

Marshall Yards Development Company Limited

Residential Zone Lands at

Gortnahomna, Castlemartyr, Co. Cork

Operational Waste Management Plan

(Planning Submission)

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1 Introduction

Donnachadh O'Brien & Associates Consulting Engineers Ltd. (DOBA) have been instructed by the Client, Marshall Yards Development Company Limited, to prepare an Operational Waste Management Plan (OWMP) to accompany a Planning Application to Cork County Council (CCC) for the proposed Large Scale Residential Development (LRD) comprising of 150 residential units to be located on lands at Gortnahomna, Castlemartyr, Co. Cork. This OWMP has been developed to ensure that waste management during the operation of the proposed development is undertaken in accordance with current legislation including the Waste Management Act 1996 - 2011, Protection of the Environment Act 2003, Litter Pollution Act 2003, and The Southern Region Waste Management Plan 2015-2021. This OWMP aims to provide a strategy for the handling, storage collection, and transportation of waste generated from the site. This OWMP shall provide guidance on the collection and transportation of waste that is considered appropriate in order to prevent issues associated with litter or other pollution. This plan shall estimate the type and quantity of waste to be generated from the site during operation and shall provide a management strategy for different types of waste. There are no guidelines in the preparation of OWMPs and therefore consideration has been given to national waste policies and legislations.

2 Waste Management in Ireland

A policy statement '*Changing Our Ways*' was issued by the Government in 1998 which identifies objectives for the prevention, reuse, reduction recycling and the recovery of waste in Ireland. The reduction of landfill in Ireland was one of the main objectives set out in this policy statement along with the developing alternative options for managing waste. '*Changing Our Ways*' identified at least approximately 35% target of recycling of municipal waste. '*Preventing and Recycling Waste-Delivering Change*' was published in 2002 and proposed several programmes to increase awareness of recycling of waste and reducing landfill. The need for waste minimisation at source was considered a priority. In 2004, the Government issued a review document entitled '*Taking Stock and Moving Forward*' which was intended to establish the progress from the policy document '*Changing Our Ways*'. The aim of this document was to review the progress of the period from 1998- 2003 with regard to waste management in Ireland. Plans were put in place to further support progress towards the objectives set out in '*Changing Our Ways*'. '*Taking Stock and Moving Forward*' identified in particular an increase in the amount of waste being brought to Landfills and the report noted that of the significant challenges in the coming years was the extension of dry recyclable collection services. A policy document published in July 2012 is currently the most up-to-date literature entitled '*A Resource Opportunity*' which stresses the benefits of better waste management for environmental and economic reasons. This document set out a number of actions including the following:

- Reduction of landfill and replacement through reuse, recycling, recovery and prevention;
- A roll-out of brown bins diverting 'organic waste' towards productive uses;
- Requiring proof from householders that they use an authorised waste collection service;
- New service standards which ensure higher customer service standards from operators'
- A review of the producer responsibility model is to be initiated to assess the operation of the model in Ireland;
- Significant reduction of Waste Management Planning Regions from ten to three;

The EPA has produced '*National Waste Reports*' periodically since 1998 which detail other things that estimate municipal waste in Ireland along with the level and standard of recycling, recovery and disposal. The most recent National Waste Statistic Study, published in 2019 reported the following key statistics:

- **Generated:** 3.17 million tonnes of Municipal Waste was generated in 2021; this is relatively unchanged from 3.2 million tonnes in 2020. 41% of Municipal waste was recycled in 2021, the same level as in 2020.
- **Managed:** 2021 showed a total of 1.97 million tonnes of municipal waste in Ireland managed and treated;

- **Unmanaged:** It is estimated that approximately 25,600 tonnes of waste was not managed in 2021 which accounts for waste that is not collected or transported to a waste facility and likely to cause pollution as it is burned;
- **Recovered:** over 84% of municipal waste was recovered which is an increase from the previous years.
- **Recycled:** Just over 1.3 million tonnes of municipal waste generated in Ireland was recycled in 2021, resulting in a recycling rate of 41 percent. The recycling rate remains unchanged from 2020
- **Disposed of:** The proportion of municipal waste sent to landfill also remains unchanged at 16%.

