

Preliminary Construction and Demolition Waste Management Plan



Avila: Community Centre
Demolition Works & Construction of
3 no. new dwelling houses



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Bhaile Átha Cliath
Dublin City Council

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Avila Traveller Accommodation Housing Scheme, Finglas

1.0 Introduction

This Plan relates to two sites which form part of the Avila Park Housing Scheme located off Cappagh Road in Finglas West, Dublin 11. The first site (Site A) covers an area of approx. 0.085 hectares and is bounded by Avila Park and Cappagh Road. A former community centre which is no longer in use is on site. It is proposed to demolish the vacant community centre building. The second site (Site B) covers an area of approx. 0.035 hectares and is a vacant lot being used as a yard for the adjacent house in Avila Close. The proposal is for the demolition of the community centre and the construction of 2 new dwelling houses at site A and the construction of one new dwelling house at Site B.



Figure 1: Site Location Avila Community Centre (Site A) & 7 Avila Close (Site B)

2.0 Background to Construction & Demolition Waste Management

This outline plan will provide an indicative overview of what is expected in terms of waste materials generated from the proposed project. A more detailed plan will be required from the appointed contractor.

The purpose of the Outline C&D WMP is to provide information on how the management of waste produced by the site may be carried out and also how it should be in accordance with all current legal and industrial standards including;

- Waste Management Act 1996 & associated regulations
- Litter Act 1997
- Packaging Regulations 2003
- Waste Management Plan for Dublin Region 2005-2010.

Guidance is also to be given to ensure appropriate method of transportation of Waste is used to prevent littering or other serious environmental pollution.

- Best Practice Guidelines on the preparation of waste management plans for construction and demolition projects, Department of the Environment and local Government 2005.
- Construction and Demolition waste management - A hand book for contractors and site managers, FAS and the construction industry federation 2002.

These guidelines cover issues to be addressed at the pre-planning stage right through to project completion and these include;

- Predicted Construction and demolition wastes;
- Waste disposal/recycling of C&D wastes at the site;
- List of sequence of operations to be followed;
- Provision of training for waste managers and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plans;
- Details of consultation with relevant stakeholders.

Section 3 of the guidelines outline the threshold to which the plans are prepared to. This particular development falls into the category of (3.1.3):

'Demolition/renovation/refurbishment projects generating in excess of 100m³ in volume, of C&D waste'

3.0 National, Regional and Legislation Requirements

At Regional level this development is located in the area of Dublin City Council which is covered by the Eastern-Midlands Region Waste Management Plan 2015 – 2021. The plan is underpinned by National and European waste legislation aims to ensure the continued management of waste in a safe and sustainable manner. The vision for the plan is to reconsider our approach and attitudes towards managing waste. The primary focus is to view waste as a valuable resource in conjunction with making better use of current resources along with the reduction of leakage of material, to include energy, the transition is made from a linear to a circular economy. The eight Strategic Objectives within the plan will see an overall achievement of the outlined goals. Targets include achievement of a 1% reduction per annum in the quantity of household waste generated per capita over the period of the Eastern Midlands Region Waste Management plan; reduction to 0% the direct disposal of unprocessed municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices and achievement of a recycling rate of 50% of managed municipal waste by 2020.

The primary objective of this outline plan is to achieve more sustainable waste management practices through increased recycling, use of source separation and use of industry code to regulate collection and treatment of waste. The plan, as a minimum, shall include a provision for the management of all construction and demolition waste arising on site, shall make provision for the recovery or disposal of this waste to authorized facilities by authorized collectors. Where appropriate, the use of excavated material from development sites is to be re-used and proposed for landscaping, land restoration or for preparation for development.'

Current legislation implies that the waste producer is responsible for waste from the time it is generated to point of legal disposal. Waste contractors must comply with the Waste Management Act 1996 and associated regulations. A permit to transport waste issued by Dublin City Council must be obtained and requires contractor to handle, transport and dispose waste in a manner which ensures no adverse environmental impacts occur as a result of these activities. Likewise, the facilities receiving waste must hold the appropriate licence under Waste Management (Facility Permit & Registration) regulations 2007 as amended or by the EPA. This Permit will include information such as type of waste that can be received along with stored, sorted, recycled and or disposal materials at the site.

4.0 Description of the Proposed Development

4.1 Existing Site

The site that is subject to this planning permission comprises two plots. The Avila Close site is vacant and is triangular in shape at the end of a Cul-de-Sac with a site area of 345m² comprising hardstanding. It is currently being used as a yard for the adjacent house. There are open public footpath and hardstanding areas to two sides of the site. The eastern side of the site is currently bordered by blocked off laneway under the ownership of Dublin City Council which has been used for dumping.

The Avila Park site is occupied by a disused Community Centre at present which will be demolished as part of this development. The site area is 842m² with hardstanding pavements of 402m² and some areas of soft planting and grass. There are open public footpath and hardstanding areas to three sides of the site. The eastern side of the site is currently bordered by a boundary wall to the rear yards of the adjoining Avila Close Houses.



