Appendix 4.8
Operational Waste Management Plan

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MAKING COMPLEX EASY
A TETRA TECH COMPANY

HERBATA DATA CENTRE

Operational Waste Management Plan

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1 INTRODUCTION

This report, prepared by RPS, comprises an Operational Waste Management Plan (hereafter referred to as the 'OWMP') for Herbata Data Centre located in Naas, Co. Kildare.

The principal aim of this OWMP is to demonstrate how the proposed development has taken into account sustainable methods for waste and resource management during its proposed operation phase. This OWMP has been prepared with the following principles and objectives in mind:

- To comply with all legal requirements for handling waste generated during the operational stage;
- To achieve high standards of environmental performance with respect to waste management; and
- To provide users of the proposed development with convenient, clean and efficient waste systems that enhances the operation of the buildings and promote high levels of recycling.

This OWMP provides a review of the requirements applicable to the proposed development under national legislation and policy at all levels (i.e. national, regional and local). Consideration has also been given to local standards and requirements included in guidance documents (i.e., British Standard 5906:2005 Waste Management in Buildings,) so as to comply with relevant objectives and targets.

1.1 Objectives

The primary objectives of this OWMP are to:

- Outline a strategy for the management of the anticipated waste generation within the proposed development, from the point where waste is generated to the point where it is collected for off-site treatment;
- Ensure that staff can easily segregate recyclables and are encouraged to do so;
- Allow waste to be disposed of easily, and be stored and collected in an efficient and discreet manner;
- Ensure that the proposed development has adequate facilities and space to adapt to any future waste management trends and practices;
- Ensure that all waste streams are managed appropriately and in line with relevant legislation; and
- Ensure that national and local targets, as well as all client waste management aims and aspirations, are met.

Planning for future operational waste management ensures that buildings will be able to operate efficiently and sustainably, while minimising the impacts on the design requirements and building performance. Waste management operations need to be safe, discreet and efficient in order to minimise the impacts on a building's users, while also ensuring waste can be collected, stored, re-used, recycled and disposed of quickly and efficiently. A successful plan will follow the basic principles of the waste hierarchy, illustrated in **Figure 1-1,** and outlined as follows:

- Minimise the amount of waste produced and avoid producing waste in the first instance;
- Re-use items as many times as possible;
- Recycle what cannot be re-used or is no longer needed;
- Turn waste materials into new products, i.e., the generation of energy from waste; and
- Dispose of what is unable to be recovered in a responsible way.

Waste management is an industry which is evolving at a fast pace, with new policies and practices to be implemented. As such, this OWMP also ensures that the development incorporates adequate futureproofing and flexibility to adapt to future waste management practices.

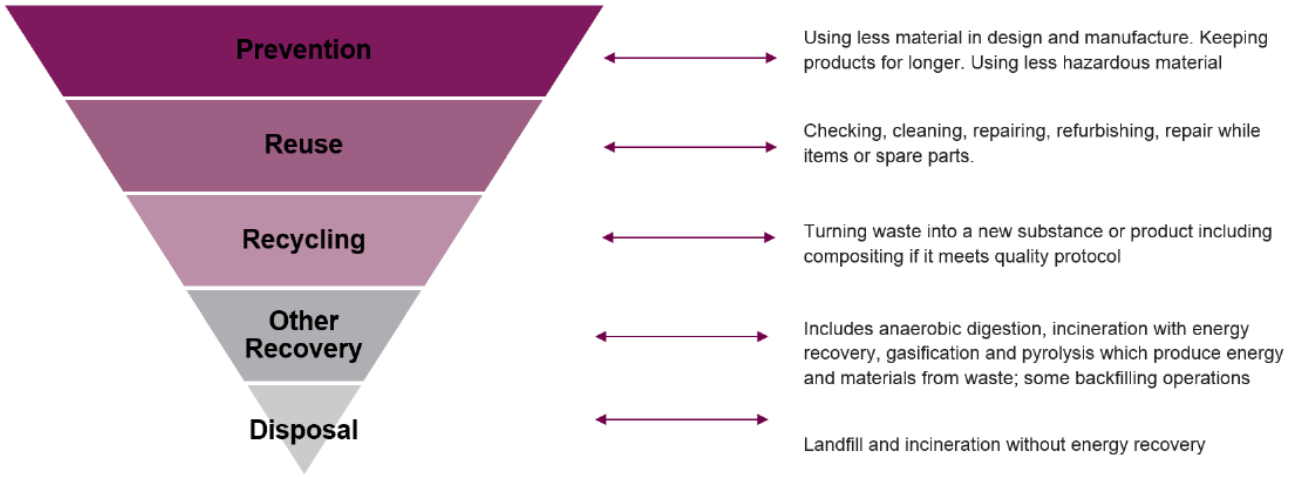

Figure 1-1: Waste Hierarchy

2 OVERVIEW OF PROPOSED DEVELOPMENT

The proposed development comprises 6 no. two storey data centre buildings (DCBs), an administration / management building, car parking, landscaping, gas and fuel storage, gas turbines, energy storage and other associated works as shown in the proposed site layout (**Figure 2-1**). The key elements of the proposed development are set out below:

