

## 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

<b>General Information</b>	<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
<b>External Aspects:</b>	<i>Roofs:</i>	Flat roofs generally. Bitumen asphalt to back roofs. Felt to main roof and lower small roofs.
<b>Internal Aspects:</b>	<i>Walls</i>	Solid construction
	<i>Ceilings</i>	Original ceilings in front with floating plasterboard ceilings in areas
	<i>Floors</i>	Concrete floors
<b>Services:</b>	<i>Heating Systems:</i>	Old boiler room with boilers in basement.
<b>Reservations:</b>	<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.

# 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 <sup>st</sup> main stairway	Black thread nosing	NADIS
S04	2030404	1 <sup>st</sup> floor stairway landing – radiator valve	Doughnut handwheel	Chrysotile
S05	2030405	1 <sup>st</sup> floor kitchen sink unit	Bitumen heat pad	NADIS
S06	2030406	1 <sup>st</sup> floor corridor to back extensions	Wall paint	NADIS
S07	2030407	1 <sup>st</sup> 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.							

<b>Key</b> 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	<b>Material Assessment Score</b>		<b>Risk</b>
		≤ 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
5	No. 45 O'Connell Street	3 <sup>rd</sup> floor		Terrazzo floor.		No visible asbestos containing materials identified.							
6	No. 45 O'Connell Street	3 <sup>rd</sup> floor Back room		Concrete floorS		No visible asbestos containing materials identified.							
7	No. 45 O'Connell Street	3 <sup>rd</sup> floor Back room		Concrete floor		No visible asbestos containing materials identified.							
8	No. 45 O'Connell Street	2 <sup>nd</sup> floor front room				No visible asbestos containing materials identified.							





<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 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
9	No. 45 O'Connell Street	2 <sup>nd</sup> floor Back rooms				No visible asbestos containing materials identified.							
10	No. 45 O'Connell Street	2 <sup>nd</sup> floor Back WC's				No visible asbestos containing materials identified.							
11	No. 45 O'Connell Street	2 <sup>nd</sup> floor Dumb waiter				No visible asbestos containing materials identified.							
12	No. 45 O'Connell Street	2 <sup>nd</sup> floor Void		Georgian wire rooflight		Presumed asbestos in glazing bars						Investigation by a competent contractor prior to work likely to cause disturbance.	





<b>Key</b> 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	<b>Material Assessment Score</b>		<b>Risk</b>		
		≤ 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
13	No. 45 O'Connell Street	1 <sup>st</sup> floor Front room		Softboard ceiling tiles		No visible asbestos containing materials identified.							
14	No. 45 O'Connell Street	1 <sup>st</sup> floor Back rooms				No visible asbestos containing materials identified.							
15	No. 45 O'Connell Street	1 <sup>st</sup> 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 <sup>st</sup> floor Back corridor		Flange gaskets to pipework		Presumed asbestos						Investigation by a competent contractor prior to work likely to cause disturbance.	





<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters = Linear Meters	Confirmed Asbestos	<b>Material Assessment Score</b>		<b>Risk</b>
		≤ 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. 45 O'Connell Street	1 <sup>st</sup> floor Side room				No visible asbestos containing materials identified.							
18	No. 45 O'Connell Street	1 <sup>st</sup> floor WC		Plastic cistern		NAD							
19	No. 45 O'Connell Street	1 <sup>st</sup> floor Side room				No visible asbestos containing materials identified.							
20	No. 45 O'Connell Street	1 <sup>st</sup> floor Kitchen	2030405	Bitumen pad to sink unit		NAD							



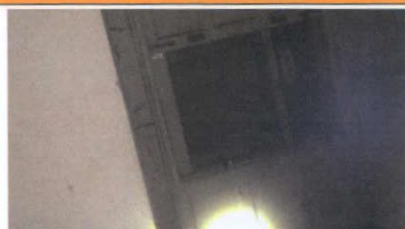

<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters LM = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	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
21	No. 45 O'Connell Street	1 <sup>st</sup> 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 <sup>st</sup> floor Side room between rooflights				No visible asbestos containing materials identified.							
23	No. 45 O'Connell Street	1 <sup>st</sup> floor Rooflights		Georgian wire glazing bars		Presumed to contain asbestos woven rope beading							
24	No. 45 O'Connell Street	1 <sup>st</sup> floor Back room Moore Lane		Softboard ceiling tiles		NAD							





<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>		
				≤ 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
25	No. 45 O'Connell Street	1 <sup>st</sup> 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.							

<b>Key</b> 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	<b>Material Assessment Score</b>		<b>Risk</b>
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 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.							
32	No. 45 O'Connell Street	Ground floor Behind counter area	2030409	Floor mastic		NAD							

<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>
		≤ 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, 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.							

