

DICKENS SOLUTIONS

WASTE MANAGEMENT PLAN

NORDON-JAGO ARCHITECTS

ECO-TOURIST RESORT FACILITY

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71 FIG HILL LANE
DUNMORE

MARCH 2020

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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 demolition, construction and on-going use of the building on 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 all stages of 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, and,
- e) Ensure that the provision of waste and recycling services to the completed building is carried out in an efficient manner, which will not impact negatively on the health, safety and convenience of all stakeholders.

This WMP is prepared in accordance with: -

- Shellharbour Local Environment Plan 2013,
- Shellharbour DCP 2012,
- All conditions of the development consent to be issued under the approved Development Consent,
- The 'Better Practice Guide for Resource Recovery in Residential Buildings published by the NSW EPA (April 2019), and,
- The objective of ensuring that all waste management facilities and collection services will provide an outcome that will be effective and efficient, as well as promote the principles of health, safety and convenience.

This Waste Management Plan (WMP) has been prepared for the submission of a Development Application to Shellharbour City Council for the development of lands at 71 Fig Hill Lane, Dunmore, to establish an Eco-Tourist Resort Facility, comprising of:

- Partial demolition of existing dwelling and demolition of all other buildings and associated structures,
- Construction of a part two (2) storey and part three (3) storey principle building consisting of 13 x rooms, gymnasium and spa, restaurant, lounge bar, panoramic terrace and pool, and roof top bar,
- Construction of three (3) separate single storey buildings containing 20 x rooms,
- Car parking, and,
- Associated infrastructure, including roadworks, driveways, power supply, water supply, sewerage main, and services.

This WMP is dated 28 March 2020.

1.2 PROPERTY DESCRIPTION

This Waste Management Plan (WMP) has been specifically designed for the development described below: -

DESCRIPTION	Eco-Tourist Resort
PROPERTY DESCRIPTION	The development is to be constructed over one (1) large allotment of land at 3, DP 717776, No 71 Fig Hill Lane, Dunmore.
STREET ADDRESS	71 Fig Hill Lane, Dunmore.
AREA	39,440sqm
ZONING	Zone RU2 – Rural Landscape Zone E2 – Environmental Conservation Zone E3 – Environmental Management
PLANNING INSTRUMENTS	Shellharbour LEP 2013 Shellharbour DCP 2013

The site is an irregular shaped allotment located at 71 Fig Hill Lane, Dunmore a rural suburb within the Shellharbour LGA. It is situated on the northern side of the Minnamurra River, approximately 500m east of the Princes Highway and a similar distance west of Kiama Beach and the Kiama town centre, and 5km south of Shellharbour.

The development precinct is restricted to the north-western portion of the property on an area that is occupied by an unfinished dwelling, associated garage, stable structures, water tanks, concrete driveway, garden retaining walls, and extensive site filling.

There is a large amount of vegetation and a number of well-established trees scattered over the site, the majority of which will be incorporated into the development.

The immediate surrounding development consists primarily of rural habitats, with a low-density residential housing subdivision to the south.

1.3 APPLICANTS DETAILS

APPLICANT	Nordon-Jago Architects
ADDRESS	Level 4, 111-117 Devonshire Street, Surry Hills. NSW. 2010.
TELEPHONE	02 9318 8419
E-MAIL	SNordon@nordonjago.com

1.4 PROPOSAL

The proposal involves the establishment of an Eco-Tourist Resort Facility, comprising of:

- Partial demolition of an existing dwelling and all other buildings and associated structures,
- Construction of a part two (2) storey and part three (3) storey principle building consisting of 13 x rooms, gymnasium and spa, restaurant, lounge bar, panoramic terrace and pool, and roof top bar,
- Construction of three (3) separate single storey buildings containing 20 x rooms,
- Car parking, and,
- Associated infrastructure including roadworks, driveway, power supply, water supply, sewerage main, and services.

The development precinct is located on the north-western portion of the property on an area that is occupied by an unfinished dwelling, associated garage and stable structures. A substantial portion of the dwelling will be demolished (refer to Demolition Plan DA.003C) and the remainder to be refurbished and incorporated into the development. All other buildings and structures will be demolished.

Access to the site will be from Fig Hill Lane on the western side of the site.

All waste storage facilities will be provided in a dedicated Waste Storage Area (WSA) located on the ground floor of the 'Back of House Building' as indicated on the Ground Floor Plan.

