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MONTANE

Construction & Demolition Waste Management Plan

**Residential Development at St. Edmund' s,
St. Loman's Road, Palmerstown,
Dublin 20.**

Prepared by;

Montane Developments (Ireland) Ltd

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1.0 Introduction:

The development is an amendment to the development currently being undertaken on site, previously granted SHD proposal ABP 305857-19. It consists of the construction 4 no apartment blocks ranging height from 2-9 storeys comprising 313 no. residential units, a creche and amenity space. This will provide an increase of 61 no. additional apartments. All the residential units will have associated private open space/ balconies/ terraces facing north/ south/ east/ west. The development will include 214 no. car parking spaces, 5 motorcycle parking spaces and 378 no. bike parking spaces. The site is accessed through the existing vehicular access to the west, off the unnamed road to the west. There will be a number of pedestrian entrances along St. Loman's Road, the Fonthill Road (R113) and the unnamed road to the west.

The upgrading and re-landscaping of 4,400sq.m of land to the east of the site in the ownership of South Dublin County Council. In addition to all of the new facilities all other site services and works to enable the development of the site will also be provided including site, bin stores, ESB substations, associated roadworks and services connections, a large quantity of public and communal open space, boundary treatment works and landscaping.

The purpose of this plan is to provide information necessary to ensure that the management of construction and demolition (C&D) waste at the site is undertaken in accordance with current legal and industry standards including the Waste Management Acts 1996 - 2011 and associated Regulations, Protection of the Environment Act 2003 as amended, Litter Pollution Act 1997 and the Eastern-Midlands Region Waste Management Plan 2015 – 2021. In particular, this Plan aims to ensure maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. It also seeks to provide guidance on the appropriate collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution (e.g. contamination of soil and/or water).

This C&DWMP includes information on the legal and policy framework for C&D waste management in Ireland, estimates of the type and quantity of C&D waste to be generated by the proposed development and makes recommendations for management of different waste streams.

1.1 Construction & Demolition Waste Management Ireland:

In September 2020 the government released a new national policy document outlining a new action plan for Ireland and its waste to cover the period of 2020-2025. This plan '*A Waste Action Plan for a Circular Economy*' 10 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)*".

It aims to fulfil the commitment in the Programme for Government to publish and start implementing a new National Waste Action Plan. It is intended that this new national waste policy will inform and give direction to waste planning and management in Ireland over the coming years. It will be followed later this year by an All of Government Circular Economy Strategy. The policy document shifts focus away from waste disposal and moves it back up the production chain. To support the policy, regulation is already being used (Circular Economy Legislative Package) or in the pipeline (Single Use Plastics Directive). The policy document contains over 200 measures across various waste areas including Circular Economy, Municipal Waste, Consumer Protection & Citizen Engagement, Plastics and Packaging, Construction and Demolition, Textiles, Green Public Procurement and Waste Enforcement.

European & National Level

The project will follow the "EU Construction and Demolition Waste Management Protocol 2016". A construction and Demolition (C&D) waste is the largest waste stream in the EU – it represents about third of all waste produced. This Protocol fits within the construction 2020 strategy, as well as the communication on resource efficiency opportunities.

The overall aim of this protocol is to increase confidence in the C&D waste management process and the trust in the quality of C&D recycled materials. This will be achieved by:

- Improved waste identification, source separation and collection.
- Improved waste logistics.

- Improved waste processing.
- Quality management.
- Appropriate policy and framework conditions.

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 legal disposal (including its method of disposal.) Following on from this is the concept of "polluter pays" whereby the waste producer is liable to be prosecuted for pollution incidents, which may arise from incorrect management of waste produced, including the actions of any contractors engaged (e.g.: for collection and transport of waste / Permits). The most recent national policy document was published in July 2012, entitled '*A Resource Opportunity - Waste Management Policy in Ireland*'. This document stresses the environmental and economic benefits of better waste management, particularly in relation to waste prevention. The document sets out several actions in relation to C&D waste and commits to undertake a review of specific producer responsibility requirements for C&D projects over a certain threshold.

National Level

The Irish Government issued a policy statement in September 1998 known as '*Changing Our Ways*', which identified objectives for the prevention, minimisation, reuse, recycling, recovery and disposal of waste in Ireland. The target for C&D waste in this report was to recycle at least 50% of C&D waste within a five-year period (by 2003), with a progressive increase to at least 85% over fifteen years (i.e. 2013).

In response to the *Changing Our Ways* report, a task force (Task Force B4) representing the waste sector of the already established Forum for the Construction Industry, released a report entitled '*Recycling of Construction and Demolition Waste*' concerning the development and implementation of a voluntary construction industry programme to meet the Government's objectives for the recovery of C&D waste.

The most recent national policy document was published in July 2012, entitled '*A Resource Opportunity - Waste Management Policy in Ireland*'. This document stresses the environmental and economic benefits of better waste management, particularly in relation to waste prevention. The document sets out a number of actions in relation to C&D waste and commits to undertake a review of specific producer responsibility requirements for C&D projects over a certain threshold.

The National Construction and Demolition Waste Council (NCDWC) was launched in June 2002, as one of the recommendations of the forum for the construction industry, in the Task Force B4 final report. The NCDWC subsequently produced '*Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects*' in July 2006 in conjunction with the then Department of the Environment, Heritage and Local Government (DoEHLG).

The guidelines outline the issues that need to be addressed at the pre-planning stage of a development all the way through to its completion. These guidelines have been followed in the preparation of this document and include the following elements:

- Predicted C&D wastes and procedures to prevent, minimise, recycle and reuse wastes;
- Waste disposal/recycling of C&D wastes at the site;
- Provision of training for waste manager and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plan; and
- Details of consultation with relevant bodies.

Section 3 of the Guidelines identifies thresholds above which there is a requirement for the preparation of a C&D Waste Management Plan for developments. This development requires a C&DWMP under the following criterion:

- New residential development of 10 houses or more; and
- Demolition/renovation/refurbishment projects generating in excess of 100m³ in volume, of waste.

