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**OPERATIONAL WASTE MANAGEMENT PLAN**

**FOR PROPOSED STRATEGIC HOUSING DEVELOPMENT**

**AT**

**SOMMERVILLE HOUSE, DUNDRUM ROAD, DUBLIN 14**

Report Ref. 29193-1

February 2022

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## Contents

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>3</b>
<b>2.0</b>	<b>WASTE MANAGEMENT IN IRELAND</b> .....	<b>3</b>
<b>2.1</b>	<b>Introduction</b> .....	<b>3</b>
<b>2.2</b>	<b>National Waste Policy and the Circular Economy</b> .....	<b>3</b>
<b>2.3</b>	<b>Regional Waste Policy</b> .....	<b>5</b>
<b>2.4</b>	<b>Local Waste Policy</b> .....	<b>6</b>
<b>2.5</b>	<b>Design Standards for New Apartments</b> .....	<b>10</b>
<b>3.0</b>	<b>WASTE MANAGEMENT OBLIGATIONS</b> .....	<b>11</b>
<b>4.0</b>	<b>THE PROPOSED DEVELOPMENT</b> .....	<b>12</b>
<b>5.0</b>	<b>WASTE TYPES</b> .....	<b>12</b>
<b>6.0</b>	<b>WASTE MANAGEMENT</b> .....	<b>13</b>
<b>6.1</b>	<b>Waste arisings</b> .....	<b>13</b>
<b>6.2</b>	<b>Waste storage facilities</b> .....	<b>15</b>
<b>7.0</b>	<b>LOCAL WASTE FACILITIES</b> .....	<b>17</b>
<b>8.0</b>	<b>CONCLUSIONS</b> .....	<b>17</b>

## **1.0 INTRODUCTION**

This report is an Operational Waste Management Plan (OWMP) for a proposed Strategic Housing development at Sommerville House, Dundrum, Dublin 14. The development will involve demolition of the existing structures on the site, and the construction of two blocks of apartments providing 111 (No.) apartments. Once operational the development will give rise to a variety of different waste streams which will require proper management in accordance with the legislation and appropriate guidelines.

The purpose of this OWMP is to ensure that wastes generated within the development will be managed and disposed of in a way that ensures maximum levels of waste recycling and reuse and to minimise the levels of waste diverted to landfill.

This OWMP will also ensure that waste storage and movement within the development will occur in a manner which complies with relevant legislation and has a minimal impact on the occupants of the development and nearby existing commercial and residential areas.

## **2.0 WASTE MANAGEMENT IN IRELAND**

### **2.1 Introduction**

The subject site is fully situated within the Dun Laoghaire Rathdown local authority area and consequently the proposed development must comply with the waste management requirements of Dun Laoghaire Rathdown County Council as well as the relevant National and Regional waste management requirements. This section sets out a summary of the principal National, Regional and Local waste management requirements which must be considered for this development.

### **2.2 National Waste Policy and the Circular Economy**

The Department of Housing, Planning and Local Government has primary responsibility for waste policy and legislation at a national level in Ireland. A significant proportion of national policy is governed by European Union (EU) initiatives. Such initiatives are usually enacted through European Directives which are then transposed into Irish law through our own legislation. National waste management policy in Ireland is contained in the following policy documents:

- *Waste Management Changing our Ways, 1998;*
- *Preventing and Recycling Waste: Delivering Change, 2002;*
- *Taking Stock and Moving Forward, 2004;*
- *A Resource Opportunity – Waste Management Policy in Ireland, 2012;* and
- *A Waste Action Plan for a Circular Economy: Ireland’s National Waste Policy 2020-2025;* September 2020

The current national waste policy, *A Waste Action Plan for a Circular Economy: Ireland’s National Waste Policy 2020-2025*, was published in September 2020 and sets out policy measures and actions for each waste management option as well as measures and actions for compliance and enforcement of the waste legislation applicable. The new policy document shifts focus away from waste disposal and onto the production chain. The policy document contains over 200 measures across various waste areas including Circular Economy, Municipal Waste, Consumer Protection and Citizen Engagement, Plastics and Packaging, Construction and Demolition, Textiles, Green Public Procurement and Waste Enforcement. The previous national waste policy, *A Resource Opportunity – Waste management policy in Ireland, (2012)*, drove delivery on national targets under EU legislation, but the Irish and international framework has changed in the intervening years and change was required.

