

**OPERATIONAL WASTE
MANAGEMENT PLAN FOR
THE PROPOSED MONAGHAN
CIVIC OFFICE
DEVELOPMENT
AT
“ROOSKY LANDS”,
MONAGHAN
TOWN, CO. MONAGHAN**



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1.0 INTRODUCTION

AWN Consulting Ltd. (AWN) has prepared this Operational Waste Management Plan (OWMP) on behalf of Monaghan County Council. The proposed development comprises construction of new civic offices, together with associated infrastructural works on a site which forms part of the 'Roosky Lands', located to the north-east (rear) of Dublin Street, Monaghan Town, County Monaghan.

This OWMP has been prepared to ensure that the management of waste during the operational phase of the proposed Monaghan Civic Office development is undertaken in accordance with current legal and industry standards including, the *Waste Management Act 1996* as amended and associated Regulations ¹, *Environmental Protection Agency Act 1992* as amended ², *Litter Pollution Act 1997* as amended ³, the '*Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021*' ⁴, the Draft National Waste Management Plan for a Circular Economy (NWMPCE) (2023) ⁵ Monaghan County Council (MCC) *Monaghan County Development Plan 2019 – 2025* ⁶, and MCC '*Draft County of Monaghan (Segregation, Storage and Presentation of Household and Commercial Waste) Byelaws, 2019*' ⁷. In particular, this OWMP aims to provide a robust strategy for storing, handling, collection and transport of the wastes generated at site.

This OWMP aims to ensure maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. The OWMP also seeks to provide guidance on the appropriate collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g. contamination of soil or water resources). The plan estimates the type and quantity of waste to be generated from the proposed Monaghan Civic Office development during the operational phase and provides a strategy for managing the different waste streams.

At present, there are no specific guidelines in Ireland for the preparation of OWMPs. Therefore, in preparing this document, consideration has been given to the requirements of national and regional waste policy, legislation and other guidelines.

2.0 OVERVIEW OF WASTEMANAGEMENT IN IRELAND

2.1 National Level

The Irish Government issued a policy statement in September 1998 titled as '*Changing Our Ways*' ⁸ which identified objectives for the prevention, minimisation, reuse, recycling, recovery and disposal of waste in Ireland. A heavy emphasis was placed on reducing reliance on landfill and finding alternative methods for managing waste. Amongst other things, *Changing Our Ways* stated a target of at least 35% recycling of municipal (i.e. household, commercial and non-process industrial) waste.

A further policy document '*Preventing and Recycling Waste – Delivering Change*' was published in 2002 ⁹. This document proposed a number of programmes to increase recycling of waste and allow diversion from landfill. The need for waste minimisation at source was considered a priority.

This view was also supported by a review of sustainable development policy in Ireland and achievements to date, which was conducted in 2002, entitled '*Making Irelands Development Sustainable – Review, Assessment and Future Action*' ¹⁰. This document also stressed the need to break the link between economic growth and waste generation, again through waste minimisation and reuse of discarded material.

In order to establish the progress of the Government policy document *Changing Our Ways*, a review document was published in April 2004 entitled '*Taking Stock and*

Moving Forward'¹¹. Covering the period 1998 – 2003, the aim of this document was to assess progress to date with regard to waste management in Ireland, to consider developments since the policy framework and the local authority waste management plans were put in place, and to identify measures that could be undertaken to further support progress towards the objectives outlined in *Changing Our Ways*.

In particular, *Taking Stock and Moving Forward* noted a significant increase in the amount of waste being brought to local authority landfills. The report noted that one of the significant challenges in the coming years was the extension of the dry recyclable collection services.

In September 2020, the Irish Government published a new policy document outlining a new action plan for Ireland to cover the period of 2020-2025. This plan 'A Waste Action Plan for a Circular Economy'¹¹ (WAPCE), was prepared in response to the 'European Green Deal' which sets a roadmap for a transition to a new economy, where climate and environmental challenges are turned into opportunities, replacing the previous national waste management plan "A Resource Opportunity" (2012).

