

**CONSTRUCTION &
DEMOLITION RESOURCE &
WASTE MANAGEMENT
PLAN FOR
A PROPOSED RESIDENTIAL
DEVELOPMENT**

**NO. 146 AND NOS. 148-148A
RICHMOND ROAD, DUBLIN
3**

Report Prepared For

Birkey Limited

Report Prepared By

Chonail Bradley, Principal Environmental
Consultant

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Cork Office

Unit 5, ATS Building,
Carrigaline Industrial Estate,
Carrigaline, Co. Cork.
T: + 353 21 438 7400
F: + 353 21 483 4606

AWN Consulting Limited

Registered in Ireland No. 319812
Directors: F Callaghan, C Dilworth,
T Donnelly, T Hayes, D Kelly, E Porter



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1.0 INTRODUCTION

AWN Consulting Ltd. (AWN) has prepared this Construction & Demolition Resource & Waste Management Plan (C&D RWMP) on behalf of Birkey Limited. The proposed development will principally consist of: the demolition of all existing structures on site including warehouses and 2 No. dwellings; and the construction of a part 6 No. to part 10 No. storey over basement development, comprising 1 No. café/retail unit at ground floor level and 183 No. Build-to-Rent apartments.

This plan will provide information necessary to ensure that the management of C&D waste at the site is undertaken in accordance with the current legal and industry standards including the *Waste Management Acts 1996 - 2011* and associated Regulations ¹, *Protection of the Environment Act 2003* as amended ², *Litter Pollution Act 1997* as amended ³ and the *Eastern-Midlands Region Waste Management Plan 2015 – 2021* ⁴. 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&D RWMP 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 different waste streams.

2.0 CONSTRUCTION & DEMOLITION WASTE MANAGEMENT IN IRELAND

2.1 National Level

The Irish Government issued a policy statement in September 1998, *Changing Our Ways*⁵, 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*' ⁶ concerning the development and implementation of a voluntary construction industry programme to meet the Government's objectives for the recovery of C&D waste.

In September 2020 the Irish Government released a 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' ⁷, 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 in place (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 and citizen engagement, plastics and packaging, construction and demolition, textiles, green public procurement and waste enforcement.

The Environmental Protection Agency (EPA) of Ireland issued guidelines the '*Best Practice Guidelines for the Preparation of Resource & Waste Management Plans for Construction & Demolition Projects*' in November 2021. These guidelines replace the previous 2006 guidelines issued by The National Construction and Demolition Waste Council (NCDWC) and the Department of the Environment, Heritage and Local Government (DoEHLG) in 2006. The guidelines provide a practical and informed approach which is informed by best practice in the prevention and management of C&D wastes and resources from design to construction of a project, including consideration of the deconstruction of a project. 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;
- Design teams roles and approach;
- Relevant EU, national and local waste policy, legislation and guidelines;
- Waste disposal/recycling of C&D wastes at the site;
- Provision of training for resource manager and site crew;
- Details of proposed record keeping system;
- Details of waste audit procedures and plan; and
- Details of consultation with relevant bodies i.e. waste recycling companies, Dublin City Council, etc.

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. The new guidance classifies developments on a two Tiers based system. Below the following thresholds may be classed as Tier 1 development and above a Tier 2:

- New residential development of less than 10 dwellings.
- Retrofit of 20 dwellings or less.
- New commercial, industrial, infrastructural, institutional, educational, health and other developments with an aggregate floor area less than 1,250m².
- Retrofit of commercial, industrial, infrastructural, institutional, educational, health and other developments with an aggregate floor area less than 2,000m²; and
- Demolition projects generating in total less than 100m³ in volume of C&D waste.

Developments above these thresholds are classed as Tier-2 projects

This development requires a C&D RWMP as a Tier 2 development as they are above the following criterion:

- New residential development of less than 10 dwellings; and

- Demolition projects generating in total less than 100m³ in volume of C&D waste.

Other guidelines followed in the preparation of this report include ‘*Construction and Demolition Waste Management – a handbook for Contractors and Site Managers*’⁹, published by FÁS and the Construction Industry Federation in 2002 and the previous guidelines ‘*Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects*’¹⁰ (2006).

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.

2.2 Regional Level

The proposed development is located in the Local Authority area of Dublin City Council (DCC). The *Eastern-Midlands Region Waste Management Plan 2015 – 2021* is the regional waste management plan to the administrative area, published in May 2015.

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

Municipal landfill charges in Ireland are based on the weight of waste disposed. In the Leinster Region, charges are approximately €130 - €150 per tonne of waste, which includes a €75 per tonne landfill levy introduced under the *Waste Management (Landfill Levy) (Amendment) Regulations 2012*.

The *Dublin City Development Plan 2016 – 2022*¹¹ sets out a number of policies and objectives for Dublin City in line with the objectives of the regional waste management plan. The plan identifies the development of recycling in order to minimise the use of landfill as the main objective of the City Council. Waste policies and objectives with a particular relevance to the proposed development are:

Policies:

- *SI19: To support the principles of good waste management and the implementation of best international practice in relation to waste management in order for Dublin City and the region to become self-reliant in terms of waste management.*
- *SI20: To prevent and minimise waste and to encourage and support material sorting and recycling.*
- *SI21: To minimise the amount of waste which cannot be prevented and ensure it is managed and treated without causing environmental pollution.*

Objectives:

- *SIO17: To promote the re-use of building materials, recycling of demolition material and the use of materials from renewable sources. In all developments in excess of 10 housing units and commercial developments in excess of 1000 sqm, a materials source and management plan showing type of materials/proportion of re-use/recycled materials to be used shall be implemented by the developer.*

- *SIO18: To implement the current Litter Management Plan through enforcement of the litter laws, street cleaning and education and awareness campaigns.*
- *SIO19: To implement the Eastern-Midlands Waste Management Plan 2015-2021 and achieve the plan targets and objectives.*

The Draft *Dublin City Development Plan 2022 – 2028*¹⁴ sets out a number of policies and objectives for Dublin City in line with the objectives of the National climate action policy and emphasises the need to take action to address climate action across all sectors of society and the economy. In the waste sector, policy on climate action is focused on a shift towards a 'circular economy' encompassing three core principles: designing out waste and pollution; keeping products and material in use; and regenerating natural systems. Further policies and objectives can be found within the draft development plan.

Policies:

- *CA7 F: minimising the generation of site and construction waste and maximising reuse or recycling.*
- *CA22: The Circular economy: To support the shift towards the circular economy approach as set out in 'a Waste Action Plan for a Circular Economy 2020 to 2025, Ireland's National Waste Policy, or as updated.*
- *CA23: To have regard to existing Best Practice Guidance on Waste Management Plans for Construction and Demolition Projects as well as any future updates to these guidelines in order to ensure the consistent application of planning requirements.*
- *SI27: Sustainable Waste Management: To support the principles of the circular economy, good waste management and the implementation of best practice in relation to waste management in order for Dublin City and the Region to become self-sufficient in terms of resource and waste management and to provide a waste management infrastructure that supports this objective.*
- *SI30: To require that the storage and collection of mixed dry recyclables, organic and residual waste materials within proposed apartment schemes have regard to the Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities 2018 (or and any future updated versions of these guidelines produced during the lifetime of this plan).*

Objectives:

- *SIO14 Local Recycling Infrastructure: To provide for a citywide network of municipal civic amenity facilities/ multi-material public recycling and reuse facilities in accessible locations throughout the city in line with the objectives of the circular economy and 15 minute city.*
- *SIO16 Eastern-Midlands Region Waste Management Plan: To support the implementation of the Eastern-Midlands Regional Waste Management Plan 2015–2021 and any subsequent plans in order to facilitate the transition from a waste management economy towards a circular economy.*

2.3 Legislative Requirements

The primary legislative instruments that govern waste management in Ireland and applicable to the development 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 as amended
 - 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 (Hazardous Waste) Regulations 1998 (S.I. No. 163 of 1998) as amended;
 - 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) as amended
- 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 ¹².

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 Developer ensures that the waste contractors engaged by demolition and 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 permit granted by the relevant Local Authority under the *Waste Management (Facility Permit & Registration) Regulations 2007 and Amendments* or a Waste or Industrial Emissions 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 DESCRIPTION OF THE DEVELOPMENT

3.1 Location, Size and Scale of the Development

Birkey Limited intend to apply to An Bord Pleanála for permission for a strategic housing development at this c. 0.61 hectare (c. 6,067 sq m) site at No. 146A and Nos. 148-148A Richmond Road, Dublin 3 (Eircodes D03 W2H1, D03 T6P0, D03 Y8R9, D03 PX27, D03 K6F7, D03 E447 and D03 HR27). The site is bounded to the north-east by Richmond Road and the Leyden's Wholesalers & Distributor Site, to the north-west by an apartment development (Deakin Court), to the south-west by the Tolka River and to the south-east by a residential and commercial development (Distillery Lofts). Improvement works to Richmond Road are also proposed including carriageway widening and a new signal controlled pedestrian crossing facility on an area of c. 0.08 hectares (c. 762 sq m). The development site area and road works area will provide a total application site area of c. 0.69 hectares (c. 6,829 sq m).

The proposed development will principally consist of: the demolition of all existing structures on site (c. 2,346 sq m) including warehouses and 2 No. dwellings; and the construction of a part 6 No. to part 10 No. storey over basement development (with roof level telecommunications infrastructure over), comprising 1 No. café/retail unit (157 sq m) at ground floor level and 183 No. Build-to-Rent apartments (104 No. one bedroom units and 79 No. two bedroom units). The proposed development has a gross floor area of c. 16,366 sq m over a basement of c. 2,729 sq m. The proposed development has a gross floor space of c. 15,689 sq m.

The development also includes the construction of a new c. 126 No. metre long section of flood wall to the River Tolka along the site's southern boundary. The new flood wall is positioned at the top of the existing river bank and will connect to existing constructed sections of flood wall upstream and downstream of the site. The top of the wall will be set at the required flood defence level resulting in typical wall heights of c. 1.2 to 2 metres above existing ground levels. The development will also include the repair and maintenance of the existing river wall on site adjacent to the River Tolka.

The development also provides ancillary residential amenities and facilities; 71 No. car parking spaces including 8 No. electric vehicle spaces, 4 No. mobility impaired spaces and 1 No. car share space; 5 No. motorcycle parking spaces; bicycle parking; electric scooter storage; a drop off space; the decommissioning of the existing telecommunications mast at ground level and provision of new telecommunications infrastructure at roof level

including shrouds, antennas and microwave link dishes; balconies facing all directions; public and communal open space; a pedestrian/bicycle connection along the north-western boundary of the site from Richmond Road to the proposed pedestrian/bicycle route to the south-west of the site adjoining the River Tolka; roof gardens; hard and soft landscaping; boundary treatments; green roofs; ESB Substation; switchroom; comms rooms; generator; lift overruns; stores; plant; and all associated works above and below ground.

3.2 Details of the Non-Hazardous Wastes to be Produced

There will be waste materials generated from the demolition of the existing buildings and hardstanding areas on site, as well as from the further excavation of the building foundations. The volume of waste generated from demolition will be more difficult to segregate than waste generated from the construction phase, as many of the building materials will be bonded together or integrated i.e. plasterboard on timber ceiling joists, steel embedded in concrete, etc.

There will be soil, stones, clay and made ground excavated to facilitate construction of new foundations, underground services, and the installation of the proposed basements. The development quantity surveyors have estimated that 12,000m³ of material will need to be excavated to do so. It is currently envisaged that no material will be able to be retained and reused onsite for landscaping and fill. All excavated material, will need to be removed offsite due to the limited opportunities for reuse on site. This will be taken for appropriate offsite reuse, recovery, recycling and / or disposal.

During the construction phase there may be a surplus of building materials, such as timber off-cuts, broken concrete blocks, cladding, plastics, metals and tiles generated. There may also be excess concrete during construction which will need to be disposed of. Plastic and cardboard waste from packaging and supply of materials will also be generated. The contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

Waste will also be generated from construction workers e.g. organic / food waste, dry mixed recyclables (waste paper, newspaper, plastic bottles, packaging, aluminium cans, tins and Tetra Pak cartons), mixed non-recyclables and potentially sewage sludge from temporary welfare facilities provided on site during the construction phase. Waste printer / toner cartridges, waste electrical and electronic equipment (WEEE) and waste batteries may also be generated infrequently from site offices.