- The demolition of 3 no. of dwelling houses and associated garages along the R409 and farm outbuildings / agricultural buildings at the centre of the site (total floor area 1,591m^2).
- The construction of 6 no. two storey DCBs, each including data hall, administration block, electrical and mechanical plant rooms, loading bays, maintenance and storage spaces, external plant area and associated ancillary development. Data centre no. 5 will also include infrastructure for district heating within the external plant area.
- Each data hall will be 18m in height at parapet level and 19m in height at flue and 27,261m^2 in area.
- The administration blocks associated with each data hall will be 15m in height and 2,505m^2 in area.
- The external screened plant area will be 18m in height and 6,164m^2 in area, with exception of data centre no. 5 which will be 6,375m^2 in area. Gas turbines and gas engine and BESS will be provided within the plant area.
- Adjacent to each data centre will be a sprinkler tank compound (408m^2 in area) comprising of 3 no. above ground sprinkler pump containers, (1 no. 192m^3, 1 no. 268.8m^3 and 1 no. 336m^3 containers) and a fuel compound (330m^2 in area) comprising 1 no. 34m^3 fuel pump container and 6 no. 64m^3 tanks.
- Solar panels with a total area of 3,600m^2 will be provided on the roof of each data centre and rainwater harvesting included in the development.
- A GNI compound (60.8 m^2 in area) with 1 no. kiosk (3m in height and 19.5m^2 in area) with a Biomethane gas injection point.
- An AGI compound (1,753.1m^2 in area) with 4 no. kiosks each of 3m in height and 51.5 m^2 in area.
- District heating building (5m in height and 341m^2 in area) district heating plant and in ground piping for district heating system.
- Security hub building at main entrance (4.1m in height and 42m^2 in area).
- A single storey admin workshop / office (504m^2 in area) and Water treatment plant (315m^2 in area) building (4.8m in height) and associated hydrant pump compound (352m^2 in area) comprising of a hydrant pump room (5m in height and 80m^2 in area) and 2 no. hydrant pump room storage (5m in height and c. 50m^2 in area).
- A new access from the R409 and a new emergency access / egress from the L2030 via the M7 Business Park and including a bridge over Bluebell stream.
- A cycle path and footpath along the south side of the R409 along the length of the campus site's road frontage and extending east to existing cycle and pedestrian facilities.
- A bus stop is also to be provided on the R409.
- Construction of a temporary construction access off R409 and temporary construction compound within the boundary of the site.
- Ancillary site development works that will include swales, detention & attenuation ponds and the installation of pipes and connections to the public water supply, foul and storm water drainage networks, and the installation of utilities. Other ancillary site development works will include hard and soft landscaping, including planted mounding, lighting, fencing (2.4m) / integrated boundary treatments, bat houses, smoking shelters, signage, central services road and internal access roads, loading bays, gates, 210 no. car parking spaces and 104 no. bicycle parking spaces. The development will be integrated into the surrounding landscape with native woodland planting to all frontages, including a 30 - 40m landscaped buffer along the M7.

