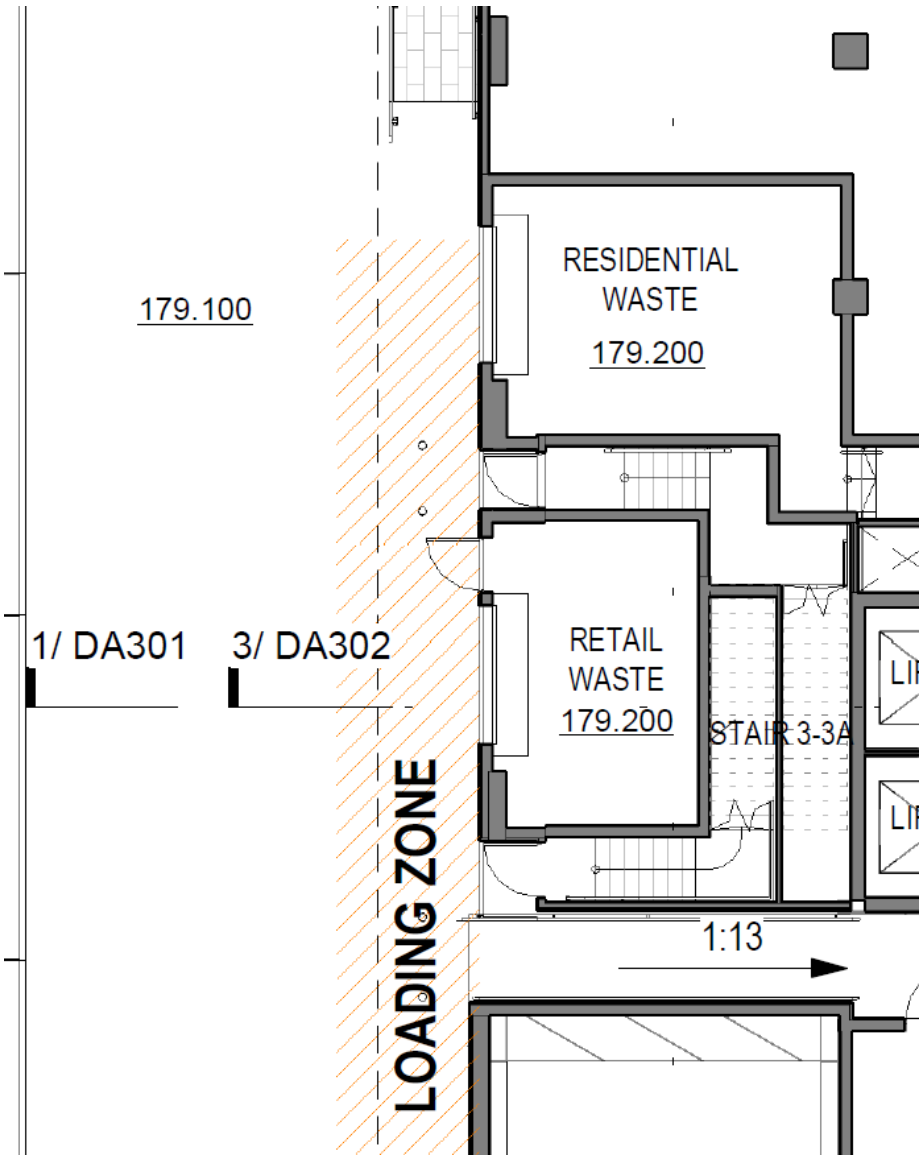
| Number of units: 54 | | | | |
|---|---|---|---|---|
| | **Bin size (L)** | **Collections each week** | **Number of bins** | **Space required ($m^2$)** |
| General waste (based on 120 L/week) | 1100 | 2 | 3 | 2.9 |
| Recycling (based on 120 L/week) | 1100 | 1 | 6 | 11 |
| Recycling (based on 5 L/week) | 240 | 1 | 2 | 1 |
| **Space required for bins** | | | 11 | 14.9 |
| **Space required to store bulky and problem waste ($m^2$)** | | | | 8.7 |
| **Space required for recycling textile waste (e.g a charity clothing bin) ($m^2$)** | | | | 1 |
| **Total minimum space (for waste and recycling storage area - m2)** | | | | 24.6 |