Irish waste policy is grounded on the European Union’s concept of a waste management hierarchy. The European Union’s waste management hierarchy is a series of waste management options, presented in decreasing order of environmental and economic desirability. The hierarchy states that the preferred option is prevention, followed by re-use, recycling, recovery, with the least desirable option being landfill. The overall intent of these policy statements is to move Irish waste management away from disposal and towards the more favoured options higher up the hierarchy and ultimately to achieve the full transition to a Circular Economy. The overall objectives of the current Action Plan are as follows:

- To shift the focus away from waste disposal and treatment by ensuring that the useful lifetime of materials and products is prolonged;
- To shift the burden of environmental responsibility for disposable goods to the producer;

- To ensure that measures for supporting sustainability are fostered;

The current legislative framework relies on the Waste Management Act 1996 and the Environment (Miscellaneous Provisions) Act 2011 as the principal vehicles through which national waste policy is enacted. The new Policy envisages that a new Waste Management (Circular Economy) Bill will be introduced to provide the legislative underpinning required for new measures required to support the new Waste Policy.

### **2.3 Regional Waste Policy**

For the purposes of waste management planning, Ireland is divided into three different regions namely, Eastern-Midlands, Southern and Connacht-Ulster regions with each region led by a Regional Waste Management Planning Office. The Eastern-Midlands Region includes the local authorities of Dublin City, Dún Laoghaire-Rathdown, Fingal, South Dublin, Kildare, Louth, Laois, Longford, Meath, Offaly, Westmeath and Wicklow.

The subject site is within the jurisdiction of Dun Laoghaire Rathdown County Council who have adopted the Eastern- Midlands Region Waste Management Plan 2015-2021. The Plan provides a framework for the prevention and management of waste in a sustainable manner in Dun Laoghaire Rathdown and the other local authority areas.

The strategic vision of the regional waste plan is to rethink the current approach to managing waste, by viewing waste streams as valuable material resources. It is hoped that making better use of available resources and reducing the leakage of materials as wastes will deliver benefits economically and environmentally to the region.

The plan contains a number of key measures that encourage a positive change in the attitudes and actions of householders, business and industry towards waste prevention. It also seeks to ensure that the Eastern-Midlands Region moves its management of waste from a traditional disposal model to a circular economy model so that waste becomes a future resource.

The Policy actions of the Regional Waste Management Plan include the following:

- A 1% reduction per annum in the quantity of household waste generated per capita over the six year period of the plan;
- A recycling rate of 50% of managed municipal waste by 2020;

- A reduction to 0% for the direct disposal of unprocessed residual municipal waste to landfill commencing in 2016;
- Deliver communication, awareness and on the ground activities which lead to a lasting change in the people's behaviour towards waste;
- Increase the level of source-segregated kerbside collections in the region, with a strong focus on ensuring that a three bin system becomes commonplace at household and commercial levels;
- Enforcement of the regulations related to household and commercial waste to tackle the problem of unmanaged waste;
- Ensure existing and future waste facilities do not negatively impact environmentally sensitive sites through proper assessments and siting;
- Grow the waste management sector into a prosperous and sustainable industry which creates and maintains healthy employment.

## **2.4 Local Waste Policy**

Under the terms of the Waste Management Acts 1996 to 2011, the County Development Plan is deemed to include the objectives of the Waste Management Plan for the area. The current Plan is the Dun Laoghaire Rathdown County Development Plan 2016 – 2022 and the Dun Laoghaire Rathdown County Development Plan 2022 – 2028 is currently at Draft stage with Public Consultations closed in 2020.

The County Development Plan sets out a number of objectives and actions for the county in line with the objectives of the waste management plan. The County Councils' Waste Management Strategy is grounded in EU and National policy and can be summarised by the waste hierarchy of prevention, recycling, energy recovery and disposal. The Plan identifies the primary challenge over the Plan lifetime is to continue to deliver, maintain and expand high quality waste management infrastructure that will adequately cater for a growing resident population and business sector.