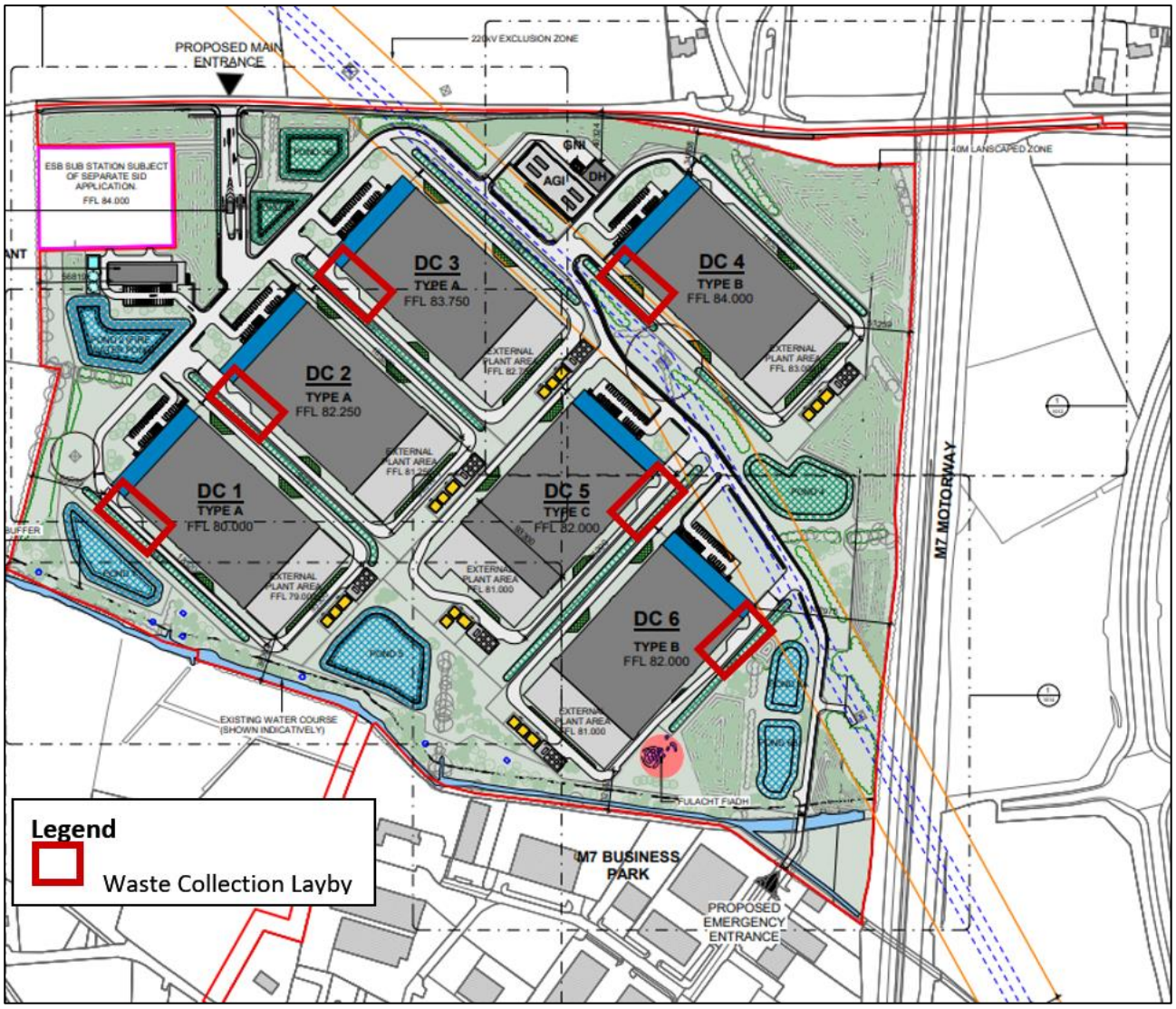

Figure 2-1 : Proposed Herbata Site Layout

2.1 Proposed Activities

Herbata will be a non-power grid dependant data centre campus (6 No. data centre buildings) utilising renewable, efficient technologies to support IT load of 180MW. Every building shall be powered by on-site generation with high efficiency gas turbines and data hall cooling using direct air supply with adiabatic top-up.

The operations within each data centre involves housing and maintaining computers, servers, and networking infrastructure used to store, process, and distribute digital data.

The main data hall block will be located in the centre of each data centre building, accompanied by an external plant gantry. At the rear of the building, there will be an enclosed yard housing the building's energy infrastructure. The front of each building will feature administrative and office areas for end-user clients, along with storage areas and loading/receiving docks.

The administrative and office space of the building will be spread across two floors. The ground floor will cater to security screening, check-in, loading, and associated storage. The upper level will primarily consist of office and welfare facilities to support the operational needs of the clients. The ground floor will have a flat panel finish to maintain security, while the building entrance will stand out with a distinctive coloured cladding

pattern. In contrast, the first floor will have a more prominent architectural design, featuring large floor-to-ceiling glass windows.

The buildings will be constructed with a steel frame and insulated metal-faced cladding panels on the facade. This choice of materials enables rapid construction while providing a sleek and modern appearance. Additionally, a continuous louvre system will be incorporated into the design, visually dividing the building and complementing the feature metal stairs located centrally along the facade. The rear external yard will also be enclosed with a metal louvre system, matching the main building form, and the building entrance area will have large, glazed windows.

The roof of each data centre building will have a reflective finish to improve solar reflectivity and enhance sustainability. Solar panels will be installed on the roof to generate on-site renewable energy.

2.2 Proposed Staff Numbers

Table 2-1 provides a breakdown of the staff by category per data centre building.

Table 2-1:Proposed Total Number of Staff per Building

Category of Staff	Staff Per Data Centre Building	Total Facility Staff	Total Day Time Occupancy
Tenant Security	4	24	10
Cleaner	2	20	8
M&E Engineers	10	60	24
Engineering Support	6	30	12
Technical Support	4	24	10
Administration Staff	2	12	12
Landlord Management	N/A	20	8
Landlord Engineering Support	N/A	25	10
Landlord Security	N/A	10	4
Total Staff	**28**	**225**	**98**

3 OVERVIEW OF RELEVANT WASTE LEGISLATION AND POLICY IN IRELAND

The purpose of the OWMP is to provide guidance for the effective management of waste generated during the operational phase of a proposed development. While there are no specific guidelines for preparation of Operational Waste Management Plans in Ireland, in preparation of this document, consideration has been given to national and regional waste policies, relevant legislation, and other available guidelines and guidance documents.