3.3 Potential Hazardous Wastes Arising

3.3.1 Contaminated Soil

Site investigations and environmental soil testing were undertaken by Causeway Geotech between the 26th April and 29th May 2021. For consideration of material to be removed from site, a waste classification of the solid soil laboratory results was completed using HazWasteOnlineTM software.

The Waste Classification report shows that the sample at WS02 at 0.50m and WS03 at 1.0m have been classified as hazardous waste should this material be removed from site. WS02 has been recorded as potentially hazardous waste through elevated lead and zinc concentrations while WS03 has been classified hazardous due to elevated TPH concentrations. The remaining samples have been classified as non-hazardous material

considering the List of Wastes (LoW) code 17 for Construction and Demolition Wastes (including soils excavated from contaminated sites), specifically 17 05 03* and 17 05 04.

Following completion of the waste classification, and to determine a suitable disposal route for the soil, assessment of the Waste Acceptance Criteria (WAC) analysis of the samples was completed. The laboratory results of the WAC testing indicate that the non-hazardous soils from the site are suitable for disposal as Inert waste to an appropriate licenced facility.

If any further potentially contaminated material is encountered, it will need to be segregated from clean / inert material, tested and classified as either non-hazardous or hazardous in accordance with the EPA publication entitled '*Waste Classification: List of Waste & Determining if Waste is Hazardous or Non-Hazardous*'¹³ using the *HazWasteOnline* application (or similar approved classification method). The material will then need to be classified as clean, inert, non-hazardous or hazardous in accordance with the *EC Council Decision 2003/33/EC*¹⁴, which establishes the criteria for the acceptance of waste at landfills.

In the event that Asbestos Containing Materials (ACMs) are found within the excavated material, the removal will only be carried out by a suitably permitted waste contractor, in accordance with *S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010*. All asbestos will be taken to a suitably licensed or permitted facility. No ACMs were detected in the soils that were sent for environmental testing.

In the event that hazardous soil, or historically deposited waste is encountered during the construction phase, the contractor will notify DCC and provide a Hazardous / Contaminated Soil Management Plan, to include estimated tonnages, description of location, any relevant mitigation, destination for disposal / treatment, in addition to information on the authorised waste collector(s).

3.3.2 Fuel/Oils

Fuels and oils are classed as hazardous materials; any on-site storage of fuel / oil, and all storage tanks and all draw-off points will be bunded and located in a dedicated, secure area of the site. 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 waste generated at the site.

3.3.3 Invasive Plant Species

Invasive Plant Solutions have undertaken a site assessment at this site and in the surrounding boundary area as part of a targeted ecological assessment of invasive species on site. As part of this, a site walkover was undertaken for the purpose of identifying and managing any schedule 3 (Regulations SI No. 355/2015) invasive species such as Japanese Knotweed (*Fallopia japonica*).

The site survey was carried out on the 8th. of April 2021. This survey detected the presence of spring emerging IAPS, namely Japanese Knotweed and Giant Hogweed. The two Japanese Knotweed stands were well established but located on the peripheral fringes of the property. The Giant Hogweed stands, on the other hand, did not suggest that the plant was well established on the site, but rather that the current plants present were likely more recent arrivals via seed dispersal from offsite, most likely from the Tolka River corridor upstream of the property.

On foot of these observations the client approved the immediate deployment of bio-security measures and the commencement of a herbicide treatment and inspection regime, in accordance with this report's recommendations. The purpose of these initial measures is to protect the plant stands from disturbance, by the erection and fencing and signage, and to mitigate the risk of seed dispersal and plant spread/reproduction by the injection and spot application of approved herbicide. The first three stages of this process, consisting of fencing, signage, the full scope of the 2021 treatment programme for both Giant Hogweed and Japanese Knotweed, and a follow up survey, were completed on 09 September 2021. The site inspection / survey carried out on 09 September 2021 did not identify the presence of any further IAPS on the site.

An Invasive Alien Plant Species Site Management Assessment Report & Management Plan authored by Invasive Plant Solutions has been included with this planning application.

3.3.4 Asbestos

An asbestos refurbishment / demolition surveys were undertaken by the Iota Group in December 2020 and is included within the planning documentation submitted in Appendix A. The scope of the surveys was confined to all accessible areas of the existing buildings which are due for demolition and / or refurbishment in the future.

ACM were detected in several locations within some of the buildings, including in corrugated cement fragments, roof sheeting, tiling and pads.

Removal of asbestos or ACMs will be carried out by a suitably qualified contractor and ACMs will only be removed from site by a suitably permitted / licenced waste contractor, in accordance with *S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010*. All material will be taken to a suitably licensed or permitted facility.

3.3.5 Other Known Hazardous Substances

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. Wastes will be stored in appropriate receptacles pending collection by an authorised waste contractor.

In addition, WEEE (containing hazardous components), printer toner / cartridges, batteries (Lead, Ni-Cd or Mercury) and / or fluorescent tubes and other mercury containing waste may be generated from during C&D activities or temporary site offices. These wastes, if generated, will be stored in appropriate receptacles in designated areas of the site pending collection by an authorised waste contractor.

3.4 Main Construction and Demolition Waste Categories

The main non-hazardous and hazardous waste streams that could be generated by the construction activities at a typical site are shown in Table 3.1. The List of Waste (LoW) code (applicable as of 1 June 2015) (also referred to as the European Waste Code (EWC)) for each waste stream is also shown.

Table 3.1 Typical waste types generated and LoW codes (individual waste types may contain hazardous substances)

Waste Material	LoW/EWC Code
Concrete, bricks, tiles, ceramics	17 01 01-03 & 07
Wood, glass and plastic	17 02 01-03
Treated wood, glass, plastic, containing hazardous substances	17-02-04*
Bituminous mixtures, coal tar and tarred products	17 03 01*, 02 & 03*
Metals (including their alloys) and cable	17 04 01-11
Soil and stones	17 05 03* & 04
Gypsum-based construction material	17 08 01* & 02
Paper and cardboard	20 01 01
Mixed C&D waste	17 09 04
Green waste	20 02 01
Electrical and electronic components	20 01 35 & 36
Batteries and accumulators	20 01 33 & 34
Liquid fuels	13 07 01-10
Chemicals (solvents, pesticides, paints, adhesives, detergents etc.)	20 01 13, 19, 27-30
Insulation materials	17 06 04
Organic (food) waste	20 01 08
Mixed Municipal Waste	20 03 01

* Individual waste type may contain hazardous substances

4.0 RESOURCE AND WASTE MANAGEMENT

4.1 Demolition Waste Generation

The demolition stage will involve the demolition of the existing buildings on-site and the excavation of hardstanding. The demolition areas are identified in the planning drawings provided with this application. The anticipated demolition waste and rates of reuse, recycling / recovery and disposal are shown in Table 4.1, below.

Table 4.1 Estimated off-site reuse, recycle and disposal rates for demolition waste

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	7.0	0	0.0	85	6.0	15	1.1
Concrete, Bricks, Tiles, Ceramics	193.5	30	58.0	65	125.8	5	9.7
Plasterboard	14.1	30	4.2	60	8.4	10	1.4
Asphalts	28.1	0	0.0	25	7.0	75	21.1
Metals	66.8	5	3.3	80	53.5	15	10.0
Slate	0.0	0	0.0	85	0.0	15	0.0
Timber	42.2	10	4.2	60	25.3	30	12.7
Asbestos	0.2	0	0.0	0	0.0	100	0.2
Total	351.9		69.8		226.0		56.2

4.2 Construction Waste Generation

Table 4.2 shows the breakdown of C&D waste types produced on a typical site based on data from the EPA *National Waste Reports*¹⁵ and the joint EPA & GMIT study¹⁶.

Table 4.2: Waste materials generated on a typical Irish construction site

Waste Types	%
Mixed C&D	33
Timber	28
Plasterboard	10
Metals	8
Concrete	6
Other	15
Total	100

Table 4.3, below, shows the estimated construction waste generation for the proposed Project based on the gross floor area of construction and other information available to date, along with indicative targets for management of the waste streams. The estimated amounts for the main waste types (with the exception of soils and stones) are based on an average large-scale development waste generation rate per m², using the waste breakdown rates shown in Table 4.2. These have been calculated from the schedule of development areas provided by the architect.

Table 4.3: Predicted on and off-site reuse, recycle and disposal rates for construction waste

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	420.7	10	42.1	80	336.6	10	42.1
Timber	357.0	40	142.8	55	196.3	5	17.8
Plasterboard	127.5	30	38.2	60	76.5	10	12.7
Metals	102.0	5	5.1	90	91.8	5	5.1
Concrete	76.5	30	22.9	65	49.7	5	3.8
Other	191.2	20	38.2	60	114.7	20	38.2
Total	1274.9		289.3		865.6		119.7

In addition to the waste streams in Table 4.3, there will be c. 12,000 m³ of soil, stones, clay and made ground excavated to facilitate construction of new foundations, underground services, and the installation of the proposed basements. Any suitable excavated material will be temporarily stockpiled for reuse as fill, where possible, but reuse on site is expected to be limited and all of the excavated material is expected to be removed off- site for appropriate reuse, recovery and / or disposal.

It should be noted that until final materials and detailed construction methodologies have been confirmed, it is difficult to predict with a high level of accuracy the construction waste that will be generated from the proposed works as the exact materials and quantities may be subject to some degree of change and variation during the construction process.

4.3 Proposed Resource and Waste Management Options

Waste materials generated will be segregated on- site, where it is practical. Where the on-site segregation of certain wastes types is not practical, off- site segregation will be carried out. There will be skips and receptacles provided to facilitate segregation at source, where feasible. All waste receptacles leaving site will be covered or enclosed. The appointed waste contractor will collect and transfer the wastes as receptacles are filled. There are numerous waste contractors in the Dublin region that provide this service.

All waste arisings will be handled by an approved waste contractor holding a current waste collection permit. All waste arisings requiring disposal off- site will be reused, recycled, recovered or disposed of at a facility holding the appropriate registration, permit or licence, as required.

During construction, some of the sub-contractors on site will generate waste in relatively low quantities. The transportation of non-hazardous waste by persons who are not directly involved with the waste business, at weights less than or equal to 2 tonnes, and in vehicles not designed for the carriage of waste, are exempt from the requirement to have a waste collection permit (per Article 30 (1) (b) of the Waste Collection Permit Regulations 2007, as amended). Any sub-contractors engaged that do not generate more than 2 tonnes of waste at any one time can transport this waste off- site in their work vehicles (which are not designed for the carriage of waste). However, they are required to ensure that the receiving facility has the appropriate COR / permit / licence.

Written records will be maintained by the contractor(s), detailing the waste arising throughout the C&D phases, the classification of each waste type, waste collection permits for all waste contactors who collect waste from the site and COR / permit / licence for the receiving waste facility for all waste removed off- site for appropriate reuse, recycling, recovery and / or disposal

Dedicated banded storage containers will be provided for hazardous wastes which may arise, such as batteries, paints, oils, chemicals, if required.

The anticipated management of the main waste streams is outlined as follows:

Soil, Stone, Gravel, Clay & Made Ground

The waste hierarchy states that the preferred option for waste management is prevention and minimisation of waste, followed by preparing for reuse and recycling / recovery, energy recovery (i.e. incineration) and, least favoured of all, disposal. The excavations are required to facilitate construction works so the preferred option (prevention and minimisation) cannot be accommodated for the excavation phase.

When material is removed off- site it could be reused as a by-product (and not as a waste). If this is done, it will be done in accordance with Article 27 of the *European Communities (Waste Directive) Regulations 2011*, which requires that certain conditions are met and that by-product notifications are made to the EPA via their online notification form. Excavated material should not be removed from site until approval from the EPA has been received.

The next option (beneficial reuse) may be appropriate for the excavated material, pending environmental testing to classify the material as hazardous or non-hazardous in accordance with the EPA *Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous* publication. Clean inert material may be used as fill material in other construction projects or engineering fill for waste licensed sites. Beneficial reuse of surplus excavation material as engineering fill may be subject to further testing to determine if materials meet the specific engineering standards for their proposed end use.

