












Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9	No. 44 O'Connell Street	2 nd floor Front room				No visible asbestos containing materials identified.							
10	No. 44 O'Connell Street	2 nd floor Door between floors	2030419	Internal areas of fire door. Encapsulated		Amosite	2	1	1	2	6	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
11	No. 44 O'Connell Street	1 st floor Back corridor WC at stairway		Bakelite cistern	1	Amosite	1	0	0	2	3	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
12	No. 44 O'Connell Street	1 st floor Back corridor WC		Integral areas of old electrical heaters		Presumed to contain asbestos.						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

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13	No. 44 O'Connell Street	1 st floor Back corridor				No visible asbestos containing materials identified.							
14	No. 44 O'Connell Street	1 st floor Back corridor Steps to rear of corridor	2030422	Grey thread nosing	4 steps	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
15	No. 44 O'Connell Street	1 st floor Back corridor Rooms on Moore Lane				NAD							
16	No. 44 O'Connell Street	1 st floor Front corridor	2030423 2030424	VFT and adhesive	40 SM approx.	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	

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		≤ 4		Very Low
	Presumed/Strongly presumed ACM Or Non Accessed Area	5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17	No. 44 O'Connell Street	1 st floor Front corridor				No visible asbestos containing materials identified.							
18	No. 44 O'Connell Street	1 st floor Front corridor				No visible asbestos containing materials identified.							
19	No. 44 O'Connell Street	1 st floor Front corridor		Bakelite cistern	1	Amosite	1	0	0	2	3	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
20	No. 44 O'Connell Street	1 st floor Front room				No visible asbestos containing materials identified.							

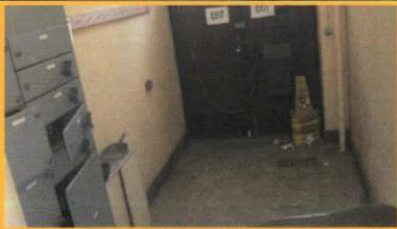



Key
NAD = No asbestos detected
AIB = Asbestos insulation board
AC = Asbestos cement
VFT = vinyl floor tile
NQ = Not Quantified/Quantifiable
SM = Square Meters
LM = Linear Meters

Confirmed Asbestos
Presumed/Strongly presumed ACM Or Non Accessed Area





Material Assessment Score
≤ 4
5 - 6
7 - 9
≥ 10

Risk
Very Low
Low
Medium
High

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21	No. 44 O'Connell Street	Ground floor Old entrance lobby	2030426 2030427	VFT and adhesive	10 SM	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
22	No. 44 O'Connell Street	Ground floor Old entrance lobby		Raised timber floor		VFT presumed to be under raised floors in corridor and main room						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	
23	No. 44 O'Connell Street	Ground floor Old entrance lobby	2030428	Wall paint	NQ	Chrysotile	1	1	1	1	4	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
24	No. 44 O'Connell Street	Ground floor		Integral areas of fire doors in the building		Presumed to contain asbestos						Investigation of all fire doors by a competent contractor prior to work likely to cause disturbance.	

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	Presumed/Strongly presumed ACM Or Non Accessed Area	5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>				

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25	No. 44 O'Connell Street	Ground floor Lobby		Integral areas of the old electrical panel with main cable.		Presumed to contain asbestos						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	
26	No. 44 O'Connell Street	Ground floor Reception area		Fixed floor not disturbed		Presumed asbestos						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	
27	No. 44 O'Connell Street	Ground floor Main room		Plasterboard over drop ceiling		No visible asbestos containing materials identified.							
28	No. 44 O'Connell Street	Ground floor Main room	2030429	Green tile under carpet		NAD							





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Confirmed Asbestos
Presumed/Strongly presumed ACM Or Non Accessed Area





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Risk
Very Low
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29	No. 44 O'Connell Street	Ground floor Main room	2030431 2030432	Old VFT and adhesive under screed	NQ	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
30	No. 44 O'Connell Street	Ground floor Locker room		Fixed floor not disturbed		Presumed to contain VFT and/or adhesive						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	
31	No. 44 O'Connell Street	Ground floor WC		Fixed floor not disturbed		Presumed to contain VFT and/or adhesive						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	
32	No. 44 O'Connell Street	Store room											




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	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6		Low
			7 - 9		Medium
			≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
33	No. 44 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
34	No. 44 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
35	No. 44 O'Connell Street	Ground floor Back corridor		Integral areas of fire doors		Amosite						Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
36	No. 44 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							

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		≤ 4		Very Low
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37	No. 44 O'Connell Street	Ground floor Back corridor Stairway WC	2030420	Wall paint		NAD							
38	No. 44 O'Connell Street	Ground floor Back corridor Ground floor WC's				No visible asbestos containing materials identified.							
39	No. 44 O'Connell Street	Ground floor Back corridor Room at stairway	2030421	VFT adhesive	25 SM approx.	Chrysotile						Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
40	No. 44 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
			≤ 4	Very Low
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>				

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41	No. 44 O'Connell Street	Ground floor Corridor Back room at Moore Lane				No visible asbestos containing materials identified.							
42	No. 44 O'Connell Street	Basement Locker rooms				No visible asbestos containing materials identified.							
43	No. 44 O'Connell Street	Basement		Integral areas of fire doors		Strongly presumed to contain asbestos						Investigation by a competent asbestos contractor prior to work likely to cause disturbance.	

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			≤ 4	Very Low
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				



ABOUT SAFETY LTD.

ASBESTOS | LEAD BASED PAINT | MOULD | SILICA DUST | HAZMAT
SURVEYING & TESTING
RISK MANAGEMENT | PROJECT MANAGEMENT

Refurbishment & Demolition Asbestos Survey

Location: *No. 45 O'Connell Street
Dublin 1*

Client: *Dublin Central GP Ltd*

Instructing Party: *Certo Management Services*

Prepared by: *John Kelleher*

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Executive Summary

A Refurbishment and Demolition Asbestos Survey was carried out of the above property. Below is a summary of the survey.

Ref:	Confirmed Asbestos [Requires removal and disposal as asbestos waste by a competent asbestos contractor prior to demolition.]
1	Asbestos containing mastic sealant to aluminum window frame on ground floor. Small amount.
15, 21, 30, 33, 35	Asbestos containing doughnut shaped handwheels to miscellaneous radiators in building.
54	Asbestos containing millboard paper wrap under old fiberglass to pipework in the boiler room.
55	Asbestos containing woven rope gaskets to inspection door and rear inspection plates on the four boilers.
60	Asbestos containing Bakelite cisterns in WC's in basement shower room.