2.1 Regional Requirements

In May 2015 the regional waste management plan was published entitled '*Southern Region Waste Management Plan 2015 - 2021*' which sets out targets for the management of waste that are relevant to the proposed development:

- A rate of 60 - 70% recycling rate of municipal waste to be achieved by 2030
- The reduction of direct disposal of unprocessed residual municipal waste to landfill to 0% from 2016 onwards.

Charges in Ireland for Municipal landfill are based on the weight of the waste disposed. Landfill charges are currently at approximately €160/tonne (includes a €75 per tonne landfill levy introduced under the Waste Management (Landfill Levy) (Amendment) Regulations 2012) for non-hazardous Waste and €25/tonne for inert Waste. In addition to disposal costs, Waste Contractors will also charge a collection fee for skips.

2.2 Legislative Requirements

The primary legislative instruments that govern waste management in Ireland and applicable to the proposed development are:

- Waste Management Act 1996 (No. 10 of 1996) as amended 2001 (No. 36 of 2001), 2003 (No. 27 of 2003) and 2011 (No. 20 of 2011). Sub-ordinate and associated legislation include:
 - European Communities (Waste Directive) Regulations 2011 (S.I No. 126 of 2011) as amended
 - Waste Management (Collection Permit) Regulations 2007 (S.I No. 820 of 2007) as amended
 - Waste Management (Facility Permit and Registration) Regulation 2007 (S.I No. 821 of 2007) as amended.

- Waste Management (Licensing) Regulations 2000 (S.I. No. 185 of 2000) as amended
- European Union (Packaging) Regulations 2014 (S.I. No. 282 of 2014) as amended
- Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997) as amended.
- Waste Management (Landfill Levy) Regulations 2015 (S.I. No. 189 of 2015)
- European Communities (Waste Electrical and Electronic Equipment) Regulations 2014 (S.I. No. 149 of 2014).
- Waste Management (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended.
- Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) as amended
- European Union (Household Food Waste and Bio- Waste) Regulations 2015 (S.I. No. 430 of 2015)
- Waste Management (Hazardous Waste) Regulations 1998 (S.I. No. 163 of 1998) as amended
- Waste Management (Shipments of Waste) Regulations 2007 (S.I. No. 419 of 2007) as amended.
- European Communities (Trans frontier Shipment of Waste) Regulations 1994 (S.I. 121 of 1994)
- Environmental Protection Act 1992 (S.I. No. 7 of 1992) as amended;
- Litter Pollution Act 1997 (Act No. 12 of 1997) as amended and
- Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended

One of the principles of the European legislation which has been incorporated in the Waste Management Act 1996- 2011 is the principle of 'Duty of Care'. This indicates that the producer of the waste is responsible from the time the waste is produced through until its legal disposal. However, as it is not practical for the original user to transport the waste to the final disposal area, waste contractors are employed to transport the waste to the final waste disposal area. Therefore, it is imperative that the residents and management companies of the proposed development manage waste in accordance with the legal requirements, including the requirement for a contractor to handle the transport and disposal of the produced waste on site. Each operating Waste Collection contractor must be in possession of a permit issued by the National Waste Collection Permit Office (NWCPO) to transfer waste to its final disposal location/ facility. Facilities that are receiving waste must also be in possession of a Certificate of Registration (COR) or waste permit granted by CCC under the Waste Management Guidelines 2007 as amended. The permit held by each facility shall outline the type and

quantity of waste permitted to be received, stored, sorted, recycled, recovered and/ or disposed of at each specific site.

3 Proposed Development

3.1 Development Description

The proposed large-scale residential development (LRD) is located at Gortnahomna, Castlemartyr, Co. Cork. The proposed development will include 150 residential units as follows:

- 4 no. two-bed bungalows;
- 56 no. two-bed townhouses;
- 43 no. three-bed townhouses;
- 39 no. three-bed semi-detached;
- 1 no. four-bed townhouse; and
- 7 no. four-bed semi-detached houses.

The proposed development includes a crèche facility for 68 child spaces, 2 no. ESB substations and all related site development works including car and bicycle parking, bin and bicycle storage, landscaping/amenity areas, public lighting and all other necessary services. Access to the site will be via a new entrance from the existing N25.



