Government Property Agency

AtkinsRéalis



MANCHESTER DIGITAL CAMPUS

Environmental Statement
Volume 4 - Appendix 15.2: Operational Waste Strategy

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Notice

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1. Introduction

1.1.1 AtkinsRéalis has been appointed by the Government Property Agency (GPA) to prepare an Operational Waste Management Strategy (OWMS), which will support a planning application, for the development of Manchester Digital Campus (MDC).

1.1.2 Two dedicated waste and recycling storage rooms will be provided in the basement of MDC buildings with waste and recycling transferred to the ground floor service area, where it will be collected by the appointed waste contractor.

1.1.3 This OWMS sets out the estimated waste and recycling generation quantities, as well as the proposal for waste and recycling storage and management prior to collection.

2. Legislative and Planning Policy Context

2.1.1 This section highlights the legislation and policy, which will directly affect waste management at MDC and demonstrates how waste management at the premises meets these legislative and policy requirements.

Through the development of this OWMS, emphasis has been placed on the waste hierarchy to ensure that waste is managed in priority order, as shown in Figure 2-1.

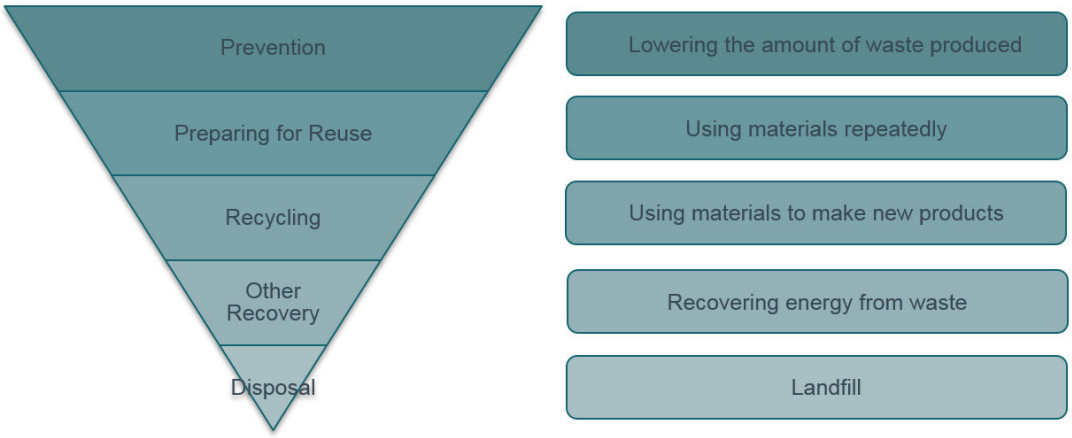


Figure 2-1 - The Waste Hierarchy

2.2. Directives

EU Waste Framework Directive (2008/98/EC)

2.2.1 The purpose of the directive is to set out the overarching legislative framework for the collection, transport, recovery and disposal of waste. It ensures waste prevention is the priority of waste management through the waste hierarchy (see Figure 2-1).

How GPA meets the Waste Framework Directive requirements

The waste hierarchy has been considered throughout the development of this OWMS. For example, residual, recycling and paper/cardboard waste will be segregated on-site to support recycling initially and better identify ways to reduce waste in the longer term.

Landfill Directive (1999/31/EC)

2.2.2 The EU Landfill Directive altered the disposal mechanisms in landfills. This directive brought about the banning of whole tyres and flammable waste in landfills and introduced tighter monitoring and engineering standards. It also set targets to reduce the amount of Biodegradable Municipal Waste sent to landfill for disposal to 35% by 2020, against a 1995 baseline and to 10% or less by 2035.

How GPA meets the Landfill Directive requirements

The office space at MDC is expected to generate 30% residual waste comprised mainly of non-recyclable materials. Improvements in packaging design (especially for plastics) and behavioural change for those working at MDC are hoped to reduce the residual waste figure down further keeping it aligned with the targets set by the Directive.

2.3. National Legislation

Environmental Protection Act 1990

2.3.1 The Environmental Protection Act includes duty of care obligations in respect of the handling and disposal of waste. Under Section 34 of the Environmental Protection Act, waste producers, i.e., GPA, have a duty of care to ensure that the waste they generate is managed correctly throughout its complete journey to recovery or disposal.