Ref:	<p align="center">Presumed/Strongly Presumed Asbestos [Requires dismantling and investigation by a competent asbestos contractor prior to work likely to cause disturbance.]</p>
12, 42,	The Georgian wire roof lights are presumed to contain woven rope beading in the glazing bars.
16	The flange gaskets to the wall mounted pipe on the 1 st floor are presumed to contain asbestos.
43	The collars on the lead sealed cast-iron pipework throughout the building are presumed to contain asbestos packing often used to prevent run-off of molten lead during coupling joints.
51, 52, 61	Integral areas of wooden and steel-clad fire doors are strongly presumed to contain asbestos. Identified in fire doors through keyholes in some areas.
53	All flange gaskets in the boiler room are strongly presumed to contain asbestos. Industry standard at the time of installation.
56	The four boilers are strongly presumed to contain asbestos woven rope gaskets between the sections. Industry standard at the time of manufacture of these boilers.
57	The immersion flange gasket to the copper cylinder is strongly presumed to contain asbestos. Industry standard at the time of manufacture.
65	Integral areas of the old safe in the basement stairway lobby is presumed to contain asbestos.

Names and Addresses

Client Name:
Dublin Central GP Ltd

Instructing Party:
Certo Management Services

Contact:
Phone:

Contact: Peter McIlhagger
Phone:

Site Full Name:
No. 45 O'Connell Street
Dublin 1

Report Author:
About Safety Limited
24 Oceancrest
Arklow
Co. Wicklow

Contact: John Kelleher
Phone: 086 2208488

Asbestos Surveyor: John Kelleher

British Occupational Hygiene Society (BOHS) Asbestos Proficiency Certification

- S301: Asbestos and other Fibres
- P401: Identification of Asbestos in Bulk Samples (PLM)
- P402: Building Surveys and Bulk Sampling for Asbestos
- P403: Asbestos Fibre Counting
- P404: Air Sampling and Clearance Testing of Asbestos
- P405: Management of Asbestos in Buildings (Safe Removal & Disposal)



Introduction

About Safety Ltd. was instructed to carry out a Refurbishment and Demolition Asbestos Survey of the above property. The survey and sampling was carried out taking cognizance of the requirements of the Health and Safety Executive (UK) document, *HSG 264, Asbestos: The Survey Guide*.

Objectives

The objectives of this survey were to:

To carry out a survey to ascertain the presence of asbestos based materials.

To carry out a survey to locate and describe, as far as reasonably practicable, all asbestos containing materials prior to refurbishment/demolition.

To gain access to all areas, as necessary, to determine the extent of any asbestos that may be present.

To sample and estimate the extent and volume of any asbestos materials that may be present.

To generate asbestos material assessments where the period between the survey and event is significant i.e. more than 3 months.

To produce a report identifying areas containing asbestos to be used as a basis for tendering their removal.

To instigate asbestos removal works prior to refurbishment/demolition.

NB: The extent of asbestos containing materials if identified in this report are only approximate and should not be relied upon as a basis for tendering removal works. Contractors tendering works are expected to satisfy themselves by site visit and measurement the exact nature and extent of any works which is proposed.

Scope of Works & Site Description

General Information	<i>Scope of Works:</i>	Proposed structural alterations, refurbishment and/or demolition.
	<i>Structural Details:</i>	4 storey over basement building of solid construction with 2 storey extension to rear
	<i>Date of Construction:</i>	Not known
External Aspects:	<i>Roofs:</i>	Flat roofs generally. Bitumen asphalt to back roofs. Felt to main roof and lower small roofs.
Internal Aspects:	<i>Walls</i>	Solid construction
	<i>Ceilings</i>	Original ceilings in front with floating plasterboard ceilings in areas
	<i>Floors</i>	Concrete floors
Services:	<i>Heating Systems:</i>	Old boiler room with boilers in basement.
Reservations:	<i>Access restrictions:</i>	Roofs not disturbed.

Survey Limitations

All areas accessed for proposed refurbishment works were subjected to a survey taking cognisance of the requirements of HSG 264, Asbestos: The Survey Guide. The investigation consisted of an inspection of each room and area to be impacted by the works.

No report has been made on any concealed spaces, which may exist within the fabric of the building where the extent and presence of these is not evident due to inaccessibility, lack of building drawings or insufficient knowledge of the structure of the building at the time of the survey.

Inaccessible Areas: Electrical equipment such as, boiler units, water heaters, storage heaters, fuse or switch boards. Within floor or wall structures, behind wall or ceiling cladding or within blocked up chimneys. Within internal areas of fire doors unless asbestos observed from keyhole or other damaged areas. Care should always be exercised when working on any electrical equipment in particular the older styles as asbestos-containing materials may be present.

Asbestos Refurbishment & Demolition Survey: Definition

A refurbishment and demolition survey is needed before any refurbishment or demolition works is carried out. This type of survey is used to locate and describe, as far as reasonably practicable, all ACM's in the area where the refurbishment works will take place or in the whole building if demolition is planned. The survey will be fully intrusive and involve destructive inspection, as necessary, to gain access to all areas, including those that may be difficult to reach. A refurbishment and demolition survey may also be required in other circumstances, e.g. when more intrusive and maintenance and repair work will be carried out or for plant removal and dismantling.

Where the refurbishment or demolition works may not take place for a significant period after the survey (e.g. three months), then the information required for a management survey should be obtained.

Asbestos Contaminated Soils (ACS)

The first point of contact with soil or ground contaminated with asbestos will be during site investigations and exploratory ground works. This may be defined as asbestos operative related work and applies where there is a potential for sporadic or low intensity exposure. People directly involved in these preliminary works, geotechnical engineers and ground workers, should receive formal training enabling them to work safely where asbestos could be present in the ground as a consequence of legacy use issues with the land. In principle, the general tiered approach to the assessment and management of potential risks posed by ACS is the same as that for any other contaminant. However, the unique nature of asbestos means that different methods of analysis, exposure estimation and risk estimation are required. Importantly, soil and air analysis methods need to be more detailed than those currently and commonly used to demonstrate compliance with the Asbestos Regulations.

Material Assessment

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Material Assessment Algorithm

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; and
- Asbestos type

Each parameter is scored between 1 and 3. A score of 1 equivalent to a low potential for fibre release, 2 = medium and 3 = high. Two parameters can also be given a nil score (equivalent to a very low potential for fibre release). The value assigned to each of the four parameters is added together to give a total score of between 2 and 12. Presumed or strongly presumed ACM's are scored as Crocidolite (i.e. score = 3) unless there is strong evidence to show otherwise.

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.

Analytical Techniques

Asbestos Bulk Sample Analysis is conducted by using Polarised Light and Dispersion Staining Techniques. Dispersion Staining is used to describe the colour effects produced when a transparent colourless particle or fibre is immersed in a liquid having a refractive index near to that of the particle or fibre, and is viewed under a microscope using transmitted white light (based on HSE Publication, HSG 248).

Samples were returned to About Safety Ltd. Laboratory for Analysis. Photographs were taken at all of the sample locations (unless otherwise stated).

Materials of a similar type were only occasionally sampled and it was assumed that other materials visually inspected to where the sample was taken, were of a similar composition.

Each area was viewed for suspect materials thought or known to contain asbestos and samples taken where it was considered necessary.

General Caveat

This report is based on a Refurbishment & Demolition survey of an un-occupied building.