## General retailing

| Development floorspace (m²): 797 | | | | |
|---|---|---|---|---|
| | **Bin size (L)** | **Collections each week** | **Number of bins** | **Space required ($m^2$)** |
| General waste (based on 25 L/day) | 240 | 3 | 2 | 1 |
| Recycling waste (based on 200 L/day) | 1100 | 3 | 4 | 7.4 |
| Food waste (based on 5 L/day) | 240 | 3 | 1 | 0.5 |
| **Space required for bins** | | | 7 | 8.9 |
| **Space required to store bulky and problem waste ($m^2$)** | | | | 4 |
| **Total minimum space (for waste and recycling storage area - m2)** | | | | 12.9 |

The storage rooms for waste in building 3A are 26.3m2 for residential waste and 12.9m2 for retail waste, meeting or exceeding necessary capacity. Should a retail tenancy which has a greater waste generation rate (such as a restaurant) secure a lease then the provision of sufficient waste storage will be addressed as part of the associated fitout DA/CDC.

The location of the waste room is as shown in the extract below, on the western side of the building adjacent to the service road.




## Building 3B

The tables below show the estimated waste and recycling generation rates for the residential and retail elements of Stage 3B.

## Residential multi developments

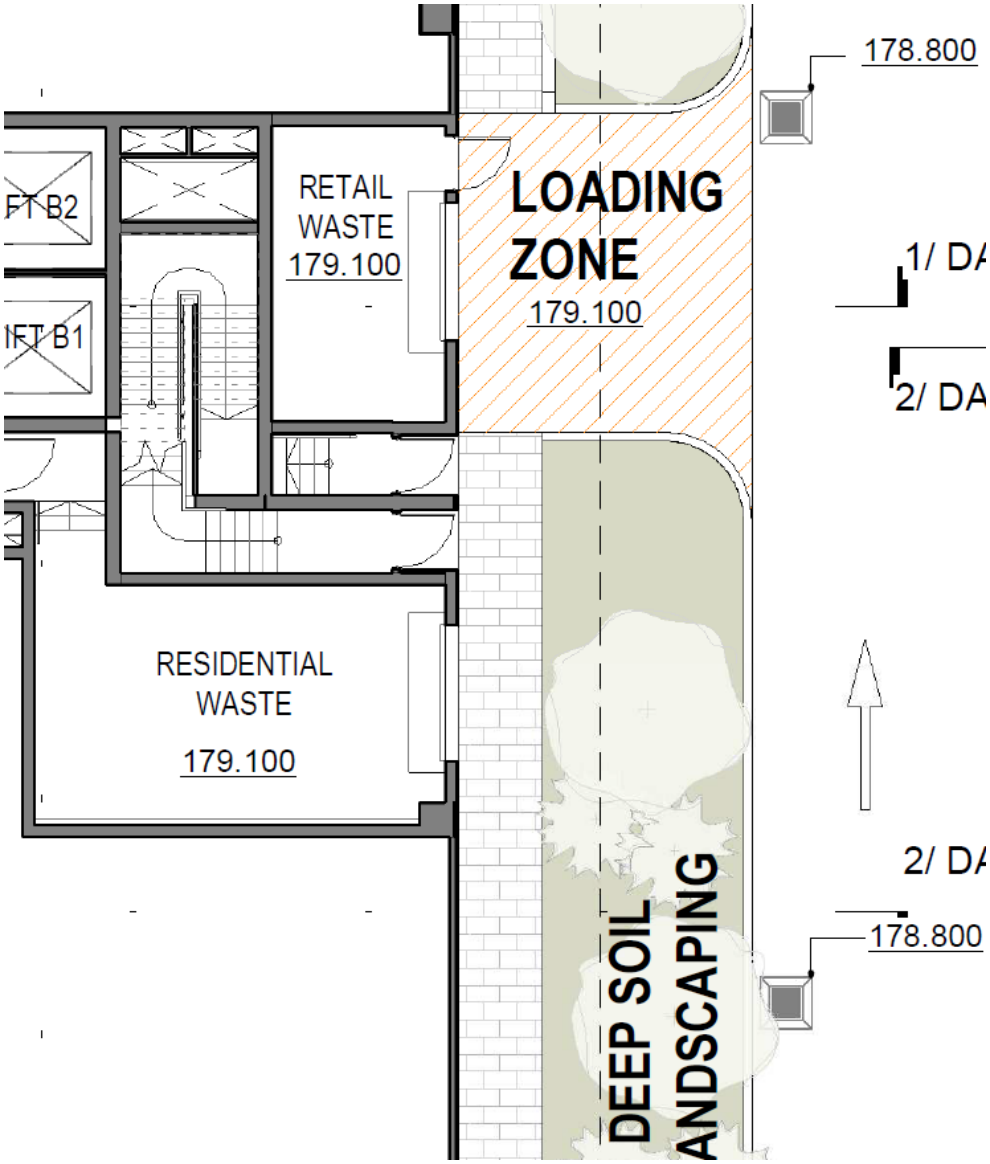
| Number of units: 36 | | | | |
|---|---|---|---|---|
| | **Bin size (L)** | **Collections each week** | **Number of bins** | **Space required ($m^2$)** |
| General waste (based on 120 L/week) | 1100 | 1 | 4 | 7.4 |
| Recycling (based on 120 L/week) | 1100 | 1 | 4 | 7.4 |
| Recycling (based on 5 L/week) | 240 | 1 | 1 | 0.5 |
| **Space required for bins** | | | 9 | 15.3 |
| **Space required to store bulky and problem waste ($m^2$)** | | | | 5.6 |
| **Space required for recycling textile waste (e.g a charity clothing bin) ($m^2$)** | | | | 1 |
| **Total minimum space (for waste and recycling storage area - m2)** | | | | 21.9 |

