



WASTE MANAGEMENT REPORT

**1-13 BARBER AVENUE,
KINGSWOOD NSW 2747**

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INDEX

1	THE DEVELOPMENT	3
2	THE SITE.....	4
3	SPACE.....	5
4	SYSTEM FOR MANAGING RESIDENTIAL WASTE.....	9
5	SERVICED APARTMENTS - MANAGING THE WASTE.....	9
6	THE WASTE AREA	10
7	COMMERCIAL SPACE.....	12
8	COMMERCIAL SPACE - MANAGING THE WASTE.....	12
9	GREEN WASTE	12
10	ACCESS TO WASTE ROOM.....	13
11	AMENITY	14
12	MANAGEMENT	14
13	CONCLUSION	14



1 THE DEVELOPMENT

The proposed development of Barber Avenue, Kingswood as contained in the Development Application comprises the following:

- Stage 1A being the excavation of the site and site preparation works;
- Stage 1 consists of two buildings (A and B). Parking is accommodated on the basement levels and on the Lower Ground. Building A is 6 levels with 4 levels of commercial premises and 2 residential levels respectively. Building B is 7 levels of commercial premises.
- Vehicular access off Barber Avenue and on-site car parking spaces; and
- Landscaping and public domain works.
- Stage 1B being the design and construction of 36 residential apartments, 87 serviced apartments, 402 car spaces and commercial premises.
- The development comprises of 2 buildings

Buildings A configured as follows;

- o 4 x 1 bedroom apartments;
- o 32 x 2 bedroom apartments;
- o Retail Outlets;
- o Commercial Areas and
- o Podium landscape works.

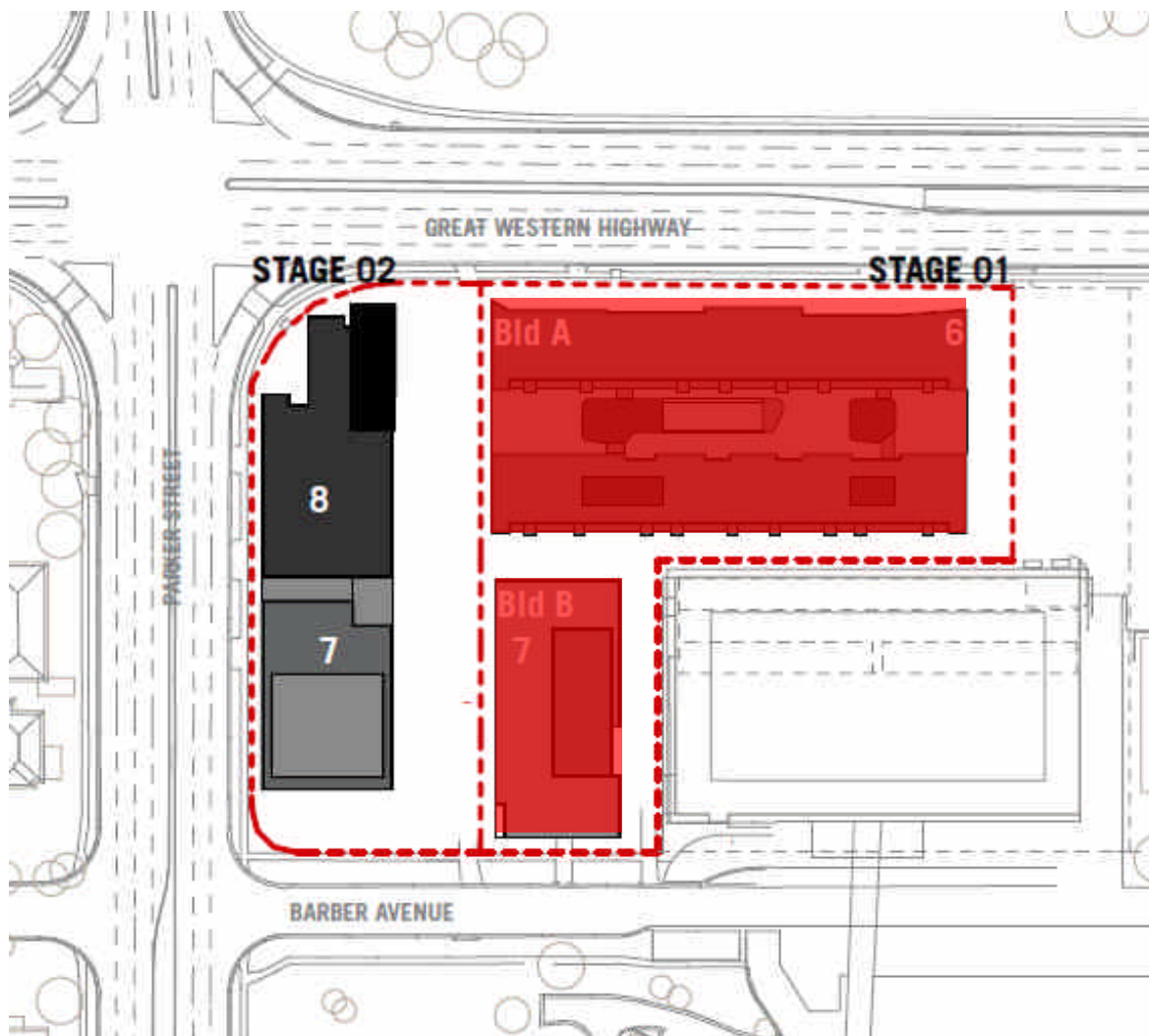
Building B configured as follows:

- o 76 x 1 bedroom serviced apartments;
- o 11 x 2 bedroom serviced apartments; and
- o Commercial Areas and
- o Podium landscape works.