All waste and recycling collections will take place from a 13.1m diameter truck turntable situated on the northern side of the site adjacent to the 'Back of House Building'

The project consists of: -

- a) The partial demolition of the existing dwelling and the demolition of all other buildings and structures, excess to construction requirements,
- b) Site excavation works,
- c) The construction of the buildings,
- d) The provision of landscaping, driveways, concrete pathways, sewer and water services, other elements associated with the development, and,
- e) The on-going use of the building.

PART 2 – DEMOLITION

2.1 GENERAL PROVISIONS

2.1.1 General Requirements

It is recognised that the South Coast of NSW 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.

Part 2.2 of this WMP describes the manner in which waste is to be managed during the course of the demolition of the existing structures.

The processes outlined in Part 2.2 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.

2.1.2 Management of Hazardous Materials

Due to the age and construction of the existing buildings on the site, there is reasonable 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 Liquid and Non-Liquid Wastes.

2.2 DEMOLITION WORK PLAN

All demolition will be undertaken in accordance with the provisions of the Demolition Work Plan prepared by World Wide Demolitions, who will undertake the demolition work.

The Demolition Work Plan (DWP) incorporates a Waste Management Plan specific to these proceedings.

2.3 DEMOLITION – ON SITE STORAGE OF MATERIALS

During the demolition stage 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, recyclables, and waste materials.

Prior to the commencement of 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.

2.4 DEMOLITION – 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.

PART 3 – CONSTRUCTION

3.1 CONSTRUCTION – GENERALLY

Upon completion of all demolition works, construction of the buildings will commence with site excavation works. All materials sourced from these activities will be disposed of in accordance with the information provided in Part 3.2 on pages 8, 9, 10, 11, 12 and 13 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 construction waste that will be reused or recycled.

1. Excavated Materials

Volume / Weight	1,000 cubic metres / 1,700 Tonnes
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
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

2. Bricks

Volume / Weight	10 cubic metres / 10 Tonnes
On Site Reuse	Clean and remove lime mortar from bricks. Re-use in new footings. 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	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

3. Concrete

Volume / Weight	10 cubic metres / 24 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	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

4. Timber

Volume / Weight	8 cubic metres / 2 Tonnes
On Site Reuse	Re-use for formwork and studwork, and for landscaping
Percentage Reused or Recycled	65% - 90%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

5. Plasterboard & Fibro

Volume / Weight	5 cubic metres / 5.25 Tonnes
On Site Reuse	Nil – all to be disposed of off-site.
Percentage Reused	To be determined
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

6. Metals / Steel / Guttering & Downpipes

Volume / Weight	6 cubic metres / 1.5 Tonnes
On Site Reuse	No
Percentage Reused or Recycled	60 – 90%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

7. Roof Tiles / Tiles

Volume / Weight	8 cubic metres / 6 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycled	80% - 90%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

8. Plastics

Volume / Weight	3 cubic metres / 0.5 Tonne
On Site Reuse	Nil
Percentage Reused or Recycled	80% - 95%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

9. Glass, Electrical & Light Fittings, PC items

Volume / Weight	5 cubic metres / 3 Tonne
On Site Reuse	No
Percentage Reused or Recycled	70% - 90%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

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

Volume	5 cubic metres / 1.75 Tonnes
On Site Reuse	Broken up and used as fill.
Percentage Reused or Recycle	80% - 90%
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.

11. Pallets

Volume / Weight	5 cubic metres / 2.5 Tonne
On Site Reuse	No
Percentage Reused or Recycle	90% - 100%
Off Site Destination	To an approved agency, or agencies, for reuse and resale.

12. Residual Waste

Volume / Weight	110 cubic metres / 110 Tonnes
On Site Reuse	No
Off Site Destination	Dunmore Recycling Centre, 44 Buckleys Road, Dunmore. Tel 02 4221 6200 or, Other approved facility.
Notes on calculation of volume of residual waste	<ol style="list-style-type: none">1. In calculating the amount of residual waste produced from the demolition of all buildings on site, it is estimated that approximately 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 part (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 building, which are beyond the control of the developer, including but not being limited to theft, accidents, and other acts of misadventure.

The facilities 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 receipt of these materials will be their responsibility.

The developer is under no obligation to use any nominated facility, but should any alternative arrangements be made, it will be the developers' responsibility to ensure that all 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 buildings, every effort will be made to reduce and minimise the amount of building materials excess to 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 buildings, 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.

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 promotes the principles of health, safety and, convenience.
3. To promote waste minimisation practices.

