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**OPERATIONAL WASTE
MANAGEMENT PLAN (OWMP)
OMNI PLAZA SHD**



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1.0 INTRODUCTION

1.1 Purpose of Operational Waste Management Plan

The following Operational Waste Management Plan (OWMP) forms part of a Planning Application for a proposed new development at a site located in Santry, Dublin.

The proposed development will consist of the demolition of all existing buildings on site and the construction of a mixed-use development comprised mainly of residential apartments with commercial and amenity spaces located at ground floor. An underground basement will provide car parking as well as plant rooms and lifts to service the development.

This report has been prepared to assess the impacts of waste material generation during the operational phases of the proposed development. The appointed contractor/Management Company will prepare the final OWMP in accordance with the measures outlined in this report.

This report sets out typical arrangements and measures to promote recovery, re-use, and recycling of waste to minimise the volumes transferred to landfill as much as possible as well as measures which may be undertaken in order to mitigate and minimise disruption/disturbance to the area around the site during operational phases of the project. The report aims to provide the necessary information to ensure that the management of waste during the operational phase of the development is carried out in accordance with all current legal and industrial standards including:

- The Waste Management Act (1996) (and all subsequent amendments and sub-ordinate legislation)
- Litter Act 1997 (and all subsequent amendments)
- Planning and Development Act 2000 (and all subsequent amendments)
- Environmental Protection Act 1992 (No. 7 of 1992) (and all subsequent amendments)
- Eastern Midlands Region (EMR) Waste Management Plan 2015-2021
- Environmental Protection Agency (EPA) Waste Classification – List of Waste and Determining if Waste is Hazardous or Non-Hazardous (2015)

The Contractor/Management Company will need to ensure that best practices and all legal obligations, including Local Authority requirements and Health and Safety legislation, are complied with. This document should be read in conjunction with the other documents accompanying the planning application.

2.0 THE SITE AND SURROUNDING ENVIRONS

2.1 Site Location

The location of the proposed development is identified in red in Figure 1 below.



Figure 1 Site Location

The existing site is located in Santry, Dublin. The site is bounded on the north by an existing industrial estate, on the west by residential houses, and on the south and east by the Omni Shopping Centre development

2.2 Site Access

The subject site is currently accessed via a private industrial road that connects to the Swords Road to the east of the site.

3.0 THE PROPOSED DEVELOPMENT

3.1 Project Description

Permission for a 7-year duration is sought by Serendale Limited for a Strategic Housing Development which comprises the demolition of the existing industrial / warehouse buildings northwest of Omni Park Shopping Centre, Santry, Dublin 9 and the construction of 457 no. apartments across 4 no. blocks, ranging in height from 4-12 storeys (over basement). The proposal includes 2 no. retail/café/restaurant units, 1 no. community building, 1 no. childcare facility, 1no. residential amenity space and 5 no. ESB substations.

The development also provides for a basement carpark of 213 no. spaces and 7 no. motorcycle spaces with 7 no. creche drop-off parking spaces and 6 no. carshare parking spaces located in newly reconfigured surface carpark. The proposal provides for 768 no. bicycle parking spaces.

The proposal includes the provision of a new public open space plaza, with consequential revisions to existing commercial car parking areas, to integrate the proposals with the wider District Centre.

The proposal includes the provision of pedestrian and cycle connections and improvements through Omni Park Shopping Centre, including a plaza and cycle/pedestrian link substantially in the form permitted as part of the Omni Living Strategic Housing Development (Ref. ABP-307011-20).

Access to the proposed 213 no. basement car parking spaces is via the existing Omni Park Shopping Centre. A secondary servicing and emergency access is via the existing service road to the rear of existing retail premises at Omni Park Shopping Centre and accessed from the Swords Road.

The development provides for all associated and ancillary site development, demolition and clearance works, hoarding during construction, revisions to car parking within the Omni Park Shopping Centre, soft and hard landscaping, public realm works, public lighting and signage, ancillary spaces, plant including photovoltaic panels, water infrastructure, utilities and services.