<b>Key</b> 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	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>
		<b>Presumed/Strongly presumed ACM Or Non Accessed Area</b>	$\leq 4$	Very Low
			5 - 6	Low
			7 - 9	Medium
			$\geq 10$	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.							
40	No. 45 O'Connell Street	Ground floor Back corridor Canteen	2030410	Sink pad		NAD							





<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area .	≤ 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, 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.							




<b>Key</b> 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.							




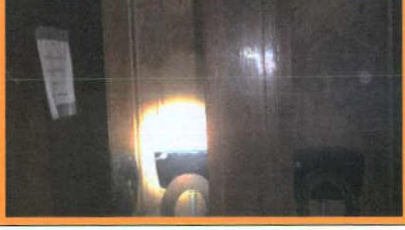
<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 4	Very Low
	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, 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.	





<b>Key</b> 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	<b>Material Assessment Score</b>		<b>Risk</b>	
	Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 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
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.	


<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters J = Linear Meters	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>
		$\leq 4$		Very Low
		5 - 6		Low
		7 - 9		Medium
		$\geq 10$		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
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.	

<b>Key</b> 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	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>
		≤ 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.							

<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters L = Linear Meters	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>	
		≤ 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
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.							

<b>Key</b> 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	<b>Confirmed Asbestos</b>	<b>Material Assessment Score</b>		<b>Risk</b>
		≤ 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
69	No. 45 O'Connell Street	Basement Coal cellar				No visible asbestos containing materials identified.							

<b>Key</b> NAD = No asbestos detected AIB = Asbestos insulation board AC = Asbestos cement VFT = vinyl floor tile NQ = Not Quantified/Quantifiable SM = Square Meters J = Linear Meters	Confirmed Asbestos	Material Assessment Score		Risk
		Presumed/Strongly presumed ACM Or Non Accessed Area	≤ 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.				

## **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,  
Clonshaugh Business & Technology Park,  
Dublin 17, Ireland.

T: + 353 1 847 4220  
F: + 353 1 847 4257  
E: [info@awnconsulting.com](mailto:info@awnconsulting.com)  
W: [www.awnconsulting.com](http://www.awnconsulting.com)

**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

---

**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, E Porter  
Associate Director: D Kelly

**Document History**

Document Reference		Original Issue Date	
CB/19/11304WMR01		29 September 2022	
Revision Level	Revision Date	Description	Sections Affected

**Record of Approval**

Details	Written by	Approved by
Signature		
Name	Chonaiil Bradley	Fergal Callaghan
Title	Principal Environmental Consultant	Director Callaghan
Date	29 September 2022	29 September 2022

<b>CONTENTS</b>		<b>Page</b>
1.0	INTRODUCTION	4
2.0	OVERVIEW OF WASTE MANAGEMENT IN IRELAND	4
2.1	National Level	4
2.2	Regional Level	6
2.3	Legislative Requirements	7
2.3.1	Dublin City Council Waste Management Bye-Laws	8
2.4	Regional Waste Management Service Providers and Facilities	9
3.0	DESCRIPTION OF THE PROJECT	9
3.1	Location, Size and Scale of the Development	9
3.2	Typical Waste Categories	10
3.3	European Waste Codes	10
4.0	ESTIMATED WASTE ARISING	11
5.0	WASTE STORAGE AND COLLECTION	13
5.1	Waste Storage – Residential Units	15
5.2	Waste Storage – Retail and F&B Units	16
5.3	Waste Storage – Hotels	16
5.4	Waste Storage – Office	17
5.5	Waste Collection	19
5.6	Additional Waste Materials	20
5.7	Waste Storage Area Design	22
6.0	CONCLUSIONS	23
7.0	REFERENCES	24

## 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 <sup>1</sup>, *Protection of the Environment Act 2003* as amended <sup>2</sup>, *Litter Pollution Act 2003* as amended <sup>3</sup>, the '*Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021*' <sup>4</sup> and Dublin City Council (DCC) '*Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws*' 2018 <sup>5</sup>. 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*' <sup>8</sup> 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 2002<sup>9</sup>. 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 Ireland's Development Sustainable – Review, Assessment and Future Action*'<sup>10</sup>. 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*'<sup>11</sup>. 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'<sup>12</sup> (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)<sup>13</sup> 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'<sup>14</sup> 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 <sup>15</sup>

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* <sup>14</sup> and *Hazardous Waste List* <sup>15</sup> were published by the European Commission. In 2002, the EPA published a document titled the *European Waste Catalogue and Hazardous Waste List* <sup>16</sup>, 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*' <sup>17</sup> 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 (m<sup>2</sup>) 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 <sup>3</sup> /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
<b>Total</b>	<b>13.66</b>	<b>93.57</b>	<b>14.55</b>	<b>130.60</b>

