

- Consultations with DCC and TII.

As a result of these restrictions, the preparation of Chapter 13.0 included historic surveys and virtual viewing of the site and surrounding streets.

14 MATERIAL ASSETS (WASTE)

14.1 INTRODUCTION

This Chapter of the EIAR comprises an assessment of the likely impact of the Proposed Development on the waste generated from the development as well as identifying proposed mitigation measures to minimise any associated impacts. Dublin Central is underpinned by a Masterplan which will be assessed also.

TII is expected to make an application for a Railway Order for the MetroLink project, including a future MetroLink Station serving O'Connell Street within the Dublin Central site.

The Dublin Central proposed development accommodates a structural box (c. 120m length, c.26m width, c.34.5m depth) beneath the ground floor level that has been designed to accommodate the independent construction and operation of the planned O'Connell Street MetroLink Station by TII, including provision of the structural envelope and co-ordinated voids to accommodate station entrances, ventilation and fire escape shafts through this part of the Dublin Central proposed development. These ensure that the Dublin Central proposed development is structurally independent of, and not prejudicial to, the MetroLink project.

This application does not include any request for permission for railway works, the use of railway works or the operation of a railway. The MetroLink project will be the subject of a separate application for railway order to be made by TII. In the event that MetroLink project is delayed or does not proceed, the Dublin Central proposed development can be completed, occupied and used regardless. The Dublin Central proposed development is not dependent on the MetroLink project in any way, whether functionally or otherwise. The MetroLink project is not, therefore, part of the project the subject of this EIAR. The description of the likely significant effects on the environment of the Dublin Central proposed development within this EIAR is not required to include effects on the environment resulting from the cumulation of effects with the MetroLink project.

This EIAR describes, in outline, the likely evolution of the current state of the environment (the baseline scenario), both with and without the MetroLink project. This outline has been completed with reasonable effort on the basis of available information, at the date of this application. For this purpose, the potential for the Dublin Central proposed development to impact on a future environment that includes the MetroLink project has been carefully considered, by the Applicant and TII. The MEW has been designed and incorporated to the Dublin Central proposed development to ensure that it is structurally independent of, and not prejudicial to, the MetroLink project. It follows that the Dublin Central proposed development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

The likely evolution of the current state of the environment (the baseline scenario) with the MetroLink project involves the excavation of material for construction of the intended station and railway line. The Dublin Central proposed development is not likely to have any significant impact on the MetroLink project to report within this EIAR, or any different effect on the environment, after its evolution to include the MetroLink project.

This Chapter was prepared by Chonaill Bradley of AWN Consulting. Chonaill Bradley is a Principal Environmental Consultant in the Environment Team at AWN. He holds a BSc in Environmental Science from Griffith University, Australia. He is an Associate Member of the Institute of Waste Management (CIWM). Chonaill has over seven years' experience in the environmental consultancy sector.

A site-specific Resource Waste Management Plan (RWMP) has been prepared by AWN Consulting Ltd to deal with waste generation during the demolition, excavation and construction phases of the proposed Development and has been included as Appendix 14.1. The RWMP was prepared in accordance with the Environmental Protection Agency's (EPA) document 'Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and 'Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects' document produced by the National Construction and Demolition Waste

Council (NCDWC) in conjunction with the Department of the Environment, Heritage and Local Government (DoEHLG) (2006).

A separate Operational Waste Management Plan (OWMP) has also been prepared for the operational phase of the Proposed Development and is included as Appendix 14.2 of this Chapter.

The Chapter has been prepared in accordance with European Commissions Guidelines, Guidance on the preparation of the Environmental Impact Assessment Report (2017) and the EPA Guidelines on the Information to be contained in EIAR (2017, Draft).

These documents will ensure the sustainable management of wastes arising at the Development Site in accordance with legislative requirements and best practice standards.

14.2 ASSESSMENT METHODOLOGY

The assessment of the impacts of the Proposed Development arising from the consumption of resources and the generation of waste materials, was carried out considering the methodology specified in relevant guidance documents, along with an extensive document review to assist in identifying current and future requirements for waste management including national and regional waste policy, waste strategies, management plans, legislative requirements and relevant reports.

This Chapter is based on the Proposed Development, as described in Chapter 3: Description of Proposed Development and considers the following aspects: -

- Legislative context.
- Construction phase (including demolition, excavation & construction).
- Operational phase.

A desk study was carried out which included the following: -

- Review of applicable policy and legislation which creates the legal framework for resource and waste management in Ireland.
- Description of the typical waste materials that will be generated during the construction and operational phases.
- Identification of mitigation measures to prevent waste generation and promote management of waste in accordance with the waste hierarchy.

Estimates of waste generation during the demolition, construction and operational phases of the Proposed Development have been calculated. The waste types and estimated quantities are based on published data by the EPA in the National Waste Reports and National Waste Statistics, data recorded from similar previous developments, the operating phase of this development, Irish and US EPA waste generation research as well as other available research sources.

Mitigation measures are proposed to minimise the effect of the proposed development on the environment during the demolition, construction and operational phases, to promote efficient waste segregation and to reduce the quantity of waste requiring disposal. This information is presented in Section 14.6.

A detailed review of the existing ground conditions on a regional, local and site-specific scale are presented in Chapter 6: Land, Soils and Geology. Chapter 6 of the EIAR also discusses the environmental quality of any soils which will have to be excavated to facilitate construction of the Proposed Development.

14.2.1 Legislation and Guidance

Waste management in Ireland is subject to EU, national and regional waste legislation and control, which defines how waste materials must be managed, transported and treated. The overarching EU legislation is the Waste Framework Directive (2008/98/EC) which is transposed into national legislation in Ireland. The cornerstone of Irish waste legislation is the Waste Management Act 1996 (as amended). European and national waste management policy is based on the concept of 'waste hierarchy', which sets out an order of preference for managing waste (prevention > preparing for reuse > recycling > recovery > disposal) (Figure 14.1).



Figure 14.1: Waste Hierarchy (Source: European Commission).

EU and Irish National waste policy also aims to contribute to the circular economy by extracting high-quality resources from waste as much as possible. Circular Economy (CE) is a sustainable alternative to the traditional linear (take-make-dispose) economic model, reducing waste to a minimum by reusing, repairing, refurbishing, and recycling existing materials and products. (Figure 14.2).