If the material is deemed to be a waste, then removal and reuse / recovery / disposal of the material will be carried out in accordance with the *Waste Management Acts 1996 – 2011* as amended, the *Waste Management (Collection Permit) Regulations 2007* as amended and the *Waste Management (Facility Permit & Registration) Regulations 2007* as amended. Once all available beneficial reuse options have been exhausted, the options of recycling and recovery at waste permitted and licensed sites will be considered.

In the event that contaminated material is encountered and subsequently classified as hazardous, this material will be stored separately to any non-hazardous material. It will require off-site treatment at a suitable facility or disposal abroad via Transfrontier Shipment of Wastes (TFS).

Bedrock

While it is not envisaged that bedrock will be encountered, if bedrock is encountered, it is anticipated that it will not be crushed on site. Any excavated rock is expected to be removed off- site for appropriate reuse, recovery and / or disposal. If bedrock is to be crushed on- site, the appropriate mobile waste facility permit will be obtained from DCC.

Silt & Sludge

During the construction phase, silt and petrochemical interception will be carried out on run-off and pumped water from site works, where required. Sludge and silt will then be collected by a suitably licensed contractor and removed off- site.

Concrete Blocks, Bricks, Tiles & Ceramics

The majority of concrete blocks, bricks, tiles and ceramics generated as part of the construction works are expected to be clean, inert material and should be recycled, where possible. If concrete is to be crushed on- site, the appropriate mobile waste facility permit will be obtained from DCC.

Hard Plastic

As hard plastic is a highly recyclable material, much of the plastic generated will be primarily from material off-cuts. All recyclable plastic will be segregated and recycled, where possible.

Timber

Timber that is uncontaminated, i.e. free from paints, preservatives, glues, etc., will be disposed of in a separate skip and recycled off- site.

Metal

Metals will be segregated, where practical, and stored in skips. Metal is highly recyclable and there are numerous companies that will accept these materials.

Plasterboard

There are currently a number of recycling services for plasterboard in Ireland. Plasterboard from the construction phases will be stored in a separate skip, pending collection for recycling. The site Manager will ensure that oversupply of new plasterboard is carefully monitored to minimise waste.

Glass

Glass materials will be segregated for recycling, where possible.

Waste Electrical & Electronic Equipment (WEEE)

Any WEEE will be stored in dedicated covered cages / receptacles / pallets pending collection for recycling.

Other Recyclables

Where any other recyclable wastes, such as cardboard and soft plastic, are generated, these will be segregated at source into dedicated skips and removed off- site.

Non-Recyclable Waste

C&D waste which is not suitable for reuse or recovery, such as polystyrene, some plastics and some cardboards, will be placed in separate skips or other receptacles. Prior to removal from site, the non-recyclable waste skip / receptacle will be examined by a member of the waste team (see Section 7.0) to determine if recyclable materials have

been placed in there by mistake. If this is the case, efforts will be made to determine the cause of the waste not being segregated correctly and recyclable waste will be removed and placed into the appropriate receptacle.

Asbestos Containing Materials

Any asbestos or ACM found on-site should be removed by a suitably competent contractor and disposed of as asbestos waste before the demolition works begin. All asbestos removal work or encapsulation work must be carried out in accordance with *S.I. No. 386 of 2006 Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006-2010*.

Other Hazardous Wastes

On-site storage of any hazardous wastes produced (i.e. contaminated soil if encountered and / or waste fuels) will be kept to a minimum, with removal off-site organised on a regular basis. Storage of all hazardous wastes on-site will be undertaken so as to minimise exposure to on-site personnel and the public and to also minimise potential for environmental impacts. Hazardous wastes will be recovered, wherever possible, and failing this, disposed of appropriately.

On-Site Crushing

It is currently not envisaged that the crushing of waste materials will occur on-site. However, if the crushing of material is to be undertaken, a mobile waste facility permit will first be obtained from DCC and the destination of the accepting waste facility will be supplied to the DCC waste unit.

4.4 Tracking and Documentation Procedures for Off-Site Waste

All waste will be documented prior to leaving the site. Waste will be weighed by the contractor, either by a weighing mechanism on the truck or at the receiving facility. These waste records will be maintained on site by the nominated project Waste Manager (see Section 7.0).

All movement of waste and the use of waste contractors will be undertaken in accordance with the *Waste Management Acts 1996 - 2011, Waste Management (Collection Permit) Regulations 2007* as amended and *Waste Management (Facility Permit & Registration) Regulations 2007* and amended. 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 7.0) will maintain a copy of all waste collection permits on-Site.

If the waste is being transported to another site, a copy of the Local Authority waste COR / permit or EPA Waste / Industrial Emissions Licence for that site will be provided to the nominated project Waste Manager (see Section 7.0). If the waste is being shipped abroad, a copy of the Transfrontier Shipping (TFS) notification document will be obtained from DCC (as the relevant authority on behalf of all Local Authorities in Ireland) and kept on-Site along with details of the final destination (COR, 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.

5.0 ESTIMATED COST OF WASTE MANAGEMENT

An outline of the costs associated with different aspects of waste management is outlined below. The total cost of C&D waste management will be measured and will take into account handling costs, storage costs, transportation costs, revenue from rebates and disposal costs.

5.1 Reuse

By reusing materials on site, there will be a reduction in the transport and recycle / recovery / disposal costs associated with the requirement for a waste contractor to take the material off-Site. Clean and inert soils, gravel, stones, etc., which cannot be reused on-Site may be used as access roads or capping material for landfill sites, etc. This material is often taken free of charge or at a reduced fee for such purposes, reducing final waste disposal costs.

5.2 Recycling

Salvageable metals will earn a rebate, which can be offset against the costs of collection and transportation of the skips. Clean, uncontaminated cardboard and certain hard plastics can also be recycled. Waste contractors will charge considerably less to take segregated wastes, such as recyclable waste, from a site than mixed waste. Timber can be recycled as chipboard. Again, waste contractors will charge considerably less to take segregated wastes, such as timber, from a site than mixed waste.

5.3 Disposal

Landfill charges are currently at around €130 - €150 per tonne which includes a €75 per tonne landfill levy specified in the *Waste Management (Landfill Levy) Regulations 2015*. In addition to disposal costs, waste contractors will also charge a collection fee for skips.

Collection of segregated C&D waste usually costs less than municipal waste. Specific C&D waste contractors take the waste off-site to a licensed or permitted facility and, where possible, remove salvageable items from the waste stream before disposing of the remainder to landfill. Clean soil, rubble, etc., is also used as fill / capping material, wherever possible.

6.0 DEMOLITION PROCEDURES

The demolition stage will involve the demolition of warehouse style buildings on-Site. The demolition areas are identified in the planning drawings submitted as part of this application. A formal demolition plan including safety procedures will be prepared by the demolition contractor. However, in general, the following sequence of works should be followed during the demolition stage:

Check for Hazards

Prior to commencing works, buildings and structures to be demolished will be checked for any likely hazards including asbestos, ACMs, electrical power lines or cables, gas reticulation systems, telecommunications, unsafe structures and fire / explosion hazards, e.g. combustible dust, chemical hazards, oil, fuels and contamination.

Removal of Components

All hazardous materials will be removed first. All components from within the buildings that can be salvaged will be removed next. This will primarily be comprised of metal; however, may also include timbers, doors, windows, wiring and metal ducting, etc.

Removal of Roofing

Steel roof supports, beams, etc., will be dismantled and taken away for recycling / salvage.

Excavation of Services, Demolition of Walls and Concrete

Services will be removed from the ground and the breakdown of walls will be carried out once all salvageable or reusable materials have been taken from the buildings. Finally, any existing foundations and hard standing areas will be excavated.

7.0 TRAINING PROVISIONS

A member of the construction team will be appointed as the Waste Manager to ensure commitment, operational efficiency and accountability in relation to waste management during the C&D phases of the development.

7.1 Waste Manager Training and Responsibilities

The nominated Waste Manager will be given responsibility and authority to select a waste team if required, i.e. members of the site crew that will aid them in the organisation, operation and recording of the waste management system implemented on site.

The Waste Manager will have overall responsibility to oversee, record and provide feedback to the client on everyday waste management at the site. Authority will be given to the Waste Manager to delegate responsibility to sub-contractors, where necessary, and to coordinate with suppliers, service providers and sub-contractors to prioritise waste prevention and material salvage.

The Waste Manager will be trained in how to set up and maintain a record keeping system, how to perform an audit and how to establish targets for waste management on site. The Waste Manager will also be trained in the best methods for segregation and storage of recyclable materials, have information on the materials that can be reused on site and be knowledgeable in how to implement this C&D RWMP.

7.2 Site Crew Training

Training of site crew in relation to waste is the responsibility of the Waste Manager and, as such, a waste training program should be organised. A basic awareness course will be held for all site crew to outline the C&D RWMP and to detail the segregation of waste materials at source. This may be incorporated with other site training needs such as general site induction, health and safety awareness and manual handling.

This basic course will describe the materials to be segregated, the storage methods and the location of the Waste Storage Areas (WSAs). A sub-section on hazardous wastes will

be incorporated into the training program and the particular dangers of each hazardous waste will be explained.

8.0 RECORD KEEPING

Records should be kept for all waste material which leaves the site, either for reuse on another site, recycling or disposal. A recording system will be put in place to record the waste arisings on Site.

A waste tracking log should be used to track each waste movement from the site. On exit from the site, the waste collection vehicle driver should stop at the site office and sign out as a visitor and provide the security personnel or Waste Manager with a waste docket (or Waste Transfer Form (WTF) for hazardous waste) for the waste load collected. At this time, the security personnel should complete and sign the Waste Tracking Register with the following information:

- Date
- Time
- Waste Contractor
- Company waste contractor appointed by, e.g. Contractor or subcontractor name
- Collection Permit No.
- Vehicle Reg.
- Driver Name
- Docket No.
- Waste Type
- EWC / LoW

The waste vehicle will be checked by security personal or the Waste Manager to ensure it has the waste collection permit no. displayed and a copy of the waste collection permit in the vehicle before they are allowed to remove the waste from the site.

The waste transfer dockets will be transferred to the Waste Manager on a weekly basis and can be placed in the Waste Tracking Log file. This information will be forwarded onto the DCC Waste Regulation Unit when requested.

Alternatively, each subcontractor that has engaged their own waste contractor will be required to maintain a similar waste tracking log with the waste dockets / WTF maintained on file and available for inspection on site by the main contractor as required.

Waste receipts from the receiving waste facility will also be obtained by the site contractor(s) and retained. A copy of the Waste Collection Permits, CORs, Waste Facility Permits and Waste Licences will be maintained on site at all times. Subcontractors who have engaged their own waste contractors, should provide the main contractor with a copy of the waste collection permits and COR / permit / licence for the receiving waste facilities and maintain a copy on file, available for inspection on site as required.

9.0 OUTLINE WASTE AUDIT PROCEDURE

9.1 Responsibility for Waste Audit

The appointed Waste Manager will be responsible for conducting a waste audit at the site during the C&D phase of the proposed Project. Contact details for the nominated Waste Manager will be provided to the DCC Waste Regulation Unit after the main contractor is appointed and prior to any material being removed from site.

9.2 Review of Records and Identification of Corrective Actions

A review of all waste management costs and the records for the waste generated and transported off-site should be undertaken mid-way through the demolition and construction phase of the proposed Project.

If waste movements are not accounted for, the reasons for this should be established in order to see if and why the record keeping system has not been maintained. The waste records will be compared with the established recovery / reuse / recycling targets for the site. Each material type will be examined, in order to see where the largest percentage waste generation is occurring. The waste management methods for each material type will be reviewed in order to highlight how the targets can be achieved.

Upon completion of the C&D phase, a final report will be prepared, summarising the outcomes of waste management processes adopted and the total recycling / reuse / recovery figures for the development.

10.0 CONSULTATION WITH RELEVANT BODIES

10.1 Local Authority

Once construction contractors have been appointed and have appointed waste contractors, and prior to removal of any C&D waste materials off-site, details of the proposed destination of each waste stream will be provided to the DCC Waste Regulation Unit.

DCC will also be consulted, as required, throughout the demolition, excavation and construction phases 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.