The WAPCE sets the direction for waste planning and management in Ireland up to 2025. This reorientates policy from a focus on managing waste to a much greater focus on creating circular patterns of production and consumption. Other policy statements of a number of public bodies already acknowledge the circular economy as a national policy priority.

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.

One of the first actions to be taken was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021)¹² to set a course for Ireland to transition across all sectors and at all levels of Government toward circularity and was issued in December 2021. It is anticipated that the Strategy will be updated in full every 18 months to 2 years.

The Circular Economy and Miscellaneous Provisions Act 2022¹³ was signed into law in July 2022. The Act underpins Ireland's shift from a "take-make-waste" linear model to a more sustainable pattern of production and consumption, that retains the value of resources in our economy for as long as possible and that will to significantly reduce our greenhouse gas emissions. The Act defines Circular Economy for the first time in Irish law, incentivises the use of recycled and reusable alternatives to wasteful, single-use disposable packaging, introduces a mandatory segregation and incentivised charging regime for commercial waste, streamlines the national processes for End-of-Waste and By-Products decisions, tackling the delays which can be encountered by industry, and supporting the availability of recycled secondary raw materials in the Irish market, and tackles illegal fly-tipping and littering.

Since 1998, the Environmental Protection Agency (EPA) has produced periodic 'National Waste (Database) Reports'¹⁴ detailing, among other things, estimates for household and commercial (municipal) waste generation in Ireland and the level of recycling, recovery and disposal of these materials. The *2020 National Waste Statistics web resource*, which is the most recent study published, along with the national waste statistics web resource (December 2022) reported the following key statistics for 2020:

- **Generated** – Ireland produced 3,210,220 t of municipal waste in 2020. This is a 4% increase since 2019. This means that the average person living in Ireland generated 645 kg of municipal waste in 2020.

- **Managed** – Waste collected and treated by the waste industry. In 2020, a total of 3,180,620 t of municipal waste was managed and treated.
- **Unmanaged** – Waste that is not collected or brought to a waste facility and is, therefore, likely to cause pollution in the environment because it is burned, buried or dumped. The EPA estimates that 29,600 t was unmanaged in 2020.
- **Recovered** – The amount of waste recycled, used as a fuel in incinerators, or used to cover landfilled waste. In 2020, around 84% of municipal waste was recovered – an increase from 83% in 2019.
- **Recycled** – The waste broken down and used to make new items. Recycling also includes the breakdown of food and garden waste to make compost. The recycling rate in 2020 was 41%, which is up from 37% in 2019.
- **Disposed** – 16% of municipal waste was landfilled in 2020. This is an increase from 15% in 2019.

2.2 Regional Level

The proposed development is located in the Local Authority area of Monaghan County Council (MCC).

The *Connacht-Ulster Region (CUR) Waste Management Plan 2015 – 2021* is the regional waste management plan to the administrative area, published in May 2015. Currently the CUR and other regional waste management plans are under review and the Regional Waste Management Planning Offices have issued the new draft NWMPCE in June 2023.

The current Regional Plan sets out the strategic targets for waste management in the region and sets a specific target for C&D waste of “70% preparing for reuse, recycling and other recovery of construction and demolition waste” (excluding natural soils and stones and hazardous wastes) to be achieved by 2020.

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Connacht-Ulster Region, charges are approximately €130 - €150 per tonne of waste, which includes a €75 per tonne landfill levy (increasing to €85 as of the 1st September 2023) introduced under the *Waste Management (Landfill Levy) (Amendment) Regulations 2015*.

The *Monaghan County Development Plan 2019 – 2025* sets out a number of policies and objectives for Monaghan County in line with the objectives of the national plans, policies and strategies. Further policies and objectives can be found within the development plan.