A summary of national legislation and national, regional and local planning policies relevant to the proposed development are provided in the following sections. It should be noted that this summary identifies those elements of the policy or guidance applicable to waste management within the proposed development and does not provide a comprehensive summary of the identified legislation or policy.

3.1 National Level

'A Waste Action Plan for a Circular Economy Ireland's National Waste Policy 2020 - 2025' was prepared by the Department of Communications, Climate and Environment and published in September 2020. The plan serves as a roadmap for Ireland's efforts to tackle waste and move away from the current linear model, and transition towards a circular economy, where resources are used efficiently, waste is minimised, and materials are reused or recycled. Every sector, every business and organisation have a role to play in effecting the move towards a circular economy.

The overarching objectives of this plan are to:

- Shift the focus away from waste disposal and treatment to ensure that materials and products remain in productive use for longer thereby preventing waste and supporting reuse through a policy framework that discourages the wasting of resources and rewards circularity.
- Make producers who manufacture and sell disposable goods for profit environmentally accountable for the products they place on the market.
- Ensure that measures support sustainable economic models (for example by supporting the use of recycled over virgin materials).
- Harness the reach and influence of all sectors including the voluntary sector, R&D, producers / manufacturers, regulatory bodies, civic society.
- Support clear and robust institutional arrangements for the waste sector, including through a strengthened role for Local Authorities (LAs).

'A Resource Opportunity, Waste Management Policy in Ireland' was published by the Department of Environment, Community and Local Government in 2012. This policy document sets out the measures through which Ireland will make the further progress necessary to become a recycling society, with a clear focus on resource efficiency and the virtual elimination of landfilling of municipal waste.

3.2 Regional Level

The proposed development is located in the Local Authority area of Kildare County Council. The regional waste management plan for KCC is the Eastern-Midlands Region Waste Management Plan 2015-2021 which is due to be replaced in 2023. This plan provides a framework for the prevention and management of waste sustainability. This is achieved through the following key objectives:

1. **Prevent Waste:** a reduction of one per cent per annum in the amount of household waste generated over the period of the plan.

2. **More Recycling:** increase the recycle rate of domestic and commercial waste from 40 to 50 per cent by 2020.
3. **Further Reduce Landfill:** eliminate all unprocessed waste going to landfill from 2016.

For more detailed information, please visit the website of the EMR Waste Management Plan (http://emwr.ie/)

3.3 Local Authority Level

The Naas Local Area Plan (2021 – 2027) identifies the management and control of pollution and environmental services as essential for a good quality of life, human health, wildlife and the economy. The Naas Local Area Plan (2021 – 2027) has a number of relevant polices, including:

- **Policy I5 – Pollution and Environmental Services:** Protect and the environmental quality in Naas through the implementation of European, National and Regional policy and legislation relating to air quality, greenhouse gases, climate change, light pollution, noise pollution and waste management.
- **Policy WH1 – Waste Heat:** Promote the development of waste heat technologies and the utilisation and sharing of waste heat in new or extended industrial and commercial developments, where the processes associated with the primary operation onsite generates waste heat.
- **Policy P6 - Waste Management:** Implement European Union, National and Regional waste related environmental policy, legislation, guidance, and codes of practice, in order to support the transition from a waste management economy towards a circular economy.
- **Policy P12 - Green / Circular Economy and Bio-Economy:** Ensure that economic and enterprise related development is provided in a manner which facilitates a reduction in greenhouse gas emissions and accelerates the transition towards a sustainable, low carbon and circular economy.

3.3.1 Kildare County Council Bye-Laws

The Kildare County Council Waste Management (Segregation, Storage and Presentation of Household and Commercial Waste) Bye-laws 2018 sets out the obligations of households and commercial businesses to participate in a waste collection service. The following are requirements that are of relevance to the development:

- **Maintenance and Management of Waste Containers:** Containers used for the presentation of kerbside waste shall be maintained in such condition and state of repair that the waste placed therein will not be a source of nuisance or litter. Waste shall not be presented in a container where:
  a) the wheels or lid have been removed or damaged to such an extent that it is not able to contain the waste without spillage, is otherwise unfit for the purpose for which it was designed or is not capable of being conveniently emptied.
- **Location for Container Storage:** Other than on the day before and the designated waste collection day, 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.
- **Collection Times and Container Removal:** Kerbside waste presented for collection shall not be presented for collection earlier than 8.00 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 8:00am on the day following the designated waste collection day.
- **Additional Provisions for Commercial Waste:** Commercial waste shall not be deposited at any bring facility provided by or on behalf of Kildare County Council.