10.2 Recycling / Salvage Companies

The appointed waste contractor for the main waste streams managed by the demolition and construction contractors will be audited in order to ensure that relevant and up-to-date waste collection permits and facility registrations / permits / licences are held. In addition, information will be obtained regarding the feasibility of recycling each material, the costs of recycling / reclamation, the means by which the wastes will be collected and transported off-site, and the recycling / reclamation process each material will undergo off-site.

11.0 REFERENCES

1. Waste Management Act 1996 (No. 10 of 1996) as amended. Sub-ordinate and associated legislation includes:
 - European Communities (Waste Directive) Regulations 2011 (S.I. No. 126 of 2011) as amended.
 - Waste Management (Collection Permit) Regulations 2007 (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 2000 (S.I. No. 185 of 2000) as amended.
 - European Union (Packaging) Regulations 2014 (S.I. No. 282 of 2014) as amended.
 - Waste Management (Planning) Regulations 1997 (S.I. No. 137 of 1997) as amended.
 - Waste Management (Landfill Levy) Regulations 2015 (S.I. No. 189 of 2015)
 - European Union (Waste Electrical and Electronic Equipment) Regulations 2014 as amended
 - European Union (Batteries and Accumulators) Regulations 2014 (S.I. No. 283 of 2014) as amended.
 - Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) as amended.
 - European Union (Household Food Waste and Bio-waste) Regulations 2015 (S.I. No. 430 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.
 - The European Communities (Transfrontier Shipment of Hazardous Waste) Regulations 1988 (S.I. No. 248 of 1988)
 - European Communities (Shipments of Hazardous Waste exclusively within Ireland) Regulations 2011 (S.I. No. 324 of 2011)
 - European Union (Properties of Waste which Render it Hazardous) Regulations 2015 (S.I. No. 233 of 2015) as amended
2. Protection of the Environment Act 2003, (No. 27 of 2003) as amended.
3. Litter Pollution Act 1997 (S.I. No. 12 of 1997) as amended
4. Eastern-Midlands Region Waste Management Plan 2015 – 2021 (2015).
5. Department of Environment and Local Government (DoELG) *Waste Management – Changing Our Ways, A Policy Statement* (1998).
6. Forum for the Construction Industry – *Recycling of Construction and Demolition Waste*.
7. Department of Communications, Climate Action and Environment (DCCA), *Waste Action Plan for the Circular Economy - Ireland's National Waste Policy 2020-2025* (Sept 2020).
8. Department of Environment, Heritage and Local Government, (DoEHLG) *Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects* (2006).
9. FÁS and the Construction Industry Federation (CIF), *Construction and Demolition Waste Management – a handbook for Contractors and site Managers* (2002).
10. Dublin City Council (DCC), Dublin City Council Development Plan 2016-2022 (2016)
11. DCC, Draft Dublin City Development Plan (2022-2028)

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12. Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended
 13. EPA, *Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous* (2015)
 14. Council Decision 2003/33/EC, establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC.
 15. Environmental Protection Agency (EPA), *National Waste Database Reports 1998 – 2012*.
 16. EPA and Galway-Mayo Institute of Technology (GMIT), *EPA Research Report 146 – A Review of Design and Construction Waste Management Practices in Selected Case Studies – Lessons Learned* (2015).

Appendix A – Asbestos Demolition and Refurbishment Survey



J021891

Surveyor Name: Ged Williams

Report Issue No: 1

Approved by: Richard Connor

ASBESTOS DEMOLITION SURVEY

LOCATION

Richmond Road
Fairview
Dublin



Date of Assessment: 10th December 2020

iota group consulting & laboratory 10 Tandragee Road, Portadown, Co. Armagh, N. Ireland, BT62 3BQ

Tel No: 02838525025

Email: hello@notoneiota.org

Contents:

- 1.0 Executive Summary:
- 2.0 Survey / Report Details:
- 3.0 Sample / Material Summary:
- 4.0 Asbestos Register – Positive Samples Only
- 5.0 Site Plans:
- 6.0 Bulk Sample Report:
- 7.0 Recommendations:
- 8.0 Material Register – NEGATIVE Samples Only:
- 9.0 Observations:
- 10.0 Material and priority scoring algorithm
- 11.0 Survey Restrictions
- 12.0 Asbestos Management Details / Information
- 13.0 Glossary
- 14.0 Additional site photographs

1.0 Executive Summary:

This report details the findings of a Demolition survey carried out to as per guidance contained within HSG264. This survey is commissioned with the view of finding (as far as reasonably practicable) any Asbestos containing materials located to the area encompassed within our scope of works. During our inspection an intrusive method of sampling was carried out, with the view of finding any ACM's which are not readily viewable/accessible during a management survey. There will have been a destructive methodology used whereby access to certain elements within the structure will have been gained by actively demolishing or removing surface materials etc;

Summary of Asbestos Occurrence:

Location:	Material Description	Classification	Recommended Action	Priority
Unit No.1, 148 Richmond Road				
- Exterior side & rear (E.002)	Corrugated cement fragments	Asbestos Cement	Remove	Very Low
Exterior of whole plot				
- Exterior (E.001)	Redundant cement sheeting	Asbestos Cement	Remove	Low

Scope of works:

To allow for the progression of demolition works to the existing property an Asbestos Demolition survey is to be carried out as per client instructions. It is our understanding that the works being carried out include full demolition of all buildings on site including two houses, small industrial units as well as former builders supplies sheds.

Areas inspected include:

- All areas inspected as detailed with section 9.0 Observations of this report

Specific Exclusions:

No access within units occupied by the solicitors and domestic property as these were occupied at time of inspection. These areas should be surveyed prior to demolition works commencing.

Areas of No Access

Below is a detailed list of areas of no access. These areas should be inspected prior to commencement of works;

Area Name/Details	Level	Reason for No / Limited Access	Client Informed?
All areas were accessed.			

Property Details:

The site surveyed comprises of commercial units of modern steel frame construction, as well as domestic property of traditional construction with a facing brick finish.

External Elements:

- Roof: Metal Profile Sheeting
- Walls: Blockwork and metal Profile Sheeting
- Rainwatergoods: Metal gutters & UPVC downpipes

Internal Elements:

- Roof Void/s: N/A
- Ceilings: Plasterboard to mezzanine, open to Kingspan type roof.
- Partition walls: Solid and plasterboard
- Floors: Solid and timber
- Heating: None
- Electrical: Relatively modern installations

2.0 Survey / Report Details:

Survey Classification: Asbestos Demolition Survey
Job Number: J021891
Client Reference: email from Jack O Berirne
Survey Date/s: 10th December 2020
Site Name and address: Richmond Road
Fairview
Dublin
Survey commissioned by: Hollybrook Homes
Registered Survey company: Not One iota LTD
Lead Surveyor: Ged Williams
Support Surveyor: Warren McCosh
Report Originator: Warren McCosh
Report Verifier: Richard Connor



Date: 4th January 2021

Date: 4 January 2021

Report Audit / Checking:

Issue No.	Date of Issue	Explanation of Re-Issue	Signature of Issuer
1	4 January 2021	Initial issue to client for review and comment	

3.0 Sample / Material Summary:

Item No.	Plan Ref.	Area	Level	Component	Sample ID	Composition	Classification	Action	Quantity	Removal classification
Unit No.1, 148 Richmond Road										
001	E.002	Exterior side & rear (E.002)	EXT	Corrugated cement fragments	JT003663	Chrysotile	Asbestos Cement	Remove	<1m ²	CC
Former shop, Richmond Road										
002	G.001	Open room (G.001)	G	Textured coating to ceiling	JT003664	NADIS	Unknown	N/A	-	-
Unit No.4										
003	G.004	Canteen (G.004)	G	Acoustic pad to sink	JT003665	NADIS	Unknown	N/A	-	-
Units No.2 & No.3										
004	G.003	Unit No.2 canteen (G.003)	G	Acoustic pad to sink	JT003666	NADIS	Unknown	N/A	-	-
Exterior of whole plot										
005	E.001	Exterior (E.001)	EXT	Redundant cement sheeting	JT003667	Chrysotile	Asbestos Cement	Remove	5m ²	CC
006	E.001	Exterior (E.001)	EXT	Fibre cement ridged tiles on pallet at ground level	JT003668	NADIS	Unknown	N/A	-	-

Key:

P	Presumed – Sample is presumed to contain Asbestos material
SP	Strongly Presumed – Sample is strongly presumed to contain Asbestos material
AS	As per item – Relates one item to another
NADIS	No Asbestos detected in Sample
N/A	Not Applicable
Textile	Woven or compressed Asbestos fibres
Cement	Asbestos Cement – Asbestos fibres bound within a cement product
AIB	Asbestos Insulation Board
TI	Asbestos Thermal Insulation
WBM	Well bound material – Asbestos bound within an adhesive or bitumen
Composite	Asbestos bound with a resinous material
Licensed	Works must be carried out by licensed contractor under full 14 day statutory notification period – Further definition within glossary
CC	Competent Contractor – Items may be removed by a competent contractor with appropriate training and experience – Further definition within glossary.

4.0 Asbestos Register:

Unit No.1, 148 Richmond Road

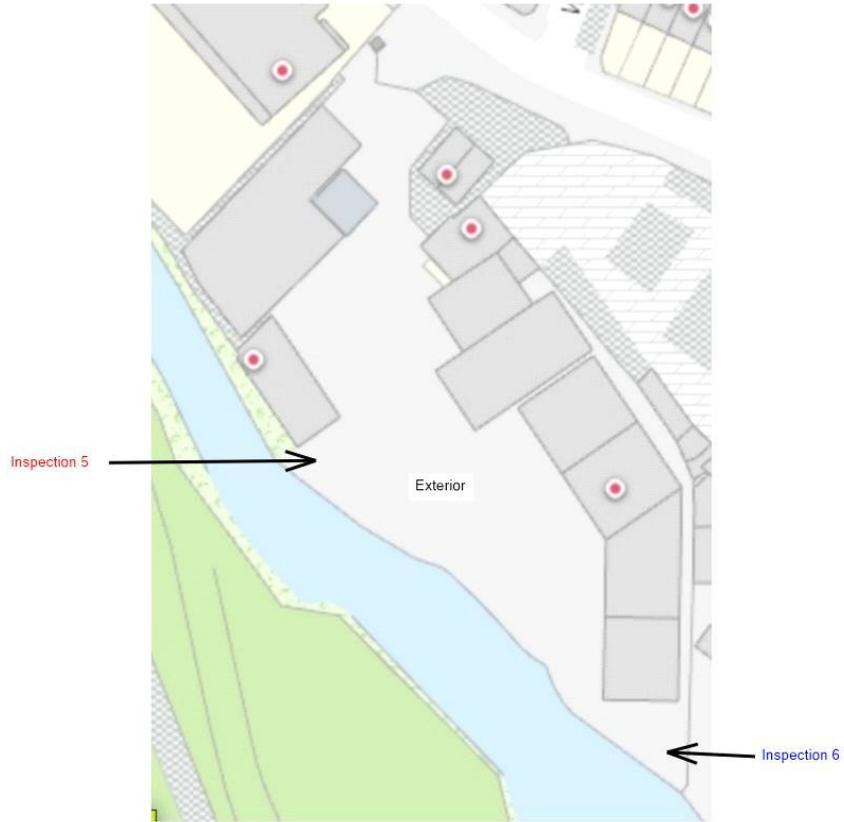
	Item ID:	1	Material Assessment		Priority Assessment	
	Sample area:	Exterior side & rear (E.002)	Product Type	1	Occupancy Activity	2
	Component:	Corrugated cement fragments	Condition	1	Risk of Disturbance	1
	Level of identification:	Sampled	Surface treatment	1	Exposure Potential	1
	Composition:	Chrysotile	Asbestos Type	1	Maintenance activity	0
	Classification:	Asbestos Cement	Total	4	Total	4
	Action	Remove	Total Assessment score	Very Low		8
	Quantity:	<1m ²				
	Removal Classification:	Competent Contractor				
	Comments:	Item 1 is located to side and rear of unit 1				