During the course of the survey all reasonable efforts were made to identify the physical presence of materials containing asbestos. It is known that asbestos materials are frequently concealed within the fabric of buildings or within sealed building voids so that it is not possible to regard the findings of any survey as being definite. It must remain a possibility that asbestos containing materials may be found during demolition activities. For reasons set out in this report, the results cannot give an assurance that all asbestos materials have been found and must not be thought to do so.

It should be noted that the term “No visible asbestos containing materials identified” was used in retail and other parts of properties which were occupied or partially occupied during the inspection. It must remain a possibility that asbestos containing materials may be entombed under existing floors, above ceilings or behind walls, fixtures and fittings. Therefore, any future works in these areas should be preceded by an invasive investigation.

This report has been written with reference to the various Guidance Notes etc, issued, and current at the date of this report and describes circumstances at the site on the date the survey took place.

Specific Notes

Legislation and Codes of Practice

The Safety, Health and Welfare at Work (Exposure to Asbestos) Regulations 2006 to 2010, apply to work where there is or may be asbestos fibres present. These regulations apply in particular to any person or employer working with or removing asbestos.

In addition, Safety, Health and Welfare at Work (Construction) Regulations 2013 (SI 291 of 2013) also apply to any building, installation, repair, demolition and asbestos removal work.

Information about working with material containing asbestos cement is contained in Health and Safety Authority’s document “Asbestos-containing materials (ACM’s) in Workplaces – Practical Guidelines on ACM Management and Abatement”.

Provision of information

It is recommended that this report is brought to the attention of any person likely to be involved in refurbishment/demolition works.

Once asbestos materials have been identified it is essential that appropriate remedial measures be introduced prior to any structural alterations, refurbishment or demolition works commencing. All the asbestos removal works should be carried out by a competent asbestos removal contractor in accordance with Asbestos at Work Regulations 2006 to 2010. Statutory notification requirements of 14 days are required under the provisions of the Asbestos Regulations for certain works involving asbestos. The contractor appointed for removal works is responsible for deciding if a 14 day notification is required and for drawing up a plan of work for any removal works.

Competent Person

Person provided with adequate information, instruction and training for the task being undertaken and capable of demonstrating adequate and up-to-date understanding of the work being undertaken, the required control measures, the applicable legislation, and having sufficient practicable experience to apply these effectively. There are two categories of competent person, 1) competent asbestos operative and 2) specialist asbestos operative.

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About Safety Ltd. Registered in Ireland: No. 422820*

Appendix A – Asbestos Bulk Identification Report

ASBESTOS BULK IDENTIFICATION REPORT

Report on:

Identification of asbestos content of suspected asbestos containing materials (ACM's) sampled from the following location/site:

**No. 45 O'Connell Street
Dublin 1**

TEST RESULT

SAMPLE NO	LAB. REF.	SAMPLE LOCATION	MATERIAL DESCRIPTION	ASBESTOS TYPE IDENTIFIED
S01	2030401	Front façade aluminum framed windows ground floor	Mastic sealant	Chrysotile
S02	2030402	Rooflights on man roof	Window putty	NADIS
S03	2030403	1 st main stairway	Black thread nosing	NADIS
S04	2030404	1 st floor stairway landing – radiator valve	Doughnut handwheel	Chrysotile
S05	2030405	1 st floor kitchen sink unit	Bitumen heat pad	NADIS
S06	2030406	1 st floor corridor to back extensions	Wall paint	NADIS
S07	2030407	1 st floor room end of corridor ceiling	Ceiling tile	NADIS
S08	2030408	Ground floor mat well	Black edging	NADIS
S09	2030409	Ground floor behind reception deck – floor	Mastic adhesive	NADIS
S10	2030410	Ground floor back extension kitchen sink unit	Bitumen pad	NADIS
S11	2030411	Ground floor wall to back corridor	Paint	NADIS
S12	2030412	Basement boilers front inspection doors	Woven rope door seals	Chrysotile
S13	2030413	Basement boilers – back inspection plates	Woven webbing	Chrysotile
S14	2030414	Basement pipework bends	MMMF and debris	NADIS
S15	2030415	Basement boiler pipework under old MMMF insulation	Paper wrap to pipework	Chrysotile
S16	2030416	Basement boiler inspection doors	Fire cement sealant	NADIS
S17	2030417	Basement back extension ladies WC's	Grey VFT and Evode	NADIS
S18	2030418	Base main building stairway lobby	VFT and Evode	NADIS

Glossary

*NADIS = No Asbestos Detected in Sample
VFT = Vinyl Floor Tile





Chrysotile (white asbestos)

Amosite (brown asbestos)

Crocidolite (blue asbestos)

Analyst: John Kelleher

Appendix B – Schedule of Survey Sheets

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
1	No. 45 O'Connell Street	Façade	2030401	Aluminum window frame. Old adhesive under blue adhesive	Small amount	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
2	No. 45 O'Connell Street	Extension Roofs		Bitumen asphalt concrete roofs.		No visible asbestos containing materials identified.							
3	No. 45 O'Connell Street	Main roof	2030402	Putty to window bars.		NAD							
4	No. 45 O'Connell Street	Roof Tank room		Plastic water tanks		No visible asbestos containing materials identified.							





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Presumed/Strongly presumed ACM Or Non Accessed Area





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No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
5	No. 45 O'Connell Street	3 rd floor		Terrazzo floor.		No visible asbestos containing materials identified.							
6	No. 45 O'Connell Street	3 rd floor Back room		Concrete floorS		No visible asbestos containing materials identified.							
7	No. 45 O'Connell Street	3 rd floor Back room		Concrete floor		No visible asbestos containing materials identified.							
8	No. 45 O'Connell Street	2 nd floor front room				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>		





Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
9	No. 45 O'Connell Street	2 nd floor Back rooms				No visible asbestos containing materials identified.							
10	No. 45 O'Connell Street	2 nd floor Back WC's				No visible asbestos containing materials identified.							
11	No. 45 O'Connell Street	2 nd floor Dumb waiter				No visible asbestos containing materials identified.							
12	No. 45 O'Connell Street	2 nd floor Void		Georgian wire rooflight		Presumed asbestos in glazing bars						Investigation by a competent contractor prior to work likely to cause disturbance.	

