DICKENS SOLUTIONS

(REF – 24004)

WASTE MANAGEMENT PLAN

DESIGN WORKSHOP AUSTRALIA
(MR J. DI SOMMA)

STORAGE PREMISES
@
12 WILLIAM STREET
BROOKVALE

FEBRUARY 2024

Dickens Solutions Pty Ltd
(ABN 41 603 040 446)
1214 Botany Road, Botany NSW 2019
Telephone (Mb) 0400 388 996
Website: www.dickenssolutions.com.au E-mail: garry@dickenssolutions.com.au

TABLE OF CONTENTS

PART 1 – OVERVIEW AND PROPOSAL

1.1 INTRODUCTION

This Waste Management Plan (WMP) is an operational plan that describes in detail the manner in which all waste and other materials resulting from the construction and on-going use of the site are to be dealt with.

The aims and objectives of this WMP are to:

a) Satisfy all State and Local Government regulatory controls regarding waste management and minimisation practices;
b) Promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
c) Maximise waste reduction, material separation, and resource recovery in the development;
d) Ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access:
e) Ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

The land on which the development is proposed is located within the NorthERN Beaches (former Warringah) LGA.

This WMP is prepared in accordance with:

- Warringah LEP 2011,
- Warringah DCP 2011, and relevant waste management guidelines,
- The 'Better Practice Guide for Resource Recovery in Residential Buildings, prepared by the NSW EPA (April 2019),
- All conditions of consent issued under the approved DA; and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be efficient, as well as promoting the principles of health, safety and convenience.

This Waste Management Plan (WMP) has been prepared for a Development Application to be submitted to the Northern Beaches Council for the construction of a four (4) storey building to be used as a storage facility at 12 William Street, Brookvale, comprising of:

- 84 x storage units,
- Two (2) basement levels,
- Bin storage facilities,
- Driveway and parking facilities, and,
- Associated infrastructure.

The WMP is dated 19 February 2024 and has been prepared to be submitted to Council as part of the DA Package for the project.

The WMP has been developed and documented in accordance with the Architectural Drawings prepared by Design Workshop Australia – Project No 2673.

1.2 PROJECT & PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for:

DESCRIPTION	**Industrial Development – Storage Units**
DETAILS	**- 84 x storage units,** **- Two (2) basement levels,** **- Bin storage facilities,** **- Driveway and parking facilities, and,** **- Associated infrastructure.**
PROPERTY DESCRIPTION	**The development is to be constructed over an existing allotment of land at Lot 13, in DP7528, 12 William Street, Brookvale.**
STREET ADDRESS	**12 William Street, Brookvale.**
AREA	**517.3sqm**
LGA	**Northern Beaches Council**
DIMENSIONS	**Refer to Survey and Site Plans**
ZONING	**Zone E3 – Productivity Support**
PLANNING INSTRUMENT	**Warringah LEP 2011** **Warringah DCP 2011**

1.3 APPLICANTS DETAILS

APPLICANT	**Mr J. Di Somma** **C/- Design Workshop Australia**
ADDRESS	**81a Princes Highway, Fairy Meadow. NSW. 2519.**
TELEPHONE	**02 4227 1661**
E-MAIL	**daniella@designworkshop.com.au**

1.4 PROPOSAL

The proposal involves construction of a four (4) storey building to be used as a storage facility, comprising of:

- 84 x storage units,
- Two (2) basement levels,
- Bin storage facilities,
- Driveway and parking facilities, and,
- Associated infrastructure.

Vehicular access to the site is from William Street at the southern frontage of the site.

All waste and recycling services will be provided by a licensed private waste and recycling collection contractor.

All waste and recycling services will take place from a loading dock situated adjacent to the WSA on the Ground Floor as indicated on the Architectural Drawings.

Current buildings and structures on the site include a single storey brick dwelling with a metal roof, attached garage, concrete verandas, front and rear, detached metal sheds, front and rear grassed areas, some trees and shrubs, paved area and concrete driveway, and metal panel perimeter fencing.

The project consists of: -

1. The demolition of the dwelling all associated structures, and the removal of all associated structures on all lots,
2. Levelling and clearing of the site,
3. The excavation of the site to construct the basement and building,
4. The construction of the building,
5. The provision of landscaping, off streetcar park, driveways, concrete pathways and other elements associated with the development, and,
6. The on-going use of the building.