**Table 4.1** Estimated waste generation for the Masterplan Site UnitsSite 2AB

Waste Type	Waste Volume (m <sup>3</sup> /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
<b>Total</b>	<b>54.19</b>	<b>16.94</b>	<b>16.22</b>

**Table 4.2** Estimated waste generation for the Site 2AB UnitsSite 2C

Waste Type	Waste Volume (m <sup>3</sup> /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
<b>Total</b>	<b>60.64</b>	<b>7.33</b>	<b>4.65</b>

**Table 4.3** Estimated waste generation for the Site 2C Units

## 61 O'Connell Units

Waste Type	Waste Volume (m <sup>3</sup> /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
<b>Total</b>	<b>0.60</b>	<b>0.19</b>	<b>0.34</b>

**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 <sup>1</sup>	DMR <sup>2</sup>	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

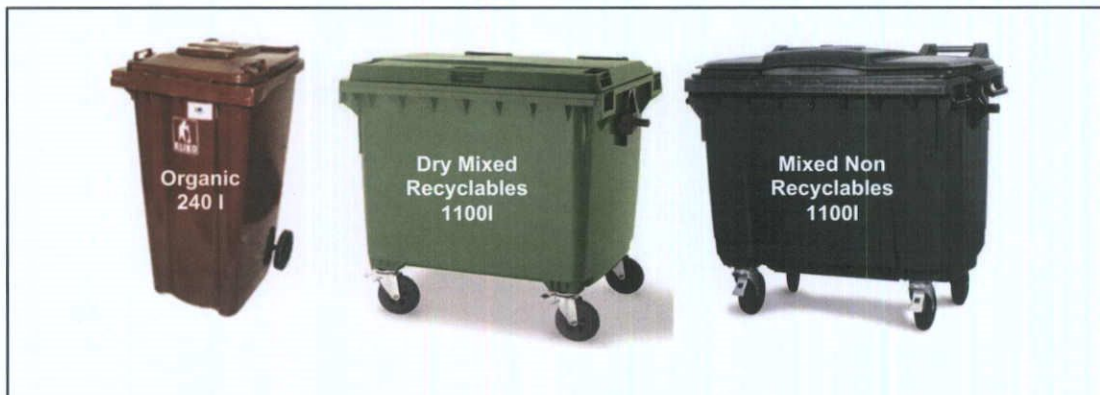
The waste receptacle requirements have been established from distribution of the total weekly waste generation estimate into the holding capacity of each receptacle type.

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.

## 5.2 Waste Storage – Retail and F&B Units

The retail and F&B tenants will be required to segregate waste within their own unit into the following main waste types:

- DMR;
- MNR;
- Organic waste;
- Glass;
- Plastic; and
- Carboard.

Tenants will be required to take their segregated waste materials to their designated commercial WSA and dispose of their segregated waste into the appropriate bins. Locations of all WSAs can found on the plans submitted with the application.

Suppliers for the tenants should be requested by the tenants to make deliveries in reusable containers, minimize packaging or to remove any packaging after delivery where possible, to reduce waste generated by the development.

If any kitchens are allocated in unit areas, this will contribute a significant portion of the volume of waste generated on a daily basis, and as such it is important that adequate provision is made for the storage and transfer of waste from these areas to the WSA.

If kitchens are required it is anticipated that waste will be generated in kitchens throughout the day, primarily at the following locations:

- Food Storage Areas (i.e. cold stores, dry store, freezer stores and stores for decanting of deliveries);
- Meat Preparation Area;
- Vegetable Preparation Area;
- Cooking Area;
- Dish-wash and Glass-wash Area; and
- Bar Area.

Small bins will be placed adjacent to each of these areas for temporary storage of waste generated during the day. Waste will then be transferred from each of these areas to the appropriate waste store within their unit.

A trolley/tug or suitable vehicle may be required to convey the bins to/from the WSAs.

All bins/containers in the tenants areas as well as 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 wastes can be put in each.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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

## 5.3 Waste Storage – Hotels

The operator(s) will be required to segregate their waste within the development into the following main waste types:

- DMR;

- MNR;
- Organic waste; and
- Glass.

Tenants will be required to take their segregated waste materials to their designated WSAs and dispose of their segregated waste into the appropriate bins. Locations of all WSAs can be found on the plans submitted with the application.

Suppliers for the development should be requested by the hotel operator to make deliveries in reusable containers, minimize packaging or to remove any packaging after delivery where possible, to reduce waste generated by the development.

Signage should be erected above internal bins and in the WSA to identify what waste types should be placed into each bin as appropriate. Bins/containers should be labelled, and colour coded to avoid cross contamination of the different waste streams.