Key
NAD = No asbestos detected
AIB = Asbestos insulation board
AC = Asbestos cement
VFT = vinyl floor tile
NQ = Not Quantified/Quantifiable
SM = Square Meters
LM = Linear Meters





Confirmed Asbestos
Presumed/Strongly presumed ACM Or Non Accessed Area

Material Assessment Score	Risk
≤ 4	Very Low
5 - 6	Low
7 - 9	Medium
≥ 10	High





No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
13	No. 45 O'Connell Street	1 st floor Front room		Softboard ceiling tiles		No visible asbestos containing materials identified.							
14	No. 45 O'Connell Street	1 st floor Back rooms				No visible asbestos containing materials identified.							
15	No. 45 O'Connell Street	1 st floor Stairway lobby	2030404	Doughnut shaped Bakelite handwheel		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
16	No. 45 O'Connell Street	1 st floor Back corridor		Flange gaskets to pipework		Presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	





Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score			Risk
		≤ 4			Very Low
	5 - 6			Low	
	7 - 9			Medium	
	≥ 10			High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description , surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
17	No. 45 O'Connell Street	1 st floor Side room				No visible asbestos containing materials identified.							
18	No. 45 O'Connell Street	1 st floor WC		Plastic cistern		NAD							
19	No. 45 O'Connell Street	1 st floor Side room				No visible asbestos containing materials identified.							
20	No. 45 O'Connell Street	1 st floor Kitchen	2030405	Bitumen pad to sink unit		NAD							





Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
			≤ 4	Very Low
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
21	No. 45 O'Connell Street	1 st floor Back room		Doughnut shaped Bakelite handwheel		Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
22	No. 45 O'Connell Street	1 st floor Side room between rooflights				No visible asbestos containing materials identified.							
23	No. 45 O'Connell Street	1 st floor Rooflights		Georgian wire glazing bars		Presumed to contain asbestos woven rope beading							
24	No. 45 O'Connell Street	1 st floor Back room Moore Lane		Softboard ceiling tiles		NAD							





Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
	5 - 6		Low	
	7 - 9		Medium	
	≥ 10		High	
	Presumed/Strongly presumed ACM Or Non Accessed Area	No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
25	No. 45 O'Connell Street	1 st floor Back room Moore Lane	2030407	Softboard ceiling tiles		NAD							
26	No. 45 O'Connell Street	Ground floor Reception		Aeroboard linings in radiator boxwork		NAD							
27	No. 45 O'Connell Street	Ground floor Reception		Original decorative ceilings over drop ceilings.		NAD							
28	No. 45 O'Connell Street	Ground floor Hallway		Original decorative ceilings over drop ceilings.		No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk		
				≤ 4	Very Low	
				5 - 6	Low	
				7 - 9	Medium	
				≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.						

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
29	No. 45 O'Connell Street	Ground floor Hallway	2030408	Black thread around mat well.		NAD							
30	No. 45 O'Connell Street	Ground floor Corridor		Doughnut shaped Bakelite handwheel	1	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
31	No. 45 O'Connell Street	Ground floor Corridor		Integral areas of dumb waiter		No visible asbestos containing materials identified.						DDC PLAN NO 5432/22 RECEIVED: 13/12/2022	
32	No. 45 O'Connell Street	Ground floor Behind counter area	2030409	Floor mastic		NAD							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				





Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
33	No. 45 O'Connell Street	Ground floor Corridor to back room from counter area		Doughnut shaped Bakelite handwheel	1	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
34	No. 45 O'Connell Street	Ground floor Counters area		Decorative ceiling		No visible asbestos containing materials identified.							
35	No. 45 O'Connell Street	Ground floor Back room		Doughnut shaped Bakelite handwheel	2	Chrysotile	1	0	0	1	2	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
36	No. 45 O'Connell Street	Ground floor back corridor	2030406	Wall paint		No visible asbestos containing materials identified.							

Key
NAD = No asbestos detected
AIB = Asbestos insulation board
AC = Asbestos cement
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NQ = Not Quantified/Quantifiable
SM = Square Meters
LM = Linear Meters





Confirmed Asbestos
Presumed/Strongly presumed ACM Or Non Accessed Area

Material Assessment Score	Risk
≤ 4	Very Low
5 - 6	Low
7 - 9	Medium
≥ 10	High





No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
37	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
38	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
39	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.						DDC PLAN NO 5432/22 RECEIVED: 13/12/2022	
40	No. 45 O'Connell Street	Ground floor Back corridor Canteen	2030410	Sink pad		NAD						DDC PLAN NO 5432/22 RECEIVED: 13/12/2022	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
			≤ 4	Very Low	
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6	Low	
			7 - 9	Medium	
			≥ 10	High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.					




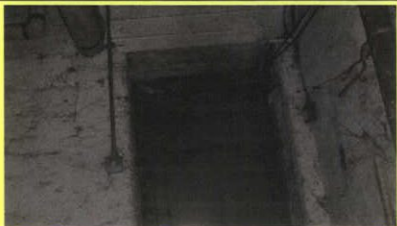
Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
41	No. 45 O'Connell Street	Ground floor Back corridor Rooms				No visible asbestos containing materials identified.							
42	No. 45 O'Connell Street	Ground floor Back corridor Rooms		Glazing bars in rooflights		Presumed to contain woven rope beading in glazing bars						Investigation by a competent contractor prior to work likely to cause disturbance.	
43	No. 45 O'Connell Street	Ground floor Back corridor Rooms		Lead sealed cast-iron collars		Presumed to contain woven rope packing in collars						Investigation by a competent contractor prior to work likely to cause disturbance.	
44	No. 45 O'Connell Street	Ground floor back rooms				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
			≤ 4	Very Low
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6	Low
			7 - 9	Medium
			≥ 10	High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				





Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
45	No. 45 O'Connell Street	Ground floor back rooms				No visible asbestos containing materials identified.							
46	No. 45 O'Connell Street	Ground floor back rooms				No visible asbestos containing materials identified.							
47	No. 45 O'Connell Street	Ground floor back rooms				No visible asbestos containing materials identified.							
48	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							

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Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.				

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
49	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
50	No. 45 O'Connell Street	Ground floor Back corridor				No visible asbestos containing materials identified.							
51	No. 45 O'Connell Street	Ground floor Back corridor Exit		Integral areas of old wooden fire doors.		Strongly presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	
52	No. 45 O'Connell Street	Basement Boiler room		Integral areas of metal clad fire door.		Strongly presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		≤ 4		Very Low
		5 - 6		Low
		7 - 9		Medium
		≥ 10		High
Presumed/Strongly presumed ACM Or Non Accessed Area		No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.		

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
53	No. 45 O'Connell Street	Basement Boiler room		Pipework flange gaskets		Strongly presumed to contain asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	
54	No. 45 O'Connell Street	Basement Boiler room	2030415	Asbestos paper wrap under fiberglass to pipework		Chrysotile	2	1	2	1	6	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
55	No. 45 O'Connell Street	Basement Boiler room	2030412 2030413	Woven rope seals to doors and back plates	4 boilers	Chrysotile	2	2	2	1	7	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	
56	No. 45 O'Connell Street			Integral areas of boilers and flues		Strongly presumed to contain asbestos gaskets and seals						Dismantling and investigation by a competent contractor prior to work likely to cause disturbance.	

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk	
		≤ 4		Very Low	
		5 - 6		Low	
		7 - 9		Medium	
		≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>					

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
57	No. 45 O'Connell Street	Basement Boiler room		Immersion flange gasket		Strongly presumed to contain asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	
58	No. 45 O'Connell Street	Basement Corridor by side of boiler room				No visible asbestos containing materials identified.							
59	No. 45 O'Connell Street	Basement Back corridor				No visible asbestos containing materials identified.							
60	No. 45 O'Connell Street	Basement back corridor Shower room		Bakelite cisterns	3 cisterns	Amosite	1	0	1	2	4	Removal and disposal as asbestos waste by a competent contractor prior to work likely to cause disturbance.	





