

# OPERATIONAL WASTE MANAGEMENT PLAN

Residential Development  
Annacotty  
Limerick  
HPA REF: 17-118



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## 1. PROJECT OVERVIEW + DESCRIPTION

The proposed development consists of 137 residential units comprising of 61 Apartments in two apartment blocks, 51 Duplex Apartments and 25 Semi-Detached and Terrace Houses. The 4 and 5 storey apartment buildings accommodate ancillary services for residents.

The development site is located in a prominent location on the main entrance point to Limerick City from Dublin East along Dublin Road (R445) at the main (Annacotty) Roundabout junction entrance to the National Technology Park to the North, and the Newtown neighbourhood of Castletroy/Annacotty to the South.



The design approach, in terms of overall building form and volume, was to accommodate our proposed apartment development to the Western side of the site to establish an appropriate scale of development that overlooks the Annacotty Roundabout, to create a high quality landmark building at Annacotty Roundabout and to establish a 'gateway' scale of development when transitioning from Dublin Road/Annacotty Roundabout towards the Eastern side of the site. Both apartment blocks and 3 storey Duplex apartments create strong urban edges to existing public roadways. The location of the apartment buildings at this position also benefits from site contours where the lower site levels at this point allows for the accommodation of underground car parking in a manner that minimises the extent of excavation in forming these spaces.

The proposed development consists of 137 residential units which equates to a density of 54.5 units per hectare. The buildings are positioned to create strong urban edge whilst maintaining central space for public realm. Landscaped areas are designed to provide amenity and biodiversity, the buildings, gardens and public open spaces are laid out to exploit the best solar orientation. The residential units benefit from local views, good quality natural light and natural ventilation.



## 2. PURPOSE OF THE OPERATIONAL WASTE MANAGEMENT PLAN

The design standards, in terms of the operational waste management plan (OWMP), as set out in the Southern Region Waste Management Plan 2014-2020, Limerick City & County Development Plan and City and County of Limerick (Segregation, Storage and presentation of Household and Commercial Waste) Bye Laws 2019 have been considered from the outset of the design process by HPA.

The design intent is to develop a design solution and a delivery strategy that will work to achieve high levels of recycling, reuse and recovery of waste, and to minimise waste making its way to landfill locations, where possible. In this regard, we have worked to determine likely quantities of waste generated by the proposed development and develops strategies of the management of this waste.

## 3. SOUTHERN REGION WASTE MANAGEMENT PLAN 2014-2020

This is a regional waste management plan that includes the Limerick City & County Council Authority Area. This document sets out strategic targets for waste management within its region looking towards '70% preparing for reuse, recycling and other recovery of construction and demolition waste by 2020.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Munster Region, charges are approximately €120 per tonne of waste which includes a €75 per tonne landfill levy introduced under the *Waste Management (Landfill Levy) (Amendment) Regulations 2012*.

#### 4. DEVELOPMENT PLAN STANDARDS

The Limerick City & County Development Plan 2010-2016 (extended) references under 8.4 Waste Management, references Waste Management Act 1996-2011, which is an act that is informed by the guiding principles of European Waste Legislation. Table 10.1 of the Limerick City & County Development Plan 2010-2016 notes under recycling the requirements for recycling for Residential Development in urban areas as follows;

The design of all dwellings shall take account of the Environment Section requirement for segregated collections of dry recyclable good and organic wastes. Each dwelling shall have sufficient external and internal space for 3 bin system (organic/dry recyclable and residual waste). The design of houses internally (Kitchen/Utilities) should facilitate the segregated bin collection for these waste streams.

The Limerick County Development Plan 2010 – 2016 (extended) sets out a number of objectives for the Limerick City and County area, in line with the objectives of the regional waste management plan. The plan identifies the Council’s commitment to the promotion of the Waste Hierarchy Waste objectives with a particular relevance to the proposed development are:

- IN 043: Education and Awareness To promote education and awareness on all issues associated with waste management, both at industry and community level. This will include the promotion of waste reduction by encouraging the minimisation, re-use, recycling and recovery of waste within the county.
- IN 044: Polluter pays principle To ensure the provision of quality cost effective waste infrastructure and services, which reflect and meet the needs of the community and to ensure that the ‘polluter pays’ principle is adhered to in all waste management activities.
- IN 044: Polluter pays principle It is the objective of the Council to ensure the provision of quality cost effective waste infrastructure and services, which reflect and meet the needs of the community and to ensure

#### 5. LC&CC City and County of Limerick (Segregation, Storage and presentation of Household and Commercial Waste) Bye Laws 2019

*The LCCC “City and County of Limerick (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws (201)”* came into force in May 2019. These bye-laws set a number of enforceable requirements on waste holders with regard to storage, separation and presentation of waste within the LCCC functional area. Key requirements under these bye-Laws of relevance to the proposed development include the following

- 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 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 9:00pm on the designated waste collection day;
- Documentation, including receipts, is obtained and retained for a period of no less than one year to provide proof that any waste removed from the premises has been managed in a manner that conforms to these bye-laws, to the Waste Management Act and, where such legislation is applicable to that person, to the European Union (Household Food Waste and Bio-Waste) Regulations 2015; and

Adequate access and egress onto and from the premises by waste collection vehicles is maintained.