Figure 2 – Existing Sites

4.2 Proposed Development

It is proposed to demolish the disused Community Centre building on the Avila Park site, along with site clearance works. The proposed scheme involves two new dwellings at the Avila Park Community Centre site and also a new single dwelling at the 7 Avila Close site. Refer to architect's drawings for details.

The building to be demolished was constructed in 2005. Subsequent pyrite issues were encountered. The foundations of the demolished building will be removed, and all services will be removed insofar as this is practicable. All hardcore containing pyrite shall be removed off site to a suitably licenced facility.

The sites are bounded by a combination of walls of different types, and it is proposed to retain these. Refer to architect's drawings for details. The hardstanding surfaces of the sites will be grubbed up in advance of redevelopment.

The proposed construction is most likely to be masonry. The structure is envisaged to consist of a ground floor concrete slab with surrounding concrete block walls. The building will most likely be supported on strip foundations.

5.0 Demolition and Construction Management Plan

5.1 Programme & Phasing

It is anticipated that the works of the appointed contractor will consist of the following non-exhaustive activities:

- Construct site perimeter hoarding inclusive of construction traffic and construction personnel entrance gates;
- Undertake general site set-up with site offices and welfare facilities within site hoarding. Secure the site;
- Identify all existing services on site above and below ground. In liaison with statutory bodies all live services to be isolated, disconnected or diverted as required;
- "Soft" strip;
- Undertake demolition and site clearance and remove all demolition materials and initial hardstanding excavation materials to a licenced tip;
- Removal of any hazardous materials (lead based paint);
- Excavate to formation levels and remove all excavated materials off site to a licenced tip;

- Construct foundations in concrete.
- Construction of new dwelling houses and boundary treatments;
- Prepare site for top soiling;
- Complete works with landscaping and general building envelope finishes to sides and roofs. Removal of hoarding;
- Demobilisation.

5.2 Site Access

Access to the sites is currently via the Avila Park Housing Scheme off Cappagh Road.

The main construction vehicular access and egress to and from the community Centre site for deliveries and for vehicle egress, will be from the north (off Avila Park). The main construction vehicular access and egress to and from the Avila Close site for deliveries and for vehicle egress, will be from the west of the site (cul de sac to Avila Close). The main vehicle route to and from the site will be via Cappagh Road.

A wheel wash will be located inside the entrance/exit gates to prevent any dirt being carried out from the sites to the public roads. A road sweeper will be employed if necessary, to keep surrounding public access roads clean.

5.3 Segregation of Materials

Waste generated on site must be identified and segregated accordingly. In order to enable this, it is anticipated that works will be carried out in a phased basis to aid the segregation of the materials expected to be encountered during the strip out works. As materials are being taken down from the interior of the building they should be assessed for reuse. Any reusable materials should be set aside in a designated area of the site for transport to a licensed recycling facility. All non-reusable material should be segregated and disposed into specific skips located on a designated area of the site.

5.4 Demolition Waste Management

Waste skips should be provided within the site and it is anticipated these will be located to the northern end of the sites where the skips can be collected easily.

It will be a requirement of the appointed contractor to provide monthly reports regarding the management of the waste during the works and will be required to forward these reports to the Waste Regulation Unit of Dublin City Council.

5.5 Source Separation

The source-separation of all materials arising from demolition on site for

recycling is generally more cost effective than disposal of mixed materials to a waste facility.

6.0 Waste Arising

It is anticipated that the below outlined waste will be generated as a result of the demolition and new construction.

The Community Centre building comprises loadbearing masonry walls, steel trussed roof with floating concrete ground floor.

It is expected that the building will contain various waste materials such as:

- Plastics
- Timber
- Concrete rubble
- Metals
- Municipal Waste
- Bitumen
- Electrical Waste
- Plasterboard
- Ceramics (tiles, sanitaryware)

An asbestos survey was completed in Q2 of 2021 and no asbestos or lead paint was identified in the community centre building.

From reviewing the consultants' drawings for the Community Centre and the planning drawings for the new houses a total amount of demolition/construction waste can be estimated. Table 1 below outlines the amount of waste and the anticipated amount of trucks which will be required to remove off site.

The appointed contractor, in demolishing the Community Centre, shall determine if any of the material can be salvaged and re-used in consultation with his chosen salvage company.

European Waste Code	Waste Material Description	Estimated Quantity	No. of Skips/Trucks
17.08.02	Plasterboard	27T	2
17.09.04	Mixed C&D Waste		1
17.02.01	Timber	12T	1
17.02.02	Glass	2T	1
17.01.03	Tiles and Ceramics	11T	1
17.01.07	Concrete, Block & Brick	756T	38
17.04.05	Iron & Steel	878T	44
20 01 11	Textiles		1
17 04 09	Metal waste contaminated with hazardous substances	1T	1
17.06.05	Asbestos – Non Friable	2m3	1
20.01.21	Fluorescent Tubes	0.25T	1
20 02 02	Earth/Soil/stones	3197T	160
17.05	soil (including excavated soil from contaminated sites), stones and dredging spoil - Pyrite hardcore	1381T	69
20 03 01	Mixed municipal waste		1
17 06 04	Insulation	44T	3
17 02 03	PVC	3T	1
17 03	Bituminous	80T	4
Total (estimated)			330

The figure for estimated number of trucks is doubled to estimated truck movements i.e entry and exit.