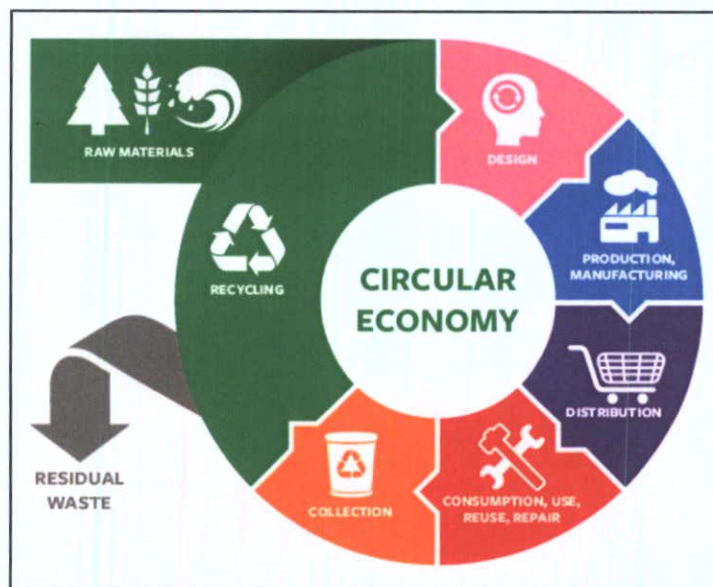


Figure 14.2: Circular Economy (Source: Repak)

The Irish government issues policy documents which outline measures to improve waste management practices in Ireland and help the country to achieve EU targets in respect of recycling and disposal of waste. The most recent policy document, Waste Action Plan for a Circular Economy – Waste Management Policy in Ireland, was published in 2020 and shifts focus away from waste disposal and moves it back up the production chain. The move away from targeting national waste targets is due to the Irish and international waste context changing in the years since the launch of the previous waste management plan, A Resource Opportunity, in 2012.

One of the first actions to be taken from the WAPCE was the development of the Whole of Government Circular Economy Strategy 2022-2023 'Living More, using Less' (2021) 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.

The strategy for the management of waste from the construction phase is in line with the requirements of the EPA's Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' and the DoEHLG's Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects. The guidance document, Construction and Demolition Waste Management: A Handbook for Contractors and Site Managers (FÁS & Construction Industry Federation, 2002), was also consulted in the preparation of this assessment.

There are currently no Irish guidelines on the assessment of operational waste generation, and guidance is taken from industry guidelines, plans and reports including the Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021 (currently under review), BS 5906:2005 Waste Management in Buildings – Code of Practice, the Dublin City Council (DCC) Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018, the EPA National Waste Database Reports 1998 – 2019 and the EPA National Waste Statistics Web Resource.

14.2.2 Terminology

Note that the terminology used herein is generally consistent with the definitions set out in Article 3 of the Waste Framework Directive. Key terms are defined as follows: -

- **Waste** – Any substance or object which the holder discards or intends or is required to discard.
- **Prevention** – Measures taken before a substance, material or product has become waste, that reduce: -
 - a) the quantity of waste, including through the re-use of products or the extension of the life span of products.
 - b) the adverse impacts of the generated waste on the environment and human health.
 - c) the content of harmful substances in materials and products.
- **Reuse** – Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.
- **Preparing for Reuse** – Checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing.
- **Treatment** – Recovery or disposal operations, including preparation prior to recovery or disposal.
- **Recovery** – Any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II of the Waste Framework Directive sets out a non-exhaustive list of recovery operations.

- **Recycling** – Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.
- **Disposal** – Any operation which is not recovery even where the operation has as a secondary consequence the reclamation of substances or energy. Annex I sets out a non-exhaustive list of disposal operations.

14.3 RECEIVING ENVIRONMENT

In terms of waste management, the receiving environment is largely defined by Dublin City Council (DCC) as the local authority responsible for setting and administering waste management activities in the area. This is governed by the requirements set out in the Eastern-Midlands Region (EMR) Waste Management Plan 2015 – 2021. 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 waste management plan sets out the following 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.
- 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.

The Plan sets out the strategic targets for waste management in the region and sets a specific target for C&D waste of “70% preparing for reuse, recycling and other recovery of construction and demolition waste” (excluding natural soils and stones and hazardous wastes) to be achieved by 2020. Ireland achieved 84 per cent material recovery of such waste in 2019, and therefore surpassed the 2020 target and is currently surpassing the 2025 target. The National Waste Statistics update published by the EPA in November 2021 identifies that Ireland’s current against “Preparing for reuse and recycling of 50% by weight of household derived paper, metal, plastic & glass (includes metal and plastic estimates from household WEEE)” was met for 2020 at 51% however they are currently not in line with the 2025 target (55%).

The Dublin City Development Plan 2016 – 2022 and the Draft Dublin City Development Plan 2022 – 2028 also set out policies and objectives for the DCC area which reflect those set out in the regional waste management plan.

In terms of physical waste infrastructure, DCC no longer operates any municipal waste landfill in the area. There are a number of waste permitted and licensed facilities located in the Eastern-Midlands Waste Region for management of waste from the construction industry as well as municipal sources. These include soil recovery facilities, inert C&D waste facilities, hazardous waste treatment facilities, municipal waste landfills, material recovery facilities, waste transfer stations and two waste-to-energy facilities.

14.4 CHARACTERISTICS OF PROPOSED DEVELOPMENT

14.4.1 Dublin Central Masterplan

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

14.4.1.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition and renovation of some of the existing buildings and hardstanding areas on site, as well as from the excavation of the building foundations.

Further detail on the waste materials likely to be generated during the demolition works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.1.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	2027.9	0	0.0	85	1723.7	15	304.2
Concrete, Bricks, Tiles, Ceramics	11491.4	30	3447.4	65	7469.4	5	574.6
Plasterboard	901.3	30	270.4	60	540.8	10	90.1
Asphalts	225.3	0	0.0	25	56.3	75	169.0
Metals	3379.8	5	169.0	80	2703.9	15	507.0
Slate	1802.6	0	0.0	85	1532.2	15	270.4
Timber	2703.9	10	270.4	60	1622.3	30	811.2
Asbestos	7.0	0	0.0	0	0.0	100	7.0
Total	22539.2		4157.2		15648.6		2731.4

Table 14.1: Estimated off-site reuse, recycle and disposal rates for demolition waste.

14.4.1.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the basement and construction of foundations, along with the installation of underground services. The project engineers (Waterman Group) have estimated 163,490m³ of material will need to be excavated to do so. There is limited chance for reuse of material onsite and it is envisaged that all material, will need to be removed offsite due to the limited opportunities for reuse on site.