Other guidelines include '*Construction and Demolition Waste Management – a handbook for Contractors and Site Managers*' published by FÁS and the Construction Industry Federation in 2002.

These guidance documents are considered to define best practice for C&D projects in Ireland and describe how C&D projects are to be undertaken such that environmental impacts and risks are minimised and maximum levels of waste recycling are achieved.

Regional Level

The proposed development is located in the Local Authority area of South Dublin County Council (SDCC).

The *Eastern-Midlands Region Waste Management Plan 2015 – 2021* is the regional waste management plan for the SDCC area published in May 2015. This Plan replaces the previous Waste Management Plan due to changing National policy as set out in *A Resource Opportunity: Waste Management Policy in Ireland* and changes being enacted by the *Waste Framework Directive (WFD) (2008/98/EC)*. The Regional Plan sets out the strategic targets for waste management in the region but does not set a specific target for C&D waste. However, the *Waste Framework Directive* sets Member States a target 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.

The South Dublin County Council *County Development Plan 2016 – 2022* sets out a number of policies for the South Dublin County area, in line with the objectives of the regional waste management plan. Waste objectives with a particular relevance to the proposed development are:

Policies:

- **EI5 Objective 1** - To support the implementation of the Eastern–Midlands Region Waste Management Plan 2015-2021 by adhering to overarching performance targets, policies and policy actions.
- **EI5 Objective 2** - To support waste prevention through behavioural change activities to decouple economic growth and resource use.
- **EI5 Objective 3** - To encourage the transition from a waste management economy to a green circular economy to enhance employment and increase the value recovery and recirculation of resources.
- **EI5 Objective 4** - To provide, promote and facilitate high quality sustainable waste recovery and disposal infrastructure/ technology in keeping with the EU waste hierarchy and to adequately cater for a growing residential population and business sector.
- **EI5 Objective 5** - To provide for and maintain the network of bring infrastructure (e.g. civic amenity facilities, bring banks) in the County to facilitate the recycling and recovery of hazardous and non-hazardous municipal wastes.
- **EI5 Objective 6** - To seek the provision of adequately sized public recycling facilities in association with new commercial developments and in tandem with significant change of use/extensions of existing commercial developments where appropriate.
- **EI5 Objective 7** - To develop a countywide network of green waste centres in suitable locations to expand the collection system for compostable waste.
- **EI5 Objective 8** - To secure appropriate provision for the sustainable management of waste within developments, including the provision of facilities for the storage, separation and collection of such waste.

Construction and Demolition Waste Construction and demolition waste management plans are required as part of development proposals for projects in excess of any of the following thresholds:

- New residential development of 10 units or more,
- New developments other than above, including institutional, educational, health and other public facilities, with an aggregate floor area in excess of 1,000 sq metres,
- Demolition/renovation/refurbishment projects generating in excess of 100 cubic metres in volume of construction and demolition waste, and Civil engineering projects in excess of 500 cubic metres of waste materials used for development works on the site.

This Construction and Demolition Waste Management Plan is based on current best practice guidelines, the provisions as noted will be implemented at all times on this project.

2.0 Waste Management Strategy.

2.1 Introduction.

The purpose of this plan is to ensure that all waste materials arising from the proposed development are managed and disposed of in accordance with the:

- Provisions of the Waste Management Acts 1996 – 2011 and associated regulations.
- Eastern – Midlands Regional Waste Management Plan 2015 – 2021.
- Project Specific Construction Requirements (Contract Documents); and
- Montane Developments Environmental Management System.
- Best Practice Guidelines on the preparation of waste management plans for construction and demolition waste projects

The plan seeks to ensure that.


- Montane Development effectively manage all waste streams generated during the project.
- Ensure efficient ordering, purchasing and use of materials to reduce and minimise waste generation.
- Ensure segregation of all wastes at source and maximise recycling, reuse and recovery of waste with diversion from landfill, wherever possible.
- Provide guidance on the appropriate collection and transport of waste from the site to prevent issues associated with litter or more serious environmental pollution.
- Minimise risk of incorrect classification and segregation of wastes.
- Ensure compliance with the contract requirements.
- Ensure compliance with all current relevant waste legislation (European, National and Local).
- Ensure compliance with Local Authority Licensing.
- Prevent environmental pollution and damage.
- Track and document all waste transferred from the project site. Methods and locations used for their handling and storage on site, including a site map showing waste management areas, see attached at Appendix 1.
- Waste Collection Permits required for the removal of waste from site are available on request.
- The disposal facilities for the waste streams and their associated Waste License or Permit are available on request.

This C&D WMP includes information on the legal and policy framework for C&D waste management in Ireland, estimates of the type and quantity of waste to be generated by the proposed development and makes recommendations for management of the different waste streams generated during the works.

2.2 Site Location.

The 2.6-hectare site is located at St Loman's Road, Dublin 24. The surrounding areas are predominately residential in nature.



Project	St Edmunds, Lucan.	Title	Site Location	Doc. No.	FEP 001	 MONTANE
Client	Montane Developments	Ref. document: Traffic signs manual Chapter 8. Temporary traffic measures and signs for roadworks 2010.		02/05/2022		

2.3 Phasing & Programme;

It is intended to complete the works over a single phase, commencing at Block 1 and working through Blocks, 2, 3 and finishing on Block 4.

Each sub-phase of works will be co-ordinated keeping in mind the movement of pedestrian and vehicular traffic to the work zones and interface with live areas).