2.3.2 When waste is transferred to another waste holder, for example a waste carrier, the waste producer will ensure that the next waste holder is authorised to take the waste (e.g., waste carriers must be registered with the Regulator). In addition, a waste transfer note (WTN) (or hazardous waste consignment note (HWCN)) will be produced for each load of waste that leaves the premises that includes an accurate description of the waste, this will allow correct management of waste in the supply chain.

2.3.3 Section 47 requires that a suitable type and number of receptacles are used for commercial or industrial wastes. These must be placed in areas where they will not cause nuisance and are maintained on a regular basis. They must also be accessible to the local authority for disposal.

How GPA meets the Environmental Protection Act requirements

This OWMS outlines the number, type and location of waste receptacles at MDC and considerations for collection by a waste contractor.

Clean Neighbourhoods and Environment Act 2005

2.3.4 Chapter 16 of the Clean Neighbourhoods and Environment Act prescribes the correct transportation, collection, disposal and management of waste and sets out measures to prohibit fly tipping.

How GPA meets the Clean Neighbourhoods and Environment Act requirements

The waste and recycling storage room will be kept clean and tidy, and regular collections will take place by a waste contractor to ensure odour is kept to a minimum.

Waste (England and Wales) Regulations 2011 (SI 2011/988)

2.3.5 The Regulations, transpose the EU Waste Framework Directive into English law and require organisations to manage waste in alignment with the waste hierarchy to prevent waste going to landfill.

How GPA meets the Waste Regulations requirements

Waste management contractors collecting from MDC will be required to provide evidence that the waste hierarchy has been applied. The contractors will be responsible for ensuring actions undertaken in line with the waste hierarchy are recorded.

This evidence can be in the form of WTNs and HWCNs, which themselves must be kept for two and three years, respectively. This is a legal requirement.

The Environmental Permitting (England and Wales) Regulations 2016 (SI 2016/1154)

2.3.6 The Environmental Permitting Regulations is the main regime for regulating facilities that could harm the environment or human health. The ongoing requirements of the Landfill Directive are applied under the Regulations, reducing the potential for waste management activities to pollute the environment. The Regulations put in place requirements to ensure that sites that produce certain materials and undertake certain activities (such as the storage, use or treatment of waste) have a permit or exemption from the Regulator.

How GPA meets the Environmental Permitting Regulations requirements

Those responsible for the management of waste at MDC must ensure that:

- Environmental permits or waste exemptions, where required by the Environmental Permitting Regulations, are obtained and operated in accordance with for any waste activities undertaken at MDC; and
- Any contracted third parties have the correct permit or exemption to manage waste transferred to them.

Waste Electrical and Electronic Equipment (WEEE) Regulations 2013 (SI 2013/3113)

2.3.7 The Regulations have a key objective to reduce the amount of WEEE that goes to landfill. This is to be achieved by making the producers responsible for the collection, treatment and recovery of WEEE, including the associated costs.

How GPA meets the Waste Electrical and Electronic Equipment Regulations requirements

Facilities Management (FM) will need to segregate WEEE from residual waste and recycling for separate collection. Where practicable, electrical equipment, particularly large commercial equipment or plant will be repaired before considering recycling or disposal.

The Waste (Circular Economy) Regulations 2020

2.3.8 The Regulations introduce a revised legislative framework, identifying clear steps for the reduction of waste and establishing an ambitious and credible long-term path for waste management and recycling. The UK is committed to moving towards a more Circular Economy, which will see it keeping resources in use as long as possible, extracting maximum value from them, minimising waste and promoting resource efficiency. The transition to a Circular Economy requires changes throughout value chains, including

product design, new business and market models, novel ways of turning waste into a resource and changes to consumer behaviour.

How GPA meets the Waste (Circular Economy) Regulations requirements

Specific design considerations will be made to ensure the Circular Economy (including aspects such as longevity and flexibility, considering the use of Products as a Service (PaaS), lifetime maintenance and repair and incorporating high recycled content in building materials and components) is considered and incorporated where possible.

2.4. National Planning Policy

Our Waste, Our Resources: A Strategy for England 2018

2.4.1 The strategy sets out key areas the government wants to focus on with support from the waste industry but also wider industry and the public.

A strong focus was on sustainable production such as setting 30% minimum targets for recycled content in plastic packaging, banning some plastics, increasing municipal recycling and reducing food waste across the supply chain and in homes, improving waste data and tackling waste crime.