These estimates will be refined prior to commencement of construction, or in the event that the Dublin Central Masterplan is amended. If the material that requires removal from site is deemed to be a waste, removal and reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery/disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively, the material may be classed as by-product under Article 27 classification (European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011). In order to establish the appropriate reuse, recovery and / or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is

Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

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

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.2.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	1691.7	10	169.2	80	1353.4	10	169.2
Timber	1435.4	40	574.2	55	789.5	5	71.8
Plasterboard	512.6	30	153.8	60	307.6	10	51.3
Metals	410.1	5	20.5	90	369.1	5	20.5
Concrete	307.6	30	92.3	65	199.9	5	15.4
Other	769.0	20	153.8	60	461.4	20	153.8
Total	5126.3		1163.7		3480.8		481.9

Table 14.2: Estimated off-site reuse, recycle and disposal rates for construction waste

In Addition to Table 14.2 the project engineers have estimated that c. 163,490m³ of material will require excavation. It is envisaged that all of this material will be removed offsite for appropriate reuse, recovery and / or disposal. These estimates will be refined prior to commencement of construction.

14.4.1.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The total estimated waste generation for the development of the Dublin Central Masterplan for the main waste types based on the AWN WGM is presented in Table 14.3 below and is based on the uses and areas as advised by the project architects in April 2022.

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

Table 14.3: Estimated waste generation for the Proposed Development for the main waste types.

The residents and tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the residents and tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021 and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

14.4.2 Proposed Development – Site 2

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

14.4.2.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition and renovation of the existing buildings and hardstanding areas on site, as well as from the excavation of the building foundations.

Further detail on the waste materials likely to be generated during the demolition works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.4.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	1216.2	0	0.0	85	1033.7	15	182.4
Concrete, Bricks, Tiles, Ceramics	6891.5	30	2067.5	65	4479.5	5	344.6
Plasterboard	540.5	30	162.2	60	324.3	10	54.1
Asphalts	135.1	0	0.0	25	33.8	75	101.3
Metals	2026.9	5	101.3	80	1621.5	15	304.0
Slate	1081.0	0	0.0	85	918.9	15	162.2
Timber	1621.5	10	162.2	60	972.9	30	486.5
Asbestos	2.0	0	0.0	0	0.0	100	2.0
Total	13514.7		2493.1		9384.6		1637.0

Table 14.4: Estimated off-site reuse, recycle and disposal rates for demolition waste.

14.4.2.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the basement and construction of foundations, along with the installation of underground services.

If the material that requires removal from site is deemed to be a waste, removal and reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery / disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively, the material may be classed as by-product under Article 27 classification (European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011). In order to establish the appropriate reuse, recovery and/or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

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

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.5.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	871.1	10	87.1	80	696.9	10	87.1
Timber	739.1	40	295.6	55	406.5	5	37.0
Plasterboard	264.0	30	79.2	60	158.4	10	26.4
Metals	211.2	5	10.6	90	190.1	5	10.6
Concrete	158.4	30	47.5	65	102.9	5	7.9
Other	396.0	20	79.2	60	237.6	20	79.2
Total	2639.7		599.2		1792.3		248.1

Table 14.5: Estimated off-site reuse, recycle and disposal rates for construction waste.

In addition to Table 14.5 the project engineers have estimated that c. 133,565m³ of material will require excavation. It is envisaged that all of this material will be removed offsite for appropriate reuse, recovery and / or disposal. These estimates will be refined prior to commencement of construction.

14.4.2.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021 and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

The total estimated waste generation for the development of the Dublin Central Site 2 for the main waste types based on the AWN WGM is presented in Table 14.6 below and is based on the uses and areas as advised by the project architects in April 2022.

Waste Type	Waste Volume (m ³ /week)	
	Commercial Waste 2AB (Combined)	Commercial Waste 2C (Combined)
Organic Waste	3.42	2.98
Dry Mixed Recyclables	16.82	14.22
Glass	0.85	0.49
Mixed Non-Recyclables	20.76	16.92
Confidential Paper	8.66	9.69
Cardboard (For Baling)	22.93	15.89
Plastic (For Baling)	13.90	12.44
Total	87.35	72.62

Table 14.6: Estimated waste generation for the Proposed Development for the main waste types.

14.4.3 Proposed Development – No. 61 O'Connell Street Upper

A full description of the development can be found in Chapter 3: Description of Proposed Development. The characteristics of the development that are relevant in terms of waste management are summarised below.

14.4.3.1 Demolition Stage

There will be a quantity of waste materials generated from the demolition/renovation of the existing building and excavation of hardstanding areas on site.

Further detail on the waste materials likely to be generated during the demolition/renovation works are presented in the project-specific RWMP in Appendix 14.1. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development. The reuse, recycling / recovery and disposal rates have been estimated using the EPA National Waste Reports and these are summarised in Table 14.7

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Glass	3.7	0	0.0	85	3.2	15	0.6
Concrete, Bricks, Tiles, Ceramics	21.1	30	6.3	65	13.7	5	1.1
Plasterboard	1.7	30	0.5	60	1.0	10	0.2
Asphalts	0.4	0	0.0	25	0.1	75	0.3
Metals	6.2	5	0.3	80	5.0	15	0.9
Slate	3.3	0	0.0	85	2.8	15	0.5
Timber	5.0	10	0.5	60	3.0	30	1.5
Asbestos	0.1	0	0.0	0	0.0	100	0.1
Total	41.5		7.6		28.8		5.0

Table 14.7: Estimated off-site reuse, recycle and disposal rates for demolition waste.

14.4.3.2 Construction Stage

During the construction phase, waste will be produced from surplus materials such as broken or off-cuts of timber, plasterboard, concrete, tiles, bricks, etc. Waste from packaging (cardboard, plastic, timber) and oversupply of materials may also be generated. The construction contractor will be required to ensure that oversupply of materials is kept to a minimum and opportunities for reuse of suitable materials is maximised.

In addition soil, stone, silt, sand and clay will require excavation to facilitate the construction of foundations, along with the installation of underground services.