Figure 1 Proposed development (source: DGA)

3.2 Waste Categories

Several types of both hazardous and non-hazardous waste are expected to be generated at the proposed development, the types of waste will include the following:

- (DMR) Dry Mixed Recyclables including paper waste, cardboard, plastic packaging, aluminium cans, bottles and Tetra Park Cartons
- Organic Waste- Food Waste, and waste generated from plants and flowers
- General Waste / Mixed Non-Recyclable

Other typical waste material may be generated by the proposed development during operational phase on a daily basis and will need to be managed separately including:

- Green / Garden Waste from general landscaping
- Waste electrical and Electronic Equipment (WEEE)
- Chemical (Paints, Adhesives, detergents etc.)
- Waste Cooking Oil
- Furniture

All waste should be separated into each of the above waste types to comply with legislation regarding waste and to ensure maximum opportunity for recycling and reuse of waste with diversion from landfill where possible.

3.3 European Waste Codes

The European Waste Catalogue and Hazardous Waste list were published by the European Commission in 1994. Several years later in 2002, the EPA published a condensed version of these original two documents entitled the 'European Waste Catalogue and Hazardous Waste List'. From June 2015, this document was replaced by the EPA_ 'Waste Classification- List of Waste & Determining if Waste is Hazardous or Non- Hazardous'.

Different types of waste are defined by a code under the classification system. The list of Waste (LoW) code for typical municipal waste expected to be generated during the operation of the proposed development are provided in **Table 1** below.

Table 1 Typical Waste Types Generated and LoW Codes

Waste Material	LoW Code
Paper and Cardboard	20.01.01
Plastics	20.01.39
Metals	20.01.40
Mixed Non- Recyclable Waste	20.03.01
Glass	20.01.02
Biodegradable Kitchen Waste	20.01.08
Oils and Fats	20.01.25
Textiles	20.01.11
Green Waste	20.01.33-34
WEEE	20.01.35-36
Chemicals (solvents pesticides, paints and adhesives, detergents etc.)	17 04
Bulky Waste	17 04 01

4 Waste Storage and Collection

How waste generated within the proposed development shall be stored and collected shall be discussed within this section of this report. This section has been prepared with consideration of the proposed site layout along with the best practice standards. In particular, consideration has been given to the following documents:

- BS 5906:2005 Waste Management in Buildings - Code of Practice;
- EMR Waste Management Plan 2015 - 2021;
- DoEHLG, Sustainable Urban Housing Design Standards for New Apartments, Guidelines for Planning Authorities
- Cork County Council Development Plan 2022 - 2028,

4.1 Waste Storage

Residents shall be required to separate waste into the main following streams and place the same in bins provided as described below.

- MNR (mixed non-recyclables)
- DMR (dry-mixed recyclables)
- OW (Organic Waste)

Each bin shall be labelled clearly and shall be colour coded to avoid cross-contamination. The types of waste permitted in each bin shall be clearly posted within the Bin Store above the bins. Restricted access shall be given to the Bin Store with only Residents of the proposed development permitted access via a code / electronic fob. Infrequently generated waste such as textiles / furniture / WEEE shall be stored on a temporary basis within the resident's unit and disposed appropriately.

4.1.1 Houses

The proposed semi-detached, end-of-terrace units may store their bins to the rear of the units. The mid terraced units are provided with bin storage facilities to the front of the units as illustrated in **Figure 1** below. The unit owner will move the bins from their storage area to the side of the public road on each collection day and return the bins following collection. Each house shall be provided with a bin enclosure to accommodate 3 x 240 litre waste bins (non-recyclable, recyclable and organic).