The Northern Beaches Council require a demolition, construction, and operational waste management plan to be submitted describing how all demolition, construction and operational waste will be stored, disposed of, and managed.

This Waste Management Plan has been developed not only to satisfy Council's requirements, but also to ensure that all waste management activities associated with the development are carried out and conducted in accordance with best practice industry standards.

PART 2 – DEMOLITION

2.1 OVERVIEW

It is recognised that Sydney has an ever-increasing waste problem, and this practice is not sustainable. In alignment with current NSW waste management legislation, this WMP aims, where possible, to promote waste avoidance, reuse, and the recycling of material, particularly during the course of demolition and construction works.

This Part (Part 2) on Pages 6, 7, 8, 9 and 10 of this WMP describes the manner in which waste is to be managed during the course of the demolition and construction works.

The processes outlined herein are to be read in conjunction with, and comply, with the Development Consent issued in respect of the proposal. It will be the developer's overall responsibility to ensure compliance in this regard.

All material moved offsite shall be transported in accordance with the requirements of the Protection of the Environment Operations Act (1997).

Approved receptacles of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

2.2 BUILDINGS TO BE DEMOLISHED

Current buildings and structures on the site include a single storey brick dwelling with a metal roof, attached garage, concrete verandas, front and rear, detached metal sheds, front and rear grassed areas, some trees and shrubs, paved area and concrete driveway, and metal panel perimeter fencing.

2.3 MANAGEMENT OF HAZARDOUS MATERIALS

Due to the age and construction of the existing buildings on the site, there may be potential for hazardous building materials to be present in the buildings to be demolished. Accordingly, the generation, storage, treatment, and the disposal of hazardous waste (including asbestos) will be conducted in accordance with relevant waste legislation administered by the NSW EPA and any applicable WH&S legislation administered by Work Cover NSW.

All friable and non-friable asbestos-containing material shall be handled and disposed of off-site at an EPA licensed waste facility by an EPA licensed contractor in accordance with the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 and the Waste Classifications Guidelines – Part 1 'Classifying Waste (EPA 2014) and any other instrument as amended.

All friable hazardous waste arising from the demolition process shall be removed and disposed of in accordance with the requirements of Work Cover NSW and the EPA, and with the provisions of:

a) Work Health and Safety Act 2011,
b) NSW Protection of the Environment Operations Act 1997 (NSW), and,
c) NSW Department of Environment and Climate Change Environmental Guidelines; Assessment, Classification and Management of Liquide and Non-Liquid Wastes.

2.4 DEMOLITION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all material involved in the demolition of the building will be dealt with, and includes: -

1. An estimate of the types and volumes of waste and recyclables to be generated,
2. How demolished waste materials will be reused, and, or recycled and where residual wastes will be disposed (see below), and,
3. The total percentage of demolition waste that will be reused or recycled.

It is noted that the quantities of materials detailed in this part (Part 2.2) on page 9 are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of site constraints, weather conditions, and any other unforeseeable activities associated with the demolition works, which are beyond the control of the developer, including but not being limited to theft, accidents, and, or, other acts of misadventure. Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

1. Excavated Materials

Volume / Weight	200 cubic metres / 340 Tonnes
On Site Reuse	To be Determined
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

2. Bricks

Volume / Weight	60 cubic metres / 60 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks.
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

3. Concrete

Volume / Weight	50 cubic metres / 120 Tonnes
On Site Reuse	Nil – all to be disposed of, or processed off-site
Percentage Reused or Recycled	75% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

4. Timber

Volume / Weight	70 cubic metres / 28 Tonnes
On Site Reuse	Re-use for formwork and studwork.
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

5. Plasterboard & Fibro

Volume / Weight	50 cubic metres / 17.50 Tonnes
On Site Reuse	No. All materials will be processed off-site
Percentage Reused or Recycled	To be determined (dependent on asbestos content)
Off Site Destination	
Off Site Destination (Asbestos)	Refer to Part 2.8 on page 10.