If the material that requires removal from site is deemed to be a waste, removal for reuse / recycling / recovery / disposal of the material will be carried out in accordance with the Waste Management Act 1996 (as amended), the Waste Management (Collection Permit) Regulations 2007 (as amended) and the Waste Management (Facility Permit & Registration) Regulations 2007 (as amended). The volume of waste requiring recovery / disposal will dictate whether a Certificate of Registration (COR), permit or licence is required for the receiving facility. Alternatively, the material may be classed as by-product under Article 27 classification (European Communities (Waste Directive) Regulations 2011, S.I. No. 126 of 2011). In order to establish the appropriate reuse, recovery and/or disposal route for the soils and stones to be removed off-site, it will first need to be classified. Waste material will initially need to be classified as hazardous or non-hazardous in accordance with the EPA publication Waste Classification – List of Waste & Determining if Waste is Hazardous or Non-Hazardous. Environmental soil analysis will be carried out prior to removal of the material on a number of the soil samples in accordance with the requirements for acceptance of waste at landfills (Council Decision 2003/33/EC Waste Acceptance Criteria). This legislation sets limit values on landfills for acceptance of waste material based on properties of the waste including potential pollutant concentrations and leachability. It is anticipated that the surplus material will be suitable for acceptance at either inert or non-hazardous soil recovery facilities / landfills in Ireland or, in the unlikely event of hazardous material being encountered, be transported for treatment / recovery or exported abroad for disposal in suitable facilities.

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

Further detail on the waste materials likely to be generated during the construction works are presented in the project-specific RWMP. The RWMP provides an estimate of the main waste types likely to be generated during the C&D phase of the Proposed Development and these are summarised in Table 14.8.

Waste Type	Tonnes	Reuse		Recycle / Recovery		Disposal	
		%	Tonnes	%	Tonnes	%	Tonnes
Mixed C&D	2.7	10	0.3	80	2.2	10	0.3
Timber	2.3	40	0.9	55	1.3	5	0.1
Plasterboard	0.8	30	0.2	60	0.5	10	0.1
Metals	0.7	5	0.0	90	0.6	5	0.0
Concrete	0.5	30	0.1	65	0.3	5	0.0
Other	1.2	20	0.2	60	0.7	20	0.2
Total	8.2		1.9		5.6		0.8

Table 14.8: Estimated off-site reuse, recycle and disposal rates for construction waste.

In addition to Table 14.8 there will be a small amount of material that will require excavation. It is envisaged that all of this material will be removed offsite for appropriate reuse, recovery and / or disposal. These estimates will be refined prior to commencement of construction.

14.4.3.3 Operational Stage

As noted in Section 14.1, an OWMP has been prepared for the development and is included as Appendix 14.2. The OWMP provides a strategy for segregation (at source), storage and collection of all wastes generated within the buildings during the operational phase including dry mixed recyclables, organic waste and mixed non-recyclable waste as well as providing a strategy for management of waste glass, batteries, WEEE, printer / toner cartridges, chemicals, textiles, waste cooking oil and furniture.

The residents and tenants will be required to provide and maintain appropriate waste receptacles within their units to facilitate segregation at source of these waste types. The location of the bins within the units will be at the discretion of the residents and tenants. As required, the residents and tenants will need to bring these segregated wastes from their units to their allocated Waste Storage Areas (WSAs). All WSA's can be viewed on the plans submitted with the application.

The OWMP seeks to ensure the development contributes to the targets outlined in the EMR Waste Management Plan 2015 – 2021 and the DCC waste Bye-laws.

Mitigation measures proposed to manage impacts arising from wastes generated during the operation of the Proposed Development are summarised below.

The total estimated waste generation for the development of the Dublin Central Site 61 O'Connell Street for the main waste types based on the AWN WGM is presented in Table 14.9 below and is based on the uses and areas as advised by the project architects in April 2022.

Waste Type	Waste Volume (m ³ /week)	
	Commercial Waste (Combined)	Residential Waste (Combined)
Organic Waste	0.06	0.05
Dry Mixed Recyclables	0.25	0.36
Glass	<0.01	0.01
Mixed Non-Recyclables	0.21	0.19
Total	0.52	0.60

Table 14.9: Estimated waste generation for the Proposed Development for the main waste types.

14.5 POTENTIAL IMPACTS

14.5.1 Dublin Central Masterplan

14.5.1.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and/or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development. A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soils & Geology. It is anticipated that c. 169,630m³ of material will need to be excavated to do so. There is limited chance for reuse of material onsite and it is envisaged that all material, will need to be removed offsite due to the limited opportunities for reuse on site. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

14.5.1.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

14.5.1.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

14.5.2 Proposed Development – Site 2

14.5.2.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and / or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development.

A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soil & Geology. It is anticipated that 133,565m³ excavated material will need to be removed offsite from Site 2. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

14.5.2.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for

segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

14.5.2.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

14.5.3 Proposed Development – No. 61 O'Connell Street Upper

14.5.3.1 Construction Stage

The Proposed Development will generate a range of non-hazardous and hazardous waste materials during site demolition/renovation, excavation and construction phase. General housekeeping and packaging will also generate waste materials as well as typical municipal wastes generated by construction employees including food waste. Waste materials will be required to be temporarily stored on site pending collection by a waste contractor. If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The indirect effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

The use of non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste and result in indirect negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **long term, significant and negative**.

Wastes arising will need to be taken to suitably registered / permitted / licenced waste facilities for processing and segregation, reuse, recycling, recovery, and / or disposal as appropriate. There are numerous licensed waste facilities in the Eastern Midlands region which can accept hazardous and non-hazardous waste materials and acceptance of waste from the Proposed Development would be in line with daily activities at these facilities. At present, there is sufficient capacity for the acceptance of the likely C&D waste arisings at facilities in the region. The majority of demolition and construction materials are either recyclable or recoverable. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

There is a quantity of excavated material which will need to be excavated to facilitate the Proposed Development.

A detailed review of the existing ground conditions on a regional, local site-specific scale are presented in Chapter 6: Land, Soil & Geology. It is anticipated that a small quantity of excavated material will need to be removed offsite from 61 O'Connell Street Upper as part of the construction phase. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site. However, in the absence of mitigation, the effect on the local and regional environment is likely to be **short term, significant and negative**.

14.5.3.2 Operational Stage

The potential impacts on the environment of improper, or a lack of, waste management during the operational phase would be a diversion from the priorities of the waste hierarchy which would lead to small volumes of waste being sent unnecessarily to landfill. However, in the absence of mitigation, significant effects are not likely. The effect is likely to be **long term, non-significant and negative**.