The majority of waste materials collected in bins in the hotel rooms, common areas etc. will not be segregated and will be managed as MNR waste. Housekeeping and hotel cleaning staff will segregate waste, where possible, during cleaning by using segregated containers on their cleaning trolleys. Waste will be transferred from the cleaning carts to the appropriate bins in the WSA via the lifts and corridors.

The kitchen in the restaurant area will contribute a significant portion of the volume of waste generated on a daily basis, and as such it is important that adequate provision is made for the storage and transfer of waste from these areas to the WSA.

It is anticipated that waste will be generated in the kitchen throughout the day, primarily at the following locations:

- Food Storage Areas (i.e. cold stores, dry store, freezer stores and stores for decanting of deliveries);
- Meat Preparation Area;
- Vegetable Preparation Area;
- Cooking Area; and
- Dish-wash and Glass-wash Area;

Small bins will be placed adjacent to each of these areas as required for temporary storage of waste generated during the day. Waste will then be transferred from each of these areas to the WSA and placed into the segregated bins as detailed in Table 5.1.

All bins/containers in the kitchen, restaurant, bar and dining areas as well as 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 wastes can be put in each.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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

#### **5.4 Waste Storage – Office**

The office tenant(s) will segregate waste into the following main waste streams:

- DMR;
- MNR;

- Organic waste;
- Glass;
- Plastic; and
- Carboard.

Personnel nominated by the office tenants will empty the bins in the AWSs, as required, and bring the segregated waste using trolleys/carts/bins to their allocated WSA. Locations of all WSAs can found on the plans submitted with the application.

The office unit(s) may be occupied by a single tenant or multiple tenants. It is recommended that the office tenants implement the 'binless office' concept where employees do not have bins located under desks and instead bring their waste to Area Waste Stations (AWSs) located strategically on the office floors, at print stations/rooms and at any canteens, micro kitchens or tea stations which may be provided within the tenant's office space. Experience has shown that the maximum travel distance should be no more than 15m from the employee's desk to the AWS. This 'best in class' concept achieves maximum segregation of waste in an office setting.

Typically, an AWS would include a bin for DMR and a bin for MNR. It is recommended that a confidential paper bin with a locked lid/door should also be provided for at each AWS and/or adjacent to photocopy/printing stations, as required. In addition, it is recommended that organic and glass bins should be provided at any canteens or micro kitchens or tea stations, where appropriate.

A printer cartridge/toner bin should be provided at the print/copy stations, where appropriate.

It is recommended that all bins/containers should be clearly labelled and colour coded to avoid cross contamination of the different waste streams. Signage should be posted on or above the bins to show which wastes can be put in each bin.

The binless office concept, in addition to assisting in maximising recycling rates and minimising associated landfill disposal costs, also has the advantage of substantially reducing cleaning costs, as cleaners visit only the AWSs on each floor, as opposed to each desk.

Suppliers for the tenants should be requested by the tenants to make deliveries in reusable containers, minimize packaging and/or to remove any packaging after delivery where possible, to reduce waste generated by the development.

It is proposed that confidential paper waste will be managed separately to non-confidential paper waste. Tenants will be required to engage with an appropriately permitted/licenced confidential waste management contractor for collection and shredding of confidential paper. It is anticipated that tenants will place locked confidential waste paper bins as required throughout their office areas. The confidential waste company will typically collect bins directly from the office areas, under agreement with the tenant, and bring the locked bin or bags of confidential waste via the lifts to their collection truck.

Other waste materials such as textiles, batteries, lightbulbs, printer toner/cartridges, cooking oil and WEEE may be generated infrequently by the tenants. Tenants 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

## 5.5 Waste Collection

There are numerous private contractors that provide waste collection services in the Dublin City area. All waste contractors servicing the proposed development must hold a valid waste collection permit for the specific waste types collected. All waste collected must be transported to registered/permited/licensed facilities only.

A servicing management strategy prepared in conjunction with the design team by SWECO and has been provided for this development to cover 'the Masterplan' and the individual Sites. This plan can be viewed as part of the planning application and provides the location of all temporary waste collection areas.

A trolley/tug or suitable vehicle may be required to convey the bins to/from the collection area.

The facilities management team or the waste contractor will ensure that empty bins are promptly returned to the WSAs after collection/emptying.

Bin collection times/days will be staggered to reduce the number of bins required to be emptied at once and the time the waste vehicle is onsite. This will be determined during the process of appointment of a waste contractor.