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	125 cubic metres / 43.75 Tonnes
On Site Reuse	No
Percentage Reused or Recycle	60% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

7. Roof Tiles / Tiles

Volume / Weight	Minimal

8. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	100 cubic metres / 35 Tonnes
On Site Reuse	No. All material will be processed or disposed of 0ff-site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

9. Glazing, Electrical & Light Fittings, Cabling, PC items, Ceramics, etc

Volume	125 cubic metres / 37.5 Tonnes
On Site Reuse	No. All material will be processed or disposed of 0ff-site.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Refer to Part 2.8 on page 10

10. Residual Waste

Volume / Weight On Site Reuse Off Site Destination	80 cubic metres / 80 Tonnes No Refer to Part 2.8 on page 10
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

It is noted that the quantities of materials detailed in this section (Part 2.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the demolition of the buildings, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table. The developer understands that any costs associated with the transportation and receival of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the contractors' responsibility to ensure that all materials excess to construction removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site.

2.5 ON-SITE STORAGE OF MATERIALS

During the demolition and construction stages of the project, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting,
- Segregation of materials that may be hazardous and which will be required to be disposed of,
- Recovery equipment, such as concrete crushers, chippers, and skip bins,
- Material storage, and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclable, and waste materials.

Prior to the commencement of demolition works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Demolition'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.
se the amount of building materials excess to construction.

2.6 DEMOLITION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of the demolition of all buildings, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to their removal, transportation, and disposal to an approved waste management facility.

All relevant details must be reported to the PCA.

2.7 LICENSED WASTE MANAGEMENT AND RECYCLING FACILITIES.

The facilities nominated below are appropriately licensed to receive the materials nominated in Tables 1 to 10 on pages 6 to 9.

1. Kimbriki Waste Management Facility, Kimbriki Road, Ingleside. Tel 02 9486 3512.
2. Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights.
   Tel 1300 651 116
3. Bingo Industries, 3-5 Duck Street, Auburn, or 38 McPherson Street, Banksmeadow.
   Tel 1300 424 646
4. Jacks Gully Waste Management Centre, Richardson Road, Narellan.
   Tel 1300 651 116
5. Veolia Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112

The facilities and agencies that receive the materials listed above are, licensed and generally able, to accept the materials specified.

The appointed contractor understands that any costs associated with the transportation and receival of these materials will be their responsibility.

Based on the above information, it is anticipated that between 75% and 85% of all materials excess to construction needs will be able to be recycled or re-used, well above the Council's required targets.

The appointed contractor is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the contractors responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal, and processing of all materials excess to the construction of the building.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to construction.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

Upon completion of all demolition works, construction of the building will commence with the excavation of the site for the basement levels of the building. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 11, 12, 13, 14 and 15 of this WMP.

Additionally, all materials used in the construction of the building that are not required to be incorporated into it, shall be recycled, reused, or disposed of in accordance with these provisions, and the requirements of the Protection of the Environment Operations Act (1997). It will be the developer's overall responsibility to ensure compliance in this regard.

Mobile Bins of an appropriate size will be located on site for the collection of food scraps, beverage containers, and other waste generated on site by workers.

3.2 CONSTRUCTION – RECYCLING, REUSE & DISPOSAL DETAILS

The following details prescribe the manner in which all materials surplus to the construction of the building will be dealt with, and includes: -

a) An estimate of the types and volumes of waste and recyclables to be generated,
b) A site plan showing sorting and storage areas for construction waste and vehicle access to these areas (see Part 3.3 of this Plan),
c) How excavated and other materials surplus to construction will be reused or recycled and where residual wastes will be disposed (see below), and,
d) The total percentage of waste surplus to construction to be reused or recycled.

1. Excavated Materials

Volume / Weight	3,000 Cubic Metres / 5,100 (Basements excavation)
On Site Reuse	Yes. Keep and reuse topsoil for landscaping. Shore on site. Use some for support of retaining walls (Excavated Materials are only to be used if the material is not contaminated or has been remediated in accordance with any requirements specified by any Environmental Consultancy engaged to carry out any contamination assessment of excavated material).
Percentage Reused or Recycled	To be determined (see above comments)
Off Site Destination	Refer to Part 3.5 on page 15.

2. Bricks

Volume / Weight	5 cubic metres / 5 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Broken bricks for internal walls. Crush and reuse as drainage backfill. Crushed and used as aggregate.
Percentage Reused or Recycle	75% - 90%
Off Site Destination	Refer to Part 3.5 on page 15.

3. Concrete

Volume / Weight	6 cubic metres / 14.4 Tonnes
On Site Reuse	Existing driveway to be retained during construction. Crushed and used as aggregate, drainage backfill.
Percentage Reused or Recycled	60% - 75%
Off Site Destination	Refer to Part 3.5 on page 15.