## General retailing

| Development floorspace ($m^2$): 652 | | | | |
|---|---|---|---|---|
| | **Bin size (L)** | **Collections each week** | **Number of bins** | **Space required ($m^2$)** |
| General waste (based on 25 L/day) | 240 | 3 | 2 | 1 |
| Recycling waste (based on 200 L/day) | 1100 | 3 | 3 | 5.5 |
| Food waste (based on 5 L/day) | 240 | 3 | 1 | 0.5 |
| **Space required for bins** | | | 6 | 7 |
| **Space required to store bulky and problem waste ($m^2$)** | | | | 4 |
| **Total minimum space (for waste and recycling storage area - m2)** | | | | 11 |

The storage rooms for waste in building 3A are 29.7m2 for residential waste and 15.4m2 for retail waste, exceeding necessary capacity. Should a retail tenancy which has a greater waste generation rate (such as a restaurant) secure a lease then the provision of sufficient waste storage will be addressed as part of the associated fitout DA/CDC.

The location of the waste room is as shown in the extract below, on the eastern side of the building adjacent to the townhouse service road.




## Townhouses

The Townhouses will each have a private storage area adjacent to their front entry with sufficient space for 3x240l bins.

The storage requirements for 3A and 3B are based on a collection frequency of 3 times / week servicing schedule. This collection frequency may be adjusted accordingly to suit the actual waste generation of the facility, thus allowing plenty of scope to manage higher or lower than anticipated waste generation. These bins will be collected by a private contractor.

The storage requirements for 3C are based on collection by Wagga Council with a typical frequency of 1 time / week.