It is currently envisaged that the below collection locations will be used so that each site can act independently of each other site prior to the completion of the Dublin Central Masterplan. The Dublin Central Masterplan includes the introduction of the Metrolink Station, which prevents vehicles from accessing basement waste stores. In addition, all WSAs which are at basement level have insufficient height clearance for a standard waste truck to access. Therefore, all waste will be collected at grade. Upon completion of the Dublin Central Masterplan, additional loading bays will be provided off the carriageway to improve access for service and waste collection vehicles. In addition, the Estate Management Company will manage all site-wide waste operations to ensure smooth transition during collections and ensure waste bins are not left idle on the street. Suitably sized vehicles will be procured to serve the site, typically smaller refuse vehicles, less than 8m in length. The private waste contractors will have fob access to the bin stores. This prevents bins from being left on street for collection.

The Dublin Central Masterplan proposes all bins will be collected and returned directly to the waste storage areas by the waste contractor or by the Estate Management Company. At no stage will bins be stored within the public realm.

### Masterplan

#### Site 1

Waste collections at Site 1 are proposed to occur via the proposed loading area on Moore Lane (north of O'Rahilly Parade).

#### Site 2AB

Waste collections at Site 2AB are proposed to occur via the proposed loading areas to the rear of 59 and 60 O'Connell St on Moore Lane, via the proposed link between O'Connell Street Upper / Moore Lane.

#### Site 2C

Waste collections at Site 2C are proposed to occur via the proposed loading area on Moore Lane (north of O'Rahilly Parade).

### Site 3

Bins from the residential WSA will be collected from the existing loading area on Moore Street, while The waste truck will enter the passageway between block 3A & 3B to collect the commercial and hotel waste directly from the shared commercial and the hotel WSAs.

### Site 4

All commercial and residential bins from this development will be brought to a temporary collection point on Moore Street, from the WSAs by the waste contractor or facilities management company, immediately prior to collection. There are two bin stores in Site 4 – one in the north, the other in the south.

South: The waste vehicle will utilise the existing loading provision on Moore Street to access the southern bin store within Site 4, as existing. This bin store is approximately 20m from Moore Street. The commercial operator will collect the bins before emptying them and returning the empty bins to the bin store.

North: The waste vehicle will utilise the existing loading provision on Moore Street to access the northern bin store within Site 4, as existing. This bin store is approximately 22m from Moore Street. The commercial operator will collect the bins before emptying them and returning the empty bins to the bin store.

### Site 5

Waste vehicles will utilise the proposed loading area on O'Rahilly Parade to access the proposed Site 5 bin store directly. The waste contractor will return the bins to the bin store immediately after collection.

### 61 O'Connell Street

Waste collections for 61 O'Connell Street are proposed to continue to occur via the rear entrance to the building on Henry Place.

## **5.6 Additional Waste Materials**

In addition to the typical waste materials that are generated on a daily basis, there will be some additional waste types generated from time to time that will need to be managed separately. A non-exhaustive list is presented below.

### Green waste

Green waste may be generated from external landscaping and internal plants/flowers. Green waste generated from landscaping of external areas will be removed by external landscape contractors. Green waste generated from gardens internal plants/flowers can be placed in the organic waste bins.

### Batteries

A take-back service for waste batteries and accumulators (e.g. rechargeable batteries) is in place in order to comply with the Waste Management Batteries and Accumulators Regulations 2014 as amended. In accordance with these regulations consumers are able to bring their waste batteries to their local civic amenity centre or can return them free of charge to retailers which supply the equivalent type of battery, regardless of whether or not the batteries were purchased at the retail outlet and regardless of

whether or not the person depositing the waste battery purchases any product or products from the retail outlet.

The commercial tenants cannot use the civic amenity centre. They must segregate their waste batteries and either avail of the take-back service provided by retailers or arrange for recycling/recovery of their waste batteries by a suitably permitted/licenced contractor. Facilities management may arrange collection depending on the agreement.

#### Waste Electrical and Electronic Equipment (WEEE)

The *WEEE Directive 2002/96/EC* and associated Waste Management (WEEE) Regulations have been enacted to ensure a high level of recycling of electronic and electrical equipment. In accordance with the regulations, consumers can bring their waste electrical and electronic equipment to their local recycling centre. In addition consumers can bring back WEEE within 15 days to retailers when they purchase new equipment on a like for like basis. Retailers are also obliged to collect WEEE within 15 days of delivery of a new item, provided the item is disconnected from all mains, does not pose a health and safety risk and is readily available for collection.

As noted above, the commercial tenants cannot use the civic amenity centre. They must segregate their WEEE and either avail of the take-back/collection service provided by retailers or arrange for recycling/recovery of their WEEE by a suitably permitted/licenced contractor. Facilities management may arrange collection depending on the agreement.

#### Printer Cartridge/Toners

It is recommended that a printer cartridge/toner bin is provided in the commercial units, where appropriate. The commercial tenants will be required to store this waste within their unit and arrange for return to retailers or collection by an authorised waste contractor, as required.