Key
NAD = No asbestos detected
AIB = Asbestos insulation board
AC = Asbestos cement
VFT = vinyl floor tile
NQ = Not Quantified/Quantifiable
SM = Square Meters
LM = Linear Meters

Confirmed Asbestos





Presumed/Strongly presumed ACM
Or Non Accessed Area

Material Assessment Score	
≤ 4	Very Low
5 - 6	Low
7 - 9	Medium
≥ 10	High

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
61	No. 45 O'Connell Street	Basement Back corridor		Integral areas of old wooden fire doors.		Strongly presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	
62	No. 45 O'Connell Street	Basement Back corridor WC	2030417	Common grey VFT and Evode		NAD							
63	No. 45 O'Connell Street	Basement Back corridor Female shower		Common grey VFT and Evode		NAD							
64	No. 45 O'Connell Street	Basement Back corridor Back rooms				No visible asbestos containing materials identified.							

Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk		
		≤ 4		Very Low		
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6		Low	
			7 - 9		Medium	
			≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, <u>then a material assessment should be conducted and interim management arrangements put in place.</u>						

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
65	No. 45 O'Connell Street	Basement lobby Front of building		Integral areas and linings of old safe		Presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	
66	No. 45 O'Connell Street	Basement lobby Front of building	2030418	VFT and adhesive		NAD							
67	No. 45 O'Connell Street	Basement Lobby Store room				No visible asbestos containing materials identified.							
68	No. 45 O'Connell Street	Basement back store rooms				No visible asbestos containing materials identified.							


Key
 NAD = No asbestos detected
 AIB = Asbestos insulation board
 AC = Asbestos cement
 VFT = vinyl floor tile
 NQ = Not Quantified/Quantifiable
 SM = Square Meters
 LM = Linear Meters

Confirmed Asbestos
Presumed/Strongly presumed ACM Or Non Accessed Area

Material Assessment Score
≤ 4
5 - 6
7 - 9
≥ 10

Risk
Very Low
Low
Medium
High

No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.

Ref No.	Building or Area of Site	Location or Functional Space	Sample No.	Material Description, surface treatment and condition	Extent	Asbestos identified (presumed, strongly presumed or identified)	Product type	Condition	Surface treatment	Asbestos type	Material assessment score	Recommendations	Photo
69	No. 45 O'Connell Street	Basement Coal cellar				No visible asbestos containing materials identified.							

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Key NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk		
		≤ 4		Very Low		
	Presumed/Strongly presumed ACM Or Non Accessed Area		5 - 6		Low	
			7 - 9		Medium	
			≥ 10		High	
No condition assessment is normally necessary for refurbishment and demolition surveys but, where the period between survey and the event is significant, e.g. more than 3 months, then a material assessment should be conducted and interim management arrangements put in place.						

APPENDIX 14.2 OPERATIONAL WASTE MANAGEMENT PLAN

**OPERATIONAL WASTE
MANAGEMENT PLAN FOR
PROPOSED MIXED USE
DEVELOPMENT**

**MASTERPLAN, SITE 2AB,
SITE 2C AND 61
O'CONNELL STREET.**

The Tecpro Building,
Clonsaugh Business & Technology Park,
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APPENDIX 14.2

Report Prepared For

Dublin Central GP Limited or
shortened to DCGP Ltd.

Report Prepared By

Chonail Bradley, Principal Environmental
Consultant

Our Reference

CB/20/11784WMR04

Date of Issue

29 September 2022

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Signature		
Name	Chonaiil Bradley	Fergal Callaghan
Title	Principal Environmental Consultant	Director Callaghan
Date	29 September 2022	29 September 2022

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1.0 INTRODUCTION

AWN Consulting Ltd. (AWN) has prepared this Operational Waste Management Plan (OWMP) on behalf of Dublin Central GP Limited or shortened to DCGP Ltd. The Dublin Central project is an expansive (c.2.2 Ha) and complex regeneration project. It needs to be delivered in stages to overcome site and project constraints. A site wide cumulative masterplan has been prepared by 'the Applicant' to set out the overall development vision for the Dublin Central project. 'The Masterplan' area encompasses almost entirely three urban blocks. The area is bounded generally by O'Connell Street Upper and Henry Place to the east, Henry Street to the south, Moore Street to the west, and O'Rahilly Parade and Parnell Street to the north. Moore Lane extends south from Parnell Street through the centre of the masterplan area, as far as its junction with Henry Place.

The phrase 'Proposed Development' is used to describe the entire of the proposed development within 2no. separate and concurrent planning applications for Site 2 and No. 61 O'Connell Street. Site 2 is subdivided into Site 2AB and Site 2C with ACME / RKD Architects the lead Architect for Site 2AB and Grafton Architects the lead Architect for Site 2C and for the avoidance of doubt is 1no. planning application. This use of the phrase 'Proposed Development' within the EIAR should not be confused with the separate proposed development that is the subject of each of the 2no. separate and concurrent planning applications.

This OWMP has been prepared to ensure that the management of waste during the operational phase of the proposed development is undertaken in accordance with the current legal and industry standards including, the *Waste Management Act 1996 – 2011* as amended and associated Regulations ¹, *Protection of the Environment Act 2003* as amended ², *Litter Pollution Act 2003* as amended ³, the '*Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021*' ⁴ and Dublin City Council (DCC) '*Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws*' 2018 ⁵. In particular, this OWMP aims to provide a robust strategy for storing, handling, collection and transport of the wastes generated at site.

This OWMP aims to ensure maximum recycling, reuse and recovery of waste with diversion from landfill, wherever possible. The OWMP also seeks to provide guidance on the appropriate collection and transport of waste to prevent issues associated with litter or more serious environmental pollution (e.g. contamination of soil or water resources). The plan estimates the type and quantity of waste to be generated from the proposed development during the operational phase and provides a strategy for managing the different waste streams.

At present, there are no specific guidelines in Ireland for the preparation of OWMPs. Therefore, in preparing this document, consideration has been given to the requirements of national and regional waste policy, legislation and other guidelines.

2.0 OVERVIEW OF WASTE MANAGEMENT IN IRELAND

2.1 National Level

The Irish Government issued a policy statement in September 1998 titled as '*Changing Our Ways*' ⁸ which identified objectives for the prevention, minimisation, reuse, recycling, recovery and disposal of waste in Ireland. A heavy emphasis was placed on reducing reliance on landfill and finding alternative methods for managing waste. Amongst other things, *Changing Our Ways* stated a target of at least 35% recycling of municipal (i.e. household, commercial and non-process industrial) waste.

A further policy document '*Preventing and Recycling Waste – Delivering Change*' was published in 2002⁹. This document proposed a number of programmes to increase recycling of waste and allow diversion from landfill. The need for waste minimisation at source was considered a priority.

This view was also supported by a review of sustainable development policy in Ireland and achievements to date, which was conducted in 2002, entitled '*Making Irelands Development Sustainable – Review, Assessment and Future Action*'¹⁰. This document also stressed the need to break the link between economic growth and waste generation, again through waste minimisation and reuse of discarded material.