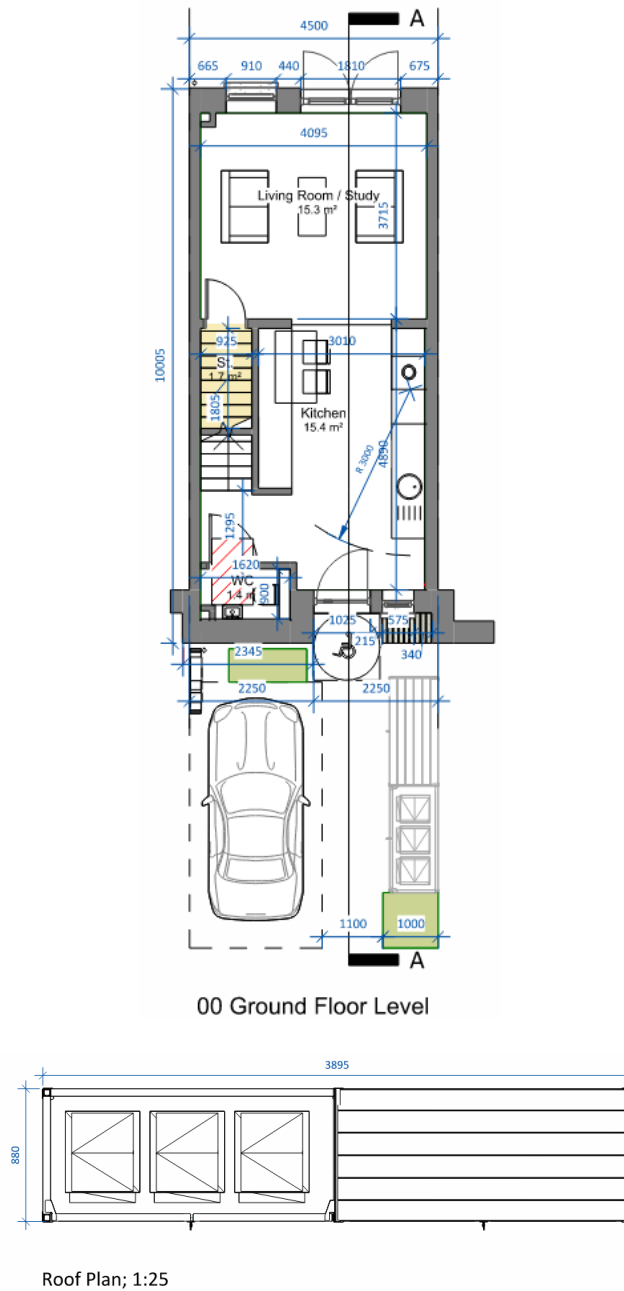


Figure 1 Extract from Architects drawing showing typical mid terrace unit bin storage area (source: DGA)

4.1.2 Crèche

The proposed crèche is provided with a bin storage room as illustrated in **Figure 3** below. The unit owner / manager will bring their waste to the dedicated bin storage area as illustrated below. The unit owner / manager will move the bins from their storage area to the side of the public road on each collection day and return the bins following collection. The crèche will typically be provided with 3 No. separate bin types (non-recyclable, recyclable, and organic).