The nature of the development means the generation of waste materials during the operational phase is unavoidable. Networks of waste collection, treatment, recovery and disposal infrastructure are in place in the region to manage waste efficiently from this type of development. Waste which is not suitable for recycling is typically sent for energy recovery. There are also facilities in the region for segregation of municipal recyclables which is typically exported for conversion in recycled products (e.g. paper mills and glass recycling).

If waste material is not managed and stored correctly, it is likely to lead to litter or pollution issues at the development and on adjacent developments. The knock-on effect of litter issues is the presence of vermin within the development and the surrounding areas. However, in the absence of mitigation, the effect on the local environment is likely to be **short term, significant and negative**.

Waste contractors will be required to service the development on a regular basis to remove waste. The use of non-permitted waste contractors or unauthorised facilities could give rise to inappropriate management of waste and result in negative environmental impacts or pollution. It is essential that all waste materials are dealt with in accordance with regional and national legislation, as outlined previously, and that time and resources are dedicated to ensuring efficient waste management practices. However, in the absence of mitigation, the effect on the local environment is likely to be **long term, significant and negative**.

14.5.3.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

14.5.4 Cumulative

As has been identified in the receiving environment section all cumulative developments that are already built and in operation contribute to our characterisation of the baseline environment. As such any further environmental impacts that the proposed development may have in addition to these already constructed and operational cumulative developments has been assessed in the preceding sections of this chapter.

14.5.4.1 Construction Stage

Multiple permissions remain in place for both residential and commercial developments within the vicinity of the development. Due to the high number of waste contractors in the Dublin region there would be sufficient contractors available to handle waste generated from a large number of these sites simultaneously, if required. Similar waste materials would be generated by all the developments.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative effects associated with waste generation and waste management. As such the effect will be **short-term, not significant and negative**.

14.5.4.2 Operational Stage

There are existing residential and commercial developments close by, along with the multiple permissions remaining in place. All of the current developments will generate similar waste types during their operational phases. Authorised waste contractors will be required to collect waste materials segregated, at a minimum, into recyclables, organic waste and non-recyclables. An increased density of development in the area is likely improve the efficiencies of waste collections in the area.

Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such the effect will be a **long-term, imperceptible and neutral**.

14.5.4.3 Do-Nothing Impact

If the proposed development was not to go ahead (i.e. in the Do-Nothing scenario) there would be no demolition, excavation or construction at this site. Current operational waste would continue to be generated at the same levels. There would, therefore, be a neutral effect on the environment in terms of waste.

14.6 MITIGATION MEASURES (AMELIORATIVE, REMEDIAL OR REDUCTIVE MEASURES)

14.6.1 Dublin Central Masterplan

This section outlines the measures that will be employed in order to reduce the amount of waste produced, manage the wastes generated responsibly and handle the waste in such a manner as to minimise the effects on the environment.

14.6.1.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
 - Concrete rubble (including ceramics, tiles and bricks).
 - Plasterboard.
 - Metals.
 - Glass.
 - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, and the EMR Waste Management Plan 2015 – 2021. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

14.6.1.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of the masterplan during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
 - Organic waste.
 - Dry Mixed Recyclables.
 - Mixed Non-Recyclable Waste.
 - Glass.
 - Waste electrical and electronic equipment (WEEE).
 - Batteries (non-hazardous and hazardous).
 - Cooking oil.
 - Light bulbs.
 - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
 - Furniture (and from time to time other bulky waste).
 - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials.
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available.
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021 and the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

14.6.2 Proposed Development – Site 2

14.6.2.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling,

recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
 - Concrete rubble (including ceramics, tiles and bricks).
 - Plasterboard.
 - Metals.
 - Glass.
 - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.
- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, and the EMR Waste Management Plan 2015 – 2021. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

14.6.2.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of the Site 2 during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
 - Organic waste.
 - Dry Mixed Recyclables.
 - Mixed Non-Recyclable Waste.
 - Glass.
 - Waste electrical and electronic equipment (WEEE).
 - Batteries (non-hazardous and hazardous).
 - Cooking oil.
 - Light bulbs.
 - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
 - Furniture (and from time to time other bulky waste).
 - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available; and
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021 and the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

14.6.3 Proposed Development – No. 61 O'Connell Street Upper

14.6.3.1 Construction Stage

As previously stated, a project specific RWMP has been prepared in line with the requirements of the requirements of The EPA, Best Practice Guidelines for the Preparation of Resource and Waste Management Plans for Construction & Demolition Projects' (2021) and the Best Practice Guidelines for the Preparation of Waste Management Plans for Construction and Demolition Projects (DoEHLG, 2006) and is included as Appendix 14.1. The mitigation measures outlined in the RWMP will be implemented in full and form part of mitigation strategy for the site. The mitigation measures presented in this RWMP will ensure effective waste management and minimisation, reuse, recycling, recovery and disposal of waste material generated during the excavation and construction phases of the proposed development.

Prior to commencement, the appointed Contractor(s) will be required to refine / update the RWMP (Appendix 14.1) in agreement with DCC and in compliance with any planning conditions, or submit an addendum to the RWMP to DCC, detailing specific measures to minimise waste generation and resource consumption, design for maintenance and replacement and provide details of the proposed waste contractors and destinations of each waste stream.

The Contractor will be required to fully implement and update the RWMP throughout the duration of the proposed construction and demolition phases.

A quantity of soil, stone, silt, sand and clay which will need to be excavated to facilitate the Proposed Development. Correct classification and segregation of the excavated material is required to ensure that any potentially contaminated materials are identified and handled in a way that will not impact negatively on workers as well as on water and soil environments, both on and off-site.

In addition, the following mitigation measures will be implemented: -

- Building materials will be chosen with an aim to 'design out waste'.
- On-site segregation of waste materials will be carried out to increase opportunities for off-site reuse, recycling and recovery. The following waste types, at a minimum, will be segregated: -
 - Concrete rubble (including ceramics, tiles and bricks).
 - Plasterboard.
 - Metals.
 - Glass.
 - Timber.
- Left over materials (e.g. timber off-cuts, broken concrete blocks / bricks) and any suitable construction materials shall be re-used on-site, where possible.
- All waste materials will be stored in skips or other suitable receptacles in designated areas of the site.
- Any hazardous wastes generated (such as chemicals, solvents, glues, fuels, oils) will also be segregated and will be stored in appropriate receptacles (in suitably bunded areas, where required).
- A Resource Manager will be appointed by the main Contractor(s) to ensure effective management of waste during the demolition, excavation and construction works.
- All construction staff will be provided with training regarding the waste management procedures.
- All waste leaving site will be reused, recycled or recovered, where possible, to avoid material designated for disposal.
- All waste leaving the site will be transported by suitably permitted contractors and taken to suitably registered, permitted or licenced facilities.