Exterior of whole plot

	Item ID:	5	Material Assessment		Priority Assessment	
	Sample area:	Exterior (E.001)	Product Type	1	Occupancy Activity	1
	Component:	Redundant cement sheeting	Condition	2	Risk of Disturbance	1
	Level of identification:	Sampled	Surface treatment	1	Exposure Potential	1
	Composition:	Chrysotile	Asbestos Type	1	Maintenance activity	2
	Classification:	Asbestos Cement	Total	5	Total	5
	Action	Remove	Total Assessment score	Low		10
	Quantity:	5m ²				
	Removal Classification:	Competent Contractor				
	Comments:	Item 5 is located to rear of telecommunication/sub-station				

5.0 Site Plans:

Positive Sample Location Negative Sample Location

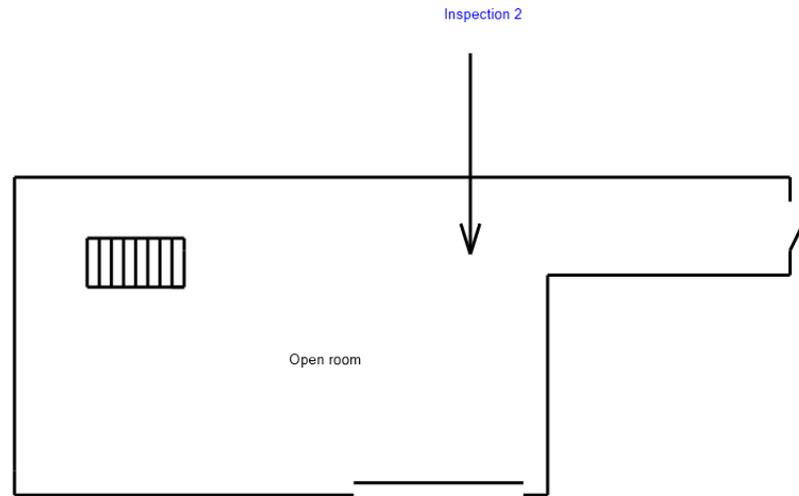


iota
10 Tandragee Road
Portadown
Co. Armagh
028 38 525025
hello@notoneiota.org

Site sketch for
Exterior of whole plot – External
Job Number: J021891
Drawing: 1 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



Iota
10 Tandragee Road
Portadown
Co. Armagh
☎ 028 38 525025
✉ hello@notoneiota.org

**Site sketch for
Former shop, Richmond Road – Ground Floor**

Job Number: J021891

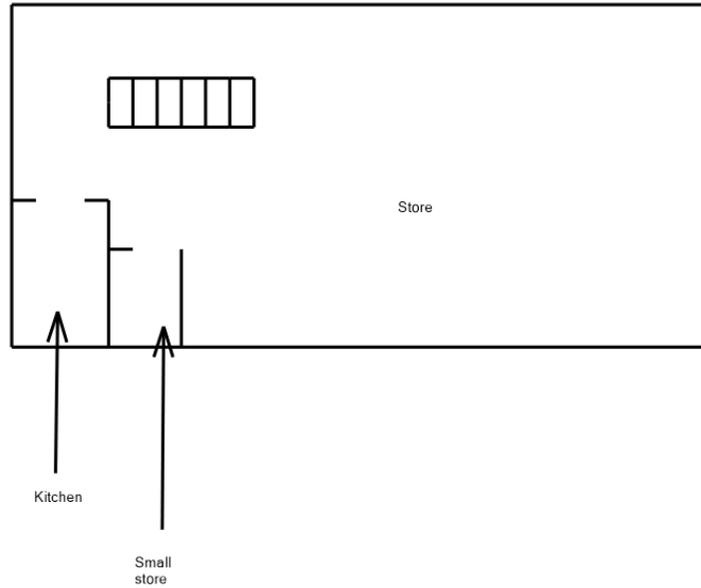
Drawing: 2 of 14

Illustrative Purposes only – Not to scale



8998

● Positive Sample Location ● Negative Sample Location

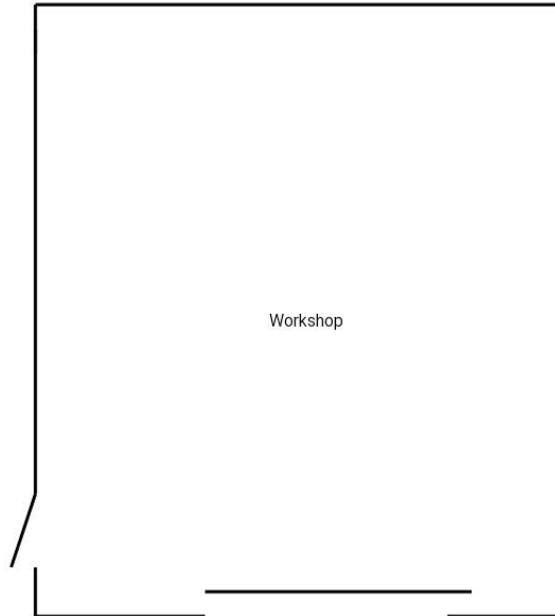


iota
10 Tandragee Road
Portadown
Co. Armagh
☎ 028 38 525025
✉ hello@notoneiota.org

**Site sketch for
Former shop, Richmond Road – Mezzanine**
Job Number: J021891
Drawing: 3 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



Iota
10 Tandragee Road
Portadown
Co. Armagh
☎ 028 38 525025
✉ hello@notoneiota.org

**Site sketch for
Large Shed, Richmond Road – Ground Floor**

Job Number: J021891

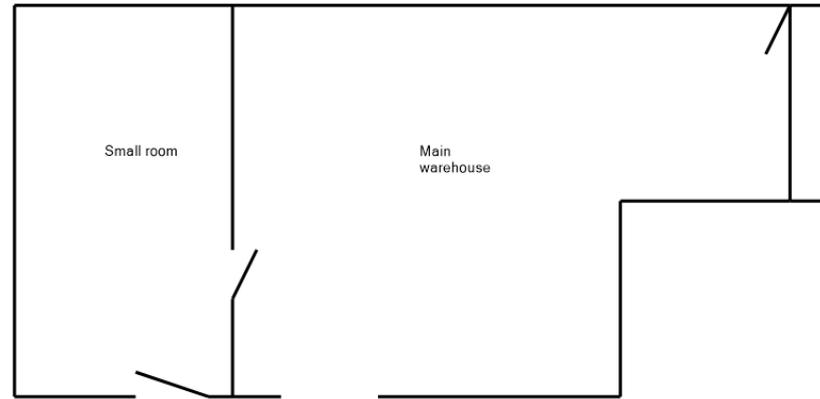
Drawing: 4 of 14

Illustrative Purposes only – Not to scale



8998

● Positive Sample Location ● Negative Sample Location

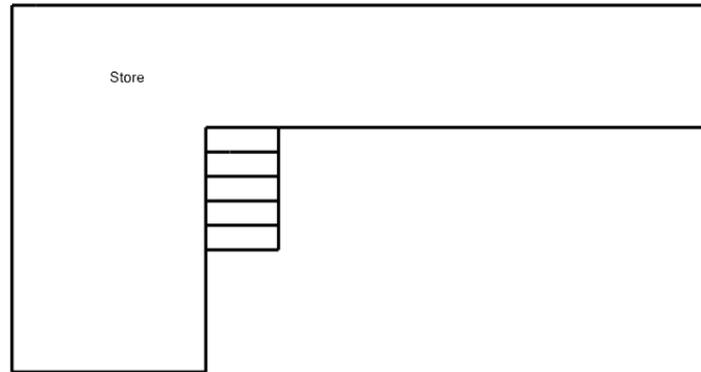


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Co. Armagh
☎ 028 38 525025
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**Site sketch for
Original warehouse – Ground Floor**
Job Number: J021891
Drawing: 5 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location

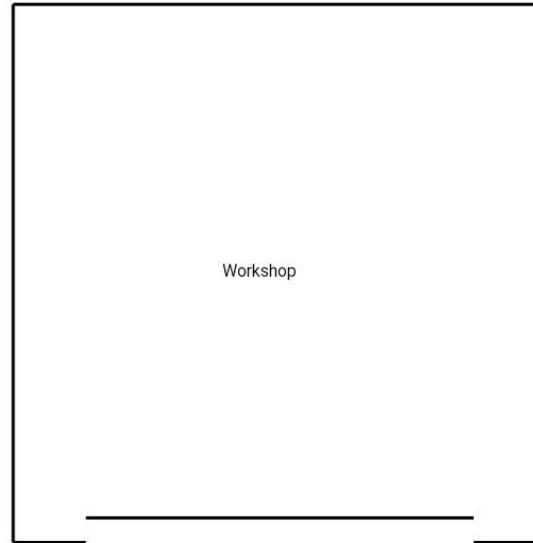


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10 Tandragee Road
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Co. Armagh
☎ 028 38 525025
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**Site sketch for
Original warehouse – Mezzanine**
Job Number: J021891
Drawing: 6 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



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**Site sketch for
Tree Surgeon Shed, Richmond Road – Ground Floor**

Job Number: J021891

Drawing: 7 of 14

Illustrative Purposes only – Not to scale

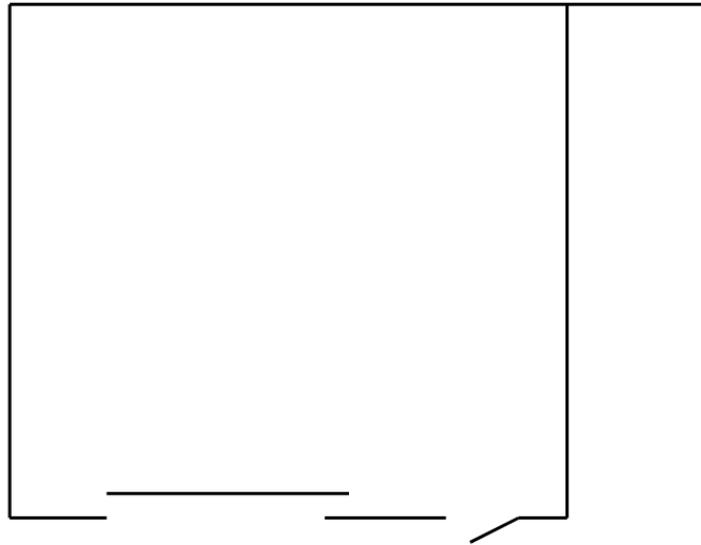


8998

● Positive Sample Location ● Negative Sample Location

Exterior
side & rear

↑
Inspection 1



Exterior - front



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10 Tandragee Road
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**Site sketch for
Unit No.1, 148 Richmond Road – External**

Job Number: J021891

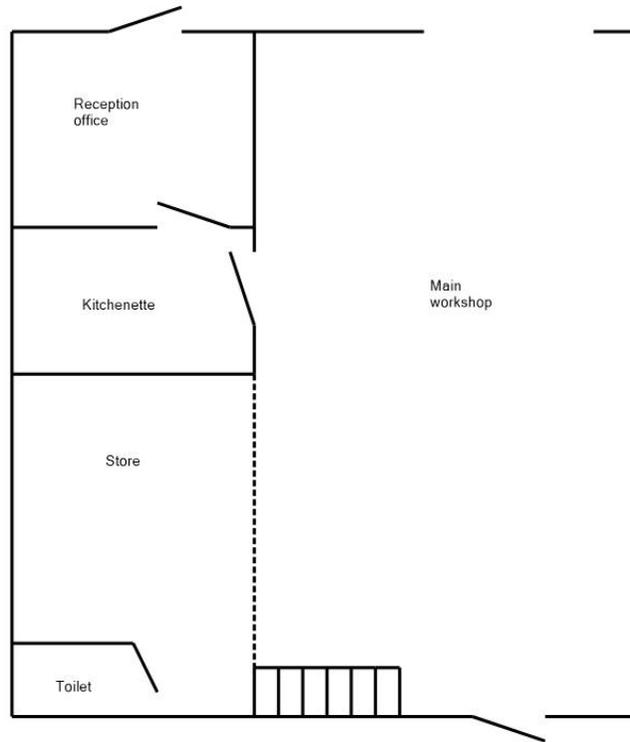
Drawing: 8 of 14

Illustrative Purposes only – Not to scale



8998

● Positive Sample Location ● Negative Sample Location

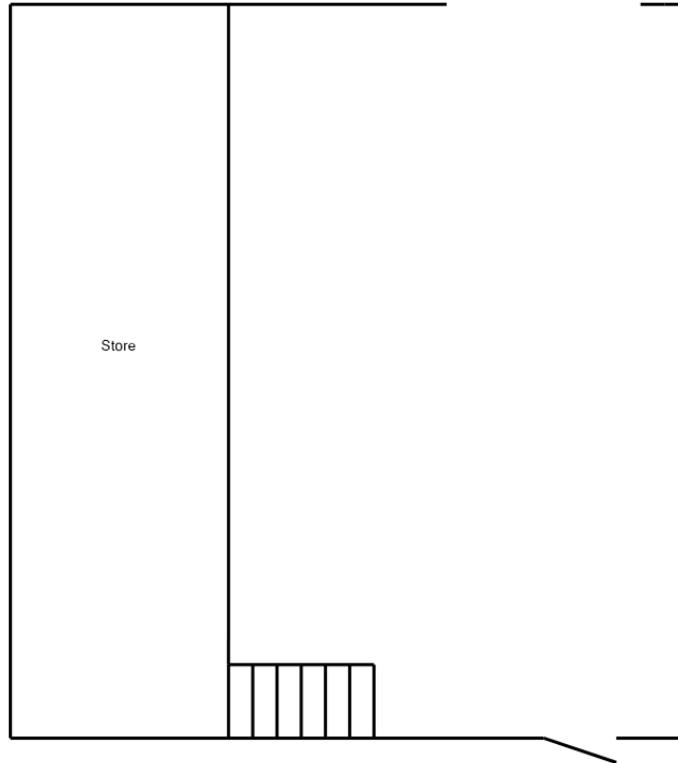


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Site sketch for
Unit No.1, 148 Richmond Road – Ground Floor
Job Number: J021891
Drawing: 9 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