3.4 Other Relevant Legislative Requirements

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

- Waste Management Act 1996 (No. 10 of 1996) as amended and associated legislation includes:
  - Environmental Protection Act 1992 (S.I. No. 7 of 1992) as amended by the Protection of the Environment Act 2003 (S.I. No. 27 and S.I. No. 413 of 2003) and amended by the Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended;
  - Litter Pollution Act 1997 (Act No. 12 of 1997) as amended by the Litter Pollution Regulations 1999 (S.I. No. 359 of 1999) and Protection of the Environment Act 2003;
  - European Communities (Transfrontier Shipment of Waste) Regulations, 1994 (S.I. No. 221 of 1994);
  - European Union (Properties of Waste Which Render It Hazardous) Regulations 2015 (S.I. No. 233 of 2015);
  - Waste Management (Licensing) Regulations 2000 (S.I No. 185 of 2000) as amended 2004 (S.I. No. 395 of 2004) and 2010 (S.I. No. 350 of 2010);
  - European Union (Packaging) Regulations 2014 (S.I. No. 282 of 2014);
  - Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997);
  - 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);
  - European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011) as amended 2011 and 2016 (S.I. No. 323 of 2011);
  - Waste Management (Collection Permit) Regulations 2007 (S.I. No. 820 of 2007) as amended 2008 (S.I No 87 of 2008) and 2016 (S.I. 24 of 2016);
  - Waste Management (Facility Permit and Registration) Regulation 2007 (S.I No. 821 of 2007) as amended 2008 (S.I No. 86 of 2008), 2014 (S.I. No. 310 and S.I. No. 546 of 2014) and 2015 (S.I. No. 198 of 2015);
  - Waste Management (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended 2014 (S.I. No. 349 of 2014) and 2015 (S.I. No. 347 of 2015);
  - Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) as amended 2015 (S.I. No. 190 of 2015);
  - European Union (Household Food Waste and Bio-waste) Regulations 2015 (S.I. No. 191 of 2015);
  - Waste Management (Hazardous Waste) Regulations 1998 (S.I. No. 163 of 1998) as amended 2000 (S.I. No. 73 of 2000); and
- Environmental Protection Act 1992 (S.I. No. 7 of 1992) as amended.
- Litter Pollution Act 1997 (Act No. 12 of 1997) as amended.
- Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended.

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

4 WASTE CATEGORIES

The waste types likely to be generated at the proposed development include the following:

- Mixed Residual Waste (MRW);
- Mixed Dry Recyclables (MDR);
- Organic Waste (OW);
- Glass packaging and non-packaging;
- Waste Electrical and Electronic Equipment (WEEE);
- Batteries;
- Light bulbs;
- Cables; and;
- Chemicals (refrigerants, paints, etc.).

To ensure compliance with waste legislation and guidance, as well as maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible, it is important that waste materials are correctly segregated into appropriate receptacles.

4.1 European List of Waste (LoW)

Correct classification of waste arising is essential for ensuring that the collection, transportation, storage and treatment of waste is carried out in a manner that provides protection for the environment and human health and in compliance with legal requirements. The EPA has published a Waste Classification Document and the waste classification system outlined is applicable throughout the EU and serves as the foundation for all national and international waste reporting, including waste collection permits, CORs, permits and licenses, and the EPA National Waste Database.

The classification system assigns a specific code to each type of waste, providing a comprehensive definition. **Table 4-1** provides a list of anticipated waste materials expected to be generated during the proposed development's operation and the corresponding European List of Waste (LoW) codes.

Table 4-1: Anticipated Waste Generated from Herbata Data Centre

EWC Code	Description
13 05 02*	Sludge from oil/water separators
14 06 01*	Refrigerants
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wooden packaging
15 01 04	Metallic packaging
15 01 06	Mixed packaging
15 01 07	Glass packaging
15 01 10*	Packaging containing residues of or contaminated by hazardous substances
15 02 03	Filter medium material
20 01 01	Paper and Cardboard
20 01 02	Glass

EWC Code	Description
20 01 08	Biodegradable kitchen waste
15 02 03	Filter medium material
20 02 11	Textiles
20 01 13*	Chemicals (solvents, pesticides, paints and adhesives, detergents, etc.)
20 01 21*	Fluorescent tubes and other mercury containing wastes
20 01 27*	Printer and toner cartridges
20 01 33*	Batteries and accumulators
20 01 35*	Waste electronic and electrical equipment
20 01 39	Plastics
20 01 40	Metals
20 03 01	Mixed municipal waste/ mixed dry recyclables

*Individual waste type may contain hazardous materials.