## 6. APPLICATION OF STANDARDS IN PROJECT DESIGN

In terms of the development proposed in this application, the management of waste is guided by the above referenced Plans and Bye Laws, where waste is produced by residents of the development, their responsibility extends from the time the waste is generated through to its legal disposal, including its method of disposal. It is therefore imperative that the residents and the proposed management company undertake on-site management of waste in accordance with all legal requirements and employ suitably permitted/licenced contractors to undertake off-site management of their waste in accordance with all legal requirements. This includes the requirement that a waste contractor handle, transport and reuse/recover/recycle/dispose of waste in a manner that ensures that no adverse environmental impacts occur as a result of any of these activities.

It is envisaged that the typical typical non-hazardous and hazardous wastes that will be generated at the proposed development will include the following:

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

In addition to the typical waste materials that will be generated within the development on a frequent basis, there will be some additional waste types generated in small quantities which will need to be managed separately including:

- Green/garden waste may be generated from internal plants or external landscaping;
- Batteries (both hazardous and non-hazardous);
- Waste electrical and electronic equipment (WEEE) (both hazardous and non-hazardous);
- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.) ;
- Light bulbs
- Textiles
- Waste cooking oil (if any generated by the residents);
- Furniture (and from time to time other bulky wastes); and
- Abandoned bicycles.

Waste of these types as generated in managed areas will be dealt with by the correct streaming of waste, either on site to dedicated bins or diversion to Waste recycling centres as located in the Limerick City & County area. It is expected and directed that residents who have a requirement to manage their own grounds will do likewise. Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible. In calculating the estimated level of waste created, we have referred to BS5909:2005 Waste Management in Buildings- Code of Practice. It is considered that the waste quantities as generated by the residents will work to include the small quantities likely to be generated by any community activities on a weekly basis. The estimated volume of waste that will be generated from residential units is based on the predicted occupancy of the units and is set out in the table below.

WASTE VOLUME (Cu.Mtrs/Week)	
WASTE TYPE	RESIDENTIAL
Organic Waste	2.14
Dry Mix Recycleables	15.18
Glass	0.41
Mixed Non Recyclable	7.98
TOTAL	25.72

## 7. WASTE STORAGE AND COLLECTION

The provision of waste bins and waste bin storage area has been guided by the standards as set out in

- Limerick County Development Plan 2016 (Appendix 10);
- LCCC City and County of Limerick (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws (2019);
- DoEHLG, Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities (2018).

Residents will be required to segregate their waste into

- Dry Mixed Recyclable Waste
- Mixed Non Recyclable
- Organic Waste
- Glass

It is proposed that each bin /container in the Waste Storage areas will be clearly labelled and colour coded to avoid cross contamination. The access to Waste bins will be managed so that they are restricted to authorised residents, property management and waste collection contractors by means of selected access control. Waste within the development will be collected by a selected private waste contractor on a weekly basis.

The requirements of the Limerick City & County Council Development Plan set out that for residential units without suitable private open space a set of three x 240 litre Bins shall be provided for each pair of apartments or a set of three 1,100 litre bins shall be provided for a block of 10No. apartments.

The project proposal for the Walkers Hill development would not the following:

Block A: 37 Apartments to accommodate 12No x 1100litre bins (4No. of Dry Mixed Recycle, Mixed Non Recyclable, Organic Waste & Glass)

Block B: 24 Apartments to accommodate 10No x 1100litre bins (3No. of Dry Mixed Recycle, Mixed Non Recyclable, Organic Waste and 4No. Glass).

Duplex Units and Mid terrace Townhouses: To have set of 3 240ltrs Bins (3No. of Dry Mixed Recycle, Mixed Non Recyclable, Organic Waste).



BIN STORAGE

The Waste Storage Areas will be required to maintain the waste storage areas in good condition as required by the LCCC Waste Bye-Laws. To that end, the design approach has considered these elements to..

- Be fitted with a non-slip floor surface;
- Provide adequate natural ventilation.
- Provide suitable lighting – a minimum Lux rating of 220 is recommended;
- Be easily accessible for people with limited mobility;
- Be restricted to access by nominated personnel only;
- Be supplied with hot or cold water for disinfection and washing of bins;
- Be fitted with suitable power supply for power washers;
- Have a sloped floor to a central foul drain for bins washing run-off;
- Have appropriate signage placed above and on bins indicating correct use;
- Have access for potential control of vermin, if required; and
- Be fitted with CCTV for monitoring.

## 8. CONCLUSION

The OWMP puts forward a waste strategy that addresses all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of 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 to reduce waste contractor costs and ensure maximum diversion of materials from landfill, thus achieving the targets set out in the *SR Waste Management Plan 2015 – 2021*.

Adherence to this plan will also ensure that waste management at the development is carried out in accordance with the requirements of the *LCCC Waste Bye-Laws*

The waste strategy presented in this document will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated area for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.