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**Site sketch for
Unit No.1, 148 Richmond Road – Mezzanine**

Job Number: J021891

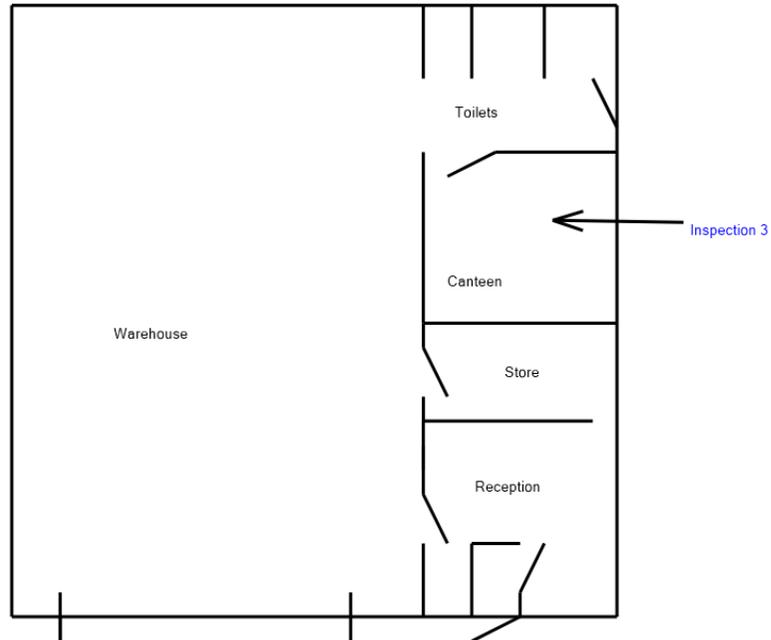
Drawing: 10 of 14

Illustrative Purposes only – Not to scale



8998

● Positive Sample Location ● Negative Sample Location

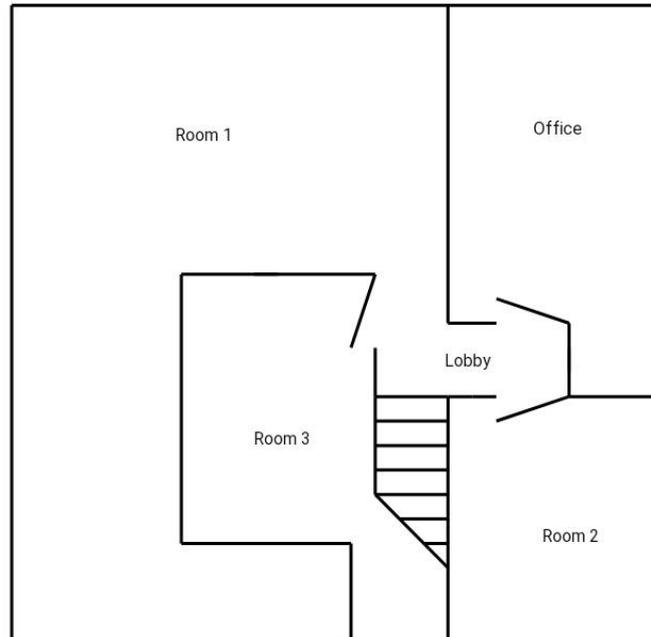


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Site sketch for
Unit No.4 – Ground Floor
Job Number: J021891
Drawing: 11 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



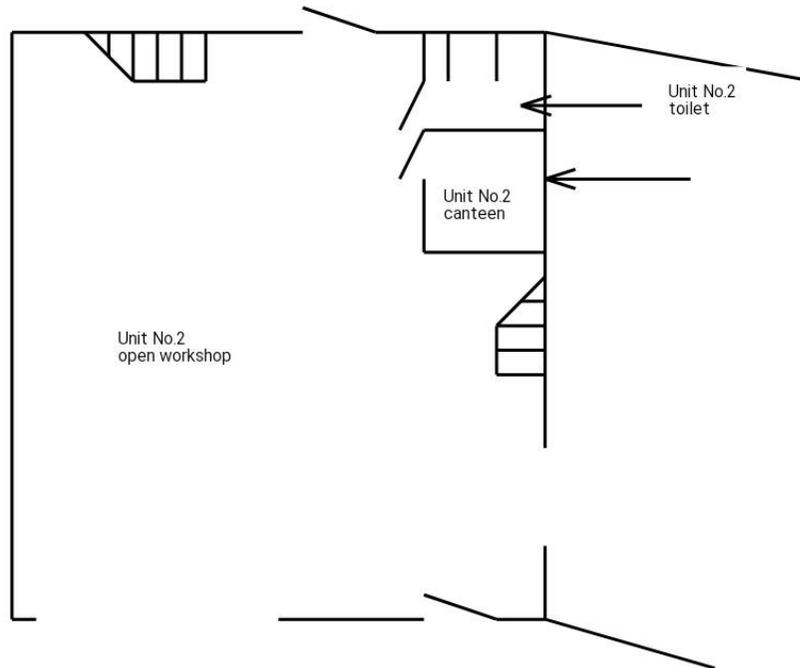
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10 Tandragee Road
Portadown
Co. Armagh
☎ 028 38 525025
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**Site sketch for
Unit No.4 – 1st Floor
Job Number: J021891
Drawing: 12 of 14
Illustrative Purposes only – Not to scale**



8998

● Positive Sample Location ● Negative Sample Location

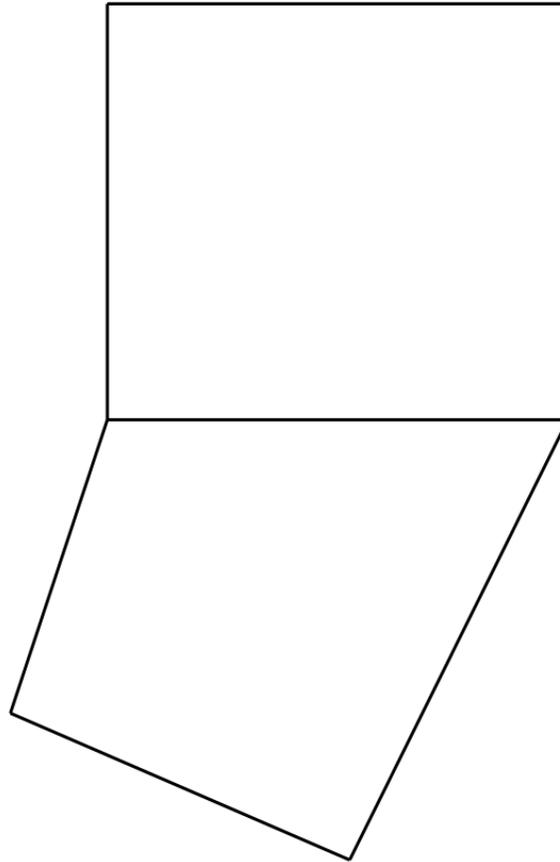


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10 Tandragee Road
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Co. Armagh
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**Site sketch for
Units No.2 & No.3 – Ground Floor**
Job Number: J021891
Drawing: 13 of 14
Illustrative Purposes only – Not to scale



● Positive Sample Location ● Negative Sample Location



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Site sketch for
Units No.2 & No.3 – Mezzanine
Job Number: J021891
Drawing: 14 of 14
Illustrative Purposes only – Not to scale





BULK SAMPLE IDENTIFICATION CERTIFICATE



Client Details			
Client:	Hollybrook Homes	Submission Date:	16th December 2020
Client Address:	19 Queen Elizabeth Street, London, SE1 2LP		
Contact:	Jack O Beirne		

Site Details			
Site Address:	Richmond Road, Fairview, Dublin		
Sampled By:	Ged Williams	Date of Sampling:	10th December 2020

Report Details		
Report Number:	J021891	Signature: 
Client Ref:	N/A	
Analysis Date:	17th December 2020	
Issue Number:	1	
Date of Issue:	4th January 2021	
Analyst:	Clare Girvin	

Bulk Sample Identification Report				
Lab Ref:	Client Ref:	Sample Location:	Identification:	Classification:
JT003663	1	Exterior side & rear - Corrugated cement fragments	Chrysotile	Asbestos Cement
JT003664	2	Open room - Textured coating	No Asbestos Detected	Not Applicable
JT003665	3	Canteen - Acoustic pad	No Asbestos Detected	Not Applicable
JT003666	4	Unit No.2 canteen - Acoustic pad	No Asbestos Detected	Not Applicable
JT003667	5	Exterior - Redundant cement sheeting	Chrysotile	Asbestos Cement
JT003668	6	Exterior - Fibre cement ridged tiles	No Asbestos Detected	Not Applicable

Disclaimer: Identification of asbestos in bulk samples is carried out in accordance with standardised in-house methodology based on Appendix 2 of HSG248. Results of analysis pertain only to the samples received by the laboratory. Where samples are submitted by a third party iota will not be held responsible for the accuracy of the information provided. Any opinions and interpretations expressed within this report are outside the scope of our UKAS accreditation including that of material classification. This certificate may not be reproduced other than in full, except with the prior written approval of the laboratory. Iota cannot be held responsible for the interpretation of this document, any queries regarding its contents should be directed to the laboratory contactable on 02838 525025 or samples@notoneiota.org

Not One Iota Ltd t/a iota

10 Tandragee Road, Co. Armagh, N. Ireland BT62 3BQ

Tel: 028 38 525025 • Email: hello@notoneiota.org • Web: www.notoneiota.org

Registered Office: 31 Lisnagrilly Hall, Portadown, Co. Armagh, BT63 5WR

7.0 Recommendations:

It is recommended that upon receipt of this report that the materials identified within are evaluated and assessed for appropriate actions. An Asbestos management plan should be drawn up to allow for adequate management of any identified Asbestos containing materials. Further guidance can be found to the rear of this document or at the following web address – <https://www.hse.gov.uk/asbestos/managing/intro.htm>

Should any materials remain following the conclusion of works an asbestos management programme should be utilised which can be used to monitor material conditions over a period of time (Six monthly to yearly as a minimum);

Item Recommendations:

- **Item Number:** 5
Location: Exterior of whole plot Exterior (E.001)
Item Descriptions: Redundant cement sheeting
Priority: Low - Remove
Rationale: This element was identified to be in a poor condition therefore it is recommended that it is removed by a Competant Contractor.
- **Item Number:** 1
Location: Unit No.1, 148 Richmond Road Exterior side & rear (E.002)
Item Descriptions: Corrugated cement fragments
Priority: Very Low - Remove
Rationale: This element was identified to be in a poor condition therefore it is recommended that it is removed by a Competant Contractor.