4.2 Estimated Waste Arisings to be Managed

The proposed number of staff on site, activities and breakdown of usages of building space have been considered in estimating the waste generation volumes and required number of waste receptacles.

4.2.1 Municipal Type Waste

Municipal type waste will be generated within each building from the office spaces, canteens; based on the approach outlined above, the estimated waste arisings have been considered to determine the number of waste receptacles required to manage the main waste streams (**Table 4-2**).

Table 4-2: Estimated Number of Waste Receptacles

	Mixed Residual Waste	Mixed Dry Recyclables	Glass	Organics / Brown Bin Type Waste
No. and size of bins required (assuming collection every 2 weeks)	3 x 1,100lt bin	6 x 1,100lt bin	2 x 240lt bin	3 x 110lt bin

4.2.2 Other Operational Waste Generation

Waste arising from the operating and maintenance of the various components within the data centre will also generate waste on an ongoing basis. **Table 4-1** lists the waste materials likely to be generated in each of the data centre buildings.

To ensure proper waste management practices, a systematic approach will be implemented, waste generated during maintenance activities will be collected and removed as they are generated. This process will involve dedicated waste collection bins placed in areas where maintenance-related waste is generated, allowing waste to be stored temporarily prior to prompt removal off-site. Hazardous waste may be generated from various sources such as batteries, refrigerants, packaging with residues of chemicals and other fluids. Packaging that contains residues or is contaminated by dangerous substances, may have to be classified as hazardous waste. Any waste that is classified as hazardous will not be stored in the main bin storage room alongside MRW, MDR and OW containers. Instead, it will be temporarily stored in appropriate containers in

designated areas prior to prompt removal offsite for treatment/disposal by suitably licenced hazardous waste collector. This will ensure proper handling and disposal of the waste in accordance with regulations.

A licenced waste collector will be responsible for pumping out and removing waste sludge as needed. This ensures that the sludge is handled and disposed of in accordance with regulations and environmental requirements.

4.3 Future Waste Arisings

Developers should ensure that all storage areas and systems are designed to meet current waste and recycling targets as a minimum and are sufficiently flexible to meet more ambitious future targets.

It is considered that widespread initiatives to reduce waste and improve materials reuse and recycling are likely to reduce long-term production of waste from the proposed development. Improvements in data centre security, storage, and increasing reliance on information technology is also likely to lead to a reduction in paper usage in the long-term. Therefore, it is likely that the current waste production and storage requirements will represent a reasonable worst-case scenario and should therefore form the basis for long-term waste management provisions.

5 WASTE MANAGEMENT REQUIREMENTS

5.1 Waste Storage Areas

The proposed layouts contain one main waste storage area (**Figure 5-1**) within each data centre building. Each waste storage area is located on the ground floor adjacent to the loading bays.