How GPA meets the Strategy for England requirements

Specific design considerations will be made to ensure the use of plastics are strictly necessary and where they are used that high recycled content is specified. The contractor must ensure they fulfil all requirements of the waste Duty of Care i.e., selecting permitted facilities to manage their waste and producing WTNs/HWCNs, which helps reduce waste crime.

Waste Management Plan for England 2021

2.4.2 Department for Environment, Food and Rural Affairs (DEFRA) drew on issues from the previous Waste Strategies for England, the Waste Management Plan for England 2013, Directives and Legislation to create the Waste Management Plan for England 2021.

2.4.3 The Plan continues to focus on the importance of driving waste management up the waste hierarchy with a focus on waste arisings and their management and states the importance of considering the Government's ambition of achieving a zero-waste economy.

2.4.4 The Plan puts a strong emphasis on waste prevention through making products with fewer natural resources by setting out plans for preventing products and materials from becoming waste, including greater reuse, repair and remanufacture supported by action to ensure better design to enable this to be done more easily.

How GPA meets the Waste Management Plan requirements

Waste reduction will be prioritised above recovery and disposal options within the MDC. This can be achieved by encouraging staff to purchase products with less packaging, but also promoting a change in business practices, so less waste is produced. Ultimately this will be down to GPA, but

where possible FM should encourage good business practice and communicate waste prevention and recycling targets to those using the premises.

2.5. Regional and Local Policy

Greater Manchester Joint Waste Development Plan 2012

2.5.1 The waste plan is intended to run through to 2027 and sets out a strategy that enables the provision of adequate waste management facilities, in appropriate locations, for all waste types. It notes that the area has largely been reliant on landfill for historic waste disposal but that this must change and that sites for different waste facilities must be found and protected. It sets out eight objectives including those which promote the movement of waste up the waste hierarchy and assist in reducing greenhouse gas emissions. The future requirements for the area covered by the plan include provision of energy from waste facilities and hazardous and non-hazardous landfills. However, it does state that the capacity of the recycling and composting facilities is expected to be sufficient over the period the plan covers.

How GPA meets the Greater Manchester Joint Waste Development Plan requirements

As above this OWMS prioritises recycling over disposal. For any waste that still requires disposal the FM team should ensure that waste is managed through energy from waste facilities ensuring greater diversion of waste from landfill and reducing reliance on landfill use.

GD04 Waste Storage and Collection Guidance for New Developments

2.5.2 The GD04 provides detailed instructions for planners, architects, developers, and property managers on designing and implementing waste management systems. The guidance aims to promote efficient waste management practices, encourage recycling, and minimize environmental impact in new developments. It emphasizes the need for a comprehensive waste management strategy in planning applications, covering estimated waste volumes, storage, and collection logistics. The document outlines requirements for internal and external waste segregation, specifying container types and sizes for various waste streams in both low-rise and high-rise residential developments. It also addresses the management of bulky waste, commercial waste, and mixed-use developments, ensuring separate storage for residential and commercial waste. Health, hygiene, and safety standards for waste storage areas are highlighted, along with specifications for container and vehicle dimensions.

How GPA meets the GD04 Waste Storage and Collection Guidance for New Developments requirements

Waste management requirements are met through the incorporation of a strategy that includes designated storage areas for segregating waste, ensuring compliance with storage capacity specifications, providing adequate space for waste and recycling bins, and implementing health, hygiene, and safety measures to facilitate efficient waste collection and promote recycling.

3. Waste Arisings

3.1.1 Manchester City Council (MCC) guidance on calculating waste and recycling storage requirements for buildings includes waste generation indices.

3.1.2 MCC's waste and recycling storage requirements, presented in Table 3-1, have been applied to the land use area for MDC, shown in Table 3-2.

Table 3-1 - Waste Storage Requirements

Land Use Type	Weekly Storage Capacity Requirements
Office	2600 litres per 1000 m^2 gross floor space. 50% of this capacity should be retained for recycling.

3.1.3 The land use area for the Proposed Development is provided in Table 3-2.

Table 3-2 - Proposed Land Use Area Schedule

Land Use	Gross Internal Area (m^2)
Office	64,697*

*Excluding the BEC and plantroom spaces

3.1.4 Applying MCC's indices suggests that per day, approximately, 34 m^3 of waste and recycling (a 50/50 split) will be generated by the office space. These figures are based on an assumption that the offices will be open five days a week.