Management

It is not normally necessary to seal, enclose or remove asbestos materials that are sound, undamaged and not releasing dust. These can be left in place and a system of management introduced which will require some or all of the following steps to be taken:–

- The presence of asbestos material should be noted on plans or other records and updated as necessary.
- The register should be available to directly employed maintenance staff etc. contractors tendering to work on the premises etc. The aim being to allow for proper work planning and the avoidance of uncontrolled release of asbestos fibres.
- Asbestos materials likely to be disturbed should be labelled clearly.
- The installation must be inspected periodically to ensure the condition of the material has not changed.
- A procedure should be introduced for the reporting of suspect materials, or when asbestos material has been accidentally damaged.

Removal

When it is not possible to seal an asbestos material effectively and it is likely to release dust, it may be decided to remove it completely. Removal may be the most cost-effective solution in situations where the asbestos material may be disturbed frequently, e.g. during maintenance. However, in the short term removal may lead to higher dust levels than sealing in situ and as these elevated levels may persist for several months appropriate precautions must be taken. Depending on circumstances, the asbestos removal may be complete or just restricted to a smaller vulnerable area. Temporary repair, sealing or enclosure may be required to render asbestos material safe pending removal. When asbestos fire protection material is removed it must be immediately replaced with materials having at least an equivalent fire performance.

It is recommended that advice is sought from an Iota prior to engaging in any removal works so

appropriate guidance is received.

Encapsulation & Repair

Sealing (or encapsulating) requires the application of some form of coating, whether paint, polymeric bituminous or cement based. The sealing system chosen will depend on the nature of the asbestos material, the degree of damage, the protection required and the surface flammability requirement. The sealing coat must adhere firmly and the integrity of the asbestos material must be sufficient to carry the sealing coat. Asbestos materials must be firmly attached to the substrate. Where asbestos insulation has been used to provide fire protection, the fire hazard must not be increased by the use of combustible sealant.

8.0 Material Register – NEGATIVE Samples Only:

	<table border="1"> <tr> <td>Item ID:</td> <td>2</td> </tr> <tr> <td>Sample area:</td> <td>- Open room (G.001)</td> </tr> <tr> <td>Component:</td> <td>Textured coating to ceiling</td> </tr> <tr> <td>Level of identification:</td> <td>Sampled</td> </tr> <tr> <td>Composition:</td> <td>Non Asbestos</td> </tr> </table>	Item ID:	2	Sample area:	- Open room (G.001)	Component:	Textured coating to ceiling	Level of identification:	Sampled	Composition:	Non Asbestos
Item ID:	2										
Sample area:	- Open room (G.001)										
Component:	Textured coating to ceiling										
Level of identification:	Sampled										
Composition:	Non Asbestos										
	<table border="1"> <tr> <td>Item ID:</td> <td>4</td> </tr> <tr> <td>Sample area:</td> <td>- Unit No.2 canteen (G.003)</td> </tr> <tr> <td>Component:</td> <td>Acoustic pad to sink</td> </tr> <tr> <td>Level of identification:</td> <td>Sampled</td> </tr> <tr> <td>Composition:</td> <td>Non Asbestos</td> </tr> </table>	Item ID:	4	Sample area:	- Unit No.2 canteen (G.003)	Component:	Acoustic pad to sink	Level of identification:	Sampled	Composition:	Non Asbestos
Item ID:	4										
Sample area:	- Unit No.2 canteen (G.003)										
Component:	Acoustic pad to sink										
Level of identification:	Sampled										
Composition:	Non Asbestos										
	<table border="1"> <tr> <td>Item ID:</td> <td>6</td> </tr> <tr> <td>Sample area:</td> <td>- Exterior (E.001)</td> </tr> <tr> <td>Component:</td> <td>Fibre cement ridged tiles on pallet at ground level</td> </tr> <tr> <td>Level of identification:</td> <td>Sampled</td> </tr> <tr> <td>Composition:</td> <td>Non Asbestos</td> </tr> </table>	Item ID:	6	Sample area:	- Exterior (E.001)	Component:	Fibre cement ridged tiles on pallet at ground level	Level of identification:	Sampled	Composition:	Non Asbestos
Item ID:	6										
Sample area:	- Exterior (E.001)										
Component:	Fibre cement ridged tiles on pallet at ground level										
Level of identification:	Sampled										
Composition:	Non Asbestos										



Item ID:

3

Sample area:

- Canteen (G.004)

Component:

Acoustic pad to sink

Level of identification:

Sampled

Composition:

Non Asbestos

9.0 Observations:

- Area ID A numerical system used as a point of reference on plans
- Area Reference The name or use of a room or area
- Level The level of the floor being inspected – 0 = Ground Floor
- Observations A letter based abbreviation system is used to quickly and effectively note the makeup of specific surfaces within inspected areas;

Area ID	Area Reference	Level	Observations			
			C	W	F	Notes / Comments
Unit No.1, 148 Richmond Road						
G.001	- Reception office	G	Plasterboard	Solid,Plasterboard	Solid,Laminate	
G.002	- Kitchenette	G	Plasterboard	Solid,Plasterboard	Solid,Laminate	No acoustic pad present to sink.
G.003	- Main workshop	G	Metal	Solid,Timber	Solid	Workshop open to Kingspan type roof.
G.004	- Store	G	Timber	Solid,Timber	Solid	
G.005	- Toilet	G	Timber	Solid,Timber	Solid	WC, WHB and cistern ceramic.
MZ.001	- Store	MZ	Metal	Solid	Timber	
E.001	- Exterior - front	EXT	N/A	N/A	N/A	
E.002	- Exterior side & rear	EXT	N/A	N/A	N/A	
Original warehouse						
G.001	- Small room	G	Timber	Solid, Timber	Solid,Laminate	Timber boxing present to column in far corner. Timber underdrawing present to stairwell.
G.002	- Main warehouse	G	Metal	Solid,Metal	Solid	
MZ.001	- Store	MZ	Metal	Solid,Metal	Timber	
Former shop, Richmond Road						
G.001	- Open room	G	Plasterboard	Solid,Timber	Solid	No comments made on room
MZ.001	- Store	MZ	Metal	Solid,Timber	Timber	
MZ.002	- Kitchen	MZ	Metal	Solid,Timber	Timber	
MZ.003	- Small store	MZ	Metal	Solid,Timber	Timber	
Tree Surgeon Shed, Richmond Road						
G.001	- Workshop	G	Metal	Metal	Solid	
Large Shed, Richmond Road						
G.001	- Workshop	G	Metal	Solid	Solid	
Units No.2 & No.3						

G.001	- Unit No.2 open workshop	G	Plasterboard	Solid,Plasterboard	Solid	
G.002	- Unit No.2 toilet	G	Plasterboard	Solid,Plasterboard	Solid	
G.003	- Unit No.2 canteen	G	Plasterboard	Solid,Plasterboard	Solid,Quarry tiles	
G.004	- Unit No.3 open workshop	G	Plasterboard	Solid,Plasterboard	Solid	
G.005	- Unit No.3 toilet	G	Plasterboard	Solid,Plasterboard	Solid	
G.006	- Unit No.3 small workshop	G	Plasterboard	Solid,Plasterboard	Solid	
G.007	- Unit No.3 computer workshop	G	Plasterboard	Solid,Plasterboard	Solid	
MZ.001	- Unit No.2 open store	MZ	Open, to metal roof	Solid	Timber	
MZ.002	- Unit No.2 small store	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.003	- Unit No.2 office 1	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.004	- Unit No.2 office 2	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.005	- Unit No. open store	MZ	Open, to metal roof	Solid	Timber	
MZ.006	- Unit No.2 lobby	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.007	- Unit No.3 corridor	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.008	- Unit No.3 store	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.009	- Unit No.3 office 1	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.010	- Unit No.3 office 2	MZ	Plasterboard	Solid,Plasterboard	Timber	
MZ.011	- Unit No.3 office 3	MZ	Plasterboard	Solid,Plasterboard	Timber	
Exterior of whole plot						
E.001	- Exterior	EXT	N/A	Timber	Carpet	No comments made on room
Unit No.4						
G.001	- Reception	G	Plasterboard	Solid	Solid	
G.002	- Warehouse	G	Tinber	Solid	Solid	
G.003	- Store	G	Plasterboard	Solid	Solid	
G.004	- Canteen	G	Plasterboard	Solid	Solid	

G.005	- Toilets	G	Plasterboard	Solid	Solid	
1.001	- Lobby	1	Plasterboard	Solid,Plasterboard	Timber	
1.002	- Room 1	1	Plasterboard	Solid,Plasterboard	Timber	
1.003	- Room 2	1	Plasterboard	Solid,Plasterboard	Timber	
1.004	- Room 3	1	Plasterboard	Solid,Plasterboard	Timber	
1.005	- Office	1	Plasterboard	Solid,Plasterboard	Timber	

10.0 Material and priority scoring algorithm

****Priority Assessment is outside of our UKAS accreditation****

Material Assessment In the material assessment process, the main factors influencing fibre release are given a score which can then be added together to obtain a material assessment rating. The four main parameters which determine the amount of fibre released from an ACM when subject to disturbance are:

- Product type
- Extent of damage or deterioration
- Surface treatment;
- Asbestos type

Materials with assessment scores of 10 or more are rated as having a high potential to release fibres, if disturbed. Scores of between 7 and 9 are regarded as having a medium potential, and between 5 and 6 a low potential. Scores of 4 or less have a very low potential to release fibres. Non-asbestos materials are not scored.

Material scoring tool

Add the four scores to get a total.

Sample variable	Score	Examples of scores
Product type (or debris from product)	1	Asbestos reinforced composites (plastics, resins, mastics, roofing felts, vinyl floor tiles, semi-rigid paints or decorative finishes, asbestos cement etc)
	2	Asbestos insulating board, mill boards, other low density insulation boards, asbestos textiles, gaskets, ropes and woven textiles, asbestos paper and felt
	3	Thermal insulation (eg pipe and boiler lagging), sprayed asbestos, loose asbestos, asbestos mattresses and packing
Extent of damage/deterioration	0	Good condition: no visible damage
	1	Low damage: a few scratches or surface marks; broken edges on boards, tiles etc
	2	Medium damage: significant breakage of materials or several small areas where material has been damaged revealing loose asbestos fibres
	3	High damage or delamination of materials, sprays and thermal insulation. Visible asbestos debris
Surface treatment	0	Composite materials containing asbestos: reinforced plastics, resins, vinyl tiles
	1	Enclosed sprays and lagging, asbestos insulating board (with exposed face painted or encapsulated), asbestos cement sheets etc
	2	Unsealed asbestos insulating board, or encapsulated lagging and sprays
	3	Unsealed laggings and sprays
Asbestos type	1	Chrysotile
	2	Amphibole asbestos excluding crocidolite
	3	Crocidolite

Total score

Priority Assessment

****Priority Assessment is outside of our UKAS accreditation****

The material assessment identifies the 'high-hazard' materials, ie those materials which will most readily release airborne fibres if disturbed. It does not automatically follow that those materials assigned the highest score in the material assessment will be the priority for remedial action. Priority must be determined by carrying out a risk assessment (ie a priority assessment) which will take into account factors such as:

- The location of the material
- The extent of the material
- The use to which the location is put
- The occupancy of the area
- The activities carried on in the area;
- The likelihood/frequency with which maintenance activities are likely to take place.

Priority scoring tool

Add the normal occupant activity score and the three averages to get a total.