- A maximum GFA of 16,334m² allocated as follows:
 - o 2,656m² of residential floor space;
 - o 2,585 m² of 87 serviced apartments floor space;
 - o 9,867.75 m² commercial floor space and
 - o 1,225 m² retail

2 THE SITE

The site is bordered by the Great Western Highway, Parker Street and Barber Avenue. The actual site address is 1-13 Barber Avenue, Kingswood NSW 2747.



THE SITE – Bld A and Bld B (shown in Stage 01)

3 SPACE

Residential

There are 36 units in the development and these are located in 1 building. The spread of units is as follows:-

Building A

Ground	0 Units
Level 1	0 Units
Level 2	0 Units
Level 3	0 Units
Level 4	18 Units
Level 5	18 Units

Sub-Total 36 Units

Building B

Serviced Apartments is included in the Commercial Waste Section.

Waste Calculations

We have calculated waste generation at the rate of 0.16m³ per unit per week and with separation at origin, have divided the waste stream as follows:-

Putrescibles Waste	0.08m ³ per unit per week
Co-mingled Waste	0.08m ³ per unit per week

These rates are slightly above Councils collection parameters and are considered realistic and appropriate collection rates for this site and will allow for additional recyclables without concern for reduction in the putrescibles volume.

On this basis, with 36 units x 0.16m³, we need to allow for 5.76m³ per week.

Putrescible Waste:

36 Units x 0.08m³ / 4/7 = 1.646m³ for bi-weekly pick-up (high point).
This would require 7 x 240lt bins (uncompacted waste)

Co-mingled Waste:

Would generate 2.88m³ for a weekly pick-up
This would require 12 x 240lt bins (allowing for loose packing)

Building A

36 Apartments

Putrescible waste	=	36 x 80 litres = 2880lt/wk
	=	7 x 240lt of putrescible waste uncompacted per week (high point)
		Bi-weekly collection will be required.
Recyclable waste	=	36 x 80 litres = 2880lt/wk
	=	12 x 240lt bins per week,
		Weekly collection will be required.

Commercial Retail Space Waste**Lower Ground Level**

Building B**Office (no food sales) – Meeting - 234.75sqm**

Putrescible waste	23.5L / day	165L / week
Recyclable waste	23.5L / day	165L / week

Office – Lobby (no food sales)- 78.25sqm

Putrescible waste	8L / day	56L / week
Recyclable waste	8L / day	56L / week

Office - Bike Storage - 110.50sqm

No waste as this is bike storage

Café - 167.5sqm

Putrescible waste	670L / day	4690L / week
Recyclable waste	234L / day	1638L / week

Ground Level

Building A**Retail Premises (food sales) - 120.75sqm**

Putrescible waste	290L / day	1450L / week
Recyclable waste	290L / day	1450L / week

Retail (no food sales) - 1079.25sqm

Putrescible waste	540L / day	3780L / week
Recyclable waste	540L / day	3780L / week

Commercial - 635.75sqm

Putrescible waste	64L / day	448L / week
Recyclable waste	64L / day	448L / week

Building B**Commercial – 741.25sqm**

Putrescible waste	75L / day	525L / week
Recyclable waste	74L / day	525L / week

Serviced Apartments - (16 apartments)

Putrescible waste		1280L / week
Recyclable waste		1280L / week

Level 1

Building A**Commercial - 2,433.00sqm**

Putrescible waste	244L / day	1708L / week
Recyclable waste	244L / day	1708L / week

Building B**Serviced Apartments - (16 apartments)**

Putrescible waste		1280L / week
Recyclable waste		1280L / week

Level 2

Building A**Commercial - 2,839.25sqm**

Putrescible waste	284L / day	1988L / week
Recyclable waste	284L / day	1988L / week

Building B**Serviced Apartments (16 apartments)**

Putrescible waste	1280L / week
Recyclable waste	1280L / week

Level 3

Building A**Commercial - 2,842.25sqm**

Putrescible waste	284L / day	1988L / week
Recyclable waste	284L / day	1988L / week

Building B**Serviced Apartments (13 apartments)**

Putrescible waste	1040L / week
Recyclable waste	1040L / week

Level 4

Building B**Serviced Apartments (13 apartments)**

Putrescible waste	1040L / week
Recyclable waste	1040L / week

Level 5

Building B**Serviced Apartments (13 apartments)**

Putrescible waste	1040L / week
Recyclable waste	1040L / week

The retail garbage holding room will be required to hold 22,478lt of putrescible waste and 19,456lt of recyclable waste per week.