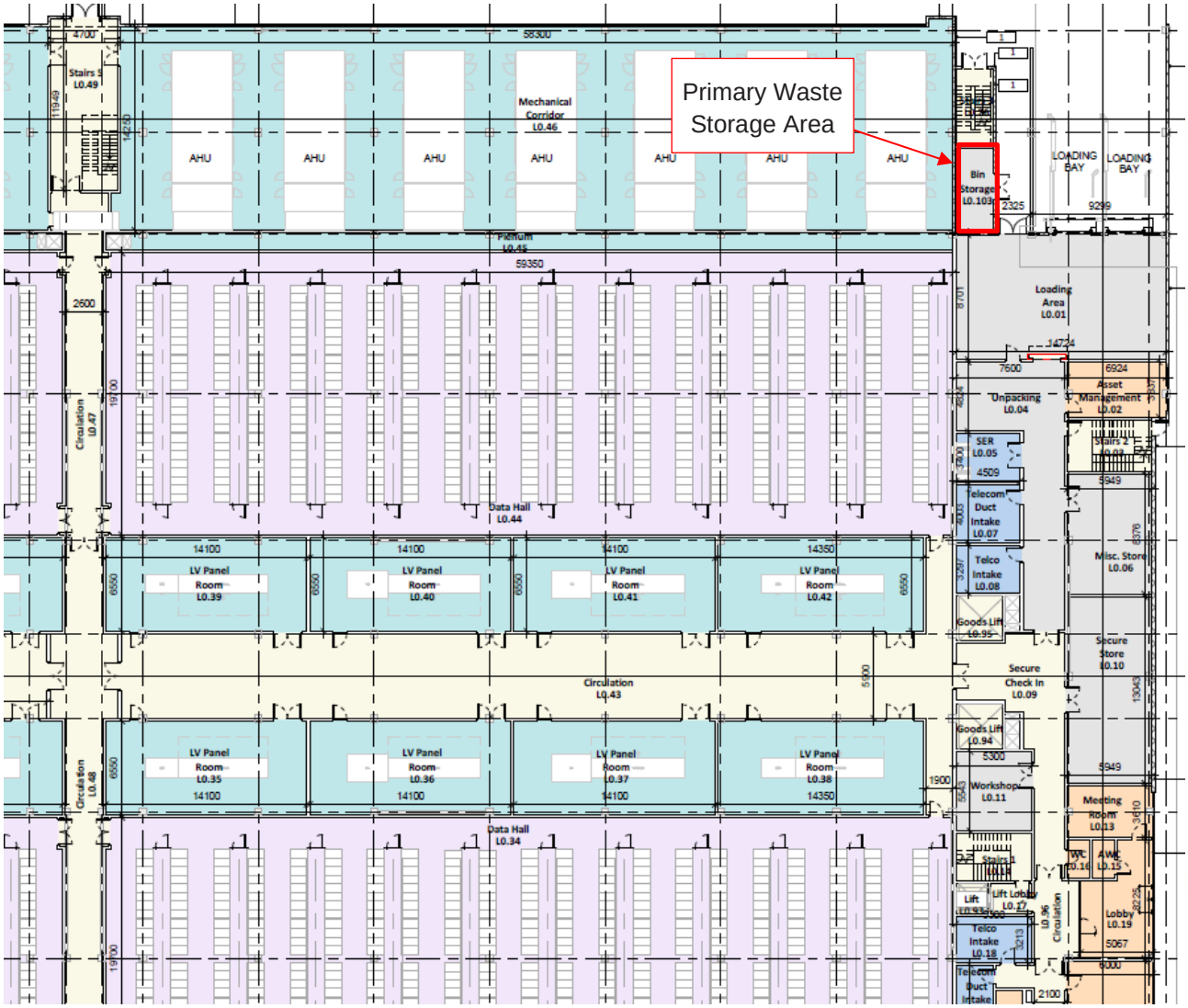

Figure 5-1: Location of Waste Storage Area Within Each Data Centre Building

It is essential that suitable waste management areas are provided. These areas should provide adequate storage of waste, and equipment and containers should be accommodated to enable efficient management of waste.

Other waste streams can typically be managed through use of small bins within the office environment collected periodically by specialist contractors, this may include:

- Office paper
- Batteries
- Light bulbs

Within waste storage areas the following considerations should be implemented:

- **Accessibility**
  - The route to the waste storage area and the area itself will be adequately lit and appropriately ventilated.
  - All waste containers, including recyclable material will be easily accessible to both the occupier and waste collector.
  - Waste storage room entrance will be free from steps and projections.
  - Waste storage facilities will not block any utility service points.
- **Signage**
  - Storage areas for waste and recyclable materials will be clearly designated for this use only, by a suitable door or wall sign and, where appropriate, with floor markings.
  - Waste storage areas will include instructional signage detailing correct use of the facilities, as well as what wastes can and cannot be placed in each bin.
  - Colour coding will be used for bins of different streams.
- **Spillage and Drainage**
  - Gullies for wash down facilities will be positioned so as not to be in the track of container trolley wheels.
  - Non-slip surfaces should be provided within waste stores to prevent slips and falls.
  - Adequate drainage should be provided and connected to foul sewer.
- **Environmental Nuisances**
  - Areas will be designed and located in such a way as to limit potential noise disturbance.
  - Areas will be enclosed to avoid environmental nuisances such as litter.
- **Ventilation**
  - Mechanical ventilation within waste stores should prevent odour nuisances.
- **Visibility**
  - Waste storage containers will not obstruct sight lines for pedestrians, drivers and cyclists.
  - Waste stores will have sufficient lighting.
- **Health and Safety**
  - Where bins need to be moved around the development, manual or vehicle tugs will be used.
  - Any internal storage areas adjacent to a fire escape route will be fitted with fire doors, automatic fire detection and a sprinkler system.

In order to encourage recycling, information packs will be provided to staff to include full information on available recycling facilities and colour coding will be used for bins of different streams.

Facilities should be designed to minimise the potential for nuisance to occupants and neighbouring premises. The waste storage areas should be maintained at the highest practical standard of hygiene and be clearly designated as a waste storage area through the use of signage and/or floor markings.

5.2 Waste Management

Waste generated within the proposed development will be segregated into appropriate categories, stored, and collected in line with best practice standard, applicable bye-laws and national legislation. All members of staff will be required to segregate waste into the following main waste categories:

- Mixed Residual Waste.
- Mixed Dry Recyclables.

- Glass
- Organic Waste.

The provision for temporary storage of segregated waste materials should be made prior to the deposition in central bin storage areas located within each building. Areas within canteens and office spaces will be used to accommodate a three-compartment bin for waste segregation at source.

It will be the responsibility of the staff to bring their segregated waste to the bin compound and place into the appropriately labelled bins. Each bin will be clearly labelled to identify what wastes can and cannot be placed in the bin and labels will be pictorial.