The application is accompanied by an Environmental Impact Assessment Report.

A full description of the development is contained within the public notices, architectural drawings and accompanying application documents.

4.0 OPERATIONAL WASTE MANAGEMENT

4.1 Context

This Operational Waste Management Plan has been prepared to ensure that all waste arising from the operation of the development is dealt with in a systematic way in accordance with the governing legislation and good practice. It has been prepared in order to assist in meeting local waste management targets.

The exact method and final strategy for the Operational Waste management of the development will be prepared by the appointed Management Company.

In accordance with European Union and National Waste Management Hierarchy the development will operate a prevent, reduce, recycle, recover, dispose approach to all waste streams.

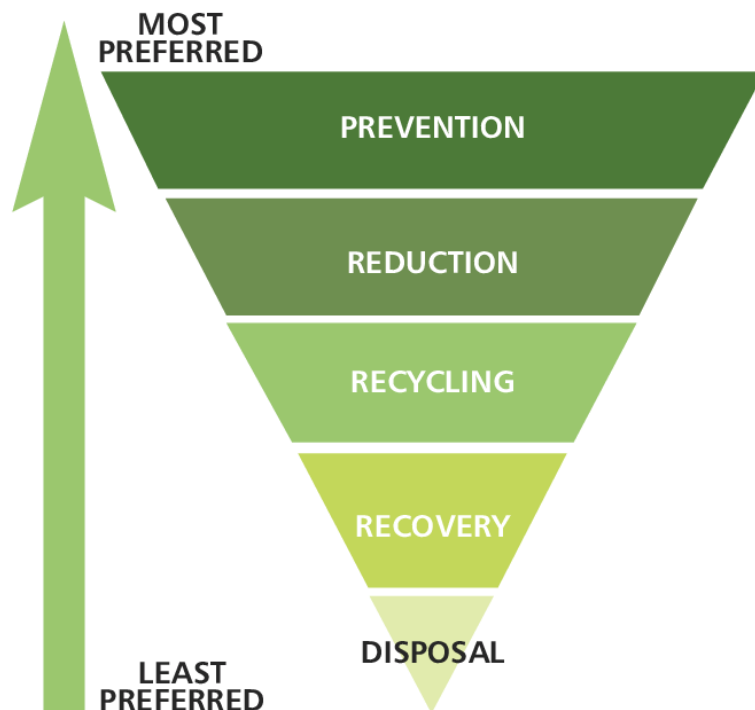


Figure 2 Waste Management Hierarchy

The operation of the development will generate a range of mainly non-hazardous wastes. Mitigation measures proposed to manage impacts arising from the operation of the development are summarised below.

4.2 Waste Streams Arising

Waste generated during the operational phase of the development will be segregated at source. Waste categories will include:

- Dry Mixed Recyclables (DMR) – including cardboard, wastepaper, plastic packaging, metal cans, plastic bottles, aluminium cans, Tetra Pak cartons etc.
- Organic Waste – food waste and green waste generated from internal plants/flowers
- Glass
- Mixed Non-recyclables (MNR)/General Waste

Other waste streams that the development may produce include:

- Non-Hazardous WEEE
- Landscaping Waste
- Printer cartridges/toner
- Chemicals (paints, adhesives, resins, detergents etc.)

Wastes should be segregated into the above waste streams to ensure compliance with waste legislation and guidance while maximising the re-use, recycling, and recovery of waste with diversion from landfill wherever possible.

A waste storage area will be provided in the basement car park to serve the fully occupied development.

Apartment occupiers will be provided with appropriate space within the apartment units to separate various wastes. It will be the responsibility of the occupier to separate their own waste and provide suitable containers. Occupiers will be responsible for taking waste from their apartments to the communal waste storage areas.

All commercial properties/businesses on site will be required to separate out various wastes and dispose of them in the waste storage area. All commercial properties/businesses must comply with all specific commercial legislation.