All figures below are based on weekly volumes, final scheduling of waste collection will be determined with the building waste management and the waste contractor.

Building A Totals

Ground floor waste will generate 5230 litres (22x240 litre bins) of putrescible waste and 5230 litres (22x240 litre bins) of recyclable waste

Commercial waste for levels 1,2 and 3 will generate 4424 litres (18x240 litre bins) of putrescible waste and 4424 litres (18x240 litre bins) of recyclable waste to be handled in 240ltr bins.

Building B Totals

Lower ground floor will generate office waste of 221 litres each of putrescible waste (1x240 litre bin) and recyclable waste (1x240 litre). The café will generate approximately 4690 litres of putrescible waste (8x660 litre bins) and 1638 litres of recyclable waste (3x660 litre bins). The café will either carry or wheel out waste to the main waste accumulation room and distribute to the 660 litre waste bins.

For floors with 16 apartments (3 off) will require 6 x 240 litres bins each for putrescible and recyclable waste. For floors with 13 apartments (3 off) will require 5 x 240 litres bins each for putrescible and recyclable waste. Total of 66 x 240lt bins.

Total Commercial Bins Amounts are as follows based on the information above.

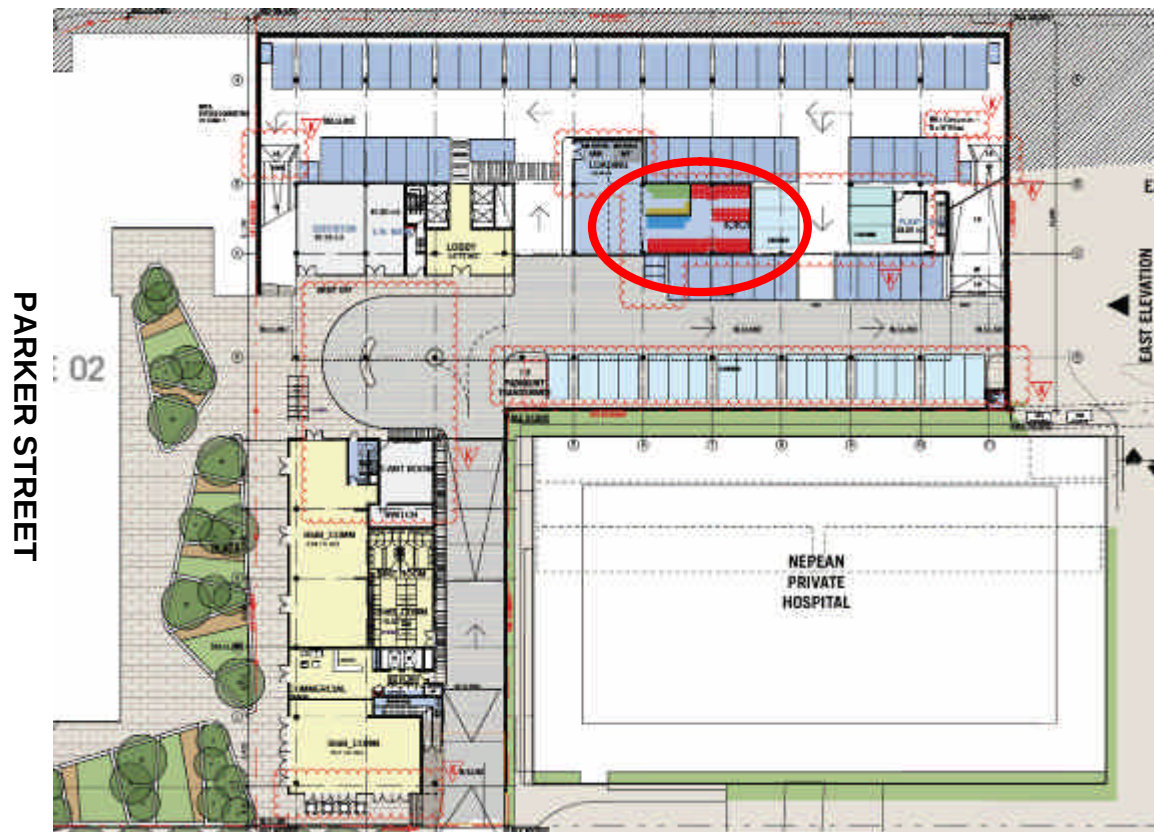
240 litre Bins

74 for putrescible waste	+
74 for recyclable waste	+

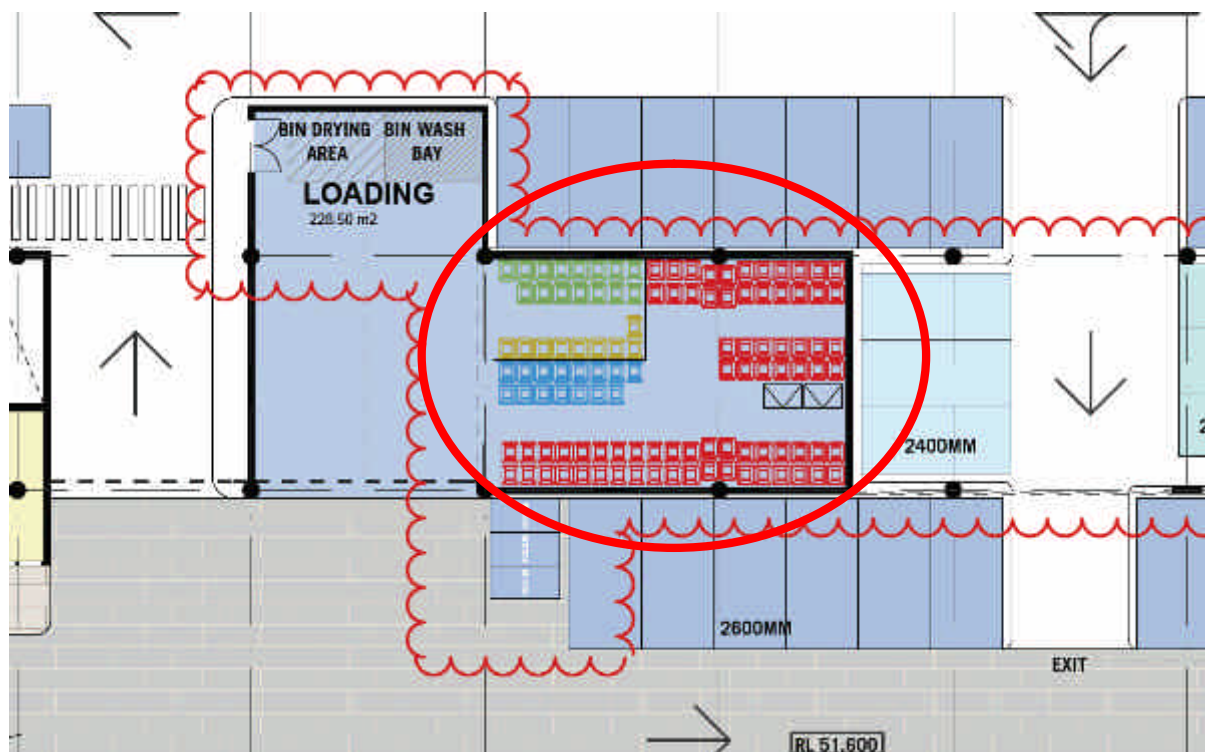
660 litre Bins

8 x for putrescible waste
3 x for recyclable waste

GREAT WESTERN HIGHWAY



Retail Garbage Room – site location – Lower Ground Level



Retail Garbage Room – Lower Ground Level

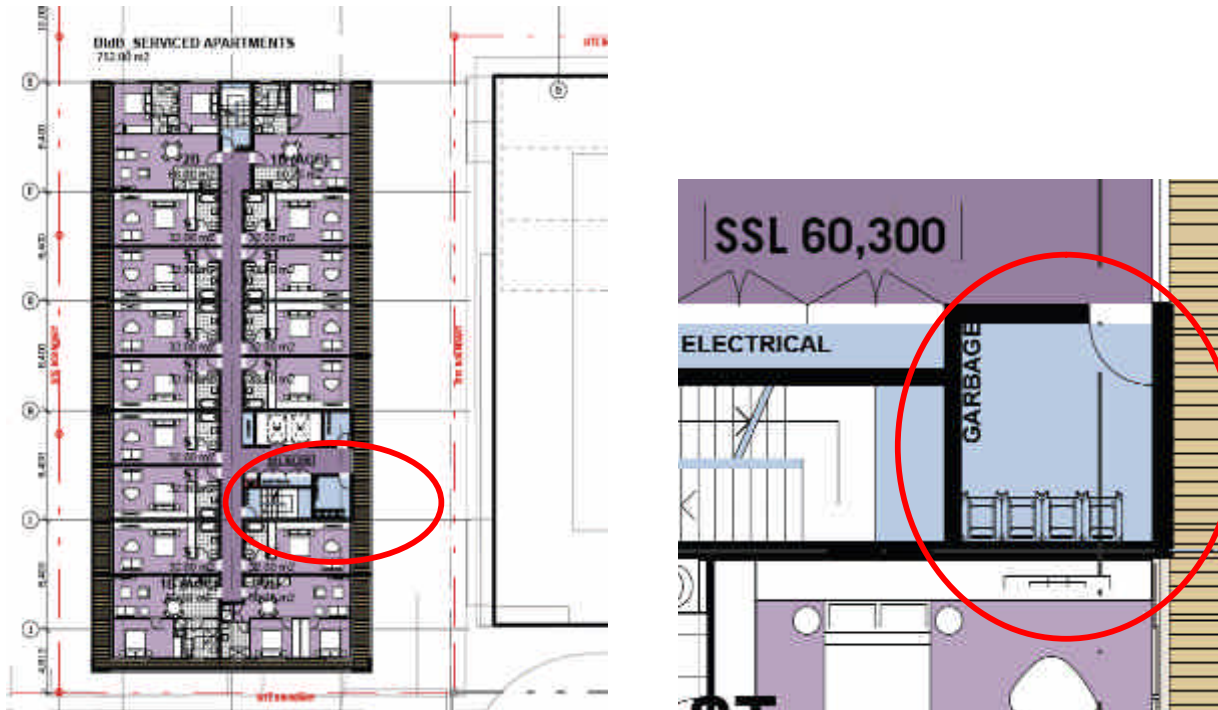