# WASTE ROOM DESIGN

The waste rooms will contain the following to minimise odours, deter vermin, protect surrounding areas, and make it a user-friendly and safe area:

- Have a practical layout, be free of obstructions.
- Have a floor area capable of storing the required number of bins.
- Be graded and drained to an approved drainage system.
- Be serviced by an easily accessible water tap.
- Have smooth rounded corners at the floor and wall intersections.
- Be clear of any service and utilities infrastructure and related activities.
- Be capable of being kept clean and tidy at all times.
- Be in accordance with the BCA, relevant Australian Standards and legislation.
- Occupational Health and Safety issues such as slippery floors will need to be monitored. Cleaners will monitor the storage areas and all spills will be attended to immediately by cleaners.

# MANAGEMENT SYSTEMS AND COLLECTION

To ensure that wastes and recyclables are managed correctly (ie., deposited into the correct container):

- A private contractor will be used for the collection of waste and recyclables directly from the proposed loading bay adjacent the waste room.

- Townhouse residents will be responsible for preparing bins for council collection

- Tenants will be responsible for transporting waste/recyclables from their apartment or retail areas to the waste/recycling storage area and then deposit into the correct bins storage. This will be achieved by education programs, colour coded bins and signage in the bin holding areas.

- General waste bins will be distinguished by having a red lid and the commingled recycling (which will have paper/cardboard deposited into them), bins have a yellow lid as illustrated below.

- In keeping with best practice sustainability programs, all waste areas and waste and recycling bins will be clearly differentiated through appropriate signage and colour coding to Australian Standards to reflect the materials contained (as illustrated below).



- It is not expected that bulky waste will be generated on an ongoing basis. In addition, should any such waste be generated, cleaning staff or site management will collect from the point of generation and dispose of via a recycling or waste disposal service.

- All retail tenants will be briefed on the proper use of waste management system and the recycling streams will be monitored and reported by cleaners/building management, as it is imperative that the recycling stream remain free of contamination to ensure compliance with Council collection protocols.

# ONGOING WASTE MANAGEMENT

Having suitable systems in place is only one element of an effective waste management system. Compliance by all stakeholders is essential.

Cleaners are a key element in the effectiveness of the systems in place. Prior to acceptance of the cleaning contract, the contractor will be required to demonstrate how the management of waste and recycling will be carried out so as to ensure that segregated materials are placed in the correct systems. This process will be agreed and a training program implemented by the cleaning contractor to ensure full understanding by all cleaners. Monitoring of the system will be carried out by the cleaning supervisor and site management throughout the term of the contract.

In addition, cleaners will be required to feed back to site management any non-compliance issues they observe during their cleaning activities. This may include contamination of recycling; non- participation in the recycling system, or missing or damaged bins. In this way, issues can be promptly dealt with by management.

Waste and recycling contractors will be required to report actual volumes collected by stream so that site management can monitor performance and feed this back to stakeholders.

It is highly recommended that a basic reporting program be set up at the site which would include bin tally sheets that detail the number of bins collected and how full they are at the time of collection, in addition to communication procedures to allow waste contractors to provide feedback regarding contamination and leakage.

All tenants and staff should be educated and made aware of any changes to the existing waste systems.

If a public place recycling system was implemented it would need to be accompanied by clear signage and colour coding to help differentiate the systems. It is likely that staff would also be required to inform the public about the systems and to guide their waste disposal practices. Additionally, notices and information sheets could be placed on public notice boards informing the public of the changes at the centre.

## Education

All tenants and caretaker(s) will receive information regarding the waste collection systems including how to use the system, which items are appropriate for each stream and collection times. Appropriate signage and updated information will also be provided, as well as receiving feedback on issues such as contamination of the recycling stream or leakage of the recyclables into the general waste. Building management will have the responsibility for these tasks.

All waste receptacles will be appropriately signed and additional room signage is usually provided from most waste contractors during implementation of the waste contract.
It is recommended that all signs should:

- Clearly identify the waste/recycling stream;
- Use correct waste/recycling stream colour coding;
- Identify what can and cannot be disposed of in the receptacle; and

Include highly visual elements to accommodate for individuals with inadequate English literacy.