In order to establish the progress of the Government policy document *Changing Our Ways*, a review document was published in April 2004 entitled '*Taking Stock and Moving Forward*'¹¹. Covering the period 1998 – 2003, the aim of this document was to assess progress to date with regard to waste management in Ireland, to consider developments since the policy framework and the local authority waste management plans were put in place, and to identify measures that could be undertaken to further support progress towards the objectives outlined in *Changing Our Ways*.

In particular, *Taking Stock and Moving Forward* noted a significant increase in the amount of waste being brought to local authority landfills. The report noted that one of the significant challenges in the coming years was the extension of the dry recyclable collection services.

In September 2020, the Irish Government published a new policy document outlining a new action plan for Ireland to cover the period of 2020-2025. This plan 'A Waste Action Plan for a Circular Economy'¹² (WAPCE), 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).

The WAPCE sets the direction for waste planning and management in Ireland up to 2025. This reorientates policy from a focus on managing waste to a much greater focus on creating circular patterns of production and consumption. Other policy statements of a number of public bodies already acknowledge the circular economy as a national policy priority.

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.

One of the first actions to be taken was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less' (2021)¹³ to set a course for Ireland to transition across all sectors and at all levels of Government toward circularity and was issued in December 2021. It is anticipated that the Strategy will be updated in full every 18 months to 2 years.

Since 1998, the Environmental Protection Agency (EPA) has produced periodic 'National Waste (Database) Reports'¹⁴ detailing, among other things, estimates for household and commercial (municipal) waste generation in Ireland and the level of recycling, recovery and disposal of these materials. The 2019 National Waste Statistics, which is the most recent study published, along with the national waste statistics web resource (November 2021) reported the following key statistics for 2019:

- **Generated** – Ireland produced 3,085,652 t of municipal waste in 2019. This is almost a 6% increase since 2018. This means that the average person living in Ireland generated 628 kg of municipal waste in 2019.

- **Managed** – Waste collected and treated by the waste industry. In 2019, a total of 3,036,991 t of municipal waste was managed and treated.
- **Unmanaged** – Waste that is not collected or brought to a waste facility and is, therefore, likely to cause pollution in the environment because it is burned, buried or dumped. The EPA estimates that 48,660 t was unmanaged in 2019.
- **Recovered** – The amount of waste recycled, used as a fuel in incinerators, or used to cover landfilled waste. In 2019, around 83% of municipal waste was recovered – a decrease from 84% in 2018.
- **Recycled** – The waste broken down and used to make new items. Recycling also includes the breakdown of food and garden waste to make compost. The recycling rate in 2019 was 37%, which is down from 38% in 2018.
- **Disposed** – Less than a sixth (15%) of municipal waste was landfilled in 2019. This is an increase from 14% in 2018.

2.2 Regional Level

The proposed development is located in the Local Authority area of Dublin City Council (DCC).

The *EMR Waste Management Plan 2015 – 2021* is the regional waste management plan for the DCC area published in May 2015. A new *National Waste Management Plan for a Circular Economy* is expected to be published in early 2022 and will supersede the three current regional waste management plans in Ireland.

The current regional plan sets out the following strategic targets for waste management in the region:

- A 1% reduction per annum in the quantity of household waste generated per capita over the period of the plan;
- Achieve a recycling rate of 50% of managed municipal waste by 2020; and
- Reduce to 0% the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous recovery practices.

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 specified in the *Waste Management (Landfill Levy) Regulations 2012*.

The *Dublin City Development Plan 2016 – 2022* 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 a need to further reduce the role of landfilling in favour of higher value recovery options. Waste policies and objectives with a particular relevance to this proposed Development are as follows:

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.*
- *SI22: To ensure that effect is given as far as possible to the “polluter pays” principle.*

Objectives:

- *SIO16: To require the provision of adequately-sized-recycling facilities in new commercial and large scale residential developments, where appropriate.*
- *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* 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 project are:

- Waste Management Act 1996 as amended.
- Environmental Protection Agency Act 1992 as amended;
- Litter Pollution Act 1997 as amended and

- Planning and Development Act 2000 as amended ¹⁵

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

One of the guiding principles of European waste legislation, which has in turn been incorporated into the *Waste Management Act 1996* as amended and subsequent Irish legislation, is the principle of “*Duty of Care*”. This implies that the waste producer is responsible for waste from the time it is generated through until its legal 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 disposal area, waste contractors will be employed to physically transport waste to the final waste disposal site.

It is therefore imperative that the tenants and the proposed facilities management company undertake on-site management of waste in accordance with all legal requirements and employ suitably permitted/licenced contractors to undertake off-site management of their waste in accordance with all legal requirements. This includes the requirement that a waste contractor handle, transport and reuse/recover/recycle/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* as amended or a waste or IED (Industrial Emissions Directive) 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.

2.3.1 Dublin City Council Waste Management Bye-Laws

The DCC “Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws (2018)” were brought into force in May 2019. These bye-laws repeal the previous Bye-Laws for the Storage, Presentation and Collection of Household and Commercial Waste. The bye-laws set a number of enforceable requirements on waste holders with regard to storage, separation and presentation of waste within the DCC administrative area. Key requirements under these bye-laws of relevance to the operational phase of the Development include the following:

- Kerbside waste presented for collection shall not be presented for collection earlier than 5.00 pm on the day immediately preceding the designated waste collection day;
- All containers used for the presentation of kerbside waste and any uncollected waste shall be removed from any roadway, footway, footpath or any other public place no later than 10:00 am on the day following the designated waste collection day, unless an alternative arrangement has been approved in accordance with bye-law 2.3;
- Documentation, including receipts, is obtained and retained for a period of no less than one year to provide proof that any waste removed from the premises has been managed in a manner that conforms to these bye-laws, to the Waste Management Act and, where such legislation is applicable to that person, to the European Union (Household Food Waste and Bio-Waste) Regulations 2015; and
- Adequate access and egress onto and from the premises by waste collection vehicles is maintained.

The full text of the bye-laws is available from the DCC website.

2.4 Regional Waste Management Service Providers and Facilities

Various contractors offer waste collection services for the residential sector in the DCC region. Details of waste collection permits (granted, pending and withdrawn) for the region are available from the NWCPO.

As outlined in the regional waste management plan, there is a decreasing number of landfills available in the region. Only three municipal solid waste landfills remain operational and are all operated by the private sector. There are a number of other licensed and permitted facilities in operation in the region including waste transfer stations, hazardous waste facilities and integrated waste management facilities. There are two existing thermal treatment facilities, one in Duleek, Co. Meath and a second facility in Poolbeg in Dublin.

There is a DCC North Strand Recycling Centre at Shamrock Terrace, North Strand located c.1.2km to the north east of the development, which can be utilised by the residents of the development for other household waste streams while a bottle and textile bank can be found c. 800m to the south west at St Mary's church carpark.

A copy of all CORs and waste permits issued by the Local Authorities are available from the NWCPO website and all waste/IE licenses issued are available from the EPA.

