

WASTE MANAGEMENT PLAN (WMP) FOR OPERATIONAL WASTE

GENERAL WASTE AND RECYCLABLE WASTE
DA SUBMISSION MOD 3

Proposed Mixed Use Development
23 – 41 Lindfield Avenue
7 & 11 Havilah Avenue
Lindfield
(Ku-ring-gai Local Government)

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WASTE MANAGEMENT PLAN

MIXED USE DEVELOPMENT

23-37 Lindfield Avenue & 11 Havilah Avenue, Lindfield

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WASTE MANAGEMENT PLAN FOR DA

MIXED USE DEVELOPMENT

23 - 41 Lindfield Avenue & 11 Havilah Avenue Lindfield

1.0 EXECUTIVE SUMMARY

The proposed modifications to the development comprise the integration of Lot D in DP 347906 and Lot 4 in DP 713505 (39 and 41 Lindfield Avenue) into the development site and resulting amendments to the design of the mixed use development. Accordingly the modified description of the development is summarised as follows:

- Demolition of existing structures on the site
- Excavation of the site
- Construction of a mixed use development with a maximum gross floor area (GFA) of 15,540 sqm comprising:
 - 2,720 sqm GFA retail floor space at ground floor within a single storey retail podium
 - 141 residential apartments in two towers above the retail podium
 - Four levels of parking for 255 vehicles
 - 898 sqm of communal open space at podium level between the two towers
 - Associated landscaping, servicing and infrastructure
 - Fit out and use of the proposed major retail tenancy as a supermarket
- FSR at 3.91:1 (0.68:1 retail and 3.23:1 residential)

This waste report has been prepared to accompany an application to modify the Minister for Planning & Infrastructure's approval of project MP 08-0244 for the mixed use development at 23 - 41 Lindfield Avenue and 11 Havilah Lane, Lindfield.

In line with the type of development being proposed, being a mix of residential and retail, there will be two separate waste management systems in place. It is proposed that Council waste collection contractors will collect the residential waste and private waste collection contractors will service the retail component.

For Tower A, two centralized residential waste stores will be located on basement 1 (at the bottom of each chute). For Tower B, two centralized residential waste stores will be located on the lower ground floor (at the bottom of each chute).

The Council vehicle will enter the building from Havilah Lane and park in a dedicated space on the Lower Ground Floor for collection of residential waste bins. It will enter and leave in a forward direction. A headroom of 2600 is proposed at the residential waste truck collection area.

The caretaker will move the bins from the central waste stores to the temporary parking area located on the Lower Ground Floor. Electric trolleys are to be provided. This space is adjacent to the waste truck parking space.

A bin wash space and bulky waste store will be provided. An area will be identified for communal composting at the discretion of the Body Corporate.

General waste will be dropped down via chutes. On-floor waste bin staging stores will be located on each residential floor and will house the general waste chute and a waste bin for comingled waste. Each building will have two staging stores per floor. Recyclable waste from the staging stores will be taken to the central residential recyclable waste stores by the caretaker.

Supermarket waste will be transported via lift directly from the supermarket to the loading dock and held in a separate store for regular collection by a private contractor.

Other retail waste will be collected in waste stores located within each tenancy and moved to the central retail waste store on the lower ground floor by each tenant. From here, the waste will be collected by a private contractor at regular intervals.

This report has been prepared based on Ku-ring-gai Municipal Council's Development Control Plan No.40, dated May 1998. This document provides the requirements for waste handling facilities for the DA submission.

Key objectives of the DCP are:

- Encourage building design and construction techniques to minimize waste generation
- Implement principles of the waste hierarchy of avoiding, reusing and recycling building and construction materials, household generated waste and commercial waste.
- To minimize the environmental impacts of waste
- To promote the principles of ecologically sustainable development
- To meet Council's responsibility in relation to the North Sydney Regional Waste Plan
- To assist in achieving the Federal and State Government waste minimization targets

The basic requirements for waste handling facilities are as follows:

- To be of adequate size
- Integrated with building design and site landscaping.
- Suitably screened from public areas.
- With appropriate access for collection.
- Assurance that OH&S requirements for waste contractors are met.

All waste stores will be fitted out to meet Building Code of Australia and Council requirements.

This report describes the waste management system proposed for the project, including:

- Estimates of waste quantity
- Waste space allocation & equipment

- Management of waste
- Waste segregation and minimization procedures
- Access

2.0 ACCESS

Residential Waste

The Council vehicle will enter the building from Havilah Lane, proceed a short distance and park in a dedicated space on the Lower Ground Floor for collection of residential waste bins. It will enter and leave in a forward direction.

The caretaker will move the bins from the central waste stores to the temporary parking area located on the Lower Ground Floor. Electric tows are to be provided.

Supermarket and Retail Waste

The tenants will transport their waste to the dedicated waste stores located in the loading dock the night prior to collection. From there the waste will be collected by the private contractor several times per week.