4 SYSTEM FOR MANAGING RESIDENTIAL WASTE

Residential tenants are required to remove their putrescible and recyclable waste to the main waste accumulation room located on Lower Ground level and place the respective waste in the appropriate bins.

5 SERVICED APARTMENTS - MANAGING THE WASTE

Waste for both putrescible and recyclable waste will be handled either as per the daily pickup by the building management from each of the rooms or the individual tenants can dispose of their waste to the waste collection room on located on each floor, this will be detailed in the serviced apartment rental contract.

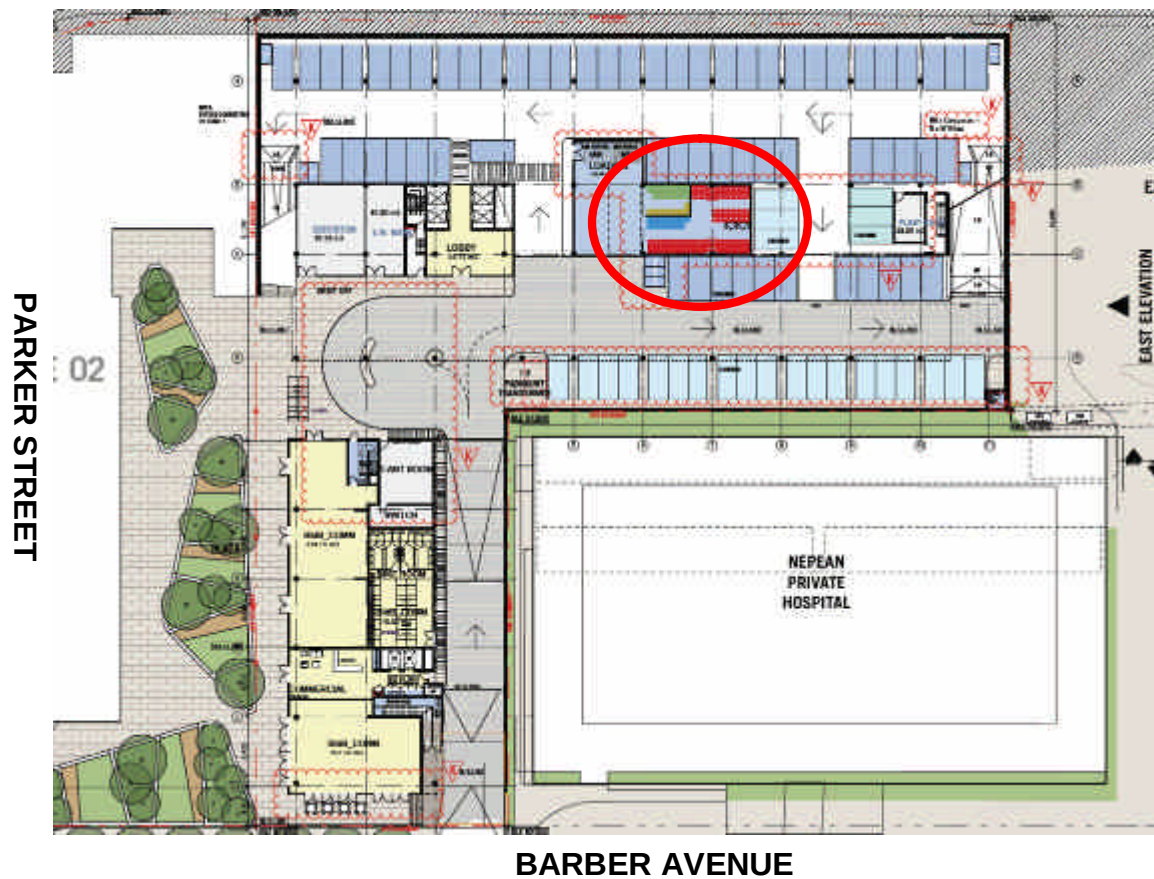
Building management will dispose of the waste from the waste collection room to the commercial waste accumulation room located on Lower Ground Floor level.