3.0 DESCRIPTION OF THE PROJECT

3.1 Location, Size and Scale of the Development

Master Plan

The Dublin Central project is an expansive (c.2.2 Ha) and complex regeneration project. It needs to be delivered in stages to overcome site and project constraints.

A site wide cumulative masterplan has been prepared by 'the Applicant' to set out the overall development vision for the Dublin Central project.

'The Masterplan' area encompasses almost entirely three urban blocks. The area is bounded generally by O'Connell Street Upper and Henry Place to the east, Henry Street to the south, Moore Street to the west, and O'Rahilly Parade and Parnell Street to the north. Moore Lane extends south from Parnell Street through the centre of the masterplan area, as far as its junction with Henry Place.

A detailed description of the development site context is presented in Chapter 3 (Description of the Proposed Development).

Site 2AB & C

The proposed development comprises a mixed-use scheme incorporating retail, office, hotel, residential uses, associated car parking, landscaping and an interface with the underground Metro Station (to be provided by TII should planning permission be granted for the scheme). Its development will be guided by a Masterplan which will consist of at least five separate phases.

A detailed description of the development site context is presented in Chapter 3 (Description of the Proposed Development).

61 O'Connell Street

The proposed development consists of the refurbishment of No. 61 O'Connell Street Upper as residential use (comprising 3no. 2-bed apartment units) from 1st to 3rd floor including the creation of a new covered pedestrian link through part of the ground floor connecting O'Connell Street Upper and Henry Place. 2no. café / restaurant units are proposed at ground floor onto O'Connell Street and Henry Place. A leisure studio / gym is proposed at basement including the provision of 2no. changing rooms.

A detailed description of the development site context is presented in Chapter 3 (Description of the Proposed Development).

3.2 Typical Waste Categories

The typical non-hazardous and hazardous wastes that will be generated at the proposed development will include the following:

- Dry Mixed Recyclables (DMR) - includes waste paper (including newspapers, magazines, brochures, catalogues, leaflets), cardboard and plastic packaging, metal cans, plastic bottles, aluminium cans, tins and Tetra Pak cartons;
- Organic waste – food waste and green waste generated from internal plants/flowers;
- Glass; and
- Mixed Non-Recyclable (MNR)/General Waste.

In addition to the typical waste materials that will be generated at the development on a daily basis, there will be some additional waste types generated in small quantities which will need to be managed separately including:

- Green/garden waste may be generated from external landscaping;
- Batteries (both hazardous and non-hazardous);
- Waste electrical and electronic equipment (WEEE) (both hazardous and non-hazardous);
- Printer cartridges/toners;
- Chemicals (paints, adhesives, resins, detergents, etc.);
- Lightbulbs;
- Textiles (rags);
- Waste cooking oil (if any generated by the residents and tenants);
- Furniture (and from time to time other bulky wastes); and
- Abandoned bicycles.

Wastes should be segregated into the above waste types to ensure compliance with waste legislation and guidance while maximising the re-use, recycling and recovery of waste with diversion from landfill wherever possible.

3.3 European Waste Codes

In 1994, the *European Waste Catalogue*¹⁴ and *Hazardous Waste List*¹⁵ were published by the European Commission. In 2002, the EPA published a document titled the *European Waste Catalogue and Hazardous Waste List*¹⁶, which was a condensed version of the original two documents and their subsequent amendments. This document has recently been replaced by the EPA '*Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous*'¹⁷ which became valid from the 1st June 2015. This waste classification system applies across the EU and is the basis for all national and international waste reporting, such as those associated with waste collection permits, COR's, permits and licences and EPA National Waste Database.

Under the classification system, different types of wastes are fully defined by a code. The List of Waste (LoW) code (also referred to as European Waste Code or EWC) for typical waste materials expected to be generated during the operation of the proposed development are provided in Table 3.1 below

Waste Material	LoW/EWC Code
Paper and Cardboard	20 01 01
Plastics	20 01 39
Metals	20 01 40
Mixed Non-Recyclable Waste	20 03 01
Glass	20 01 02
Biodegradable Kitchen Waste	20 01 08
Oils and Fats	20 01 25
Textiles	20 01 11
Batteries and Accumulators*	20 01 33* - 34
Printer Toner/Cartridges*	20 01 27* - 28
Green Waste	20 02 01
WEEE*	20 01 35*-36
Chemicals (solvents, pesticides, paints & adhesives, detergents, etc.) *	20 01 13*/19*/27*/28/29*30
Fluorescent tubes and other mercury containing waste*	20 01 21*
Bulky Wastes	20 03 07

* Individual waste type may contain hazardous materials

Table 3.1 Typical Waste Types Generated and LoW Codes

4.0 ESTIMATED WASTE ARISING

A waste generation model (WGM) developed by AWN, has been used to predict waste types, weights and volumes arising from operations within the proposed development. The WGM incorporates building area and use and combines these with other data including Irish and US EPA waste generation rates.

The estimated quantum/volume of waste that will be generated from the residential units and hotel rooms has been determined based on the predicted occupancy of the units. While the floor area usage (m²) has been used to estimate the waste arising from the office, retail and F&B units.

The estimated waste generation for the development for the main waste types is presented in Table 4.1, 4.2, 4.3 and 4.4

Masterplan

Waste Type	Waste Volume (m ³ /week)			
	Residential Units (combined)	Retail and F&B Units (combined)	Hotel Units (Combined)	Office Units (Combined)
Organic Waste	1.14	3.17	2.49	3.82
Dry Mixed Recyclables	8.06	17.15	5.08	30.04
Glass	0.22	1.73	3.52	0.69
Mixed Non-Recyclables	4.24	23.51	5.95	36.46
Confidential Paper	-	-	-	5.71
Cardboard (For Baling)	-	36.41	-	29.06
Plastic (For Baling)	-	11.60	-	24.81
Total	13.66	93.57	14.55	130.60

Table 4.1 Estimated waste generation for the Masterplan Site Units

Site 2AB

Waste Type	Waste Volume (m ³ /week)		
	Office Units (combined)	Retail Units (combined)	F&B Units (combined)
Organic Waste	2.30	0.57	0.55
Dry Mixed Recyclables	10.75	3.10	2.97
Glass	0.24	0.31	0.30
Mixed Non-Recyclables	12.43	4.26	4.08
Confidential Paper	8.66	-	-
Cardboard (For Baling)	10.03	6.59	6.31
Plastic (For Baling)	9.79	2.10	2.01
Total	54.19	16.94	16.22

Table 4.2 Estimated waste generation for the Site 2AB Units

Site 2C

Waste Type	Waste Volume (m ³ /week)		
	Office Units (combined)	Retail Units (combined)	F&B Units (combined)
Organic Waste	2.58	0.25	0.16
Dry Mixed Recyclables	12.02	1.34	0.85
Glass	0.27	0.14	0.09
Mixed Non-Recyclables	13.91	1.84	1.17
Confidential Paper	9.69	-	-
Cardboard (For Baling)	11.23	3.20	1.81
Plastic (For Baling)	10.96	0.51	0.58
Total	60.64	7.33	4.65