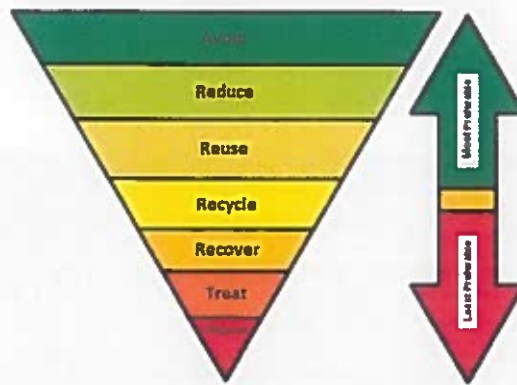
2.4 Recycling / Waste Management Goal;

The recycling / waste management goal for the project is to manage all waste in accordance with the relevant statutory provisions. The waste hierarchy which is seen as a cornerstone of Irish waste management will be observed at all times.

This hierarchy sets out the order in which options for refuse management should be considered based on environmental impact. Prevention and re-use are the most desirable options for managing waste. The overall intent of the hierarchy is to highlight the different levels and to one day move waste management away from landfill into those options in the upper tiers.

The diagram below illustrates the pyramid theory designed to give order to dealing with the multiples of waste produced. The options towards the top are the most desirable for dealing with our waste, as they harm the planet least. As you travel down the pyramid, the alternatives become less attractive from an environmental point of view.

Montane Developments will integrate this hierarchy into all activities and will consider the generation of waste at all times when planning works, ordering materials etc.



The following protocols will be implemented on site with a view to minimising waste generation, contamination and assist with our goal of reducing waste to landfill.

- Whenever possible materials will be ordered to minimise storage time on site, thus reducing the likelihood of damage and spoilage.
- Materials will be kept in well organised storage areas before being released to site for use.
- Materials shall be ordered, where possible, in quantities to minimise and prevent wastage.
- Materials delivered to the project will be received and controlled by the appointed Site Manager (or similar). Materials will be stored to minimise the potential for damage or wastage. Measures will include off-ground storage e.g. on pallets, remaining in original packaging, protection from rain damage or collision by plant or vehicles.
- The materials storage area will be secured during out of hours to prevent unauthorised access.
- Waste management / storage areas will be set up to handle waste generated from the works. This will be designed to facilitate the segregation of key waste streams to maximise the opportunity to re-use, recycle and return wastes generated on site.
- The segregated waste will be placed in skip containers. Waste will be placed in the skips in such a way to minimise 'empty' space.
- All skips will be labelled to clearly highlight waste stream for each skip. As a minimum skips and containers will be provided for segregating of the following key waste streams:
- Where encountered, all hazardous waste will be kept in a secure area away from other wastes to ensure no contamination takes place.
- Separate areas within the waste compound shall also be allocated for the storage of plastic piping awaiting return to supplier, waste tyres and WEEE (where applicable). The location of proposed waste storage areas is outlined at Appendix 1.

Waste & Recycling Targets for the project;

1. 100% recycling of surplus reinforcement where possible.
2. Reuse of earthworks materials including topsoil on site where possible, due to the existing level on site it is not planned to remove any soil off the site.
3. No contamination of skips – No additional costs due to inappropriate materials being placed in skips designated for particular waste streams.
4. 100% recycling of all timber on site.
5. 100% recycling of all paper on site.
6. 100% recycling of all compostable materials on site.
7. Segregation of all Gypsum wastes for recovery during the works.
8. Ensuring all hazardous waste streams are identified and treated accordingly.

2.5 Strategy to Achieve the Goal;

The waste management goal shall be achieved through the implementation of several guiding principles in accordance with the waste hierarchy, namely:

- Giving preference to the purchase of materials with minimum packaging;
- Storing materials in designated areas and separate from wastes to minimise damage;
- Returning packaging to the producer where possible;
- Maximising the reuse of soils and rock on site during the construction of the project;

- Segregating construction and demolition wastes into reusable, recyclable and non-recyclable materials;
- Reusing and recycling materials on site during construction where practicable;
- Recycling other recyclable materials through appropriately permitted / licensed contractors and facilities; and
- Disposing of non-recyclable wastes to licensed landfills.
- Educating site personnel on the benefits of best practice environmental control measures.
- Ensuring agreed procedures are audited and checked to demonstrate that the required goals are being achieved.

2.6 Waste License / Permit Requirements:

The following statutory restrictions apply with regard to the collection and treatment of waste in Ireland:

Waste Management (Collection Permit) Regulations 2008:

- All types of waste may only be collected and transported from site by a contractor who holds a Waste Collection Permit for the type of waste being collected.
- Waste shall only be disposed of or recovered at a site which holds a Licence or Permit under the Waste Management (Facility, Permit and Registration) (amend) Regulations 2008.
- We must obtain a copy of the 'end disposal site' Licence or Permit for the waste we are disposing of.
- Copies of all relevant licenses and permits shall be kept on site for inspection as required.
- No waste materials will be permitted to be moved off site unless by a licensed waste disposal company.

Waste Management (Hazardous Waste) Regulations 1998:

- Hazardous waste removed from site must be accompanied by a Waste Transfer Form (WTF) as per European Communities (Shipments of Hazardous Waste Exclusively within Ireland) Regulations 2011.
- Hazardous waste to be removed from Ireland for treatment elsewhere must be accompanied by a Transfrontier Shipment Form in accordance with the Waste Management (Shipment of Waste) Regulations 2007.

2.7 Hazardous Waste Management:

Given the Greenfield nature of the site, it is not envisioned that existing hazardous waste exists on the site, the procedures outlined below will be observed in relation to the management of hazardous waste.

It is recognised that Hazardous wastes poses a risk to the health and safety of personnel as well as the greater environment, thus every effort must be made to minimise the risk of contamination from hazardous waste streams. Prior to works commencing a Waste Acceptance Criteria (WAC) test will be carried out on the site in order to clearly define the nature of all potential waste to be removed.

The Site Safety, Health & Environmental Officer will be notified of any hazardous waste or suspected hazardous waste, and consulted for assistance with handling procedures. Existing company procedures and controls are detailed and available in the form of the following documents;

- Excavating in Contaminated Ground (MDRA31-1)
- Buried asbestos, (MDRA 31-2)
- Environmental Bulletin 19 'Asbestos Removal' to be adhered to at all times.