Policies:

- *WMP 1 To implement and support the strategic objectives of the Connaught-Ulster Regional Waste Management Plan 2015-2021 and any subsequent Waste Management Plan adopted during the current plan period.*
- *WMP 7 To support the minimisation of waste creation and promote a practice of reduce, reuse and recycle where possible and to safeguard the environment by seeking to ensure that residual waste is disposed of appropriately.*

2.3 Legislative Requirements

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

- Waste Management Act 1996 as amended.
- Environmental Protection Agency Act 1992 as amended;
- Litter Pollution Act 1997 as amended;

- Planning and Development Act 2000 as amended ¹⁵; and
- Circular Economy and Miscellaneous Provisions Act 2022.

These Acts and subordinate Regulations enable the transposition of relevant European Union Policy and Directives into Irish law.

One of the guiding principles of European waste legislation, which has in turn been incorporated into the *Waste Management Act 1996* as amended and subsequent Irish legislation, is the principle of “*Duty of Care*”. This implies that the waste producer is responsible for waste from the time it is generated through until its legal disposal (including its method of disposal.) As it is not practical in most cases for the waste producer to physically transfer all waste from where it is produced to the final disposal area, waste contractors will be employed to physically transport waste to the final waste disposal site.

It is therefore imperative that the staff and any future facilities management company (s) 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.

A collection permit to transport waste must be held by each waste contractor which is issued by the National Waste Collection Permit Office (NWCPO). Waste receiving facilities must also be appropriately permitted or licensed. Operators of such facilities cannot receive any waste, unless in possession of a Certificate of Registration (COR) or waste permit granted by the relevant Local Authority under the *Waste Management (Facility Permit & Registration) Regulations 2007* as amended or a waste or IED (Industrial Emissions Directive) licence granted by the EPA. The COR/permit/licence held will specify the type and quantity of waste able to be received, stored, sorted, recycled, recovered and/or disposed of at the specified site.

2.3.1 Monaghan County Council Waste Management Bye-Laws

The MCC “County of Monaghan (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-laws (2019)” were brought into force in February 2020. These bye-laws repeal the previous Bye-Laws (County of Monaghan Byelaws for the collection, storage and presentation of waste and certain related waste management matters. (2009)). The bye-laws set a number of enforceable requirements on waste holders with regard to storage, separation and presentation of waste within the MCC administrative area. Key requirements under these bye-laws of relevance to the operational phase of the 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.
- Commercial Waste Container 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 12:00 pm on the designated waste collection day.
- Household 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 9:00 pm 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 byelaws, 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.

The full text of the bye-laws is available from the MCC website.

2.4 Regional Waste Management Service Providers and Facilities

Various contractors offer waste collection services for the commercial sectors in the MCC region. Details of waste collection permits (granted, pending and withdrawn) for the region are available from the NWCPO.

As outlined in the regional waste management plan, there is a decreasing number of landfills available in Ireland. There are no municipal solid waste landfills remaining in the region. There are a number of other licensed and permitted facilities in operation in the region including waste transfer stations, hazardous waste facilities and integrated waste management facilities. There are also no existing thermal treatment facilities in the Connacht Ulster region but there are two in the Eastern-Midlands Region; one in Duleek, Co. Meath and a second facility Poolbeg in Dublin.

A copy of all CORs and waste permits issued by the Local Authorities are available from the NWCPO website and all waste/IE licenses issued are available from the EPA.

3.0 DESCRIPTION OF THE PROJECT

3.1 Location, Size and Scale of the Development

The proposed development will consist of the construction of new civic offices, together with associated infrastructural works.