Section 5.1.2 of the County Development Plan 2016 – 2022 sets out the waste management policies for the County as follows.

### ***Policy EI12: Waste Management Strategy***

*It is Council policy to conform to the European Union and National Waste Management Hierarchy as follows:*

- *Waste prevention*
- *Minimisation*
- *Re-use*
- *Waste recycling*
- *Energy recovery and*
- *Disposal*

*subject to economic and technical feasibility and Environmental Assessment.*

***Policy EI13: Waste Plans***

*It is Council policy to publish plans for the collection, treatment, handling and disposal of waste in accordance with the provisions of the Waste Management Acts 1996 (as amended) and Protection of the Environment Act 2003 (as amended).*

***Policy EI15: Waste Prevention and Reduction***

*It is Council policy to promote the prevention and reduction of waste and to co-operate with industry and other agencies in viable schemes to achieve this.*

***Policy EI16: Waste Re-use and Recycling***

*It is Council policy to promote the increased re-use and re-cycling of materials from all waste streams. The Council will co-operate with other agencies in viable schemes for the extraction of useful materials from refuse for re-use or re-cycling and will adopt the National targets as stated in the 'Dublin Regional Waste Management Plan 2005-2010'.*

Section 8.1.2 of the County Development Plan 2016 – 2022 sets out the waste management policies and objectives for residential developments in order to comply with the Development Management Standards set for the county with the aim to ensure orderly and sustainable development. The Plan notes however that the standards and specifications in respect of Apartment Development- as set out in Section 8.2.3.3. (i), (ii), (v), (vii) and (viii) of the Development Plan Written Statement –have been superseded by Ministerial Guidelines 'Sustainable Urban Housing – Design Standards for New Apartments' published by the Department of Environment, Community and Local Government (DoECLG) on 21st

December 2015. The ‘Specific Planning Policy Requirements’ set out in the DoECLG Apartment Guidelines take precedence over the Dún Laoghaire-Rathdown standards and specifications as set out in Section 8.2.3.3 of the 2016 – 2022 County Development Plan. These requirements have therefore been considered in this report.

The Dun Laoghaire-Rathdown County Council Waste Management (Segregation, Storage and Presentation of Household and Commercial Waste Bye-Laws 2019) came into effect on the 1<sup>st</sup> February 2020. These Bye-Laws set a number of enforceable requirements on waste holders with regard to storage, presentation and segregation of waste within the Council functional area. Key requirements under these Bye-Laws of relevance to the proposed development include the following:

- *Other than on the day before and the designated waste collection day, appropriate waste containers used for the presentation of kerbside waste shall be held within the curtilage of the premises where the waste is produced. They shall not be stored on a roadway, footway, footpath or any other public place unless the location has been expressly authorised in writing by an authorised person.*
- *Kerbside waste presented for collection shall not be presented for collection earlier than 6.00 pm on the day immediately preceding the designated waste collection day. All appropriate waste containers used for the presentation of kerbside waste and any uncollected waste shall be removed from any roadway, footway, footpath or any other public place no later than 10:00am on the day following the designated waste collection day, unless an alternative arrangement has been approved in accordance with bye-law 3.*
- *Household waste that comprises hazardous waste or waste electrical and electronic equipment shall not be placed in an appropriate waste container for kerbside collection.*
- *Household waste that comprises of hazardous waste or waste electrical and electronic equipment shall not be placed in an appropriate waste container for kerbside collection.*
- *Kerbside waste shall be segregated into residual kerbside waste, recyclable kerbside waste and compostable waste (food waste and/or biodegradable garden waste), with*



*these fractions being stored separately. Such separated recyclable waste shall not be deposited into a container designated for residual kerbside waste or for compostable waste; separated compostable waste shall not be deposited into a container designated for residual kerbside waste or recyclable kerbside waste. Residual kerbside waste shall only be deposited into a container designated for residual kerbside waste.*