2.8 Duty of Care:

Responsibility for waste management procedures lies with Montane Developments (Ireland) Ltd unless a contractual agreement with sub-contractors to manage their own waste is in place.

2.9 Legislative Requirements:

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

- Waste Management Act 1996 (No. 10 of 1996) as amended. Sub-ordinate legislation includes:
 - European Communities (Waste Directive) Regulations 2011 (SI 126 of 2011) as amended
 - Waste Management (Collection Permit) Regulations (S.I. No. 820 of 2007) as amended
 - Waste Management (Facility Permit and Registration) Regulations 2007, (S.I. No. 821 of 2007) as amended
 - Waste Management (Licensing) Regulations 2004 (S.I. No. 395 of 2004) as amended
 - Waste Management (Packaging) Regulations 2014 (S.I. 282 of 2014) as amended
 - Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997)
 - Waste Management (Landfill Levy) Regulations 2015 (S.I. No. 189 of 2015)
 - European Union (Waste Electrical and Electronic Equipment) Regulations 2014 (S.I. No. 149 of 2014)
 - European Union (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended
 - Waste Management (Food Waste) Regulations 2009 (S.I. 508 of 2009), as amended
 - European Union (Household Food Waste and Bio-waste) Regulation 2015 (S.I. No. 191 of 2015)
 - Waste Management (Hazardous Waste) Regulations, 1998 (S.I. No. 163 of 1998) as amended
 - Waste Management (Shipments of Waste) Regulations, 2007 (S.I. No. 419 of 2007) as amended
 - Waste Management (Movement of Hazardous Waste) Regulations, 1998 (S.I. No. 147 of 1998)
 - European Communities (Transfrontier Shipment of Waste) Regulations 1994 (SI 121 of 1994)
 - European Union (Properties of Waste which Render it Hazardous) Regulations 2015 (S.I. No. 233 of 2015)
- Environmental Protection Act 1992 (No. 7 of 1992) as amended.
- Litter Pollution Act 1997 (No. 12 of 1997) as amended.
- Planning and Development Act 2000 (No. 30 of 2000) as amended.

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 - 2001* 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 recycling, recovery or 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 destination, waste contractors will be employed to physically transport waste to the final destination. Following on from this is the concept of "Polluter Pays" whereby the waste producer is liable to be prosecuted for pollution incidents, which may arise from the incorrect management of waste produced, including the actions of any contractors engaged e.g. for transportation and disposal/recovery/recycling of waste.

It is therefore imperative that the client ensures that the waste contractors engaged by construction contractors are legally compliant with respect to waste transportation, recycling, recovery and disposal. This includes the requirement that a contractor handle, transport and recycle/recover/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 Facility Permit granted by the relevant Local Authority under the *Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments* or a waste or IED 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.

3.0 Waste Identification & Management Techniques:

The following controls measures below will be implemented at all times on this project; (Non-Exhaustive List);

- Individual waste streams shall be identified and the proposed route for reuse, recovery, recycling or disposal will be agreed.
- Proposed destinations for all waste streams to be identified, waste collection permits to be made available and shall be approved in advance.
- No materials classified as wastes shall be reused or disposed of on the site.
- Montane Developments will establish a procedure to identify and classify all waste arising at the site in accordance with the European Waste Catalogue (EWC) code.
- All waste being transferred from the site shall be recorded, i.e. via monthly waste return logs which will be filed in our head offices.
- Montane Developments will clearly identify waste as either hazardous or non-hazardous and segregate the materials in the designated waste storage areas.

3.1 Definition of Waste:

Directive 2008/98/EC on waste (Waste Framework Directive) Article 3(1) defines waste as 'any substance or object which the holder discards or intends or is required to discard'.

3.2 Waste Classification:

Waste classification is based on the European List of Waste (Commission Decision 2000/532/EC) and Annex III of the Directive 2008/98/EC.

The List of Waste is a reference catalogue providing a common terminology throughout the European Union (EU) with the purpose to improve the efficiency of waste management activities. The List of Waste (LoW), previously the European Waste Code (EWC) serves as a common encoding of waste characteristics in a broad variety of purposes like classification of hazardous wastes.

3.2.1 Construction Waste Classification;

During the construction phase there will be a surplus of materials, such as off-cuts from timber, metals, waste concrete etc. Waste from packaging and oversupply of materials will also be generated.

3.2.2 Main C&D Waste Categories;

The main non-hazardous and hazardous waste streams that are generated from construction activities at a typical site are shown below. The European Waste Code (EWC) Classification/List of Wastes (LOW) code for each waste stream is also shown.

Waste Material	LOW Code.	Expected on site.
Non Hazardous		
Concrete, Bricks, Tiles, ceramics.	17 01	Yes
Wood, glass, plastic.	17 02	Yes
Bituminous mixtures, coal tar and tarred products	17 03	No
Metals (including their alloys)	17 04	Yes
Soil, stones and dredged spoil	17 05	Yes
Gypsum-based construction material	17 08	Yes
Cardboard and paper	20 01 01	Yes
Timber	20 01 37	Yes

Plastic Packaging	15 01 02	Yes
Paper and cardboard packaging	15 01 02	Yes
Mixed municipal waste for non-hazardous	20 03 01	Yes
Waste adhesives and sealants for hazardous materials	08 04 09	Yes
Hazardous		
Electrical and Electronic Components	16 02	No
Batteries.	16 06	No
Wood Preservatives	03 02	No
Liquid Fuels.	13 07	No
Soil and stones containing dangerous substances	17 05 03*	TBC
Insulation materials containing asbestos	17 06 01*	TBC
Other insulation materials consisting of or containing dangerous substances	17 06 03*	TBC
Construction materials containing asbestos	17 06 05*	TBC
Construction and demolition waste containing mercury	17 09 01*	No
Construction and demolition waste containing PCBs	17 09 03*	No

3.3 Waste Types, Segregation & Disposal / Recovery:

Metal (Mixed ferrous, steel, copper);

Metal is a highly recyclable material therefore, all waste metal generated will be segregated at source. A segregated skip will be available for storage on site pending recycling.