4.2 ASSUMPTIONS

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

1. The proposal involves the establishment of an Eco-Tourist Resort Facility, comprising of:
 - a) Building A – A part two (2) storey and part three (3) storey principle building consisting of 13 x rooms, gymnasium and spa, restaurant, lounge bar, panoramic terrace and pool, and roof top bar,
 - b) Building Lodge A – A single storey residential building containing 9 x units,
 - c) Building Lodge B – A single storey residential building containing 7 x units,
 - d) Building Lodge C – A single storey residential building containing 4 x units,
2. Although the development comprises of both residential and commercial components, all waste management activities will be dealt with simultaneously.
3. One dedicated Waste Storage Area (WSA) will be provided for the entire facility.
4. The WSA is located on the north-eastern side of the 'Back-of-House' building as indicated on the Ground Floor Plan.
5. The WSA will provide storage space for all waste and recycling bins required for the on-going use of the development.
6. All waste and recycling bins will be stored within the confines of the WSA at all times.
7. All waste and recycling generation rates have been calculated from information provided in the Better Practice Guide for Resource Recovery in Residential Developments published by the NSW EPA (April 2019), as they are not provided in Council's Waste DCP.
8. The residential component of the development comprises of 33 residential apartments and rooms, all of which will be serviced rooms.
9. The commercial component of the development comprises of gymnasium, swimming pool and spa, bra areas, restaurant and reception area, offices and storage areas, with a combined floor area of .
10. For the purposes of the provision of waste management services all facilities and services will be provided as detailed in Part 4.5 on page 15, Part 4.6 on page 16 and Part 4.7 on pages 17 to 18.
11. In order to meet Council's servicing requirements, the following number of bins will be required for both residential and commercial components of the development:
 - a) 4 x 1100-litre waste bins,
 - b) 4 x 1100—litre recycling bins.
12. All waste services will be provided three (3) times per week.
13. All recycling services will be provided three (3) times per week.

14. A licensed private waste and recycling collection contractor will provide all waste and recycling services to the development.
15. All waste and recycling bins will be serviced by a rear loading collection vehicle on 13.1m diameter truck turntable situated on northern side boundary of the site as indicated on the Ground Floor Plan.
16. The Proprietors of the Resort will appoint a Building Manager/Caretaker whose responsibility it will be to oversee all waste management activities for the entire development.

4.3 WASTE HANDLING & MANAGEMENT – RESIDENTIAL ROOMS & UNITS

A cabinet will be located within each serviced room/unit so that a receptacle, or receptacles, may be stored or housed in a convenient and practical location within the unit, for the reception of waste and recyclable material.

An authorised employee of the facility (e.g. room cleaner) will be responsible for transporting and depositing waste and recycling material from all rooms and units into the appropriate bins within Waste Storage Area (WSA).

All waste is to be placed in the red lidded waste bins. All recyclable material is to be placed in the yellow lidded recycling bins.

Appropriate signage will be erected within the WSA to assist all employees in the placement of waste and recyclables into the appropriate bins.

Unrestricted access to the WSA will be provided at all times to employees or the Building/Manger or their representative so that waste and recycling material can be deposited within the appropriate bins at any time.

Access to WSA will be restricted to the Building/Manger, their representative, or authorised employees.

4.4 WASTE & RECYCLING – SERVICE ARRANGEMENTS

All waste and recycling materials will be stored in approved receptacles of an appropriate size as specified in this WMP.

The lids of the bins shall be closed at all times to reduce litter, stormwater pollution, odour and vermin.

The Council in general requires that colour coded receptacle lids that distinguish each service component are to be provided: -

- Waste Service – Red Lidded receptacle, and,
- Recycling Service – Yellow Lidded receptacle.

No formal green waste service will be provided to the development. All green waste generated on site is to be processed as on-site compost.

It will be the responsibility of the Proprietor to ensure that all green waste is disposed of correctly.

4.5 WASTE & RECYCLING GENERATION RATES

All waste and recycling generation rates have been calculated from information provided in the Better Practice Guide for Resource Recovery in Residential Developments published by the NSW EPA (April 2019), as they are not provided in Council's Waste DCP.

The following Table (Table 1) details all waste and recycling generation rates prescribed the Guide in relation to the land use activities proposed to be carried out at the development.