3D Render

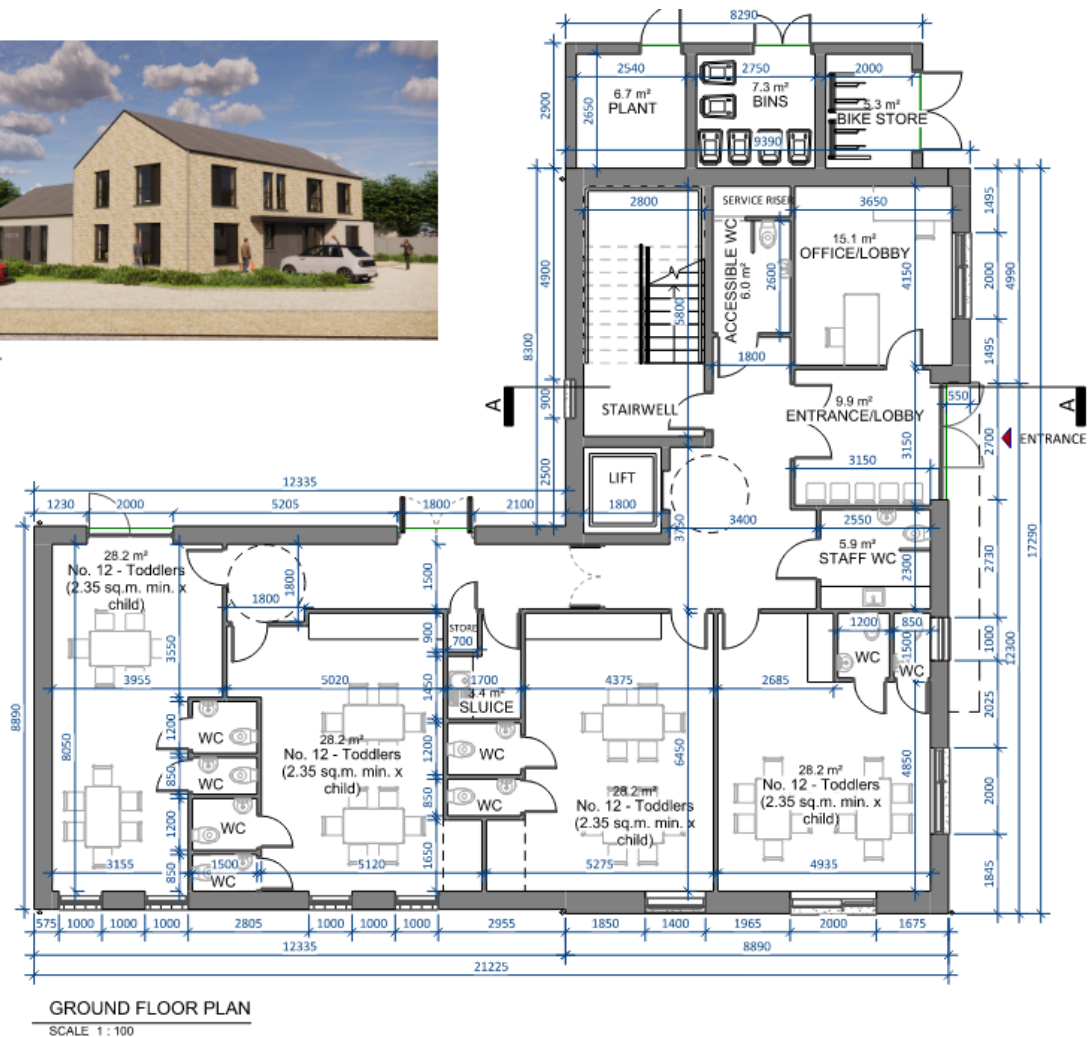


Figure 2 Extract from Architects drawings showing typical creche bin storage area (source: DGA)

4.2 Waste Collection

A number of private waste collection contractors service the area of Castlemartyr, Co. Cork. A waste collection contractor must be in possession of a collection permit for the type of waste being collected. Collected waste from the proposed development must be transported to a registered / licensed facility only. Staggered collection times for waste is recommended throughout the day / week to reduce the number of bins emptied at any given time, along with reducing the time a waste collection vehicle shall be on site. Autotrack drawings of refuse vehicles accessing the development have been submitted with the Planning Application.

4.3 Additional Waste Materials

Some additional waste shall be infrequently generated from the site during the operational phase of the proposed development. These types of materials shall require separate management and include the following;

- Green Waste generated from gardening/ landscaping internal flowers / plants. Green waste can be placed in organic waste bins. However, significant green waste shall be removed from site via an external landscape contractor.
- A high level of recycling of electronic equipment shall be required during the operational phase of the development. To ensure a high standard, the WEEE Directive 2002/96/EC and associated Waste Management (WEEE) Regulations have been enacted. A consumer is entitled to bring their electrical waste to their local recycling centre as well as bringing back WEEE to retailers when they purchase new equipment on a like for like basis within 15 days.
- Chemicals (solvents, Paints, Adhesives, Resins, Detergents etc.) are largely generated from maintenance works on a building. These works are typically completed by external contractors who are responsible for the removal of such waste and appropriate recovery / recycling / disposal of waste. Waste from cleaning products or waste packaging generated from residents of the proposed development that are classed as hazardous shall be required to take their waste to a local Civic Amenity Centre,
- Waste Textiles shall be recycled or donated to charity where possible.
- Waste cooking oil generated by residents of the proposed development shall be taken to a local Civic Amenity Centre,
- Furniture (and other bulky items) waste generated by residents of the proposed development shall be taken to a local Civic Amenity Centre (East Cork Civic Amenity Site, Rossmore, Carrigtwohill, Co. Cork or Youghal Landfill Site, Youghal Mudlands, Youghal, Co. Cork),

- Glass shall be recycled and residents of the proposed development are required to take their glass waste to the local collection point at the Castlemartyr Enterprise Centre on the Mogeely Road. Civic Amenity Centre

5 Conclusions

In summary, a waste strategy is presented in this OWMP which considers all legal requirements, policies, and best practice guidelines. This plan also demonstrates that the waste storage area has also been incorporated within the design of the development. Implementing this OWMP plan shall be that a high level of recycling, reuse, and recovery at the proposed development during its operational phase. All materials that are considered recyclable shall be segregated and separated at source to reduce costs from the waste contractor and ensure maximum diversion of material from landfill. The waste strategy presented in this document shall provide sufficient storage capacity for the estimated quantity of segregated waste. The designated areas for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.