It shall include the following:

- i. Construction of a new civic office building consisting of:
 - a. office accommodation with a cumulative gross floor area (GFA) of 5,601 sq.m distributed over 3 floors incorporating entrance foyer, office spaces, meeting rooms, staff canteen, Council chamber, public counter and reception desk, welfare facilities, internal landscaped courtyards and supporting spaces;
 - b. external plant enclosure (104.42 sq.m) and waste store room (49.58 sq.m GFA) at ground level; and
 - c. covered services enclosure of 169.93 sq.m GFA at ground level containing plant, water tank, switch room, ESB substation, power distribution and supply rooms, and fire escape.
- ii. Surface car parking spaces and drop-off area.
- iii. Bicycle parking spaces.
- iv. Improvement works to existing road infrastructure and the provision of pedestrian, cycle and vehicular links comprising:
 - a. extension (approx. 120m in length) to existing vehicular route on Slí Ógie Uí Dhufaigh along the route of the existing Ulster Canal Greenway;
 - b. realignment of portion of the existing greenway;
 - c. construction of a priority junction on existing roadway serving Roosky Vale at the interface with the extended Slí Ógie Uí Dhufaigh;
 - d. provision of a new 13m clear span bridge over the River Shambles;
 - e. provision of new combined vehicular/pedestrian link, 'Quarry Walk' (approx. 460m in length) comprising a 5.5m vehicular carriageway, two-way cycle track, footpaths, and roadside SuDs swale;

- f. provision of a replacement vehicular access to Monaghan Harps GAA club and associated pedestrian links;
 - g. upgrade of existing pedestrian route (Davnet's Row) to Diamond Centre; and
 - h. upgrades to the existing Infirmary Hill Path to improve link to Old Cross Square.
- v. Works to facilitate potential future pedestrian and cyclist connections to the adjoining Diamond Centre and the existing public right of way known locally as 'Pump Entry'.
 - vi. Signage is to be erected consisting of:
 - a. Wayfinding signage at 4 locations; to the south-west at Davnet's Row Plaza, to the south along Davnet's Row, to the east at the junction between Infirmary Road and Davnet's Row and at the proposed entrance on Infirmary Road.
 - b. Building identity signage comprising 2.1m x 2.1m backlit logo panels on the north-east and south-west facades at building entry points and will include 300mm high text to read Monaghan County Council.
 - vii. Provision of surface water attenuation, diversion of existing watermain infrastructure and provision of new surface water, foul and watermain infrastructure.
 - viii. Associated earthworks, utilities, landscaping, boundary treatments, lighting, roof-mounted solar PV on the civic office building and all ancillary site development works.

3.2 Typical Waste Categories

The proposed development Typical Waste Categories

The 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 (including newspapers, magazines, brochures, catalogues, leaflets), 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; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily 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 (Fluorescent Tubes, Long Life, LED and Lilament bulbs);
- Textiles (rags);
- Waste cooking oil (if any generated by the commercial tenants);
- Furniture (and from time to time other bulky wastes); and
- Abandoned bicycles.

3.3 List of Waste Codes

The document '*Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous*'¹⁶ (LoW) was released by the Irish Environmental

Protection Agency (EPA) on the 1st June 2015. The LoW provides a harmonised list for coding all waste.

This waste classification system applies across the EU and is the basis for all national and international waste reporting, such as those associated with waste collection permits, COR's, permits and licences and EPA National Waste Database.

Under the classification system, different types of wastes are fully defined by a code. The List of Waste (LoW) code (also referred to as European Waste Code or EWC) for typical waste materials expected to be generated during the operation of the proposed development are provided in Table 3.1 below.

Waste Material	LoW/EWC 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
Batteries and Accumulators *	20 01 33* - 34
Printer Toner/Cartridges*	20 01 27* - 28
Green Waste	20 02 01
WEEE *	20 01 35*-36
Chemicals (solvents, pesticides, paints & adhesives, detergents, etc.) *	20 01 13*/19*/27*/28/29*30
Fluorescent tubes and other mercury containing waste *	20 01 21*
Bulky Wastes	20 03 07

* Individual waste type may contain hazardous materials

Table 3.1 Typical Waste Types Generated and LoW Codes

4.0 ESTIMATED WASTE ARISING

A waste generation model (WGM) developed by AWN, has been used to predict waste types, weights and volumes arising from operations within the proposed development. The WGM incorporates building area and use and combines these with other data including Irish and US EPA waste generation rates.