TABLE 1 – COMMERCIAL WASTE & RECYCLING GENERATION RATES

SERVICE	LAND USE	WASTE & RECYCLING GENERATION RATES
Waste	Hotel Rooms	10 litres of waste per room per day
Recycling	Hotel Rooms	5 litres of recyclables per room per day
Waste	Restaurant	400 litres of waste per 100m ² of floor area per day
Recycling	Restaurant	280 litres of recyclables per 100m ² of floor area per day
Waste	Reception	10 litres of waste per 100m ² of floor area per day
Recycling	Reception	10 litres of waste per 100m ² of floor area per day
Waste	Café	120 litres of recyclables per 100m ² of floor area per day
Recycling	Café	60 litres of recyclables per 100m ² of floor area per day
Waste	Bars	50 litres of waste per shop per day
Recycling	Bars	50 litres of recyclables per shop per day
Waste	Office	10 litres of waste per 100m ² of floor area per day
Recycling	Office	15 litres of waste per 100m ² of floor area per day
Waste	Gymnasium, Spa, Pool	20 litres of waste per 100m ² of floor area per day
Recycling	Gymnasium, Spa, Pool	15 litres of waste per 100m ² of floor area per day
Waste	Conference Facilities	5 litres of waste per 100m ² of floor area per day
Recycling	Conference Facilities	10 litres of waste per 100m ² of floor area per day

The following Table (Table 2) details all the land use activities proposed to be carried out at the development.

TABLE 6 – COMMERCIAL LAND USE ACTIVITIES

DESCRIPTION	PROPOSED USE	LOCATION	FLOOR AREA (Square Metres)
Hotel Rooms	Serviced Apartments & Units	See Plans	33 Rooms
Restaurant	Dining	See Plans	311
Reception	Functions, Conferences	See Plans	140
Bars & Lounge	Food and Beverage	See Plans	311
Offices and Staff	Work Areas, Meetings, Storage	See Plans	84
Gymnasium, Pool, Spa	Exercise, relaxation	See Plans	120

4.6 WASTE AND RECYCLING SERVICE REQUIREMENTS

4.6.1 Waste Generation

The following Table (Table 3) details the proposed waste service requirements 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 – WASTE GENERATION RATES

ACTIVITY	FORMULA	CALCULATION	LITRES PER WEEK
Hotel Rooms	10L per room per day	10 x 33 x 7	2,310.00
Restaurant	400L per 100sqm of floor area per day	400 / 100 x 311 x 7	8,708.00
Reception	10L per 100sqm of floor area per day	10 / 100 x 140 x 7	98.00
Bars, Lounge	50L per 100sqm of floor area per day	50 / 100 x 311 x 7	1,756.00
Offices	10L per 100sqm of floor area per day	10 / 100 x 84 x 7	58.80
Gym, Pool, etc	20L per 100sqm of floor area per day	20 / 100 x 92 x 7	128.80
Total Litres of Waste Generated per Week			13,059.60
Service Requirements		4 x 1100-litre mobile waste bins 3 Services per Week	
Total Litres of Waste Serviced per Week			13,200 litres Serviced per Week

In order to meet servicing requirements 4 x 1100-litre mobile waste bins will be required to be service three (3) times per week.

4.6.2 Recycling Generation

The following Table (Table 3) details the proposed recycling service requirements 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
Hotel Rooms	10L per room per day	5 x 33 x 7	1,155.00
Restaurant	280L per 100sqm of floor area per day	280 / 100 x 311 x 7	6,095.60
Reception	10L per 100sqm of floor area per day	10 / 100 x 140 x 7	980.00
Bars, Lounge	50L per 100sqm of floor area per day	50 / 100 x 311 x 7	1,756.00
Offices	15L per 100sqm of floor area per day	15 / 100 x 84 x 7	88.20
Gym, Pool, etc	15L per 100sqm of floor area per day	15 / 100 x 92 x 7	96.60
Total Litres of Recycling Generated per Week			10,170.80
Service Requirements		4 x 1100-litre mobile waste bins per week 3 Services per Week	
Total Litres of Recycling Serviced per Week			13,200 litres

In order to meet servicing requirements 4 x 1100-litre mobile recycling bins will be required to be service three (3) times per week.

4.7 PROVISION OF WASTE & RECYCLING SERVICES

4.7.1 Waste and Recycling Collection Service Provider Details

A licensed private waste and recycling collection contractor will provide all waste and recycling services to the building.

4.7.2 Details of Mobile Containers

In relation to the size and design of the waste and recycling mobile bins, the following technical information is provided: -

CONTAINER TYPE	HEIGHT (metres)	DEPTH (metres)	WIDTH (metres)
1100-litre mobile container	1.470	1.070	1.240

4.7.3 Waste & Recycling Arrangements

Waste and recycling requirements are provided in the table below.

TABLE 4 – PROPOSED SERVICING ARRANGEMENTS

SERVICE	NUMBER OF CONTAINERS	COLLECTION FREQUENCY
Waste Service	4 x 1100-litre mobile containers	Three (3 Services per week
Recycling Service	4 x 1100-litre mobile containers	Three (3) Services per week

4.7.4 Location, Design, and Construction of Waste Storage and Collection Areas

Details of all storage and collection areas are provided below.