- *A management company, or another person if there is no such company, who exercises control and supervision of residential and/or commercial activities in multi-unit developments, mixed-use developments, flats or apartment blocks, combined living/working spaces or other similar complexes shall ensure that:*
  - (a) separate receptacles of adequate size and number are provided for the proper segregation, storage and collection of recyclable kerbside waste, residual kerbside waste and food waste,*
  - (b) the receptacles referred to in paragraph (a) are located both within any individual apartment and at the place where waste is stored prior to its collection,*
  - (c) any place where waste is to be stored prior to collection is secure, accessible at all times by tenants and other occupiers and is not accessible by any other person other than an authorised waste collector,*
  - (d) written information is provided to each tenant or other occupier about the arrangements for waste separation, segregation, storage and presentation prior to collection,*
  - (e) an authorised waste collector is engaged to service the receptacles referred to in this section of these bye-laws, with documentary evidence, such as receipts, statements or other proof of payment, demonstrating the existence of this engagement being retained for a period of no less than two years. Such evidence shall be presented to an authorised person within a time specified in a written request from either that person or from another authorised person employed by Dún Laoghaire-Rathdown County Council,*
  - (f) receptacles for kerbside waste are presented for collection on the designated*

*waste collection day,*

- (g) *adequate access and egress onto and from the premises by waste collection vehicles is maintained.*

The above requirements have been considered in formulating this Plan and in ensuring that adequate provision is made for the management of waste during the operational phase of the proposed development.

## **2.5 Design Standards for New Apartments**

The Department of Housing, Planning and Local Government published the Sustainable Urban Housing: Design Standards for New Apartments - Guidelines for Planning Authorities in 2015 and were updated in 2020. These Guidelines set out standards for apartment development particularly with regard to design quality safeguards such as internal space standards for 1-,2- and 3-bedroom apartments, internal storage and amenity space.

The guidelines require provision be made for the storage and collection of waste materials in apartment schemes. Refuse facilities should be accessible to each apartment stair/lift-core and designed with regard to the projected level of waste generation and types and quantities of receptacles required. Within apartments, there should be adequate provision for the temporary storage of segregated materials prior to deposition in communal waste storage and in-sink macerators are discouraged as they place a burden on drainage systems.

The guidelines set out the following general design considerations which should be taken into account in the provision of refuse storage facilities:

- Sufficient communal storage area to satisfy the three-bin system for the collection of mixed dry recyclables, organic waste and residual waste;
- In larger apartment schemes, consideration should also be given to the provision of separate collection facilities for other recyclables such as glass and plastics;
- Waste storage areas must be adequately ventilated so as to minimise odours and potential nuisance from vermin/flies and taking account the avoidance of nuisance for habitable rooms nearby;

- Provision in the layout for sufficient access for waste collectors, proximity of, or ease of access to, waste storage areas from individual apartments, including access by disabled people;
- Waste storage areas should not present any safety risks to users and should be well-lit;
- Waste storage areas should not be on the public street, and should not be visible to or accessible by the general public. Appropriate visual screening should be provided, particularly in the vicinity of apartment buildings;
- Waste storage areas in basement car parks should be avoided where possible, but where provided, must ensure adequate manoeuvring space for collection vehicles;
- The capacity for washing down waste storage areas, with wastewater discharging to the sewer.

### **3.0 WASTE MANAGEMENT OBLIGATIONS**

There are currently no specific National guidelines in Ireland for the preparation of OWMPs and consequently this document considers national and regional waste policy, legislation and other relevant guidelines. Dun Laoghaire Rathdown County Council have published ‘*Guidance Notes for Waste Management in Residential and Commercial Developments, February 2020*’ which have been specifically considered in this assessment.

The Waste Management Act adopts the “polluter pays” principal, whereby the waste producer is liable to be prosecuted for pollution incidents, which may arise from the incorrect transport of waste produced by the waste producer. Therefore the waste producer is required to ensure that all waste contractors employed by them are legally compliant with respect to waste transport and disposal.

A valid waste permit to transport waste must be held by the relevant waste contractor and a contractor shall not be permitted to receive any waste at their site, unless in possession of a waste permit granted by a local authority under the Waste Management (Permit) Regulations, 1998 or a waste licence granted by the EPA. The permit will specify the types of waste a contractor is licensed to receive, store, sort and recycle on their site.