The estimated quantum/volume of waste that will be generated for the office is based on the floor area m².

The estimated waste generation for the development for the main waste types is presented in Table 4.1.

Waste Type	Waste Volume (m ³ / week)
	Development (combined)
Organic	0.41
DMR	3.01
MNR	3.93
Glass	0.07
Plastic (to be baled)	2.67
Cardboard (to be baled)	3.13
Confidential Paper	3.69
Total	16.92

Table 4.1 Estimated Waste Generation for the proposed commercial units.

The BS5906:2005 Waste Management in Buildings – Code of Practice ¹⁷ was considered in the estimations of the waste arising. It has been assumed that the restaurants and retail units will generate similar waste volumes over a seven-day period, while the office will operate over a five-day period.

5.0 WASTE STORAGE AND COLLECTION

This section provides information on how waste generated within the development will be stored and how the waste will be collected from the development. This has been prepared with due consideration of the proposed site layout as well as best practice standards, local and national waste management requirements including those of MCC. In particular, consideration has been given to the following documents:

- BS 5906:2005 Waste Management in Buildings – Code of Practice;
- Connacht-Ulster Region (CUR) Waste Management Plan 2015 – 2021;
- The Draft NWMPCE (2023);
- Monaghan County Council Development Plan 2019 – 2025;
- County of Monaghan (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-laws (2019)
- DoHLGH, *Design Manual for Urban Roads and Streets* (2019) ¹⁸

Waste Storage Areas

There is to be one Waste Storage Area (WSA) for the proposed development. The proposed location is shown in Figure 5.2 below. The proposed WSA is located externally at ground floor level.

The predicted waste generation volumes presented in Table 4.1 have been used to calculate waste receptacle/equipment requirements for the WSA. These are presented below in Table 5.1.

Using the estimated waste generation volumes in Tables 4.1, above, the waste receptacle requirements for MNR, DMR, organic waste, glass, cardboard (baled), plastic (baled) and confidential paper have been established for the WSA.

Waste Storage Requirements

It is envisaged that all waste types will be collected on a weekly basis.

Using the predicted waste generation volumes presented in Table 4.1 waste receptacle requirements have been established for the WSAs. This is presented below in Table 5.1.

Area/Use	Bins and Equipment Required					
	MNR ¹	DMR ²	Cardboard & Plastic	Glass	Organic	WEEE
Combined Waste Storage Area	4 x 1100L	3 x 1100L	Baler ³ , Bale Cage, 6 x Bales	1 x 240L	2 x 240L	WEEE Cage

Note: ¹ = Mixed Non-Recyclables

² = Dry Mixed Recyclables

³ = Bramidan B5 W VD Baler - Bales 1.0 L x 0.7 W x 0.8 H

Table 5.1 Waste storage requirements for the proposed development

The waste receptacle requirements have been established from distribution of the total weekly waste generation estimate into the holding capacity of each receptacle type.

Waste storage receptacles as per Table 5.1 above (or similar appropriate approved containers) will be provided by the facilities management company / the tenants in the WSA depending on the agreement. Waste receptacles and sizing may vary depending on the selected contractor, availability and changes to requirements at the development.

The types of bins used will vary in size, design and colour dependent on the appointed waste contractor. However, examples of typical receptacles to be provided in the WSA are shown in Figure 5.1. All waste receptacles used will comply with the SIST EN 840-1:2020 and SIST EN 840-2:2020 as the standards for performance requirements of mobile waste containers, where appropriate.



Figure 5.1 Typical waste receptacles of varying size (240L and 1100L)

Receptacles for waste will be provided in the WSA prior to first occupation of the development.