Waste printer cartridge/toners generated by residents can usually be returned to the supplier free of charge or can be brought to a civic amenity centre.

#### Chemicals (solvents, paints, adhesives, resins, detergents etc)

Chemicals (such as solvents, paints etc) are largely generated from building maintenance works. Such works are usually completed by external contractors who are responsible for the off-site removal and appropriate recovery/recycling/disposal of any waste materials generated.

Any waste cleaning products or waste packaging from cleaning products generated in the commercial units that are classed as hazardous (if they arise) will be appropriately stored within the tenants own space. Facilities management may arrange collection depending on the agreement.

Any waste cleaning products or waste packaging from cleaning products that are classed as hazardous (if they arise) generated by the residents should be brought to a civic amenity centre.

#### Light Bulbs (Fluorescent Tubes, Long Life, LED and Lilament bulbs)

Waste light bulbs may be generated by lighting at the commercial tenants. It is anticipated that commercial tenants will be responsible for the off-site removal and appropriate recovery/disposal of these wastes. Facilities management may arrange collection depending on the agreement.

Light bulbs generated by residents should be taken to the nearest civic amenity centre for appropriate storage and recovery/disposal.

### Textiles

Where possible, waste textiles should be recycled or donated to a charity organisation for reuse.

### Waste Cooking Oil

If the commercial tenants use cooking oil, waste cooking oil will need to be stored within the individual units on a bunded area or spill pallet and regular collections by a dedicated waste contractor will need to be organised as required. Under sink grease traps will be installed in any cooking space.

If the residents generate waste cooking oil, this can be brought to a civic amenity centre.

### Furniture (and other bulky wastes)

Furniture and other bulky waste items (such as carpet etc.) may occasionally be generated by the commercial tenants. The collection of bulky waste will be arranged as required by the tenants. If residents wish to dispose of furniture, this can be brought to a civic amenity centre.

### Abandoned Bicycles

Bicycle parking areas are planned for the development. As happens in other developments, residents sometimes abandon faulty or unused bicycles and it can be difficult to determine their ownership. Abandoned bicycles should be donated to charity if they arise.

### Covid-19 Waste

Any waste generated by residential and commercial tenants that have tested positive for Covid-19 should be managed in accordance with the current Covid-19 HSE Guidelines at the time that that waste arises. At the time this report was prepared, the HSE Guidelines require the following procedure for any waste from a person that tests positive for Covid-19:

- Put all waste (gloves, tissues, wipes, masks) from that person in a bin bag and tie when almost full;
- Put this bin bag into a second bin bag and tie a knot;
- Store this bag safely for 3 days, then put the bag into the non-recyclable waste/general waste wheelie bin for collection/emptying.

Please note that this guidance is likely to be updated by the time the development is open and occupied and the relevant guidance at the time will need to be reviewed.

## **5.7 Waste Storage Area Design**

The WSAs should be designed and fitted-out to meet the requirements of relevant design Standards, including:

- Be fitted with a non-slip floor surface;
- Provide ventilation to reduce the potential for generation of odours with a recommended 6-10 air changes per hour for a mechanical system for internal WSAs;
- Provide suitable lighting – a minimum Lux rating of 220 is recommended;
- Be easily accessible for people with limited mobility;
- Be restricted to access by nominated personnel only;
- Be supplied with hot or cold water for disinfection and washing of bins;
- Be fitted with suitable power supply for power washers;
- Have a sloped floor to a central foul drain for bins washing run-off;



- Have appropriate signage placed above and on bins indicating correct use;
- Have access for potential control of vermin, if required; and
- Be fitted with CCTV for monitoring.

The facilities management company, residents and tenants will be required to maintain the WSAs in good condition as required by the *DCC Waste Bye-Laws*.

## 6.0 CONCLUSIONS

In summary, this OWMP presents a waste strategy that addresses all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Implementation of this OWMP will ensure a high level of recycling, reuse and recovery at the development. All recyclable materials will be segregated at source to reduce waste contractor costs and ensure maximum diversion of materials from landfill, thus achieving the targets set out in the *EMR Waste Management Plan 2015 – 2021*.

Adherence to this plan will also ensure that waste management at the development is carried out in accordance with the requirements of the *DCC Waste Bye-Laws*.

The waste strategy presented in this document will provide sufficient storage capacity for the estimated quantity of segregated waste. The designated areas for waste storage will provide sufficient room for the required receptacles in accordance with the details of this strategy.