3.0 SCHEDULE OF USES

Residential Apartments - Tower A	80 units
Residential Apartments - Tower B	61 units
Other Uses - NLA	
- Supermarket	1667.00 sqm
- Retail	660.08 sqm

4.0 WASTE GENERATION SCHEDULE & ESTIMATE OF WASTE VOLUMES

The waste volumes have been estimated using the rates given by Ku-Ring-Gai Municipal Council. A summary of the estimated volumes has been tabulated below.

Residential

Estimate of Waste Volume/ Week

01. Assumptions

On-floor waste bin staging stores will be located on each residential floor and will house the general waste chute and interim waste bins for comingled and paper waste. Each building will have two staging stores per floor. Recyclable waste from the staging stores will be taken to the central residential recyclable waste stores by the caretakers.

- General waste = 240 L per 2x units, collected weekly
- Use will be made of compactors at the base of each chute
- Comingled waste = 240 L per 4x units, collected weekly
- Paper waste = 240 L per 4x units, collected weekly
- Green waste is collected by separate arrangement, can be by Council, or others
- General waste bin size = 240L = 585 x 730 x 1060 mm high

- Paper and comingled bin size = 660L = 850 x 1370 x 1250 mm high
- Entries to chutes are located in the staging stores on each floor
- In staging areas, recyclable waste will be held in 240L bins, 2x per area. These will be cleared by the caretaker on a regular basis.
- Additional area provided in store for "bulky items" waste

02. Tower A

General waste generated per week - uncompacted

80 units @ 240 L/ 2x units = 15 @ 660L bins

Comingled waste generated per week

80 units @ 240 L/ 4x units = 7 @ 660L bins

Paper waste generated per week

80 units @ 240 L/ 4x units = 7 @ 660L bins

03. Tower B

General waste generated per week - uncompacted

61 units @ 240 L/ 2x units = 11 @ 660 L bins

Comingled waste generated per week

61 units @ 240 L/ 4x units = 6 @ 660L bins

Paper waste generated per week

61 units @ 240 L/ 4x units = 6 @ 660L bins

Retail - Estimate of Waste Volume/ Week

01. Retail - Assumptions

- Residential waste and retail waste will be kept separate
- Retail general waste and recyclable waste will be kept in separate sections
- Retail week assumed to be 7 days long
- Retail collection assumed to be 4 times per week.
- Supermarket waste will be collected as required
- If there more than 50 litres of waste meat/ seafood/ poultry is generated, daily collection will be required. Alternatively refrigerated holding space will be required. To be provided by the relevant tenant.
- Council does not provide collection for non-residential uses.
- This report is part of the development application process. The final sizing of waste stores and frequency of waste collection will be made once final tenancy agreements are in place and tenancy types are determined.

02. Table 1
Retail – Estimate of Waste Volume

Area	Size sqm GLAR	Rate L per 100 sqm	Total L per day	Total L per week
Major Retail - Supermarket				
General	1667	240	4000.8	28006
Recyclable	1667	240	4000.8	28006
Other: Butcher, Bakery, Deli-Café, Newsagent, Liquor, Travel Agent, etc				
General	661	50	330.5	2314
Recyclable	661	50	330.5	2314

5.0 ESTIMATE OF REQUIRED STORAGE SPACES IN MAIN WASTE STORES

The long term aim of the waste management strategy is to provide an ongoing and coordinated waste management service that satisfies mandatory authority requirements and is adaptable to changing operational needs.

Council, working with Center Management, will be responsible for providing a residential waste removal service. The caretaker will be responsible for moving the recyclable waste bins to the central waste stores and for cleaning all the waste handling areas.

Private waste collection contractors, working with Center Management, will be responsible for providing a retail waste removal service. The cleaner will be responsible for moving the bins to the central waste stores and for cleaning all the waste handling areas.

Due to the various types of waste originating from the development, it is proposed to manage the waste collection as follows:

Size of Waste Stores/ Residential

To be sized to house the number of bins shown in Section 4.0, page 6

Size of Waste Stores/ Retail

Supermarket

The bins will be selected by management to suit the store requirements

They will be collected on a regular basis by a private contractor

Other retail

Assume 240L bins

General waste = 2314/ week = 3 x 240L bins @ 4 pickups/week

Recyclable waste = 2314/ week = 3 x 240L bins @ 4 pickups/week

The above calculations need to be coordinated with the final tenancy guidelines.
Space is to be provided inside the central waste stores for a bin wash area.

6.0 MANAGEMENT OF INTERNAL WASTE REMOVAL

Residential Waste

General waste from the residential component will be dropped down the on-floor chutes and into bins located on the Lower Ground and Basement 1 central waste stores. This waste will be uncompacted. The waste bins will be moved by the caretaker from the central waste stores to a temporary parking space on the Lower Ground Floor the night prior to collection. Recyclable waste will be initially collected in bins in the staging stores on each floor. From there it will be taken down via the lifts by the caretaker to the main residential waste stores. Accessible access for tenants and a bin wash area have been provided.

Supermarket Waste

The supermarket waste will be contained in bins in the dedicated waste store in the loading dock for regular collection by the private waste contractor.