- All waste leaving the site will be recorded and copies of relevant documentation maintained.

Nearby sites requiring clean fill material will be contacted to investigate reuse opportunities for clean and inert material, if required. If any of the material is to be reused on another site as by-product (and not as a waste), this will be done in accordance with Article 27 of the EC (Waste Directive) Regulations (2011). EPA approval will be obtained prior to moving material as a by-product. However, it is not currently anticipated that Article 27 will be used.

These mitigation measures will ensure that the waste arising from the construction phase of the Proposed Development is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations and the Litter Pollution Act 1997, and the EMR Waste Management Plan 2015 – 2021. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved and will promote more sustainable consumption of resources.

14.6.3.2 Operational Stage

As previously stated, a project specific OWMP has been prepared and is included as Appendix 14.2.

- The Operator / Facilities Manager of 61 O'Connell Street Upper during the operational phase will be responsible for ensuring – allocating personnel and resources, as needed – the ongoing implementation of this OWMP, ensuring a high level of recycling, reuse and recovery.

In addition, the following mitigation measures will be implemented: -

- The Operator / Facilities Manager will ensure on-Site segregation of all waste materials into appropriate categories, including (but not limited to): -
 - Organic waste.
 - Dry Mixed Recyclables.
 - Mixed Non-Recyclable Waste.
 - Glass.
 - Waste electrical and electronic equipment (WEEE).
 - Batteries (non-hazardous and hazardous).
 - Cooking oil.
 - Light bulbs.
 - Cleaning chemicals (pesticides, paints, adhesives, resins, detergents, etc.).
 - Furniture (and from time to time other bulky waste).
 - Abandoned bicycles.
- The Operator / Facilities Manager will ensure that all waste materials will be stored in colour coded bins or other suitable receptacles in designated, easily accessible locations. Bins will be clearly identified with the approved waste type to ensure there is no cross contamination of waste materials;
- The Operator / Facilities Manager will ensure that all waste collected from the Site of the Proposed Development will be reused, recycled or recovered, where possible, with the exception of those waste streams where appropriate facilities are currently not available; and
- The Operator / Facilities Manager will ensure that all waste leaving the Site will be transported by suitable permitted contractors and taken to suitably registered, permitted or licensed facilities.

These mitigation measures will ensure the waste arising from the Proposed Development during the operational phase is dealt with in compliance with the provisions of the Waste Management Act 1996, as amended, associated Regulations, the Litter Pollution Act 1997, the EMR Waste Management Plan 2015 – 2021 and the DCC Waste Management (Storage, Presentation and Segregation of Household and Commercial Waste) Bye-Laws 2018. It will also ensure optimum levels of waste reduction, reuse, recycling and recovery are achieved.

14.7 RESIDUAL IMPACT

14.7.1 Dublin Central Masterplan

14.7.1.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be short-term, imperceptible and neutral.

14.7.1.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be long-term, imperceptible and neutral.

14.7.1.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

14.7.2 Proposed Development – Site 2

14.7.2.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term, imperceptible** and **neutral**.

14.7.2.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, imperceptible** and **neutral**.

14.7.2.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

14.7.3 Proposed Development – No. 61 O'Connell Street Upper

14.7.3.1 Construction Stage

A carefully planned approach to waste management as set out in Section 14.6 and adherence to the RWMP during the demolition, excavation and construction phase will ensure that the effect on the environment will be **short-term, imperceptible** and **neutral**.

14.7.3.2 Operational Stage

During the operational phase, a structured approach to waste management as set out in Section 14.6 and adherence to the OWMP will promote resource efficiency and waste minimisation. Provided the mitigation measures are implemented and a high rate of reuse, recycling and recovery is achieved, the predicted effect of the operational phase on the environment will be **long-term, imperceptible** and **neutral**.

14.7.3.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

14.7.4 Cumulative

14.7.4.1 Construction Stage

During the demolition, excavation and construction phase waste management will be carefully managed as set out in Section 14.6 and the RWMP. Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such it is considered that the cumulative effect relating to waste management will be **short-term, imperceptible** and **neutral**.

14.7.4.2 Operational Stage

During the Operational phase waste management will be carefully managed as set out in Section 14.9 and the OWMP. Other developments in the area will be required to manage waste in compliance with national and local legislation, policies and plans which will minimise / mitigate any potential cumulative impacts associated with waste generation and waste management. As such it is considered that the cumulative effect relating to waste management will be **long-term, imperceptible** and **neutral**.

14.7.4.3 Worst Case Impact

In a worst-case scenario, if no mitigation measures found in section 14.6 are followed, poor onsite waste management, non-permitted waste contractors or unauthorised waste facilities could give rise to inappropriate management of waste offsite and result in negative environmental impacts or pollution as shown in section 14.5.

14.8 MONITORING

14.8.1 Dublin Central Masterplan

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

14.8.1.1 Construction Stage

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets. The RWMP specifies the need for a resource manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

14.8.1.2 Operational Stage

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.3. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

14.8.2 Proposed Development – Site 2

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

14.8.2.1 Construction Stage

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets.

The RWMP specifies the need for a waste manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording

of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

14.8.2.2 Operational Stage

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.6. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

14.8.3 Proposed Development – No. 61 O'Connell Street Upper

The management of waste during the demolition, excavation and construction phase should be monitored to ensure compliance with relevant local authority requirements, and effective implementation of the RWMP including maintenance of waste documentation.

The management of waste during the operational phase should be monitored to ensure effective implementation of the OWMP by the building management company and the nominated waste contractor(s).

14.8.3.1 Construction Stage

The objective of setting targets for waste management is only achieved if the actual waste generation volumes are calculated and compared. This is particularly important during the demolition, excavation and construction phase where there is a potential for waste management to become secondary to progress and meeting construction schedule targets. The RWMP specifies the need for a waste manager to be appointed who will have responsibility to monitor the actual waste volumes being generated and to ensure that contractors and sub-contractors are segregating waste as required. Where targets are not being met, the waste manager should identify the reasons for targets not being achieved and work to resolve any issues. Recording of waste generation during the project will enable better management of waste contractor requirements and identify trends. The data should be maintained to advise on future projects.