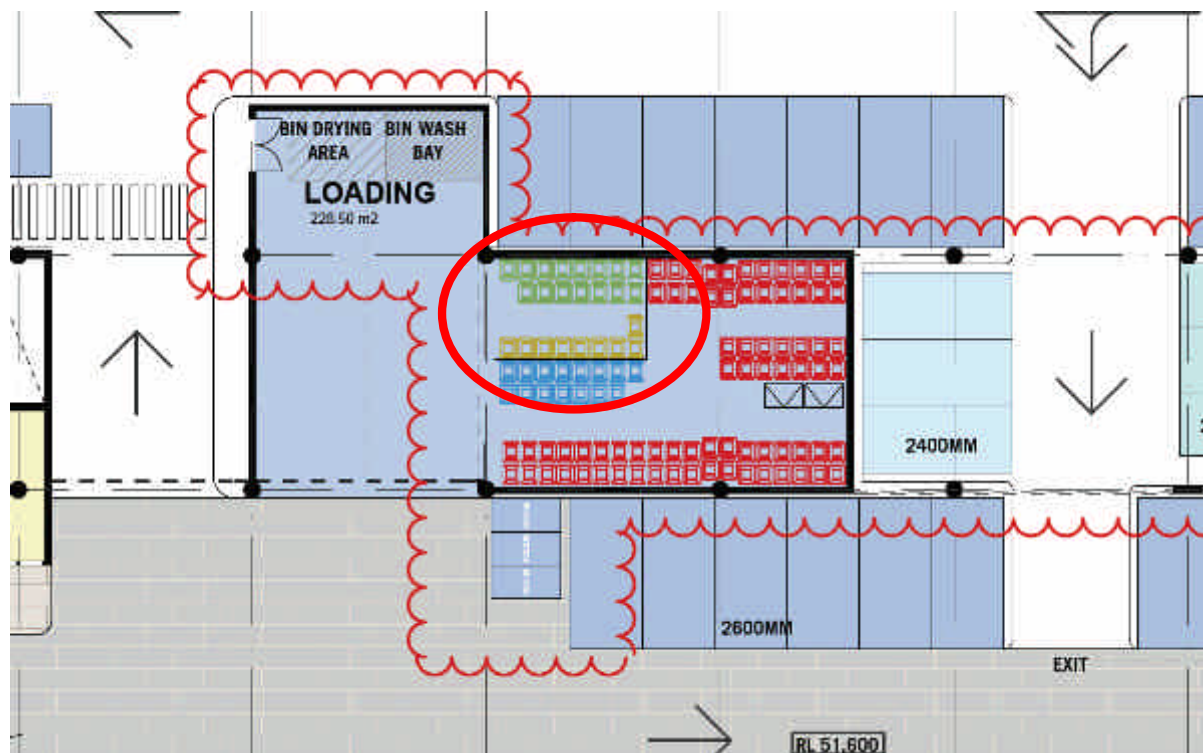
Building B – Serviced Apartments Waste Room