Cardboard Packaging;

Cardboard packaging can also be recycled. Cardboard should be flattened and placed in bags, to prevent it getting wet and blowing out of skip.

Timber;

There may be timber waste generated from the construction work primarily from off-cuts, damaged pieces of timber. Timber that is uncontaminated, i.e. free from paints, preservatives, glues etc., will all be recycled. This material will be segregated at source and transported to the dedicated WSA and stored on site in a designated and labelled skip for collection by a nominated contractor and subsequently recycled off site.

Plasterboard;

Waste gypsum can be recycled into new plasterboard. All Gypsum waste generated on this project will be stored in a designated Gypsum waste skip, skips will be collected as required.

Hazardous Wastes;

Fuels used during construction will be classed as hazardous and this will be stored for site machinery etc., in suitable tanks with bunds provided at draw-off points. Provided that these requirements are adhered to and the site crew are trained in the appropriate refuelling techniques, it is not expected that there will be any fuel/oil wastage at the site.

Waste mixtures contain dangerous substances classified as hazardous waste. This will not be used as fill on the site and only disposed of in licensed hazardous waste facility.

Paints, glues, adhesives and other known hazardous substances will be stored in designated areas. They will generally be present in small volumes only and associated waste volumes generated will be kept to a minimum.

Any contaminated soils uncovered on site will require disposal off-site to facilitate the construction works.

No buried asbestos or other asbestos material is anticipated at the site, (WAC Analysis will be carried out in advance of site stripping works). If asbestos or other contaminated soils are identified, they will be addressed in accordance with the relevant Regulations.

Non-Recyclable Waste;

All effort will be made to ensure the greatest level of waste prevention, minimisation, reuse and recycling is achieved during the project. However, some waste will be required to will not suitable for reuse or recovery.

This waste will have a dedicated general waste skip which will include general wet waste (mixed food waste and food packaging), polystyrene, contaminated cardboard, contaminated plastic etc. Workers on the site will be encouraged to recycle as much municipal waste as possible, i.e. cardboard, plastic, metals and glass.

Prior to removal, the non-recyclable waste receptacle will be examined by either the foreperson or a member of our Site Management Team to determine if recyclable materials have been placed in there. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly.

3.4 Waste Storage;

Montane Developments will provide a dedicated fenced off waste handling and segregation area (Waste Compound) which will remain in place for the duration of the project. Construction and demolition waste of the non-bulk type will be brought to the waste compound for sorting and segregation into designated skips for off-site recovery, recycling or disposal. Smaller skips / bins shall be distributed around the site for the collection of rubbish and non-bulk type waste, for transfer to the waste compound

A covered mini-skip will be provided for all organic food wastes on site, this skip will be located beside the site offices and canteen area.

The Site Manager will:

- Oversee all waste handling operations;
- Ensure the compound is kept tidy and in good appearance at all times; and
- Order and change skips as required.

The waste compound and other waste areas will be large enough to ensure safe delivery and collection of skips and waste containers. Each waste skip and bin will be clearly labelled as to the type of waste contained. Proposed waste storage area is shown on the site layout map at Appendix 1.

4.0 Waste Contractors;

(The information provided below is for example purposes only, this section will be updated prior to works commencing).

Type of Waste Contractor	Name of Waste Contractor	Waste Collection Permit (WCP) Number	Waste Facility Permit No./Waste License No.
General Waste Contractor(s)	Allied Waste Limited Clonmellon Industrial Estate, Navan, Co Meath.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.
C&D Waste Contractors(s)	TBC		
Hazardous Waste Contractors(s)	ENVA Ireland Ltd Clonminan Industrial estate, Portlaoise, Co Laois	NWCP-08-01116-03	ENVA Ireland Ltd Clonminan Industrial estate, Portlaoise, Co Laois NWCP-08-01116-03
Excavated Materials Waste Contractors(s)	TBC		

Type of Waste Contractor	Name of Waste Contractor	Waste Collection Permit (WCP) Number	Waste Facility Permit No./Waste License No.	
Recyclables/ Mixed Waste Contractor(s)	Paper	Allied Waste Management Ltd Clonmellon Industrial Estate.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.
	Plastic	Allied Waste Management Ltd Clonmellon Industrial Estate.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.
	Timber	Allied Waste Management Ltd Clonmellon Industrial Estate.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.
	Metal	TBC		
	Gypsum	Allied Waste Management Ltd Clonmellon Industrial Estate.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.
	Mixed	Allied Waste Management Ltd Clonmellon Industrial Estate.	NWCPO-12-1002-01	WFP-KE-08-0347-01 Unit 74A, Naas Industrial Estate, Naas, Co Kildare.

5.0 Waste Volumes:

Waste reports from individual waste contractors are used to help fulfil our Corporate Social Responsibility (CSR) requirements with regard to identifying and recording waste, energy emissions and CO2 production. Each quarter, waste contractor for all sites are asked to issue report detailing the volumes of waste generated and the waste destination for their sites.

However, the following information will be added to a Waste Matrix on a monthly basis to ensure all movements are recorded on site for Local Authority Inspections:-

- Waste codes for all waste streams
- Waste streams (as per the European Waste Catalogue (EWC)*)
- Waste collectors.
- Waste disposal sites.
- Tonnage collected from site.
- Any further site specific details.

6.0 Communication and Responsibility:

6.1 Communications:

All personnel are required to attend site induction prior to commencing on this site. At this induction session the waste management & environmental goals for the project shall be made clear, personnel will be made aware that they are responsible for ensuring the management of waste in accordance with this Waste Management Plan. Further toolbox talks on environmental issues will be conducted as works progress. Progress on the implementation of the waste management plan will be communicated to staff via site notice boards, information bulletins etc.