# LOADING MANAGEMENT PLAN

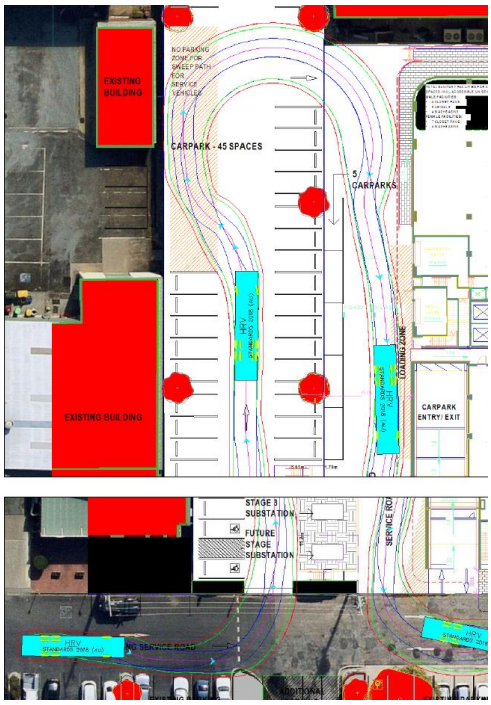
## INTRODUCTION

The proposed development consists of two main buildings, each with separate loading bays for delivery/collection of retail products and collection of waste. The Townhouses have both front and rear road access.

## BUILDING 3A

The loading bay for building 3A is located on the western side of the building, accessed via the service road. This has the capacity for MRVs to service the site for day to day serving of the development including the following uses:

- Waste collection (by a low loader private waste collection service)
- Deliveries/collections for the tenants