The Facilities Management Company appointed for the management of the development shall be responsible for the implementation of all aspects of the Operational Waste Management Plan as detailed in this report.

#### **4.0 THE PROPOSED DEVELOPMENT**

The proposed development for which planning permission is sought in this application comprises a mixed-use development and associated and ancillary infrastructure and open space provision.

The proposed development includes the following;

##### **Block A**

- 1 (No.) Studio
- 36 (No.) 1-bedroom
- 6 (No.) 2-bedroom (3-person)
- 22 (No.) 2-bedroom (4-person)

##### **Block B**

- 2 (No.) Studio
- 15 (No.) 1-bedroom
- 5 (No.) 2-bedroom (3-person)
- 24 (No.) 2-bedroom (4-person)

#### **5.0 WASTE TYPES**

The wastes types that will be generated at the development include the following which will typically be discarded on a daily basis:

- Mixed Dry Recyclables (DryR)-is defined as a collection of solid waste materials that can be stored and collected in one bin or in separate bins to increase recycling value. These materials include cardboard, paper, newspaper, plastic film, plastic

bottles, steel and aluminium cans.

- Organic Waste - organic waste is defined as waste that is organic in nature and comprises mainly of food, be it cooked or uncooked, from kitchens and other catering establishments and is generally classified as putrescible.
- Mixed Non Recyclables (NonR) – this is the residual waste that is the remaining waste material after separate diversion of waste components through reduction, reuse, recycling and food waste collections.
- Glass.

In addition to the above categories small quantities of the following wastes will also be generated but on a much lower frequency and volume but will also require appropriate management:

- Waste electrical and electronic equipment (WEEE) such as TVs, mobile phones, printers, radios batteries etc;
- Green Waste – organic materials generated from gardens and landscaping;
- Chemicals - paints, adhesives, detergents, etc;
- Lighting – including light bulbs;
- Metal – fixtures and fittings;
- Furniture and Textiles; and
- Bulky wastes – fridges, freezers, washing machines etc.

## **6.0 WASTE MANAGEMENT**

### **6.1 Waste arisings**

British Standard 5906:2005 Waste Management in Buildings – Code of Practice sets out typical weekly waste arisings for various types of buildings. The Code of Practice sets out an equation to estimate the weekly waste arisings for domestic or residential buildings as follows:

weekly waste (litres) = number of dwellings x [70 x average number of bedrooms + (30)]

For the purposes of the waste storage calculations the waste will be segregated and stored into

three designated waste streams namely mixed dry recyclables, organic food waste and residual waste. The glass recycling will be managed individually in each residential unit with transfer to local recycling facilities.

When using volume as the unit measurement for waste arisings, it is considered that a 60:25:10:5 split between mixed dry recyclables, mixed non recyclables, organic waste and glass waste is a best estimate fit for waste breakdown for the proposed development and typical residential living. The above equation can be used to estimate the waste arisings for each of the different residential types based on the number of bedrooms present in the dwelling unit. Table 6.1 presents the estimated volume of waste that will be generated each week by each of the residential units based on the number of bedrooms per unit. Assuming full occupancy rates for all units the total weekly waste arisings for the entire residential development have been calculated as shown in Table 6.2 below. It is therefore estimated that a total of 26m<sup>3</sup> of the main waste types will be generated by the proposed development on a weekly basis once full occupancy has been reached.

**Table 6.1** Estimated main waste volume for each individual residential unit per week

Waste Stream	Waste Volume (litres / week per residential unit)			
	Studio & 1-bedroom		2 bed	
	Block A	Block B	Block A	Block B
DryR (60%)	60	60	102	102
NonR (25%)	25	25	42.5	42.5
Organic (10%)	10	10	17	17
Glass (5%)	5	5	8.5	8.5
<b>Total</b>	<b>100</b>	<b>100</b>	<b>170</b>	<b>170</b>