Assessment factor	Score	Examples of score variables
Normal occupant activity		
Main type of activity in area	0	Rare disturbance activity (eg little used store room)
	1	Low disturbance activities (eg office type activity)
	2	Periodic disturbance (eg industrial or vehicular activity which may contact ACMs)
	3	High levels of disturbance, (eg fire door with asbestos insulating board sheet in constant use)
Likelihood of disturbance		
Location	0	Outdoors
	1	Large rooms or well-ventilated areas
	2	Rooms up to 100 m ²
	3	Confined spaces
Accessibility	0	Usually inaccessible or unlikely to be disturbed
	1	Occasionally likely to be disturbed
	2	Easily disturbed
	3	Routinely disturbed
Extent/amount	0	Small amounts or items (eg strings, gaskets)
	1	<10 m ² or <10 m pipe run.
	2	>10 m ² to £50 m ² or >10 m to <50 m pipe run
	3	>50 m ² or >50 m pipe run
Human exposure potential		
Number of occupants	0	None
	1	1 to 3
	2	4 to 10
	3	>10

Frequency of use of area	0	Infrequent
	1	Monthly
	2	Weekly
	3	Daily
Average time area is in use	0	<1 hour
	1	>1 to <3 hours
	2	>3 to <6 hours
	3	>6 hours
Maintenance activity		
Type of maintenance activity	0	Minor disturbance (eg possibility of contact when gaining access)
	1	Low disturbance (eg changing light bulbs in asbestos insulating board ceiling)
	2	Medium disturbance (eg lifting one or two asbestos insulating board ceiling tiles to access a valve)
	3	High levels of disturbance (eg removing a number of asbestos insulating board ceiling tiles to replace a valve or for recabling)
Frequency of maintenance activity	0	ACM unlikely to be disturbed for maintenance
	1	<1 per year
	2	>1 per year
	3	>1 perr month

11.0 Survey Restrictions

Whilst the surveyors made every effort, Iota cannot guarantee that all asbestos containing materials have been identified, or that survey results are definitive. Specific areas of the site where suitable access was not available that was not identified prior to the commission of the survey are recorded in this document. There is a possibility that ACM's may remain unidentified in sealed locations so it is strongly suggested that demolition/refurbishment and soft strip activities are designed to allow for this potential. This can include the following features:

- Areas behind or above suspected asbestos containing materials
- Within confined spaces etc. where reasonable access is unavailable
- Within live plant or electrical apparatus (including lifts)
- Beneath lagging or cladding of live pipes where a burn hazard may be present
- Areas that are considered to present a significant Health & Safety risk
- Within floor voids and underground ducts etc where reasonable access is unavailable
- Within solid concrete floors and screeds where asbestos shuttering may have been used
- Concealed pipe runs, riser ducts, structural casings where no inspection hatch is present

Areas behind or above suspected asbestos containing materials are required to be inspected by HSG264. Where such areas cannot be identified prior to the commission of the survey, a provisional sum should be allowed for by the client to enable the surveyor to return to site with a licensed asbestos contractor in order to gain access. Such access may also necessitate 14-day (ASB5) notification to the HSENI and may require concurrent air monitoring to be carried out. Should this type of access be required, we shall liaise and seek agreement from the project team before commencing beyond the agreed project scope and record this within the report.

Where access is restricted due to confined space or other Health & Safety concerns that could not be identified prior to the commission of the survey, these areas will be detailed in the report and recommendations given for the most appropriate means of investigation, and if necessary, any additional costs which would be entailed.

Live electrical and mechanical services must be de-energised /decommissioned by a qualified electrical / mechanical contractor appointed by the Client whom must be and in attendance at the survey to allow any required samples to be taken safely. Also, if there is a lift undergoing refurbishment, the Client must organise for a lift engineer to provide an attendance to the surveyors at the time of survey. If an electrical/mechanical contractor and lift engineer are not provided at the time of the survey, these items will be omitted and recorded within this report.

Concealed areas may not be able to be physically inspected until such times as major demolition / refurbishment has commenced on site. This would be the case for hidden service ducts and the like where there are no services drawings indicating their existence, and there are no on site indicators confirming their existence eg. Manhole covers/access panels etc. The Project Manager must explain the potential for this to the Main Contractor and the Demolition Contractor at the pre start meeting. The Demolition Contractor must proceed and alert the Project Manager when a previously concealed area is discovered. Iota would propose to work alongside the Demolition Contractor to carry out further inspections to these areas when they become exposed and accessible for inspection. A provisional sum should be allowed for by the client to enable Iota to return to site to complete the survey as described above.

A strategy of using representative samples of suspected asbestos materials has been used to minimise the number of samples taken to a practical level and keep to a minimum the disturbance of potential asbestos-containing materials at the site. In accordance with The Control of Asbestos Regulations (NI) 2012, It must be assumed that materials visually assessed as asbestos-containing materials contain amphibole asbestos fibres (i.e. Amosite and Crocidolite), unless sampled to prove otherwise.

12.0 Asbestos Management Details / Information:

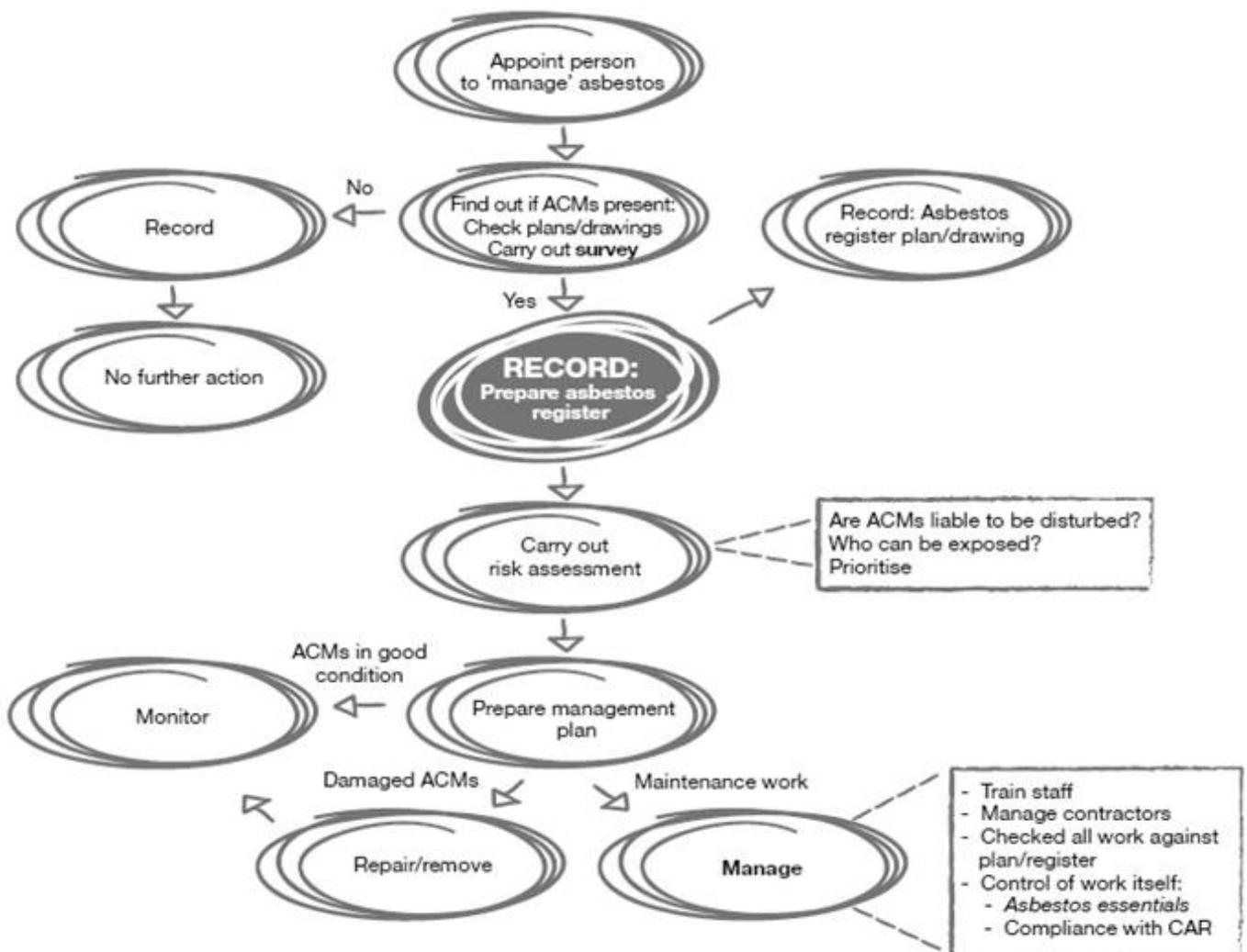
Legal requirements

The duty to manage asbestos in non-domestic premises

Asbestos, a category 1 human carcinogen, is subject to two sets of regulations – REACH (the Registration, Evaluation, Authorisation and Restriction of Chemicals Regulations 2007)⁶ and, CAR 2012. REACH prohibits the importation, supply and use of asbestos. CAR 2012 covers work with asbestos, and licensing of asbestos-removal activities. Regulation 4 of CAR 2012 contains an explicit duty on the owners and occupiers of non-domestic premises, who have maintenance and repair responsibilities, to assess and manage the risks from the presence of asbestos. The risks will vary with circumstances and can arise from normal occupation of a building or from inadvertent disturbance during the repair, refurbishment and demolition of premises. The risk assessment will be used to produce a management plan which details and records what actions to take to manage and reduce the risks from asbestos.

The requirements are placed on 'dutyholders', who should:

- Take reasonable steps to determine the location of materials likely to contain asbestos
- Presume materials to contain asbestos, unless there are good reasons not to do so
- Make and maintain a written record of the location of the acms and presumed acms
- Assess and monitor the condition of acms and presumed acms
- Assess the risk of exposure from acms and presumed acms and prepare a written plan of the actions and measures necessary to manage the risk (ie the 'management plan'); and
- Take steps to see that these actions are carried out.



To manage the risk from ACMs, the dutyholder will need to:

- Keep and maintain an up-to-date record of the location, condition, maintenance and removal of all ACM's on the premises
- Repair, seal or remove ACM's if there is a risk of exposure due to their condition or location
- Maintain ACM's in a good state of repair and regularly monitor their condition
- Inform anyone who is liable to disturb the ACM's about their location and condition
- Have arrangements and procedures in place so that work which may disturb the ACM's complies with CAR 2012;
- Review the plan at regular intervals and make changes if circumstances change.

Management of asbestos in domestic premises

The 'duty to manage asbestos' requirements of regulation 4 of CAR 2012 do not normally apply to domestic premises. However, the requirements do apply to common parts of premises, including housing developments and blocks of flats, but do not place any direct duties on landlords for individual houses or flats. Examples of common parts would include foyers, corridors, lifts and lift shafts, staircases, boilerhouses, vertical risers, gardens, yards and outhouses. The requirements do not apply to rooms within a private residence which are shared by more than one household, such as bathrooms, kitchens etc in shared houses and communal dining rooms and lounges in sheltered accommodation.

The Health and Safety at Work (NI) Order 1978 / The Health and Safety at Work Act 1974 section 2, requires all employers to conduct their work so their employees will not be exposed to health and safety risks, and to provide information to other people about their workplace which might affect their health and safety. Section 3 places duties on employers and the self-employed towards people not in their employment and section 4 contains general duties for anyone who has control, to any extent, over a workplace. In addition, the Management of Health and Safety at Work Regulations 1998 require employers to assess the health and safety risks to third parties, such as tenants who may be affected by their activities, and to make appropriate arrangements to protect them.

These requirements mean that organisations such as local authorities, housing associations, social housing management companies and others who own, or are responsible for, domestic properties, have legal duties to ensure the health and safety of their staff (and others) in domestic premises used as a place of work. As employers, the organisations also have duties under the general requirements of CAR 2012 to identify asbestos, carry out a risk assessment of work liable to expose employees to asbestos and prepare a suitable written plan of work.

13.0 Glossary

NADIS	No Asbestos detected in Sample
N/A	Not Applicable
P	Presumed – Sample is presumed to contain Asbestos material
SP	Strongly Presumed – Sample is strongly presumed to contain Asbestos material
APS	As per sample – Relates one sample to another
NNLW	Non-notifiable licensed work – Further information of NNLW is available at; https://www.hse.gov.uk/asbestos/licensing/notifiable-non-licensed-work.htm
Licensed	Works must be carried out by licensed contractor under full 14 day statutory notification period – https://www.hse.gov.uk/asbestos/licensing/licensed-contractor.htm
CC	Competent Contractor – Items may be removed by a competent contractor with appropriate training, experience and insurances. The client should satisfy him/herself that the contractor is suitable to carry out any works involving removal of asbestos items.

14.0 Additional site photographs



Unit No.1 Relatively modern cable and switchgear, to front of main workshop. No suspected ACMs observed.



Unit No.1 Laminate flooring in kitchenette partially removed prior to this inspection. Bare concrete floor clearly evident below.



Original warehouse. Timber boxing to steelwork.