## 7.0 REFERENCES

1. Waste Management Act 1996 as amended 2001
2. Environmental Protection Agency Act 1992 (No. 7 of 1992) as amended.
3. Litter Pollution Act 1997 (No. 12 of 1997) as amended.
4. Southern Waste Region, *Southern Region Waste Management Plan 2015 – 2021* (2015).
5. Dublin City Council (DCC), *Dublin City Development Plan 2016 – 2022* (2016)
6. DCC, *Draft Dublin City Development Plan (2022-2028)*
7. DCC, *Dublin City Council (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws* (2018).
8. Department of Environment and Local Government (DoELG) *Waste Management – Changing Our Ways, A Policy Statement* (1998).
9. Department of Environment, Heritage and Local Government (DoEHLG), *Preventing and Recycling Waste - Delivering Change* (2002).
10. Department of the Environment and Local Government (DoELG), *Making Ireland's Development Sustainable – Review, Assessment and Future Action (World Summit on Sustainable Development)* (2002).
11. Department of the Environment, Heritage and Local Government (DoEHLG), *Taking Stock and Moving Forward* (2004) .
12. Department of the Environment, Climate and Communications (DoECC), *Waste Action Plan for the Circular Economy - Ireland's National Waste Policy 2020-2025* (2020).
13. DCCAE, *Whole of Government Circular Economy Strategy 2022-2023 'Living More, Using Less'* (2021)
14. Environmental Protection Agency (EPA), *National Waste Database Reports 1998 – 2017*.
15. Planning and Development Act 2000 (S.I. No. 30 of 2000) as amended 2010 (S.I. No. 30 of 2010) and 2015 (S.I. No. 310 of 2015).
16. European Waste Catalogue - Council Decision 94/3/EC (as per Council Directive 75/442/EC).
17. Hazardous Waste List - Council Decision 94/904/EC (as per Council Directive 91/689/EEC).
18. EPA, *European Waste Catalogue and Hazardous Waste List* (2002)
19. EPA, *Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous* (2015).
20. BS 5906:2005 Waste Management in Buildings – Code of Practice.
21. DoHLGH, *Sustainable Urban Housing: Design Standards for New Apartments, Guidelines for Planning Authorities* (2020)
22. Department of Transport, Tourism and Sport and Department of Housing, Planning and Local Government, *Design Manual for Urban Roads and Streets* (2019).





## APPENDIX 16.1 SUMMARY OF NATIONAL MONUMENTS LEGISLATION

### National Monuments Legislation

All archaeological sites have the full protection of the national monuments legislation (Principal Act 1930; Amendments 1954, 1987, 1994 and 2004). In the 1987 Amendment of Section 2 of the Principal Act (1930), the definition of a national monument is specified as: -

*"any artificial or partly artificial building, structure or erection or group of such buildings, structures or erections:*

- *any artificial cave, stone or natural product, whether forming part of the ground, that has been artificially carved, sculptured or worked upon or which (where it does not form part of the place where it is) appears to have been purposely put or arranged in position, any, or any part of any, prehistoric or ancient (i.) tomb, grave or burial deposit, or (ii.) ritual, industrial or habitation site, and*
- *any place comprising the remains or traces of any such building, structure or erection, any cave, stone or natural product or any such tomb, grave, burial deposit or ritual, industrial or habitation site..."*

Under Section 14 of the Principal Act (1930): -

*"It shall be unlawful...*

*to demolish or remove wholly or in part or to disfigure, deface, alter, or in any manner injure or interfere with any such national monument without or otherwise than in accordance with the consent hereinafter mentioned (a licence issued by the Office of Public Works National Monuments Branch),*

*or*

*to excavate, dig, plough or otherwise disturb the ground within, around, or in the proximity to any such national monument without or otherwise than in accordance..."*

Under Amendment to Section 23 of the Principal Act (1930), a person who finds an archaeological object shall, within four days after the finding, make a report of it to a member of the Garda Síochána or the Director of the National Museum.

The latter is of relevance to any finds made during a watching brief. In the 1994 Amendment of Section 12 of the Principal Act (1930), all the sites and 'places' recorded by the Sites and Monuments Record of the Office of Public Works are provided with a new status in law. This new status provides a level of protection to the listed sites that is equivalent to that accorded to 'registered' sites [Section 8(1), National Monuments Amendment Act 1954] as follows: -

- The Commissioners shall establish and maintain a record of monuments and places where they believe there are monuments and the record shall be comprised of a list of monuments and such places and a map or maps showing each monument and such place in respect of each county in the State.
- The Commissioners shall cause to be exhibited in a prescribed manner in each county the list and map or maps of the county drawn up and publish in a prescribed manner information about when and where the lists and maps may be consulted.

In addition, when the owner or occupier (not being the Commissioners) of a monument or place which has been recorded, or any person proposes to carry out, or to cause or permit the carrying out of, any work at or in relation to such monument or place, he shall give notice in writing of his proposal to carry out the work to the Commissioners and shall not, except in the case of urgent necessity and with the consent of the Commissioners, commence the work for a period of two months after having given the notice.