3.2. Storage Arrangements

3.2.1 Two dedicated waste and recycling storage rooms will be provided in the basement of the MDC buildings.

3.2.2 Waste and recycling from the office space will be collected from all floors by FM and brought to the waste and recycling storage rooms.

3.2.3 Table 3-3, below, shows the proposed waste storage receptacles required based on MCC's waste storage requirements shown in Table 3-1.

Table 3-3 - Summary of Estimated Number of Receptacles Required

Waste stream	Receptacle type	No. of receptacles required
Office recycling	1,100 litre Eurobins	16
Office residual waste	1,100 litre Eurobins	16

3.3. Collection Arrangements

3.3.1 Waste and recycling bins will be kept in the waste and recycling storage rooms in the basement of the MDC buildings and will be transferred to the loading area on the ground floor, for collection. The waste and recycling will be transferred via either a bin tug or tow tug to the loading area on the ground floor, from where it will be collected.

4. Design Considerations

4.1.1 To protect the health and safety of waste collection operatives, they should not be expected to transport a Eurobin more than 10 metres. In addition, the route to be taken by the Eurobins should:

- Be free of steps or equipped with dropped kerbs;
- Have a solid foundation;
- Be rendered with a smooth continuous finish;
- Be level or not exceed a gradient of 1:14; and
- Have a minimum width of 2 m.

4.2. Additional Requirements

Storage

4.2.1 All receptacles will be clearly marked and/or colour coded to enable easy identification of what wastes should be placed inside (for example: residual waste – black, recycling – green etc.). In addition, further signs will be placed on the walls behind the receptacles to provide further clarification. Signage will follow the Waste and Resources Action Programme (WRAP) symbols to conform to best practice[1].

4.2.2 Eurobins will conform to the British Standard BS EN 840:1997 and be constructed from metal, to reduce fire risks associated with waste storage.

Waste and Recycling Storage Room

4.2.3 The waste and recycling storage rooms will be able to adequately fit the receptacles with additional space to enable manoeuvring and access.

4.2.4 Although the waste will be stored within the receptacles, there is still a chance for leakage to occur and, as such, the waste and recycling storage room and receptacles will be regularly cleaned.

4.2.5 At a minimum, internal waste and recycling storage rooms will be fitted with adequate passive ventilation, which is crucial in storage areas where biodegradable waste accumulate. Additionally, mechanical ventilation can be considered to prevent the build-up of odours

5. Summary

5.1.1 This OWMS will ensure that adequate waste and recycling segregation and storage facilities are provided to handle waste and recycling from the MDC, in accordance with MCC waste and recycling storage requirements.

5.1.2 Two dedicated waste and recycling storage rooms will be provided in the basement of the MDC buildings.

5.1.3 The waste and recycling will be transferred via either a bin tug or tow tug to the loading area on the ground floor, from where it will be collected

[1] Further details available at: Campaign assets (wrap.ngo)

5.1.4 A summary of the receptacles that will be required in the MDC is provided below.

Table 5-1 - Summary of Receptacles Required

Waste stream	Receptacle type	No. of receptacles required
Office recycling	1,100 litre Eurobins	16
Office residual waste	1,100 litre Eurobins	16

5.1.5 All receptacles will be clearly labelled and/or colour coded to enable easy identification and segregation of waste into the correct stream (e.g., recyclables, residual waste, etc.). In addition, signs will be placed on the walls behind the receptacles.

5.1.6 The FM will be responsible for transporting waste and recycling to the waste and recycling storage rooms from offices on all floors. It will then be the responsibility of FM to transport the waste and recycling to the ground floor loading area, prior to the scheduled collection time. Following collection FM will be responsible for returning the receptacles, to the waste and recycling storage rooms.

6. Glossary and Acronyms

Table 6-1 - Glossary and acronyms

Term	Definition
DEFRA	Department for Environment, Food and Rural Affairs
FM	Facilities Management
GPA	Government Property Agency
HWCN	Hazardous waste consignment Note
MCC	Manchester City Council
MDC	Manchester Digital Campus
OWMS	Operational Waste Management Strategy
PaaS	Products as a Service
WEEE	Waste Electrical and Electronic Equipment
WRAP	Waste and Resources Action Programme
WTN	Waste transfer note

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