6.2 Cost Tracking:

The Site Agent is responsible for tracking the costs associated with the implementation of the waste management plan. It is essential that waste costs are communicated back to personnel, particularly if additional charges are incurred due to contamination of skips with other wastes.

Waste Matrix Documentation;						
Waste Stream	Site name	Collection Date	EWC Code	Weight	Waste Collection Company details	Disposal Location
Concrete Products	St Edmunds, Lucan.	TBC	17 01 01	TBC	TBC	TBC
Bricks	St Edmunds, Lucan.	TBC	17 01 02	TBC	TBC	TBC
Wood	St Edmunds, Lucan.	TBC	17 02 01	TBC	TBC	TBC
Glass	St Edmunds, Lucan.	TBC	17 02 02	TBC	TBC	TBC
Plastic	St Edmunds, Lucan.	TBC	17 02 03	TBC	TBC	TBC
Mixed Metals	St Edmunds, Lucan.	TBC	17 04 07	TBC	TBC	TBC
Soil & Stones other than those mentioned in 17 05 03	St Edmunds, Lucan.	TBC	17 05 03	TBC	TBC	TBC
Insulation Materials other than those mentioned in 17 06 01 17 06 03	St Edmunds, Lucan.	TBC	17 06 04	TBC	TBC	TBC
Gypsum Based Materials other than those mentioned in 17 08 01	St Edmunds, Lucan.	TBC	17 08 02	TBC	TBC	TBC

6.3 Responsibilities:

The role of the waste manager will be to record, oversee and manage everyday handling of waste on the site. Their training will be in setup and maintaining record keeping systems and how to produce an audit to ensure waste management targets are being met.

They shall also be trained in the best methods for segregation and storage of recyclables. They will also be familiar with the suitability of material reuse and know how to implement the WMP.

The project manager/waste manager will have overall responsibility for the implementation of the WMP and will be assigned the authority to instruct all site personnel to comply with the specific provisions of the plan.

Task	Frequency	Responsible	Name & Number
Waste Management Plan Implementation	Ongoing	Project Managers or Foreman	Appointed Site Manager
Tracking costs	Ongoing	Project Managers	Vinny Carty 086 2365776
Notification of skip contamination	At least weekly	General Foreman	TBC
Inspections of skips, maintenance of skip area	At least weekly	General Foreman	TBC
Order and exchange skips	As required	General Foreman	TBC

Task	Frequency	Responsible	Name & Number
Monitoring waste management implementation	Ongoing	General Foreman/ Site Safety, Health & Environmental Officer	TBC
Liaising with Client, Neighbours, other contractors and regulatory bodies	As required	Project Manager	Vinny Carty 086 2365776
Return printer / copier cartridges	As required	Site Administrator / Receptionist	Mary Enright
Provide advice on hazardous waste handling and disposal	Ongoing	Environmental Coordinator	Darren Quinn
Undertaking toolbox talks on waste procedures	3 per quarter	Site Safety, Health & Environmental Officer	Darren Quinn
Keeping records (e.g. checklists)	Weekly	Site Safety, Health & Environmental Officer	Appointed Site Manager

7.0 Keeping Records:

Records shall be kept for each material leaving the site for all types of use or disposal. This shall take the following basic outline form:

- > Waste taken for reuse off site;
- > Waste taken for recycling;
- > Waste taken for disposal; and,
- > Reclaimed waste materials brought to site for reuse.

All waste will be documented prior to leaving the site. Waste will be weighed by the contractor, either by weighing mechanism on the truck or at the receiving facility. These waste records will be maintained on site by the project contractor.

All movement of waste and the use of waste contractors will be undertaken in accordance with the *Waste Management Acts 1996 - 2008, Waste Management (Collection Permit) Regulations 2007 and Amendments* and *Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments*.

This includes the requirement for all waste contractors to have a waste collection permit issued by the NWCPO. The nominated project Waste Manager (see Section 6.0) will maintain a copy of all waste collection permits.

Monitoring of the waste management plan will be undertaken at various levels. The Project Managers are responsible for tracking quantities of material sent for recycling, recovery or disposal and costs associated with each waste stream.

Monitoring the onsite implementation of waste handling procedures shall be undertaken by the General Foreman on an ongoing basis and should be reported weekly as part of the Foreman's Weekly Safety & Environment checklist.

Monitoring of the skips in the main compound will be undertaken by the General Foreman, this will be checked by the Safety, Health & Environmental Officer once a week as part of the general environmental inspection.

Inspection reports will be kept in a file on site by the Site Safety, Health & Environmental Officer. In consultation with the Site Safety, Health & Environmental Officer the General Foreman shall be responsible for any action required as a result of the weekly inspection to ensure compliance with the waste management procedures.

An audit of the waste management plan and procedures will be conducted by the Environmental Coordinator at three to six month intervals as the project progresses on-site.

If the waste is being transported to another site, a copy of the Local Authority COR, waste permit or EPA Waste Licence for that site will be provided to the nominated project Waste Manager.

If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) document will be obtained from Fingal County Council (as the relevant authority on behalf of all local authorities in Ireland) and kept on-site along with details of the final destination (permits, licences etc.).

A receipt from the final destination of the material will be kept as part of the on-site waste management records. All information will be entered in a waste management recording system to be maintained on site.

Waste Authorisation;

All waste material will be managed in accordance with the Waste Management Acts 1996 – 2008 as amended and associated legislation, e.g. all haulers will hold collection permits for the specified EWC issued by NWCPO (National Waste Collection Permit Office) and the appropriate local authority at the final destination. Waste will only be sent to facilities authorised to accept, treat / dispose of the material. Copies of all waste permits and licences relevant to the waste treatment / collection will be retained with other waste records.

In the case of hazardous waste the Construction Waste Manager will ensure that all drivers hold valid ADR training certificates, as required under the Carriage of Dangerous Goods Regulations, 2007.

Training;

Copies of the Project C&D Waste Management Plan will be made available to all relevant personnel on site. All site personnel and sub-contractors will be instructed about the objectives of the plan and informed of the responsibilities which fall upon them as a consequence of its provisions.