RECEIVED: 26/10/2022  
RECEIVED NO 5176/22

### The National Monuments Amendment Act 2004

The National Monuments Amendment Act enacted in 2004 provides clarification in relation to the division of responsibilities between the Minister of Environment, Heritage and Local Government, Finance and Arts, Sports and Tourism together with the Commissioners of Public Works. The Minister of Environment, Heritage and Local Government will issue directions relating to archaeological works and will be advised by the National Monuments Section and the National Museum of Ireland.

The Act gives discretion to the Minister of Environment, Heritage and Local Government to grant consent or issue directions in relation to road developments (Section 49 and 51) approved by An Bord Pleanála and / or in relation to the discovery of National Monuments: -

*14A. (1) The consent of the Minister under section 14 of this Act and any further consent or licence under any other provision of the National Monuments Acts 1930 to 2004 shall not be required where the works involved are connected with an approved road development.*

*(2) Any works of an archaeological nature that are carried out in respect of an approved road development shall be carried out in accordance with the directions of the Minister, which directions shall be issued following consultation by the minister with the Director of the National Museum of Ireland.*

Subsection 14A (4) Where a national monument has been discovered to which subsection (3) of this section relates, then the road authority carrying out the road development shall report the discovery to the Minister subject to subsection (7) of this section, and pending any directions by the minister under paragraph (d) of this subsection, no works which would interfere with the monument shall be carried out, except works urgently required to secure its preservation carried out in accordance with such measures as may be specified by the Minister.

The Minister will consult with the Director of the National Museum of Ireland for a period not longer than 14 days before issuing further directions in relation to the national monument.

The Minister will not be restricted to archaeological considerations alone but will also consider the wider public interest.

**APPENDIX 16.2 DUBLIN CITY DEVELOPMENT PLAN 2016 – 2022 – ARCHAEOLOGY**

It is the policy of Dublin City Council to: -

*CHC9: To protect and preserve National Monuments.*

1. To protect archaeological material in situ by ensuring that only minimal impact on archaeological layers is allowed, by way of the re-use of buildings, light buildings, foundation design or the omission of basements in the Zones of Archaeological Interest.
2. That where preservation in situ is not feasible, sites of archaeological interest shall be subject to 'preservation by record' according to best practice in advance of redevelopment.
3. That sites within Zones of Archaeological Interest will be subject to consultation with the City Archaeologist and archaeological assessment prior to a planning application being lodged.
4. That the National Monuments Service will be consulted in assessing proposals for development which relate to Monuments and Zones of Archaeological Interest.
5. To preserve known burial grounds and disused historic graveyards, where appropriate, to ensure that human remain are re-interred, except where otherwise agreed with the National Museum of Ireland.
6. That in evaluating proposals for development in the vicinity of the surviving sections of the city wall that due recognition be given to their national significance and their special character.
7. To have regard to the Shipwreck inventory maintained by the DAHG. Proposed developments that may have potential to impact on riverine, inter-tidal and subtidal environments shall be subject to an underwater archaeological assessment in advance of works.
8. To have regard to DAHG policy documents and guidelines relating to archaeology.

*It is the policy of Dublin City Council: -*

- CHC10: To continue to preserve, and enhance the surviving sections of the City Wall and city defences – a National Monument, according to the recommendations of the City Walls Conservation Plan 2015 – with reference to the National Policy on Town Defences, adopted by the Department of the Environment in 2008.
- CHC11: To preserve historic place and street names and ensure that new street names should reflect appropriate local historical or cultural associations.
- CHC13: To support and pursue a World Heritage nomination for the Historic City of Dublin, in partnership with the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs and other stakeholders.
- CHC14: To promote the awareness of Dublin's industrial, military and maritime, canal-side (including lock-keepers' dwellings) and rural (vernacular) heritage.
- CHC15: To preserve, repair and retain in situ, historic elements of significance in the public realm including railings, milestones, city ward stones, street furniture, ironmongery, and any historic kerbing and setts identified in Appendices 7 and 8 of the development plan, and promote high standards for design, materials and workmanship in public realm improvements. Works involving such elements shall be carried out in accordance with the Department of Arts Heritage and the Gaeltacht Advice Series: Paving, the Conservation of Historic Ground Surfaces.
- CHC18: To support and promote a strategy for the protection and restoration of the industrial heritage of the city's waterways, such as the River Dodder, including retaining walls, weirs and millraces.

*It is an objective of Dublin City Council: -*

CHCO10: 14. To implement and promote The Dublin Principles (ICOMOS, 2011) as guiding principles to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of Dublin and Ireland.