4. Timber

Volume / Weight	5 cubic metres / 7 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Refer to Part 3.5 on page 15.

5. Plasterboard & Fibro

Volume / Weight	6 cubic metres / 2 Tonnes
On Site Reuse	No – all material will be transported for disposal off-site.
Percentage Reused or Recycled	To be determined
Off Site Destination	Refer to Part 3.5 on page 15.

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	5 cubic metres / 0.25 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Refer to Part 3.5 on page 15.

7. Roof Tiles / Tiles

Volume / Weight	4 cubic metres / 3 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Refer to Part 3.5 on page 15

8. Plastics

Volume / Weight	5 cubic metres / 1 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Refer to Part 3.5 on page 15.

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	5 cubic metres / 1 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	Refer to Part 3.5 on page 15.

10. Fixture & Fittings (Doors Fittings, Other Fixtures, etc)

Volume	10 cubic metres / 3.3 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Refer to Part 3.5 on page 15.

11. Pallets

Volume / Weight	25 cubic metres / 8 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	Refer to Part 3.5 on page 15.

11. Residual Waste

Volume / Weight On Site Reuse Off Site Destination	250 cubic metres / 250 Tonnes No Refer to Part 3.5 on page 15.
Notes on calculation of volume of residual waste	1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that 10% of it, will be residual waste. 2. As all of the materials vary in weight per volume, a figure of 1 cubic metre of material is equal to 1 tonne in weight has been used.

It is noted that the quantities of materials detailed in this section (Part 3.2) are estimates only, based on current industry standards and quantity analysis, and may vary due to the prevailing nature of construction constraints, weather conditions, and any other unforeseeable activities associated with the construction of the buildings, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure. Notwithstanding any of the above, the developer will provide Council with all details in relation to any major variations in this regard.

The facilities and agencies that have been nominated to receive the materials listed above have been identified within the NSW waste industry as being a facility or agency that will accept the materials specified in each respective table.

The developer understands that any costs associated with the transportation and receival of all materials will be their responsibility. The developer is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all materials excess to construction removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal and processing of all materials associated with the demolition of all structures on site. Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to its construction.

3.3 CONSTRUCTION – ON-SITE STORAGE OF MATERIALS

During the construction of the buildings, an area will be set aside on the site as a compound for the on-site storage of materials prior to their removal from the site. This compound will provide for: -

- Material sorting,
- Segregation of materials that may be hazardous and which will be required to be disposed of,
- Recovery equipment, such as concrete crushers, chippers, and skip bins,
- Material storage, and,
- Access for transport equipment.

Appropriate vehicular access will be provided on and off site, and to the compound, to enable the efficient removal of reusable, recyclables, and waste materials.

Prior to the commencement of construction works, the developer will provide Council with a 'Site Plan for the On-Site Storage of Materials at Construction'. This plan will show in detail the location of each area within the compound, set aside for the segregated storage of all materials involved in the demolition of all buildings on the site.

3.4 CONSTRUCTION – EXCAVATED MATERIAL

All excavated material removed from the site, as a result of any activities associated with the construction of the building, must be classified in accordance with the Department of Environment, Climate Change and Water NSW Waste Classification Guidelines prior to removal, transportation and disposal to an approved waste management facility. All relevant details must be reported to the PCA.

3.5 LICENSED WASTE MANAGEMENT AND RECYCLING FACILITIES.

The facilities nominated below are appropriately licensed to receive the materials nominated in Tables 1 to 10 on pages 6 to 8 and Part 2.7 on page 10.

1. Kimbriki Waste Management Facility, Kimbriki Road, Ingleside. Tel 02 9486 3512.
2. Lucas Heights Waste Management Centre, New Illawarra Road, Lucas Heights.
   Tel 1300 651 116
3. Bingo Industries, 3-5 Duck Street, Auburn, or 38 McPherson Street, Banksmeadow.
   Tel 1300 424 646
4. Jacks Gully Waste Management Centre, Richardson Road, Narellan.
   Tel 1300 651 116
5. Veolia Resource Recovery Park, Wallgrove Road, Eastern Creek. Tel 8887 6112

The facilities and agencies that receive the materials listed above are, licensed and generally able, to accept the materials specified.

The appointed contractor understands that any costs associated with the transportation and receival of these materials will be their responsibility.