14.8.3.2 Operational Stage

During the operational phase, waste generation volumes should be monitored against the predicted waste volumes outlined in Table 14.8. There may be opportunities to reduce the number of bins, waste collections and equipment required in the WSAs where estimates have been too conservative. Reductions in bin and equipment requirements will improve efficiency and reduce waste contractor costs.

Waste legislation should also be consulted on a regular basis in case of any changes which may impact on waste management procedures.

14.9 REINSTATEMENT

14.9.1 Dublin Central Masterplan

In the event that the Proposed Development is discontinued, there is not likely to be any significant impacts on waste management at the site.

14.9.2 Proposed Development – Site 2 & No. 61 O'Connell Street Upper

In the event that the Proposed Development is discontinued, there is not likely to be any significant impacts on waste management at the site.

14.10 DIFFICULTIES ENCOUNTERED

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

There is a number of licensed, permitted and registered waste facilities in the Dublin region and in the surrounding counties. However, these sites may not be available for use when required or may be limited by the waste contractor selected to service the development in the appropriate phase. In addition, there is potential for more suitably placed waste facilities or recovery facilities to become operational in the future which may be more beneficial from an environmental perspective.

The ultimate selection of waste contractors and waste facilities would be subject to appropriate selection criteria proximity, competency, capacity, serviceability, and cost.

15 CULTURAL HERITAGE (ARCHITECTURAL)

15.1 Introduction

15.1.1 Background

Molloy&Associates were engaged as architectural heritage consultants to identify, describe and assess the direct and indirect significant effects of the proposed development of the Dublin Central Masterplan Area on the site's inherent and enclosing architectural heritage.

The Dublin Central Masterplan Area is divided into six distinct sites intended to be developed by Dublin Central GP Limited, who acquired the lands in 2016, with the benefit of an inherited permission to develop the site under DCC Reg. Ref. 2479/08/ An Bord Pleanála Reg. Ref. PL29N.232347

The development of design proposals for each of the six sites (Sites 1, 2AB, 2C, 3, 4 and 5) within the Dublin Central Masterplan Area was based on a masterplan designed by Acme. The masterplan area broadly reflects the red line boundary of the permitted development, with some notable deviations; the State ownership of Nos 14-17 (and 18a) Moore Street, the addition of Patrick Conway's Public House at No.70 Parnell Street and the omission of Nos 59 (part) and No.60 O'Connell Street.

The scope of this section of the Environmental Impact Assessment Report focuses principally on the proposed development of Site 2 (combining Sites 2AB and 2C comprising Nos.43-59 (in part) O'Connell Street), together with No.61 O'Connell Street, yet broadly considers their development in context with the intended future development of Sites 1, 3, 4 and 5.

The subject Site 2 (2AB and 2C) is bounded to the north by Site 1 (made up of the entirety of the boundary shared with No.42 O'Connell Street), to the east by O'Connell Street, to the west by Moore Lane and to the south by O'Connell Street buildings outside the site and Henry Place.

Sites 3, 4 and 5 are bounded by Henry Street to the south, Moore Lane and Henry Place to the east, Moore Street to the west and O'Rahilly Parade to the north.

Site 1 in turn is bounded to the north by Parnell Street, to the east by O'Connell Street, to the west by Moore Lane and to the south by Site 2C. Whilst it is proposed to submit a planning application for the sensitive redevelopment of a protected structure at No.42 O'Connell Street in the near future, the remainder of the Site 1 scheme is at an early design development stage.

The mixed-use development of the combined sites proposes the introduction of commercial offices, retail, hotel, residential accommodation, residential support and amenities encompassing selected and conserved retained structures within an improved public realm. In June 2021, three separate applications for Site 3 (Planning Reference Number 2861/21), Site 4 (Planning Reference Number 2862/21) and Site 5 (Planning Reference Number 2863/21) were lodged with Dublin City Council together with a EIAR assessing the cumulative impacts of all three sites. Dublin City Council made decisions to grant permissions. Those decisions are under appeal to An Bord Pleanála (Planning Reference Nos ABP-312603-22, ABP-312642-22 and ABP-313947-22).

The delivery of all six sites, together with extensive sections of enclosing public realm in the ownership of the applicant, will realise the all-encompassing ambition of the masterplan.

Site 2 proposals accommodate a structural box beneath ground floor level that has been designed to accommodate the independent construction and operation of the planned O'Connell Street MetroLink Station by Transport Infrastructure Ireland (TII), including provision of the structural envelope and co-ordinated voids to accommodate station entrances, ventilation and fire escape shafts through this part of the proposed development. These MetroLink Enabling Works (MEW) ensure that the Dublin Central proposed development is structurally independent of, and not prejudicial to, the MetroLink project. This application does not include any request for permission for railway works, the use of railway works or the operation of a railway. The MetroLink project will be the subject of a separate application for Railway Order to be made by TII. In the event that MetroLink project is delayed or does not proceed, the Dublin Central proposed development can be completed, occupied and used regardless. The proposed Dublin Central development is not dependent on the MetroLink project. Whilst the MetroLink project is not the subject of this EIAR, this chapter broadly considers the intended provision of MEW under Nos.43-59 O'Connell Street (in part), as presented in

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a report entitled 'O'Connell Street Options Assessment Briefing Note', dated August 2022, which provides an assessment and rationale by TII for locating a station (the proposed MetroLink O'Connell Street station) on this site. The report acknowledges known architectural heritage impacts arising from the various station options assessed, resulting in the proposed location and design.



Figure 15.1.1: The Proposed Development (Site 2 and No. 61 O'Connell Street) shown within the context of the Dublin Central Masterplan.

Please note, that in the interest of clarity, commentary on the inclusion of a vacant plot at No.14 Moore Lane within the Site 2 development is excluded from this assessment as it is already referred to under Site 5 descriptions.

15.1.2 Purpose of the Assessment

Chapter 15 of this EIAR qualifies existing inter-relationships between extant fabric and assesses potential impacts in respect of setting and character arising from the combined development of Site 2 (Sites 2AB and 2C).

It identifies buildings and other features of heritage significance within the masterplan area as part of the preparation of an overarching dedicated Dublin Central Masterplan Area Conservation Management Plan. Detailed inventories of each building and plot in Site 2 are submitted with the planning applications as a baseline for establishing architectural heritage impacts arising from its development. Correspondingly detailed inventories for building fabric in Sites 1, 3, 4 and 5 has or will accompany their existing /future planning applications.