6 THE WASTE AREA

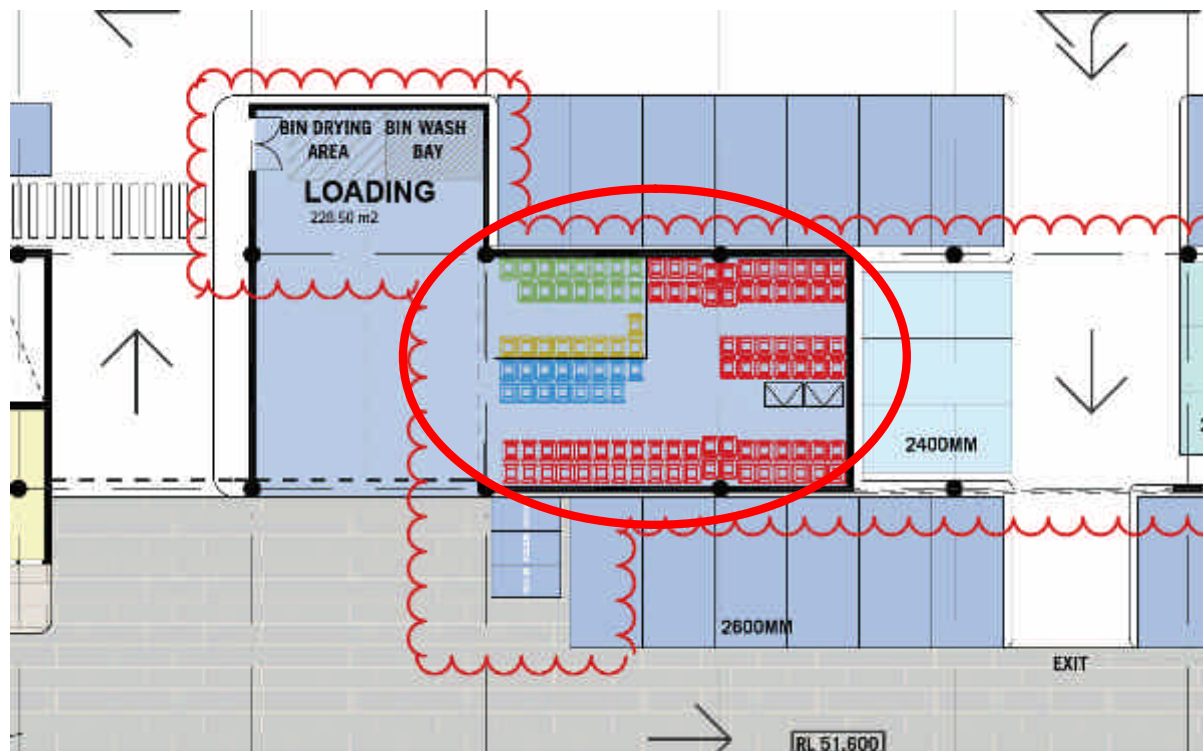
GREAT WESTERN HIGHWAY



Residential and Commercial Waste Accumulation Room Location – Lower Ground Level



Residential Waste Accumulation Room – Lower Ground Level



Commercial Waste Accumulation Room – Lower Ground Level

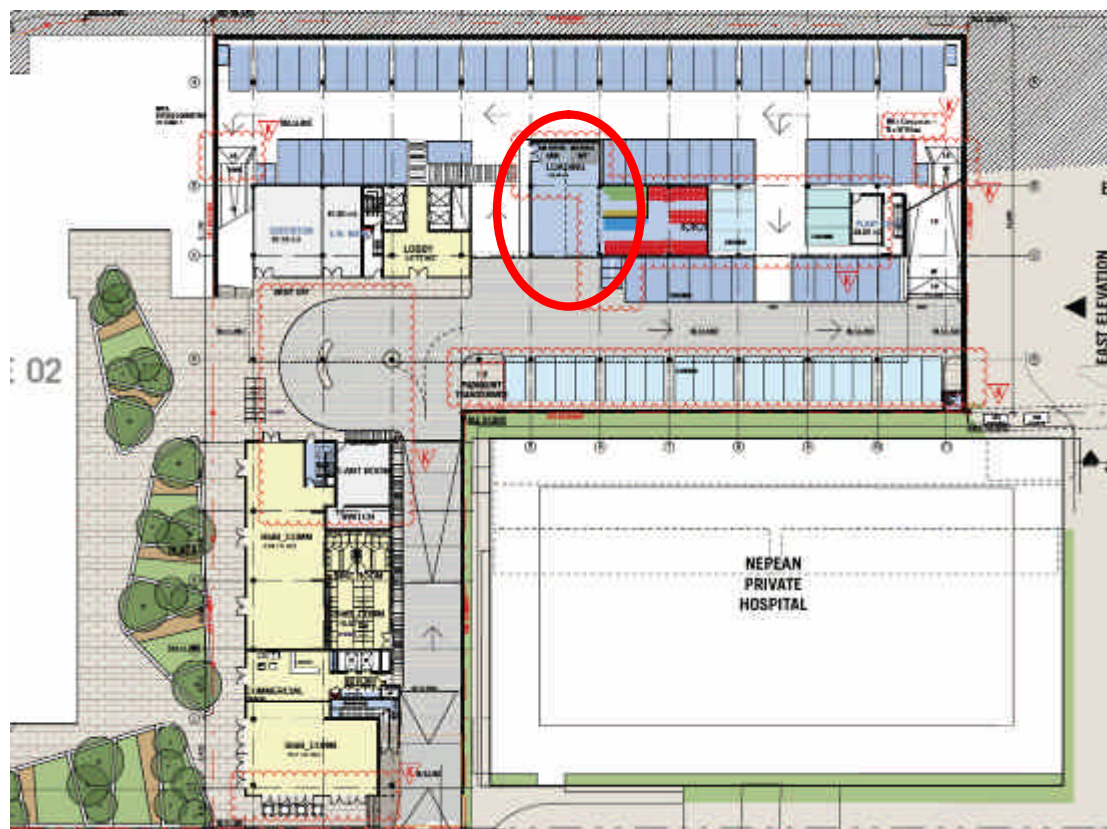
These areas would be fitted out as per code, while the bin washing area in the loading dock will be equipped with appropriate trench drains and basket traps. The bins will be taken out to the loading bay to load for collection.

7 COMMERCIAL SPACE

There is an area of 9660.75m² which has been allocated as commercial space.

An area on Lower Ground level in Building A has been allocated to handle waste.

Appropriate detail eg. daily, biweekly or weekly pick-ups will be required when the type of tenancy has been confirmed.



Commercial Waste Pickup Point – Lower Ground Level – loading bay

8 COMMERCIAL SPACE - MANAGING THE WASTE

It is considered that waste from the retail units can be handled in the one retail waste room, while organisation of waste removal remains the responsibility of the tenant.