Table 4.3 Estimated waste generation for the Site 2C Units

61 O'Connell Units

Waste Type	Waste Volume (m ³ /week)		
	Residential Units (combined)	Gym Unit	F&B Unit
Organic Waste	0.05	0.01	0.05
Dry Mixed Recyclables	0.36	0.12	0.12
Glass	0.01	<0.01	<0.01
Mixed Non-Recyclables	0.19	0.05	0.16
Total	0.60	0.19	0.34

Table 4.3 Estimated waste generation for the Site 61 O'Connell Units

5.0 WASTE STORAGE AND COLLECTION

This section provides information on how waste generated within the development will be stored and how the waste will be collected from the development. This has been prepared with due consideration of the proposed site layout as well as best practice standards, local and national waste management requirements including those of DCC. In particular, consideration has been given to the following documents:

- BS 5906:2005 Waste Management in Buildings – Code of Practice,
- EMR Waste Management Plan 2015 – 2021;
- Dublin City Council Development Plan 2016 – 2022 (Appendix 10); and
- DCC Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws (2018).

Dedicated communal Waste Storage Areas (WSA) have been allocated within the development design at basement and ground floor levels for the residential units and can be viewed in the drawings submitted with the application.

Masterplan

Dedicated shared Waste Storage Areas (WSA) have been allocated within the development design at ground floor level for the residential and commercial tenants and can be viewed in the drawings submitted with the application.

Commercial Waste

Using the estimated figures in Tables 4.1 it is anticipated that glass waste will be collected on a weekly basis. Organic, cardboard and plastic waste will be collected on a twice weekly basis, while MNR and DMR will be collected between two and three times per week.

Residential Waste

It is anticipated that DMR, MNR, glass and organic waste will be collected on a weekly basis.

Site 2 AB

Commercial Waste

Using the estimated figures in Tables 4.2 it is anticipated that glass waste will be collected on a weekly basis, while DMR, MNR, organic, cardboard and plastic waste will be collected on a twice weekly basis. The WSA is located on basement level and will be brought to ground level by a dedicated service lift. From there it will be taken by the Laneway to Moore Lane for collection.

Site 2 C*Commercial Waste*

Using the estimated figures in Tables 4.3 it is anticipated that glass waste will be collected on a weekly basis, while DMR, MNR, organic, cardboard and plastic waste will be collected on a twice weekly basis. The WSA is located on ground level and will be bought to the collection area on Moore Lane via the adjoining laneway.

61 O'Connell Street*Commercial Waste*

Using the estimated figures in Tables 4.3 It is anticipated that DMR, MNR, glass and organic waste will be collected on a weekly basis. The WSA is located on ground level and will be bought to the collection area on Henry Place via the adjoining laneway.

Residential Waste

It is anticipated that DMR, MNR, glass and organic waste will be collected on a weekly basis. The WSA is located on ground level and will be bought to the collection area on Henry Place via the adjoining laneway.

Waste storage requirements are presented in Table 5.1.

Area/Use	Bins Required					Equipment Required
	MNR ¹	DMR ²	Glass	Organic	Carboard/ Plastic (Bales)	
Site 2AB Commercial WSA	10 no. 1100L	8 no. 1100L	4 no. 240L	8 no. 240L	17	Baler
Site 2C Commercial WSA	8 no. 1100L	7 no. 1100L	2 no. 240L	7 no. 240L	13	Baler
61 O'Connell Street Commercial WSA	1 x 240L	2 x 240L	1 x 120L	1 x 240L	-	-
61 O'Connell Street Residential WSA	1 x 240L	2 x 240L	1 x 120L	1 x 120L	-	-

Table 5.1 Waste storage requirements for the proposed development

Note: 1 = Mixed Non-Recyclables

2 = Dry Mixed Recyclables

The waste receptacle requirements have been established from distribution of the total weekly waste generation estimate into the holding capacity of each receptacle type.

Waste storage receptacles as per Table 5.1 above (or similar appropriate approved containers) will be provided by the building management company in the residential WSA.

As outlined in the current *Dublin City Development Plan*, it is preferable to use 1,100 litre wheelie bins for waste storage, where practical. However, in the case of organic and glass waste, it is considered more suitable to use smaller waste receptacles due to the weight of bins when filled with organic and glass waste. The use of 240 & 120 litre bins as recommended in Table 5.1 will reduce the manual handling impacts on the building management personnel and waste contractor employees.

The types of bins used will vary in size, design and colour dependent on the appointed waste contractor. However, examples of typical receptacles to be provided in the WSAs are shown in Figure 5.1. All waste receptacles used will comply with the IS EN 840 2012 standard for performance requirements of mobile waste containers, where appropriate.

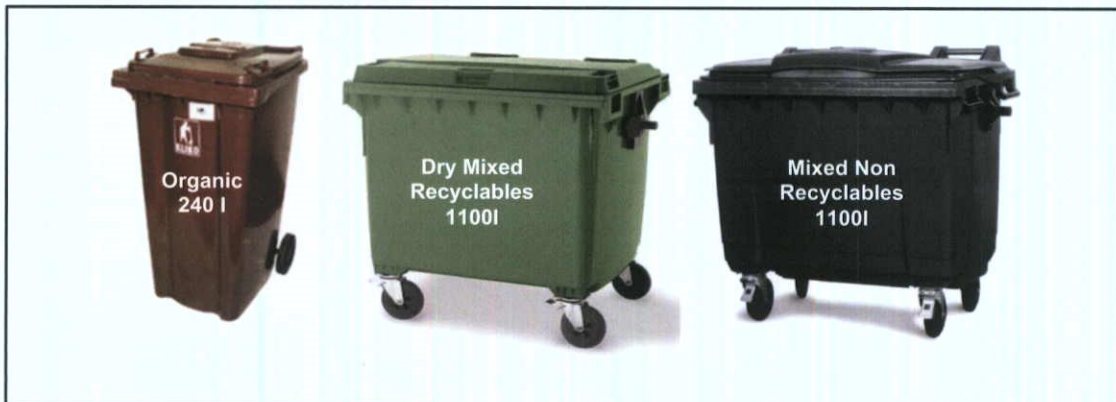


Figure 5.1 Typical waste receptacles of varying size (240L and 1100L)

5.1 Waste Storage – Residential Units

Residents will be required to segregate waste into the following main waste streams:

- DMR;
- MNR;
- Glass and
- Organic Waste.

Residents will be required to take their segregated waste materials to their designated WSA of their segregated waste into the appropriate bins. The location of the WSAs are illustrated in the drawings submitted with the planning application.

Space will be provided in the residential units to accommodate 3 no. bin types to facilitate waste segregation at source.

Each bin/container in the WSAs will be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Signage will be posted above or on the bins to show exactly which waste types can be placed in each bin.

Access to the residential WSAs will be restricted to authorised residents, facilities management and waste contractors by means of a key or electronic fob access.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the residents. Residents will be required to identify suitable temporary storage areas for these waste items within their own units and dispose of them appropriately. Further details on additional waste types can be found in Section 5.6.