This Plan or a revised operational manual will be provided to each tenant from first occupation of the development i.e. once the first unit is occupied. This Plan will be supplemented, as required, by the property management company with any new information on waste segregation, storage, reuse and recycling initiatives that are subsequently introduced.

5.1 Waste Storage - Office

The tenant will segregate waste into the following main waste streams:

- DMR;
- MNR;
- Organic waste;

- Glass;
- Cardboard (for Baling)
- Plastic (for Baling)
- Confidential Paper; and
- WEEE

The tenant will be required to provide and maintain appropriate waste receptacles within their office area to facilitate segregation at source of these waste types.

Suppliers for the tenant will be requested by tenant to make deliveries in reusable containers, minimize packaging or to remove any packaging after delivery where possible, to reduce waste generated by the development.

The office area will be occupied by a single tenant – Monaghan County Council. It is recommended that the tenant should implement the 'binless office' concept where employees do not have bins located under desks and instead bring their waste to Area Waste Stations (AWSs) located strategically on the office floors, at print stations/rooms and at any micro kitchens or tea stations which may be provided within the office space. Experience has shown that the maximum travel distance should be no more than 15m from the employee's desk to the AWS. This 'best in class' concept achieves maximum segregation of waste in an office setting.

Typically, an AWS would include a bin for DMR and a bin for MNR. It is recommended that a confidential paper bin with a locked lid/door should also be provided for at each AWS and/or adjacent to photocopy/printing stations, as required. In addition, organic, DMR, MNR and glass bins will be provided at any tea stations, micro kitchens and/or staff rooms/canteens where appropriate.

A printer cartridge/toner bin should be provided at the print/copy stations, where appropriate.

It is proposed that confidential paper waste will be managed separately to non-confidential paper waste. The tenant should engage with an appropriately permitted/licenced confidential waste management contractor for collection and shredding of confidential paper. It is anticipated that the tenant will place locked confidential wastepaper bins as required throughout their office areas. The confidential waste company will typically collect bins directly from the office areas, under agreement with the tenant, and bring the locked bin or bags of confidential waste via the lifts, to their collection vehicle.

It is recommended that all bins/containers should be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Signage should be posted on or above the bins to show which wastes can be put in each bin.

The binless office concept, in addition to assisting in maximising recycling rates and minimising associated landfill disposal costs, also has the advantage of substantially reducing cleaning costs, as cleaners visit only the AWSs on each floor, as opposed to each desk.

Other waste materials such as batteries, WEEE and printer toner/cartridges will be generated less frequently. The tenant(s) will be required to temporarily store any of these additional waste items within their own office space pending and relocation to the combined WSA where special waste storage receptacles have been allocated. Further details on additional waste types can be found in Section 5.3.

5.2 Waste Collection

There are numerous private contractors that provide waste collection in the Monaghan County Council area.

All waste contractors servicing the proposed development must hold a valid waste collection permit for the specific waste types collected. All waste collected must be transported to registered/permitted/licensed facilities only.

The waste receptacles from the WSA will be staged in the Access Yard as illustrated in Figure 5.2. From here bins and waste receptacles will be brought to the waste collection vehicle.