4.7.4.1 Waste Storage Area (WSA)

All waste and recycling bins be stored within the confines of the WSA which is located in the in the north-western section of the 'Back-of-House' building as indicated on the Architectural Drawings. It is a fully enclosed rectangular structure measuring 6.4m x 3.5m, with an aisle width of a minimum of 1.0m, and a floor area of 22.4sqm.

Within the confines of the WSA is storage space for: -

- 4 x 1100-litre mobile waste bins,
- 4 x 1100-litre mobile recycling bins, and,
- Appropriate waste management infrastructure, washing and cleaning equipment, etc.

All mobile bins will be stored within the confines of the WSA at all times.

In assessing the size and design of the WSA, it is considered that it is of a sufficient size and dimension to adequately store and manoeuvre all of the required number of bins and ancillary facilities.

All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.

Natural and mechanical ventilation will be required to be installed within each Garbage Room in accordance with the relative provisions of the Building Code of Australia.

The WSA will only be accessed by the Building Manager or their representative or other authorised personnel.

Bins will be transferred from this area for servicing by the licensed private waste and recycling collection contractor. All bins will be serviced from the truck turntable.

4.7.4.2 Waste Collection Area / Truck Turntable

It is intended to provide all collection services from a truck turntable, which has dimensions of 13.1m in diameter.

The truck turntable will be designed, manufactured and installed in accordance with the manufacturing specifications and to the relevant Australian Standards.

4.7.5 Servicing Arrangements – Waste Collections

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

The servicing of all waste bins will take place from the truck turntable.

Waste bins will be removed from the WSA by the contractor and returned to it on completion of servicing.

The waste bins will be serviced three (3) times per week, on days to be determined by the Contractor in consultation with the Resort proprietor.

All 4 x 1100-litre waste bins will be presented for servicing on each collection day.

4.7.6 Servicing Arrangements – Recycling Collections

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

The servicing of all recycling bins will take place from the truck turntable.

Recycling bins will be removed from the WSA by the contractor and returned to it on completion of servicing.

The recycling bins will be serviced three (3) times per week, on days to be determined by the contractor in consultation with the Resort proprietor.

All 4 x 1100-litre recycling bins will be presented for servicing on each collection day.

4.8 GREEN WASTE

No formal green waste service will be provided to the development.

Any green waste generated from the use of the building will be processed as on-site compost.

4.9 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 facilities and devices will be required: -

1. The walls and floors of the WSA are to be constructed of smooth faced masonry or concrete, and all walls will be painted with light coloured and washable paint.
2. The junction between all floors and walls will be coved and sealed up to 100mm above the floor level, in order to eliminate the build-up of dirt and grime.
3. A floor waste, connected to the water drainage system in accordance with the relevant water authority's requirements, will be provided to the WSA, and the respective floors will be graded to drain into them.
4. Appropriate washing facilities will be provided to the WSA, including appropriate plumbing and drainage fixtures and fittings, and the provision of running water.
5. The WSA is to be washed and cleaned on a regular basis.
6. All mobile bins will be washed and cleaned on a regular basis.
7. All electrical equipment, including the provision of lighting, will be installed in accordance with the relevant Australian Standards.
8. Natural and mechanical ventilation will be required to be installed within all chute rooms and WSA, in accordance with the relative provisions of the Building Code of Australia.
9. Appropriate signage will be erected in a prominent place within the building providing instruction to employees on how to use waste and recycling facilities, including what is and what is not recyclable.

PART 5 – SUMMARY

5.1 SUMMARY

In summarising this proposal, the following information is provided:

1. This Waste Management Plan (WMP) has been developed and documented in to ensure that all waste management activities will be conducted in accordance with Councils waste management DCP's and guidelines, and The Better Practice Resource Recovery Guide for Residential Buildings (April 2019).
2. All waste and recycling services to the serviced apartments will be provided by a licensed private waste and recycling collection contractor.
3. According to information provided in Council's DCP, there are no quantifiable waste and recycling generation rates for hotel style serviced apartments such a proposed in this development. All waste and recycling generation rates have been calculated from information provided in the Better Waste Management Guide.
4. The Owners of the Resort will be responsible for ensuring that all ongoing waste management activities are carried out in accordance with the provisions of this WMP.
5. 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.
6. 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.

This is a unique development with a unique set of arrangements for its waste management activities.

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 Shellharbour City Council.