Where source segregation, selective demolition and material reuse techniques apply, each member of staff will be given instructions on how to comply with the WMP. Posters will be designed to reinforce the key messages with the plan and will be displayed prominently for the benefit of site staff.

Operational Waste;

Typical municipal waste streams are expected to be produced during operation of the proposed development.

This includes:

- Food wastes;
- Cardboard and paper;
- Plastics (including bottles and other containers);
- Glass (including green, brown, clear); and,
- Metals (including aluminium cans and tin cans).

Periodic maintenance and repair activities will generate small quantities of waste such as green waste, inert building materials (e.g. Textiles) and certain chemicals (cleaning products, paints, pesticides etc). The total waste arising from the operation of the proposed development was recorded as per section 6.2.

8.0 Predicted Impacts of the Proposed Development:

Assuming all the proposed mitigation measures are implemented, the following impacts are expected to arise as a result of the proposed development.

8.1 Construction Phase:

Low volumes of waste will be generated during the construction of the proposed development. However careful management of these, including segregation at source, will help to ensure maximum recycling, reuse and recovery is achieved, in accordance with current local national waste targets. It is expected however that a certain amount of waste will still need to be disposed of to landfill.

Assuming appropriate facilities are provided, environmental impacts (e.g. litter, contamination of soil or water etc.) arising from waste storage are expected to be minimal.

The use of suitably licensed waste contractors will ensure compliance with relevant legal requirements and appropriate off site management of waste.

In summary, if the WMP is implemented and a high level of due diligence is carried out at the site, it is envisaged that the environmental impact of the construction phase of the proposed development will be short term and slight, with respect to waste management.

8.2 Operational Phase:

As with the construction phase, waste materials will be generated during the operational phase of the proposed development. Again, careful management of these, including segregation at source, will help ensure acceptable local and national waste targets are met. It is expected that some waste e.g. mixed non-recyclables will still be required to be disposed of to landfill. Assuming appropriate on-site storage is provided, environmental impacts (e.g. litter and to a lesser extent contamination of soil and water etc.) arising from waste storage are expected to be minimal.

The use of suitable licensed waste contractors will ensure compliance with the relevant legal requirements and appropriate off-site managements of waste.

9.0 Consultation with Relevant Bodies:

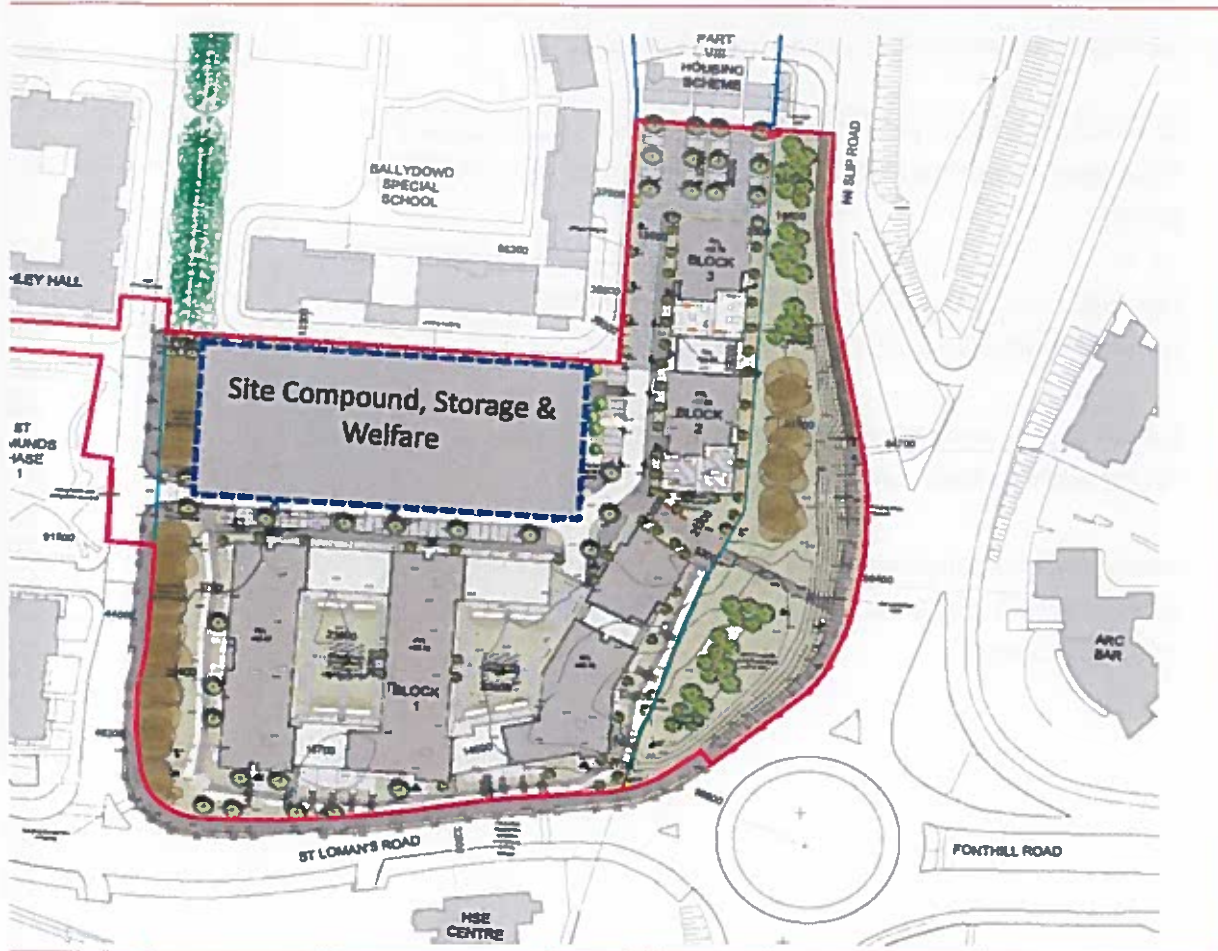
9.1 Local Authority:


South Dublin County Council will also be consulted throughout the construction phase in order to ensure that all available waste reduction, reuse and recycling opportunities are identified and utilised and that compliant waste management practices are carried out.