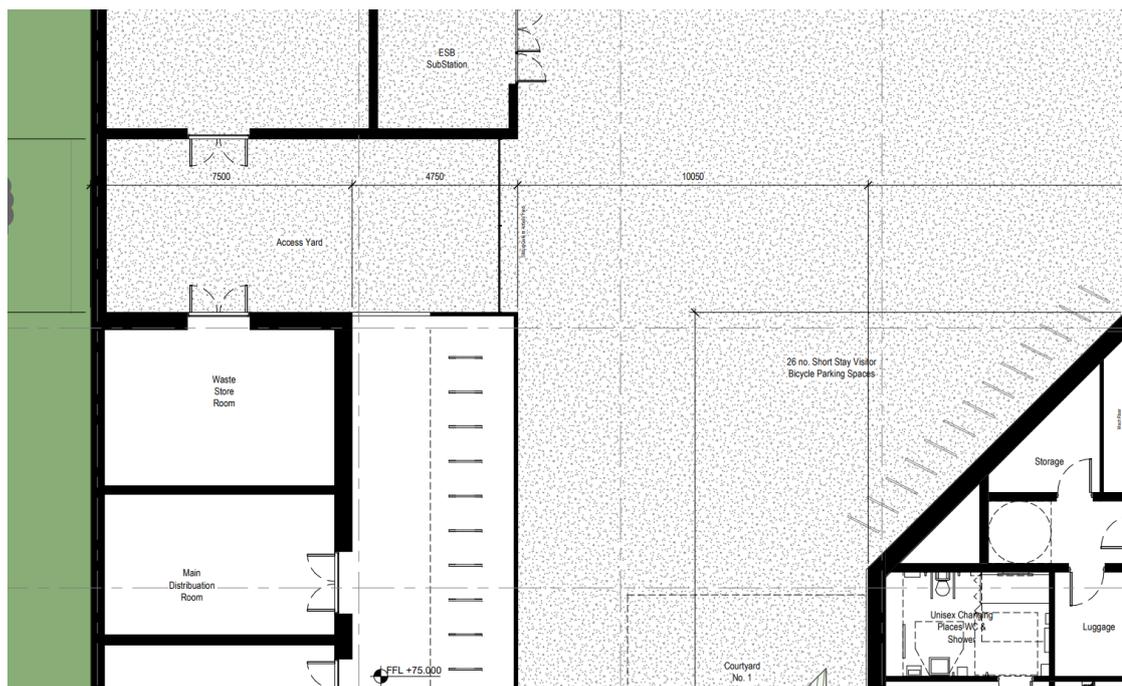


Figure 5.2 Waste Storage Area and Staging Area at Access Yard (Reference: MCCO-XX-00-DR-HJL-AR-1010)

The collection area is such that it will not obstruct traffic or pedestrians (allowing a footway path of at least 1.8m, the space needed for two wheelchairs to pass each other) as is recommended in the *Design Manual for Urban Roads and Streets* (2019).

Following collections, bins will be immediately returned to the WSA.

All tenants should be made aware of the waste collection arrangements and all waste receptacles must be clearly identified and maintained in good condition as required by waste legislation and the requirements of the MCC Waste Bye-Laws.

5.3 Additional Waste Materials

In addition to the typical waste materials that are generated on a daily basis, there will be some additional waste types generated from time to time that will need to be managed separately. A non-exhaustive list is presented below.

Green waste

Green waste may be generated from landscaping or internal plants. Green waste will be placed in the organic waste bins where possible or arranged for collection by a waste contractor as required.

Batteries

A take-back service for waste batteries and accumulators (e.g. rechargeable batteries) is in place in order to comply with the Waste Management Batteries and Accumulators Regulations 2014 as amended. Waste batteries must be separately collected for recycling and recovery of resources and the tenant is responsible for arranging and financing this. The tenant will be required to temporarily store batteries within the proposed development before they are relocated to the battery boxes in the WSA. Facilities management will be responsible for arranging collection by an authorised waste contractor.

Waste Electrical and Electronic Equipment (WEEE)

The *WEEE Directive 2002/96/EC* and associated Waste Management (WEEE) Regulations 2014 have been enacted to ensure a high level of recycling of electronic and electrical equipment. It is the manufacturers' responsibility to take back the WEEE, regardless of whether a replacement product is purchased or not and retailers are required to take back WEEE where a similar product is purchased. WEEE storage receptacles have been allocated in the WSA.

Light Bulbs

Waste light bulbs (fluorescent, incandescent and LED) may be generated by lighting at the proposed development. It is anticipated that tenant will be responsible for the off-site removal and appropriate recovery / disposal of these wastes. Facilities management may arrange collection, depending on the agreement.