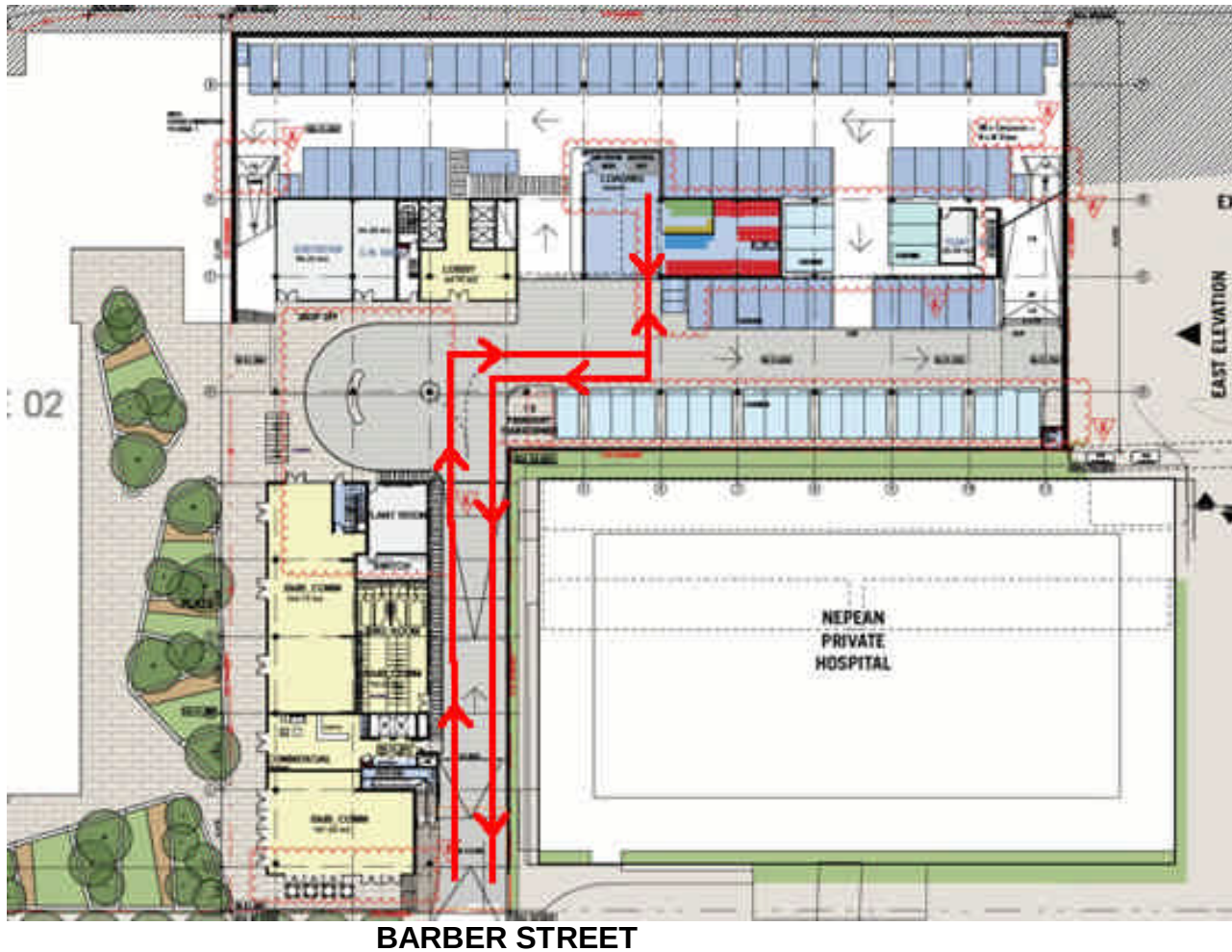
9 GREEN WASTE

The gardens will be maintained by a contractor who will be responsible for removing green waste.

10 ACCESS TO WASTE ROOM

The pick up vehicle will enter the site using Barber Avenue. It will use the Council authorised pick up point to locate the waste.

The general location of the waste accumulation room and the Council Pick Up location will minimise Council loading time and allow bins to be brought on to the collection vehicle as required.



Residential & Commercial Waste Vehicle Route – see architects document for vehicle turning.

11 AMENITY

Noise

The separation of the commercial / retail activities and the residential areas should ensure noise abatement. Truck movements for the waste collection will be controlled and would have little impact on the noise from Barber Avenue.

Ventilation

The area is provided with ventilation and odour suppression.

Bin Washing

Residential and commercial bins will be washed out in the suitably modified dock.

Vermin

Active prevention and elimination programmes will be maintained.

Aesthetically Consistent

The waste areas will be fully enclosed.

12 MANAGEMENT

Stages of Transfers

Residential, retail and commercial tenants are responsible for removing their waste to the main waste accumulation room located on Lower Ground level.

All movement beyond that point for the residential waste is the responsibility of Building Management by arrangement with Council. The ultimate responsibility of commercial waste removal is the responsibility of the commercial tenants.

Cleaning of Areas

The cleaning of these waste rooms will be the responsibility of a contractor to the Building Manager.

Bin Identification

This will be handled by a combination of colour coding and graphic signs.

13 CONCLUSION

We believe that the waste management plan outlined is compliant, is an appropriate amenity in keeping with Council's policy and is in line with EPA requirements.