9.2 Waste Management Companies:

Companies that specialise in waste management will be contacted to determine their suitability for engagement. Where a waste contractor is engaged, each company will be audited in order to ensure that relevant and up-to-date waste collection permits and facility COR/permits/licences are held. In addition, information regarding individual construction materials will be obtained, including the feasibility of recycling each material, the costs of recycling/reclamation and the means by which the wastes will be collected and transported off-site, and the recycling/reclamation process each material will undergo off site.

id will be located within the main site compound area).



can.	Title	Doc. No.	
	Site Compound	FEP 001	
ents	Ref document : Traffic signs manual Chapter 8, Temporary traffic measures and signs for roadworks 2010	02/05/2022	

Appendix 2:**Waste Contractor Checklist**

	Yes	No
1. Do you have a Waste Collection Permit (WCP) for EVERY Waste Contractor that collects ANY waste from the site (full copies)	✓	
2. Is the waste contractor permitted to collect the type of waste in question? Is the specific waste type being collected detailed in the waste collection permit?	✓	
3. Have you contacted the waste contractor and asked what licensed / permitted facility our waste is being brought to?	✓	
4. Is this licensed / permitted facility stated in the waste collection permit? If not, the waste contractor should be contacted and asked.	✓	
5. Have you checked the waste facility permit / license to see if they can accept the waste in question? (It is very important to check this if the waste is hazardous)	✓	

Re-use:

Products or components that are not waste are used again for the same purpose for which they were conceived;

Recycling:

Any recovery operation by which waste materials are reprocessed into products, materials or substances.

Recovery:

Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.

Disposal:

Any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations.

Inert Waste:

Waste that -

- does not undergo any significant physical, chemical or biological transformations,
- will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter, or be adversely affected by other matter, including waters, with which it comes into contact in a way that causes or is likely to cause environmental pollution, or
- will not endanger the quality of surface water or groundwater;

Hazardous Waste:

Waste which displays one or more of the hazardous properties listed below:-

- Explosive
- Oxidizing
- Highly flammable (liquids, substance, solid liquid, gaseous substance)
- Flammable liquid substances
- Irritant
- Harmful
- Toxic
- Carcinogenic
- Corrosive
- Infectious
- Toxic for reproduction
- Mutagenic
- Waste which releases toxic or very toxic gases in contact with water, air or an acid
- Sensitizing substances
- Eco-toxic
- Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

Appendix 4:

Environmental Checklist

Purpose:	To provide a summary checklist of environmental requirements for the site in accordance with the Company Environmental Management System (EMS).		
Scope:	All sites		
Responsibility:	Contract/Project Manager		
1. Environmental Documents			
The following documents must be available on site:			
Environmental Policy	(Is the current policy displayed?)	N/A	Yes
Environmental Risk Assessment Report	(Is it attached to the EMP?)		No
Site Specific EMP/WMP	(Is the information up-to-date?)		
2. Environmental Compliance Requirements			
Have all compliance requirements for the project site been identified in section 3.3 of the EMP (refer to EP-01)?			
Are documents available (e.g. Planning permission, Contract, EIS, Env. Protection License)?			
Are all Waste Permits/ Collection Permits/Licences available?			
If discharge licence is required, is it available?			
Guidance/Standards/Best Practice Documents	(Is a copy available if referenced in the EMP/WMP?)		
3. Environmental Risk Assessment (ERA)			
Are the significant environmental aspects identified in the EMP (Table 4.1)?			
Are Objectives and Targets set in EMP&WMP and do they relate to significant aspects?			
Have significant environmental aspects updated where new or additional risks have been identified?			
4. Operational Control			
Are restrictions and hold points correctly identified in the EMP (Section 6.2)?			
Are control measures in the EMP/WMP adequate to address compliance requirements?			
Are control measures in Method Statements adequate to comply with EMP and WMP?			
Do all method statements refer to EMP/WMP?			
5. Communication			
Are subcontractors identified in the EMP (Section 6.7)?			
Are EMS requirements communicated and agreed during subcontractor pre-start meetings?			
Are relevant authorities identified in the EMP?			
6. Responsibilities			
Are responsibilities defined in the EMP (Section 8)?			
Are those personnel with responsibilities aware of and fulfilling their role?			
7. Competence, Training and Awareness			
Are toolbox talks listed in the EMP (Table 9.1)?			
8. Emergency Preparedness and Response			
Are emergency plans in place and are they adequate to address potential emergencies?			
9. Monitoring, Measurement and Review			
Are inspection and monitoring requirements identified in EMP (Section 10)?			
10. Non-conformances, Corrective & Preventive Action			
Are Environmental Incident Reports being completed and sent to the SHE Dept.?			
Are measures in place to prevent tracking of sediment from the site and clean vehicles and public roads?			
Are measures in place to protect any sensitive habitat areas or species including fences and signs?			
11. Fuel & Hazardous Substances Storage & Handling			
Are fuel tanks/drums/containers adequately bunded and covered and are drip trays in place?			
Are drip trays/bunds well maintained?			
Is a hazardous substances store available and signed, and are all drums, containers stored appropriately?			
Are spill kits available/clearly visible and located close to the refuelling/storage areas/watercourses?			
Do spill kits contain PPE and a laminated copy of spill procedure?			
12. Waste Management			
Are skip bins or designated storage areas available for all reusable / recyclable / disposable wastes?			
Are there signs on all skips/bins?			
Is there good litter and housekeeping controls?			
13. Material Storage and Consumption			
Are materials stored to avoid damage?			
Please contact the Company Environmental Coordinator, Darren Quinn with any questions.			