Based on the above information, it is anticipated that between 75% and 85% of all materials excess to construction needs will be able to be recycled or re-used, well above the Council's required targets.

The appointed contractor is under no obligation to use any nominated facility or agency, but should any alternative arrangements be made, it will be the contractors responsibility to ensure that all demolished materials removed from the site are disposed of, or processed, appropriately.

The developer will keep a written record of all documentation associated with the transportation, disposal, and processing of all materials excess to the construction of the building.

Additionally, during the construction of the building, every effort will be made to reduce and minimise the amount of building materials excess to construction.

PART 4 – ON GOING USE OF BUILDING

4.1 OBJECTIVES

1. To ensure that the storage, amenity and management of waste is sufficient to meet the needs of the development.
2. To ensure that all waste management activities are carried out effectively and efficiently, and in a manner, that will promote the principles of health, safety and convenience.
3. To promote waste minimisation practices.

4.2 ASSUMPTIONS

In preparing this Plan, the following assumptions have been made: -

1. The proposal involves construction of a four (4) storey building to be used as a storage facility, comprising of:
   a) 84 x storage units,
   b) Two (2) basement levels,
   c) Bin storage facilities,
   d) Driveway and parking facilities, and,
   e) Associated infrastructure.
2. Vehicular access to the site is from William Street at the southern frontage of the site.
3. All waste and recycling material will be stored within an appropriate number of approved containers located in the confines of separate Waste Storage Areas (WSA's) located on the ground floor of the building.
4. All waste and recycling generation rates have been obtained from current standard NSW commercial waste generation rates established by the Better Practice Waste Management Guide for Resource Recovery in Residential Buildings, as they do not appear to be covered in any of Council's waste management policies and guidelines.
5. As the development is commercial in nature all waste and recycling services will be provided by a licensed private waste and recycling contractor.
6. All waste and recycling collections will take place from a loading bay or driveway just outside the WSA as indicated on the Architectural Drawings.
7. The Proprietors will appoint a Building Manager / Caretaker who will be responsible for the supervision of all waste management services and facilities.

4.3 WASTE AND RECYCLING SERVICE ARRANGEMENTS

4.3.1 Generally

Waste and recycling services will be provided to the development in accordance with the provisions of this WMP.

The user of each storage locker will be responsible for depositing their waste and recycling material into the appropriate bins provided in the bin area. All waste and recyclables should be appropriately bagged or wrapped prior to being deposited into the designated bin.

Appropriate signage will be erected in a prominent place within the building and basements to assist users and employees to ensure that all waste and recyclable material is placed into the appropriate bins.

4.3.2 Details of Commercial Land Uses – Self Storage Units

The use of the building will be wholly for self-storage units, which will occupy all six (6) levels of the building, including the two (2) basements. The combined floor area of all six (6) levels is 1,273sqm (Storage Lockers only).

Typically, these types of facilities generate minimal amounts of waste and recyclable material, as they provide storage space for often valuable articles, either of commercial or private use, that are unable to be securely stored on business premises or in private homes. When any stored articles are removed for whatever reason, all items in the storage unit are generally moved to be sold, relocated or otherwise used in the form in which they were stored.

4.3.3 Waste & Recycling Generation Rates

The Table below (Table 1) details the waste and recycling generation rates for the land uses proposed. These rates have been obtained from the EPA's Better Practice Waste Management Guide as Council's guidelines do not provide for Waste and Recycling Generation Rates for commercial land use activities.

TABLE 1 – WASTE & RECYCLING GENERATION RATES
LAND USE ACTIVITIES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Storage Units	10-litres of waste per 100sqm of floor area per day
Recycling	Storage Units	10-litres of recyclables per 100sqm of floor area per day

4.3.4 Details of Mobile Containers

In relation to the waste and recycling mobile bins, the following technical information is provided in relation to indicative bin sizes that may be used: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
240 litre mobile container	1.080	0.735	0.585
1100 litre mobile container	1.470	1.070	1.240

4.4 PROVISION OF WASTE AND RECYCLING SERVICES

4.4.1 Waste and Recycling Service Requirements

The total floor area of all storage lockers is 1,273sqm – corridors, lifts, stairs and associated infrastructure are excluded from these calculations.

The following Table (Table 2) details the proposed waste service arrangements based on the above activities and the waste generation rates prescribed the Guide in relation to the land use activities proposed to be carried out at the development.