Retail Waste

The retail waste will be collected in bins located within each tenancy. The tenants will be responsible for the location and sizing of these bins and suitable holding areas. The tenants will move the bins to the central retail waste stores. Accessible access for tenants and a bin wash area have been provided.

7.0 WASTE REMOVAL AND VEHICLE MANOEUVRING

Residential Waste

The Council collection vehicle will enter the building from Havilah Lane and proceed to the parking space on the Lower Ground Floor. It will enter and leave in a forward direction.

Supermarket and Retail Waste

The private waste collection vehicle will park in the dock off Havilah Lane and the contractors will collect the bins for emptying.

8.0 WASTE SEGREGATION AND MINIMISATION

The waste strategy for the development will be continually evaluated by Centre Management, to improve the service provided and to achieve the NSW Government's residential and retail waste reduction targets, through improved recycling methods and aiming to minimize waste.

Centre Management will arrange for an Environmental Management System addressing residential and retail waste collection and recycling procedures. This will include expectations and achievable objectives for sorting and separating waste.

Residential

General waste

Waste will be dropped down the chutes and into a bin. The caretaker will check and swap bins as required.

Recyclable waste

Each resident will be responsible for separating recyclable waste from non-recyclable waste. The caretaker will move the bins to the main waste stores. Recycling bins for nominated waste categories will be provided at the residential waste staging store rooms.

- Paper and cardboard
- Glass/ plastics/ aluminium cans/ metal (comingled)

Supermarket

General Waste

The supermarket tenant will be responsible for holding their waste within their tenancy in suitable bins, located in nominated spaces, until ready for collection. The tenant will be responsible for moving the bins to the main waste store.

Recyclable Waste

The tenant will be required to segregate their waste into recycling bins as follows:

- Paper and cardboard
- Glass/ plastics/ aluminium cans/ metal (comingled)

Working in conjunction with Centre Management, the tenant will arrange to move the bins to the central waste stores.

Retail

General Waste

Each tenant will be responsible for holding their waste within their tenancy in suitable bins, located in nominated spaces, until ready for collection. The tenants will be responsible for moving the bins to the main waste store. The cleaner will move the bins to the dedicated area in the dock.

Recyclable Waste

Each tenant will be required to segregate their waste into recycling bins as follows:

- Paper and cardboard
- Glass/ plastics/ aluminium cans/ metal (comingled)

Working in conjunction with Centre Management, the tenants will arrange to move the bins to the central waste stores.

Hazardous Waste

Should any of the tenancies produce hazardous waste (eg. chemist shop), it will be treated as follows:

- A colour coded plastic bag will be used to hold all hazardous waste.
- A rigid impenetrable container will be used to transport this waste.
- The container will have a securely fixed lid with a child proof catch.
- The container will be clearly marked with the words "contaminated waste"

- The name of the collection company and the date of collection will be recorded and kept by the cleaning contractor.

Where food waste is produced, the tenants will be responsible for either providing refrigerated storage or arranging for a daily collection service.

9.0 WASTE STORES REQUIREMENTS

Bin storage areas and the main waste stores will be designed in line with Council and DCP 40 requirements.

Floor finish

To be sealed concrete slab, graded and drained to meet Sydney Water Guidelines. The floors must be a washable, non-slip, smooth, even surface, coved at wall joints, finished in a light colour.

Wall finish

The walls must be a solid, impervious material, cement rendered to a smooth washable surface, finished in a light colour.

Ceiling finish

Must be finished in a rigid smooth, non-absorbent material, capable of being easily cleaned, finished in a light colour

Drainage

Stores are to be graded and drained to sewer and grease trap

Doors

Must be tight fitting to prevent the entry of vermin

Ventilation

All the waste stores must be ventilated by either natural ventilation (5 litres/ sqm) or be mechanically ventilated. The ventilation system will comply with AS 1668 Parts 1 & 2 and Council's ventilation guidelines.

Lighting

Waste stores must be suitably lit with artificial lighting.

Safety

All equipment must have safe operation procedures in place. Appropriate safety signage must be provided

Bin washing

Provide a trapped gully and hot and cold water mixer tap in each central waste store

Grease Traps

A grease trap maybe required and the hydraulic consultant will to coordinate this with Sydney Water. Refer to Sydney Water Guidelines for requirements

Composting

An area (an unpaved earth surface) will be nominated, accessible to all residents, on which a composting facility could be provided. This will be ultimately subject to consideration by the residents, via the Body Corporate.

Path of travel – from bin holding area to truck

No steps or kerbs

Maximum transfer distance = 50 metres

Maximum gradient = 1:14

Waste stores in Food Premises/ tenancies will also need to comply with AS 4674-2004.

APPENDIX A

- Plan showing Main Waste Stores – Basement 1
- Plan showing Main Waste Stores – Lower Ground
- Plan of Ground Floor

Note:

All calculations have been based on the architectural drawings and area schedules as follows:

Basement 1 Plan	CA 2924 ADAZ 1002 K
Lower Ground Floor Plan	CA 2924 ADAZ 1003 L
Ground Floor Plan	CA 2924 ADAZ 1004 N