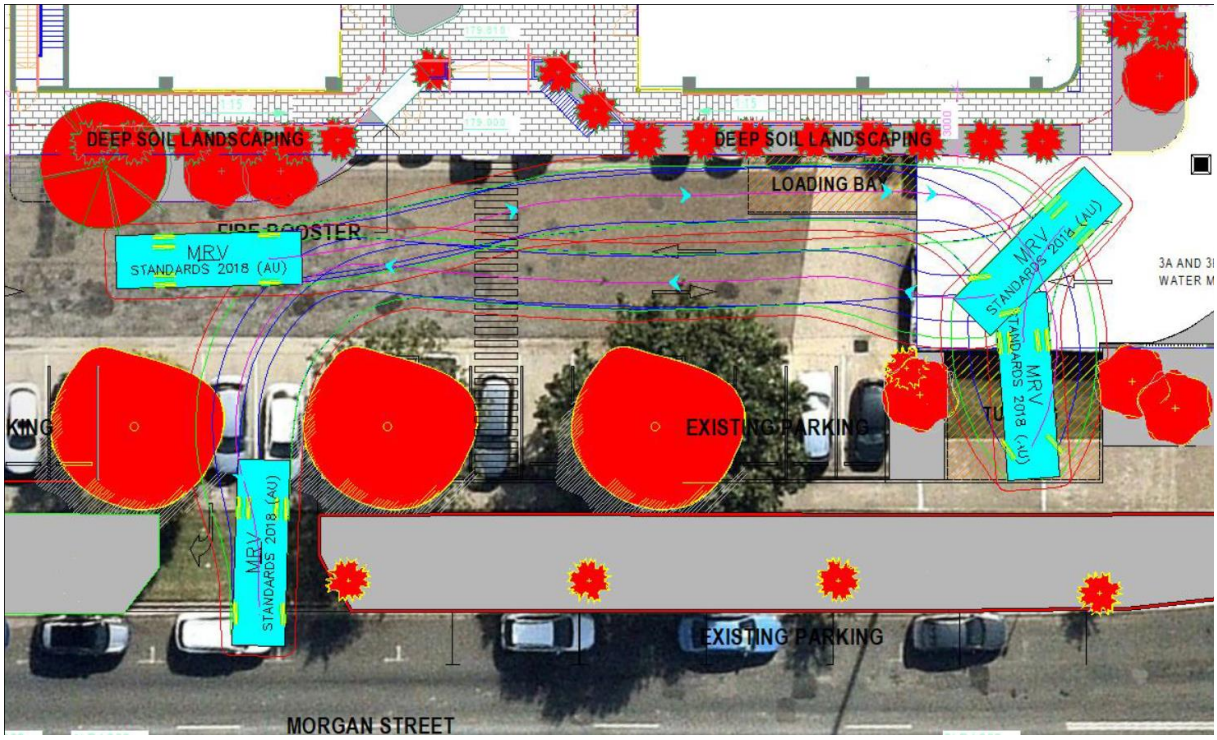



MRV successfully entering and exiting the 3A loading bay

## BUILDING 3B

The loading bay for building 3B is located on the southern side of the building, accessed via the council service road. This has the capacity for MRVs to service the site for day to day serving of the development including the following uses:

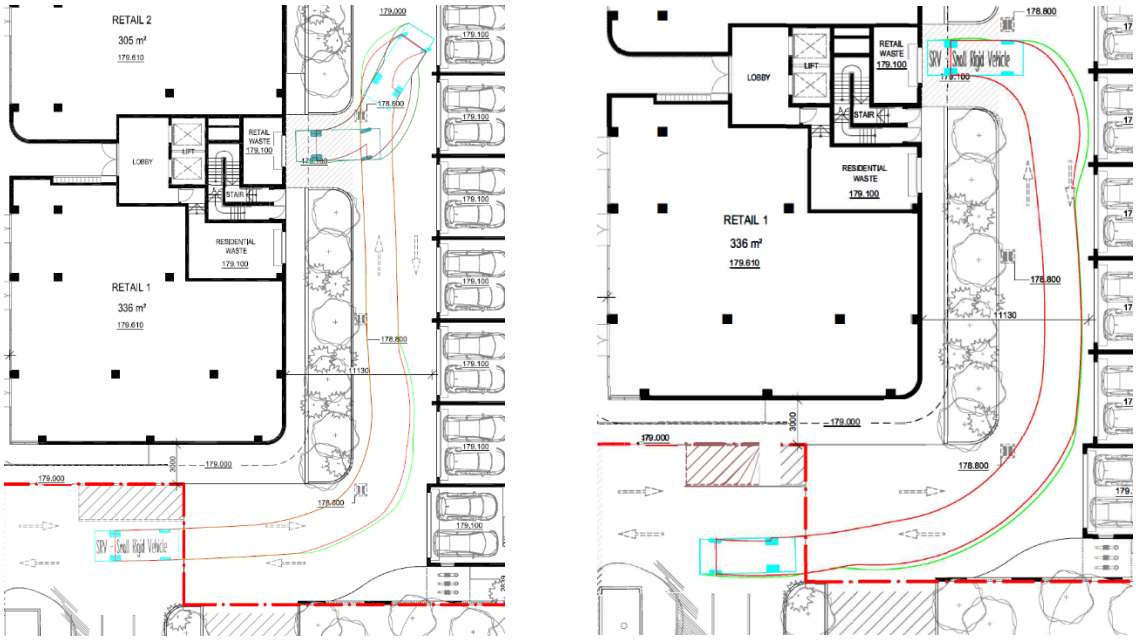
- Deliveries/collections for the tenants




MRV successfully entering (above) and exiting (below) the 3B loading bay

The waste collection bay for Building 3B is located on the western side of the building, accessed via the Townhouse service road. This has the capacity for a low loader private waste vehicle, classified as a Small Rigid Vehicle, provided by the private waste contractor to service the site for day to day serving of the development including the following uses:

- Waste collection (by a low loader private waste collection service)




SRV successfully entering (left) and exiting (right) the 3B Waste loading bay

# CONCLUSION

The proposed development has been designed to meet the delivery and waste servicing needs during operation. In particular:

- Both buildings 3A and 3B have residential waste rooms sufficiently sized for the anticipated waste generation
- These buildings will be service by private collection services; access by at least an SRV is achievable
- The townhouses have individual bin storage areas
- These will be serviced by Council waste collection directly from Murray Street
- Delivery loading bays are provided to both buildings 3A and 3B which can be accessed by MRV