5.3 Waste Collection

There are numerous private authorised waste collectors that provide collection services for commercial wastes within the Kildare County Council area.

To ensure compliance and proper waste management practices are implemented for the proposed development, it is mandatory for all waste contractors involved to possess a valid waste collection permit for the specific waste types they handle. Furthermore, it is imperative that all waste collected is transported to facilities that hold proper registration, permits, or licenses.

To facilitate refuse collection a layby area has been designated on the side of each of data centre adjacent to loading dock, as shown in **Figure 5-2**. Waste vehicles should drive in forward to the designated space. This area has been designed to ensure that collection vehicle can safely stop for loading and provision will be made to prevent other vehicles parking or impeding access. The refuse bins will then be wheeled out from the refuse bin store adjacent to the loading dock to be emptied. Once emptied, the bins will be returned to the designated bin storage area.

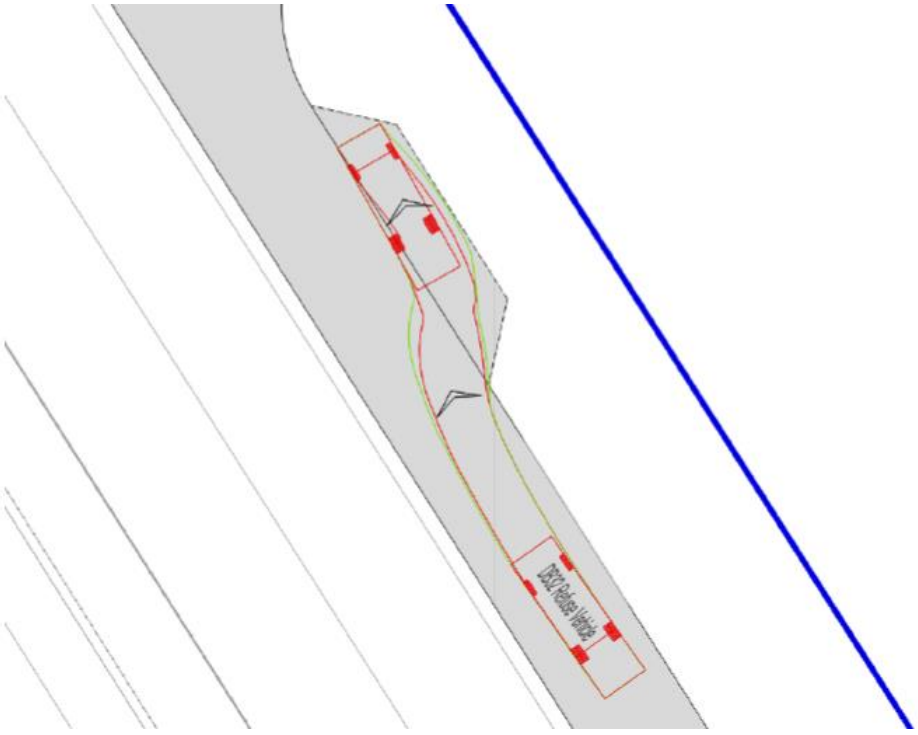

Figure 5-2: Waste Collection Layby

6 POLLUTION PREVENTION

Waste management activities, if not managed appropriately, have the potential to cause environmental pollution such as:

- Leachate generation as waste undergoes various degradation processes.
- Odour (including methane and hydrogen sulphide).
- Waste arising will be managed appropriately in particular hazardous waste. All hazardous waste should be identified and managed appropriately.

To minimise these pollution impacts, the following steps will be undertaken:

- Only appropriately authorised waste collectors will be used in accordance with applicable legislation:
- The contractor responsible for waste transport and disposal will be required to provide confirmation that the receiving facility is permitted under Waste Management Act as amended and the Protection of the Environment Act 2003. As such, appropriate controls will be in place to monitor and control pollution from waste transport disposal; and
- Where possible, the waste management contractor will manage waste in accordance with the waste hierarchy, avoiding disposal of waste at landfill wherever feasible.

7 SUMMARY

The proposed development will be sustainable with high standards of environmental performance. As such, due consideration has been given to waste generated by the development during its operation. Waste management within the Development has the following aims:

- To contribute towards achieving a high level of recycling, reuse and recovery at the development will be in line with Irish and European targets.
- Where significant volumes of recyclable materials are being generated, these 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.
- To ensure all legal requirements for handling and management of waste during operation of the Development are complied with.
- To provide staff with convenient, clean and efficient waste management systems that enhance the operation of the buildings.

By following the procedures outlined in this OWMP, the proposed development will achieve a high level of recycling, reuse and recovery. Recyclable materials will be segregated at source to minimise costs and maximise the diversion of materials from landfill.