It is anticipated that there will be in the region of 330 – 600 truck movements over the lifetime of the project. The above figure is only an estimate and it is likely to vary depending on the appointed contractor's works proposals.

In terms of how many trucks and other construction vehicles will access and exit the site it can be estimated that one truck can take 4 - 5 loads per day dependant on how far the recycling facility is located. If the contractor had 4 trucks removing demolition waste from the site it would result in approximately 40* truck movements per day or 4 – 6 trucks per hour. These figures will fluctuate during the project and it is anticipated that there will be peak times during the demolition. It could be estimated that during the peak period of demolition the truck movements may increase slightly but the inverse is also true i.e. the truck movements will be reduced over certain periods. The duration of the peak period will depend on how the appointed contractor resources the project. It is difficult to calculate accurately the number of truck movements for the proposed demolition works but the above table gives an indication on the potential number of truck movements anticipated.

Notes:

*The figure of 40 truck movements classifies entering and exiting the

site as a separate movement i.e. a total of 2 truck movements.

7.0 Proposals for Minimisation, Reuse, Recycling and Management of C& D Waste

7.1 Waste Handling

Waste should only be treated or disposed of at facilities that are licensed to carry out that specific activity (e.g. recycling, landfill, incineration etc) for a specific waste type. Records of all waste movements and documents should be held on site and issued to Dublin City Council if required.

The demolition works should be planned with the waste management contractors in order to determine the best techniques for managing waste and ensuring a high level of recovery of materials for recycling. The waste handling processes should be reviewed during the works and updated if required.

7.2 Primary Waste Streams

A brief overview of the potential methods to manage the primary waste streams expected is presented below. The main types of construction waste produced is expected to be:

Concrete, Blocks and Bricks

Waste concrete, blocks and brick will arise during the demolition and construction phases. Where possible, this waste will be removed off site to a remote facility and recycled for reuse.

Metals

Where possible all steel and non-ferrous metals will be transported to a metal processing facility for recycling. Skips are generally provided for the storage of scrap metal on site and once full will be removed by the waste storage contractor and transposed to a metal recycling processing facility.

Bitumen

Waste bitumen will arise during the removal of the existing yard surfaces. This will likely be mixed with concrete rubble. Bitumen/concrete waste disposal method will be nominated by the appointed contractor.

Timber

Timber waste will be stored separately as it is readily contaminated by other wastes and if it is allowed to rot will reduce the recyclability of the other stored wastes. Offcuts/pallets etc should be reused and/or recycled. Any timber waste will be removed off site to a remote facility and recycled for reuse

Plasterboard

Waste plasterboard from the demolition and construction phases will be segregated and stored on site prior to transportation to a recycling facility.

Plastics

Waste plastics from the demolition and construction phases will be segregated and stored on site prior to transportation to a recycling facility.

Other Wastes (Residual)

Waste materials other than those outlined above can constitute a significant proportion of the total waste generated by a construction site. This waste is normally made up of residual non-recyclable waste such as soiled paper, cloth, cardboard or some plastics. This material should be stored in dedicated waste containers. The size, type and collection frequency should be assessed and reviewed throughout the site.

Waste Arising's from Excavations

The proposed demolition of the Community Centre will require the excavation of the foundations and also the grubbing up of the hard standing areas. The Avila Close yard redevelopment will also require the grubbing up of existing hard standing areas. Excavated material will generally require disposal off-site to a licensed facility. The excavated material should be carefully stored and segregated at a designated staging area prior to the removal off site.

Hazardous Waste

A lead based paint survey completed in Q2 of 2021 identified lead paint in the railings surrounding the Community Centre that are proposed to remain in place. A condition assessment shall be carried out and if the areas of lead paint require removal or repair this shall be carried out in accordance with HSA document "*Safety With Lead at Work, A Guide for Employers and Employees*" and HSE document "*Old lead paint. What you need to know as a busy builder*". Material to be removed from site shall be disposed of to an appropriately licenced facility.

8.0 Assignment of Responsibilities and Training

The appointed contractor should ensure that a Construction and Demolition Waste Manager is appointed who has overall responsibility for the management of waste on site. The Construction and Demolition Waste Manager should be responsible for educating all site staff.

All site personnel and subcontractors will be provided with a copy of the Waste Management Plan and also informed of the responsibilities which fall upon them.

Staff training should be carried out throughout the duration of the project.

9.0 Waste Recording and Auditing

9.1 Waste Records

Details of the construction and demolition waste discarded from the site will be recorded during all stages of the project. Each consignment of C&D waste removed from the site will be documented to ensure full traceability of the material to its final destination. All records should be retained on site and made available for auditing of the waste management plan.

9.2 Waste Auditing

The appointed contractor should implement an auditing process to ensure the quality, effectiveness and efficiency of the environmental management system.