Chemicals (solvents, pesticides, paints, adhesives, resins, detergents, etc)

Chemicals (such as solvents, pesticides, paints, etc) are largely generated from building maintenance works. Such works are usually completed by external contractors who are responsible for the off-site removal and appropriate disposal of any waste materials generated. Additionally the tenant will be required to temporarily store chemicals within the proposed development and arrange for collection by an authorised waste contractor.

Waste Cooking Oil

Where cooking oil is used in the proposed development, the waste oil and any new deliveries of cooking oil will need to be stored in a bunded area or on a spill pallet and regular collections by a dedicated waste contractor will need to be organised.

Furniture (and other bulky wastes)

Furniture and other bulky waste items (such as carpet etc.) may occasionally be generated by the development occupants. The collection of bulky waste from proposed development will be arranged with a suitable waste contractor as required.

Textiles

Where possible, waste textiles should be recycled or donated to a charity organisation for reuse.

Abandoned Bicycles

Bicycle parking areas are planned for the development. As happens in other developments, sometimes faulty or unused bicycles are abandoned, and it can be difficult to determine their ownership. Abandoned bicycles should be donated to charity if they arise or Facilities management will arrange collection by a licensed waste contractor.

5.4 Waste Storage Area Design

The WSA should be designed and fitted-out to meet the requirements of relevant design standards, including:

- Be fitted with a non-slip floor surface;
- Provide ventilation in enclosed spaces to reduce the potential for generation of odours with a recommended 6-10 air changes per hour for a mechanical system for internal WSAs;
- Provide suitable lighting – a minimum Lux rating of 400 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.

The facilities company and commercial tenants will be required to maintain the waste storage areas in good condition as required by the MCC Waste Bye-Laws.

Access to the WSA will be restricted to authorised staff, be sufficient to allow a 1100 litre bin to pass easily into and out of the room for transfer via the walkways to the waste staging/collection zone.

The facilities management company will be required to maintain the waste storage areas in good condition as required by the MCC Waste Bye-Laws.

6.0 CONCLUSIONS

In summary, this OWMP presents 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 *EMR 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 *MCC 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.

7.0 REFERENCES

1. Waste Management Act 1996 as amended 2001
2. Environmental Protection Agency Act 1992 (No. 7 of 1992) as amended.
3. Litter Pollution Act 1997 (No. 12 of 1997) as amended.
4. Eastern-Midlands Waste Region, *Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021* (2015)
5. Regional Waste Management Planning Offices, *Draft The National Waste Management Plan for a Circular Economy (June 2023)*.
6. Monaghan County Council (MCC) *Monaghan County Development Plan 2019 – 2025*
7. MCC, *Draft County of Monaghan (Segregation, Storage and Presentation of Household and Commercial Waste) Byelaws, 2019*.
8. Department of Environment and Local Government (DoELG) *Waste Management – Changing Our Ways, A Policy Statement* (1998).
9. Department of Environment, Heritage and Local Government (DoEHLG), *Preventing and Recycling Waste - Delivering Change* (2002).
10. Department of the Environment and Local Government (DoELG), *Making Ireland's Development Sustainable – Review, Assessment and Future Action (World Summit on Sustainable Development)* (2002).
11. Department of the Environment, Heritage and Local Government (DoEHLG), *Taking Stock and Moving Forward* (2004) .
12. Department of the Environment, Climate and Communications (DoECC), *Waste Action Plan for the Circular Economy - Ireland's National Waste Policy 2020-2025* (2020).
13. DCCAE, *Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less'* (2021)
14. The Circular Economy and Miscellaneous Provisions Act 2022
15. Environmental Protection Agency (EPA), *National Waste Database Reports 1998 – 2020*.
16. Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended
17. EPA, *Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous* (2018).
18. BS 5906:2005 Waste Management in Buildings – Code of Practice.
19. Department of Transport, Tourism and Sport and Department of Housing, Planning and Local Government, *Design Manual for Urban Roads and Streets* (2019).