TABLE 2 – WASTE GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
Storage Units	10-litres per 100sqm of floor area	10 x 1,273 / 100 x 7 (days)	891.10
Total Litres of Waste Generated per Week			**891.10**
Service Requirements		**1 x 1100-litre mobile waste bins One (1) Service per Week**	
Total Litres of Waste Serviced per Week		**1,100-litres Serviced per Week**	

The following Table (Table 3) details the proposed recycling service arrangements based on the above activities and the waste generation rates prescribed the Guide in relation to the land use activities proposed to be carried out at the development.

TABLE 3 – RECYCLING GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
Storage Units	10-litres per 100sqm of floor area	10 x 1,273 / 100 x 7 (days)	891.10
Total Litres of Waste Generated per Week			**891.10**
Service Requirements		**1 x 1100-litre mobile recycling bins One (1) Service per Week**	
Total Litres of Waste Serviced per Week		**1,100-litres Serviced per Week**	

4.4.2. Waste Handling and Management

All commercial tenants will be responsible for transferring their waste and recycling material from their individual units to the Bin Storage Area.

4.4.3 Bin Storage Facilities

A dedicated Bin Storage Area (BSA) is provided for storge of all waste and recycling bins associated with the use of this building. It will be designed to accommodate a minimum of:

- 1 x 1100-litre mobile waste bin, and,
- 1 x 1100-litre mobile recycling bin.

4.4.4 Collection Methodology

A licensed private waste collection contractor will provide all waste and recycling services to the building, using a collection vehicle suitable for collection purposes.

All waste and recycling collections will take place from a loading zone located on the ground floor of the building, adjacent to the western side boundary of the site, as indicated on the Architectural Drawings.

The loading zone has been designed to accommodate a rear loading SRV collection vehicle, designed and manufactured in accordance with the relevant Australian

Standards.

In general, the vehicle will have the following approximate minimum dimensions:

- Length – 6.4m,
  Operational Height – 2.2m, and,
  Width – 2.82 (mirror to mirror).

The vehicle will enter and exit the site in a forward direction.

Both waste and recycling bins will be serviced one day per week. In this regard it is recommended that the services be provided on separate days of the week.

All services are to be undertaken in an efficient manner that will promote the principles of health, safety and convenience and not impact negatively on the amenity of the complex and its surrounds.

4.5 ON GOING OPERATION, USE & MAINTENANCE OF WASTE MANAGEMENT FACILITIES

All waste management facilities will be maintained in a clean and hygienic condition that will promote the principles of health, safety and convenience.

In order to achieve these objectives, the following requirements will apply: -

1. The WSA will be fully enclosed and provided with a concrete floor, and with concrete or cement rendered walls coved to the floor; the room shall have a floor waste consisting of a removable basket within a fixed basket arrestor complying with Sydney Water requirements, and the room will be fitted with mechanical ventilation.
2. The WSA will be washed and cleaned on a regular basis.
3. All mobile bins will be washed and cleaned on a regular basis.
4. Any electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
5. Appropriate signage will be displayed in a prominent position within the waste storage area, providing instruction to employees on how to use waste and recycling facilities, including what is and what is not recyclable.
6. The Owner will be responsible for ensuring that all waste and recyclable matter and materials are placed and stored within the appropriate containers provided.

PART 4 – SUMMARY

4.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan has been developed and documented in accordance with the requirements of the Norther Beaches Council.
2. The number and size of bins have been calculated from information provided from information contained in the Better Practice Guide for Waste Management and Recycling in Commercial and Industrial Facilities.
3. All waste and recycling services will be provided by a licensed private waste and recycling contractor.
4. The Proprietor of the facility will be responsible for ensuring that all on-going waste management activities are carried out in accordance with the provisions of this Waste Management Plan.
5. The WMP aims to promote the use of recyclable materials in the excavation, demolition, construction and on-going operation of the building;
6. The WMP aims to ensure the design of waste and recycling storage facilities are of an adequate size, appropriate for the intended use of the building, hygienic with safe and manoeuvrable access.
7. The WMP aims to ensure that the provision of waste and recycling services to the completed buildings are carried out in an efficient manner, which will promote the principles of health, safety and convenience.

The measures set out in this WMP aim to demonstrate that all such activities will be carried out effectively and efficiently, in a healthy, safe and convenient manner, to acceptable community standards, and to the requirements of the Northern Beaches Council.