4.3 Estimating Generated Waste Volumes

The development will consist of 1 studio unit, 221 one bed units, 211 two bed units and 24 three bed units for a total of 457 apartment units. A maximum occupancy rate has been chosen for a robust approach to calculating waste volumes.

The 2016 EPA Publication, National Waste Prevention Programme, 2015 Annual Report, states, “The household waste per person in Ireland has been decreasing over the period 2006 to 2012 from 470 kg/person in 2006 to 344 kg/person in 2012.”

A value of 0.942Kg of waste generated per person per day has been therefore assumed for the purposes of this report to estimate the volume of waste to be generated as detailed in the table below.

Unit Type	No. of Units	Occupancy Rate (no. of people)	Total Occupants	Total Waste Generated Per Day	Total Waste Generated Per Week
Studio	1	2	2	2	13 kg
1 Bed	221	2	442	416 kg	2,915 kg
2 Bed	211	3	633	596 kg	4,174 kg
3 Bed	24	5	120	113 kg	791 kg
Total	457	-	1,197 kg	1,127 kg	7,893 kg

Table 1 Estimated Generated Residential Waste Volumes

The quantities of waste that will be generated by the commercial elements of the development have been estimated using typical waste generation figures available internationally.

Commercial Type	Area (m ²)	Equation for Daily Waste Generation	Total Waste Generated Per Day	Total Waste Generated Per Week
General Retail	431	18.605 kg/100m ²	81.19 kg	568.33 kg
Creche	226	15.85 kg/100m ²	35.82 kg	250.74 kg
Amenity Area	604.9	7.93 kg/100m ²	47.97 kg	335.79 kg
Community Space	195.3	7.93 kg/100m ²	15.49 kg	108.41 kg
Total			180.47 kg	1,263.27 kg

Table 2 Estimated Generated Commercial Waste Volumes

A variety of primarily 1100 litre, 360 litre and 120 litres bins will be provided for the different categories of waste. The final sizing and collection frequency of the bins will be agreed with the appointed waste Contractor at the appropriate time.

4.4 Waste Storage Area

Waste storage areas will be provided in the basement as shown in red on Figure 3 below. All waste from the development will be stored in wheeled containers in the waste storage areas. The Management Company will arrange for the bins to be brought from the basement level to surface level via bin tow or similar on collection days. Bins will then be brought to a designated hardstanding storage area at surface level where they will be emptied.