**Table 6.2** Estimated main waste volume for the entire development per week

Waste Stream	Waste Volume (litres/week) For Entire Residential Development			
	Studio &1-bedroom		2 bed	
	Block A	Block B	Block A	Block B
DryR (60%)	2220	1020	2856	2958
NonR (25%)	925	425	1190	1233
Organic (10%)	370	170	476	493
Glass (5%)	185	85	238	247
<b>Total (100%)</b>	<b>3700</b>	<b>1700</b>	<b>4760</b>	<b>4930</b>

## 6.2 Waste storage facilities

There is a common waste storage area identified as a bin store in Block A, where the waste generated at the Apartments will be stored for collection and subsequent management off-site. The bin storage area is provided at the basement level of the proposed Block A and serves both Blocks. There is a separate small external designated bin store closer to Block B which is a temporary storage area from where bins will be removed to the main bin store when required.

The bin stores have been designed as covered space to ensure safe access for all users in a brightly lit area, spacious enough for easy manoeuvrability, good ventilation and ready access for the control of vermin if required. The bin store also provides for sufficient access and egress to enable the bins to be easily moved from the stores to an appropriate collection point nearby. The bin stores all comply with the following requirements:

- A well-defined pedestrian route shall be marked from the relevant residential units to the nearest waste storage area.
- A non-slip surface shall be provided within the waste storage area.
- Adequate ventilation to avoid the creation of stagnant air or foul odours.
- Sensor controlled lighting.
- Appropriate wastewater drainage to allow for cleaning and disinfection.

- Provision of appropriate signage to inform residents of their obligation to reduce waste, segregate waste and to use the correct bins for each waste.
- The waste storage area shall be designed to provide safe access from the apartment units by mobility impaired persons.
- All waste storage bins shall be clearly labelled with exactly what type of waste materials may be deposited within them. Provision shall be made for sufficient segregated storage of mixed dry recyclables, mixed non-recyclables, organic waste at each bin store.

It shall be the responsibility of the Facilities Management Company to ensure that all waste generated by residents is managed to ensure correct storage prior to collection by an appropriately permitted waste collection company on a weekly basis. To facilitate the weekly collection, a staging area has been identified which allows for the temporary storage of the bins on the designated collection day, with the temporary storage area at Block B also used as required for this purpose.

Residents will be required to take their segregated waste materials to the bin store and to dispose of their segregated waste into the appropriate bins. The specific bin allocation for the bin stores is presented in Table 6.3. This table shows the correct allocation of bin storage to accommodate all the waste that will be generated by the residential units when operating at full capacity. Table 6.3 assumes a weekly emptying of the bin stores.

**Table 6.3** Weekly bin requirement for the Residential bin stores

Bin Store Location	Bins required for weekly storage			
	DryR	NonR	Organic	Glass
<i>Bin size</i>	<i>1100 L</i>	<i>1100 L</i>	<i>240 L</i>	<i>NA</i>
Block A and Block B	9	4	6	NA



## **7.0 LOCAL WASTE FACILITIES**

There is a civic amenity centre at Ballyogan operated by Dun Laoghaire Rathdown County Council as well as closer facilities in retail settings. The Council operates an extensive Bring Centre network for glass, cans and textile recycling throughout the county area with 6 bring banks in the immediate vicinity of the proposed development in the Dundrum – Churchtown Area and many more in the surrounding areas. All glass and other waste generated by the residential units at the development can be handled here.

## **8.0 CONCLUSIONS**

This OWMP has been prepared to show that the proposed mixed use development shall be designed and managed to provide residents and tenants with waste management infrastructure that will minimise the generation of residual waste and maximise the opportunities for segregating and recycling waste generated by the development. Implementation of this OWMP will ensure a high level of recycling, reuse and recovery at the development. All recyclable materials will be segregated at source and managed to ensure effective diversion from landfill wherever possible.

The waste management strategy presented in this report provides for sufficient waste storage capacity for the segregated waste types that will be generated at the proposed development. Sufficient provision of appropriate waste storage capacity is provided for based on the estimated waste generation levels for the development when at full capacity.

In conclusion this report presents a waste strategy that fully complies with all relevant waste legislation, waste policies and best practice guidelines and will ensure effective waste management at the proposed development site.