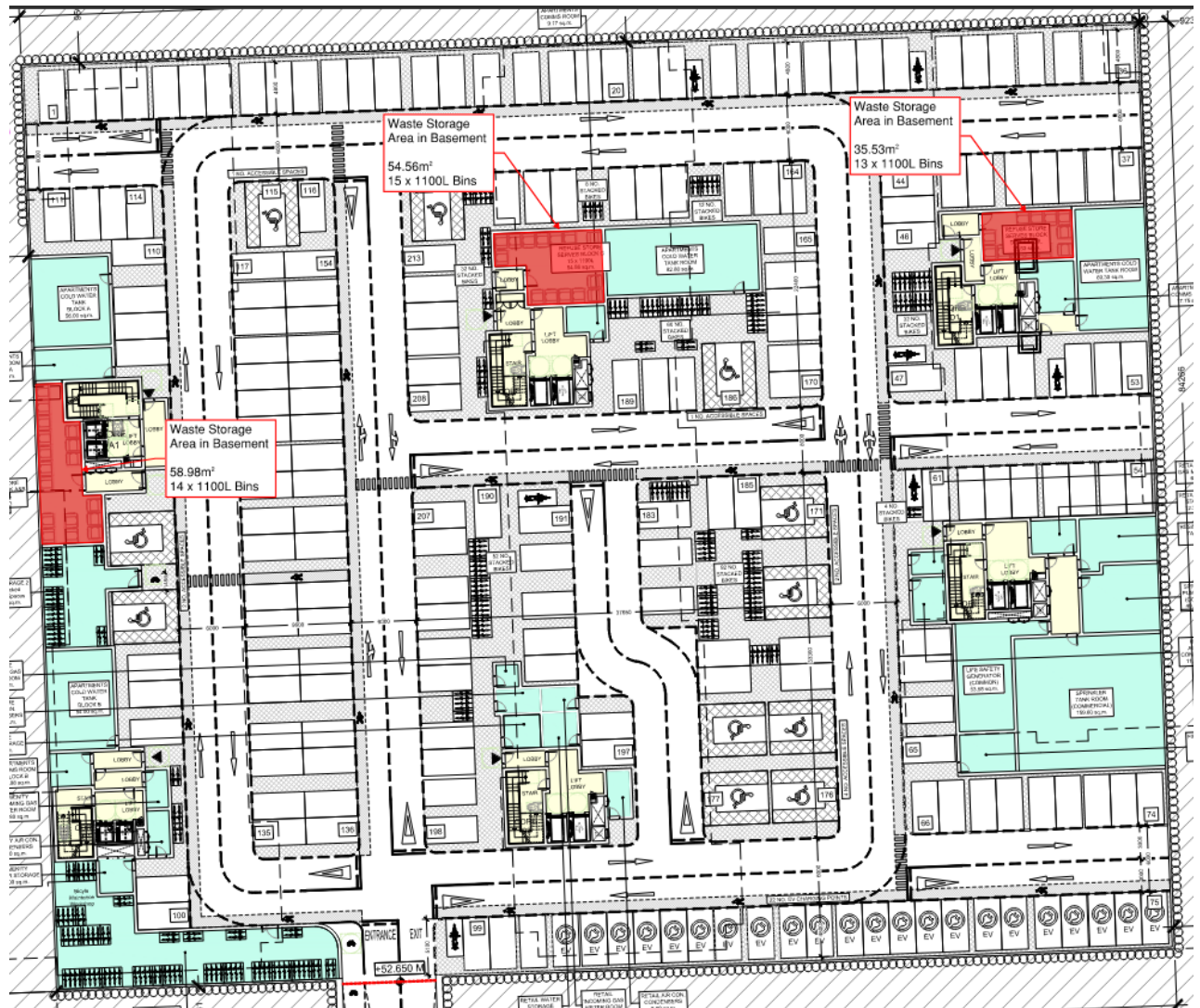


Figure 3 Waste Storage Areas in Basement

4.5 Waste Collection

It is expected that a Management Company will be formed to service the completed development.

The Management Company shall arrange for waste collection services. Private waste management providers in the Dublin area currently provide comprehensive waste recycling and disposal services. All waste will be stored in bins or other suitable containers within the designated waste storage areas located in the proposed basement.

The waste contractor or the facilities management will bring the bins to the appropriate collection points instantaneously before collection. After collection all bins to be immediately brought back to their designated places. Collection areas are designed so that they do not impede traffic nor pedestrians. Location of waste collection point is as shown Figure 4. All waste leaving the development will be transported by suitable permitted Contractors and taken to suitably licenced or permitted facilities. All waste leaving the site will be recorded and copies of relevant documentation maintained.

It is anticipated that landscaping waste will be mulched and re-used where possible on site or elsewhere. Non-recyclable landscaping waste will be transported off site by the appointed landscaping Contractor.

The nearest Recycling Centre are at DCC Recycling Centre at Collins Avenue Bring Centre, Whitehall. It is envisaged that occupants of the apartments will arrange transport for bulky items and WEEE themselves to these or a similar facility. This will be set out in the house rules for the development. The nearest bottle bank is directly adjacent to the development in OMNI Shopping Centre carpark, the Management Company may facilitate collection days annually to prevent storage of such items by occupants.

This will allow them to establish whether waste should be collected on a more or less regular basis.



Figure 4 Waste Collection Point

4.6 Monitoring

The Management Company for the development will monitor volumes of waste arising from the development on an ongoing basis as waste generation rates evolve and vary at different times in the year. Waste collection records can be made available to Dublin County Council if required.

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