The Chapter also refers to architectural fabric afforded statutory protection within the environs as a basis for assessment of wider architectural heritage impacts of works peripheral to adjoining protected structures and extending into the public realm.

The assessment further takes into account the partial position of the masterplan site within a designated Architectural Conservation Area and reviews potential impacts the masterplan development may present for its character.

15.1.3 Architectural Heritage Assessment team

This assessment was conducted by Molloy&Associates Conservation Architects, collectively authored by the following consultants:

Archive and field research/ recording and documentation

Sunni Goodson BA, Msc Conservation of Historic Buildings, HNC Interior Designer

Conservation architects

Maol Íosa Molloy B.Arch., BSc.Arch., MUBC, Dip.Arb., MRIAI, RIBA, MCI.Arb., Grade 1 Conservation Architect

Michael O'Boyle B.Arch., MUBC, MRIAI, Grade 1 Conservation Architect

Shelley O'Donovan B.Arch., PGDip., MRIAI, RIBA accredited Conservation Architect, Grade 2 Conservation Architect

External consultants are as follows:

Historic urban landscape assessment

Dr. John Olley BEng, PhD

Forensic archaeologist

Dr. Jason Bolton MA, MIAI, PhD

15.2 Assessment Methodology

15.2.1 General Methodology

The assessment of any potential architectural heritage effect of the development of Site 2 in terms of Quality, Significance, Magnitude, Probability, Duration, and Types are explored within this Chapter to accord with requirements in the EIA Directive (2011/92/EU) as amended by Directive 2014/52/EU, the Planning and Development Act, 2000 (as amended), the Planning and Development Regulations, 2001 (as amended), including as amended by S.I. No. 296 of 2018, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018.

The EPA Guidelines (May 2022), cite on page 47, "*the description of the likely significant effects on the [environmental] factors should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project.*" The description and criteria for rating impacts and effects are thus outlined in greater detail in the following sections of this report.

The chapter in summarising the identification and categorisation of significance of existing buildings/plots within the masterplan area as expanded in appendices attached to Architectural Heritage Impact Assessments submitted with the planning applications for Site 2 and No.61 O'Connell Street, describes interactions of the proposed masterplan development with its receiving architectural heritage environment and comments on potential impacts arising from those interactions.

It references in its assessment method, the Department of the Environment, Community and Local Government (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessments. It also has been written cognisant in particular of Appendix B of the Architectural Heritage Protection Guidelines for Planning Authorities (Department of Arts, Heritage, and the Gaeltacht, 2011). As part of the preparation of the subject assessment, buildings and open spaces within the masterplan area were inspected and recorded in the period between June 2020 and June 2022.

The research process adopted a robust strategy for building recording and physical investigation to scientifically establish the origin of building fabric insofar as possible. Archival research referencing known architectural, historical and cartographic resources was aligned with measured survey drawings and scans. Detailed land surveys were measured against earlier cartographic records to trace plot developments and inform detailed chronological assessments and inventories specific for each building and plot, which are in turn appended with Architectural Heritage Impact Assessment reports accompanying each planning submission, informing the parameters of the proposed masterplan development.

The resulting records form a body of work central to an understanding of the value of existing structures on the masterplan area and how it's reimagining might sit within its important urban context.

A Statement of Significance for each structure, building on baseline documentation, is contained in each application and summarised in Appendix A2 of the Dublin Central Masterplan Area Conservation Management Plan, see 15.2.2. below.

The chapter includes details of mitigation measures adopted during the design development of the proposed scheme to minimise impacts together with conservation-led recommendations to be adopted in the implementation of the proposed masterplan development. These measures and recommendations reflecting established good conservation practice are informed by national guidelines and international conservation charters.

15.2.2 Dublin Central Masterplan Area Conservation Management Plan

In recognition of the cultural and architectural complexity of the Dublin Central masterplan area, Molloy&Associates following their appointment in May 2020, sought to prepare a Conservation Management Plan (aligned with the boundaries of the masterplan area) to set site-specific objectives and recommended policies as a mechanism to frame its appropriate development.

Whilst not having a formal statutory basis, the Plan identifies specific characteristics of the masterplan area to an extent that is not addressed in the statutory mechanisms of either the Dublin City Development Plan 2016-2022 or O'Connell Street Architectural Conservation Area policies.

As cited above, all buildings and plots within the masterplan area have been interrogated to inform a detailed appraisal of built fabric, as summarised in Appendix A2 of the Plan.

The concept of voluntarily commissioning a Plan for the masterplan area is an endorsement of a design intention to best reflect the character of the receiving environment in the careful retention of building fabric of interest and in converse facilitate the selection of buildings/ plots that can be sensitively redeveloped, with both conditions merging to generate diverse, but cohesive urbanism.

A Conservation Management Plan is an internationally recognised mechanism used to identify, quantify, and address, complex and sometimes conflicting demands, vulnerabilities and opportunities on buildings and sites of heritage value. In the instance of providing a baseline heritage narrative for the development of the masterplan design, it was deemed a fitting tool to frame an understanding of heritage complexities particular to the masterplan area.

In any Conservation Management Plan, three central issues are explored – What is the significance of the site? What are the vulnerabilities and threats facing the site? What policy recommendations should be adopted to mitigate or address these vulnerabilities and threats?

While an overarching masterplan concept preceded the preparation of the Dublin Central Masterplan Area Conservation Management Plan, the introduction of recommendations in the Plan helped refine the masterplan over the course of wider design team engagement.

The use of the standardised Conservation Management Plan methodology is thus valid as an impartial mechanism to interrogate conservation issues across the masterplan area, and was instrumental in the completion of the masterplan design process, with the resulting policies and recommendations providing a valuable baseline against which impacts of the proposed development can be and have been assessed.

Mindful of the interdependence between the masterplan and Conservation Management Plan, Chapter 15 should be read in conjunction with the Dublin Central Masterplan Area Conservation Management Plan, including its appendices. Assessment of impacts, recommendations and mitigation measures contained in this Chapter, are duly informed by the policies contained in the Plan.

15.2.3 References consulted

The architectural heritage assessment component of an EIAR examines the character and heritage significance of buildings and other structures within the masterplan area and in its immediate and wider receiving environs, anticipating potential impacts that the proposed development may present to these structures and places.

Primary sources to ascertain the historic development of the urban environment enclosing the masterplan area together with the chronological development of each individual plot, with findings in turn determining the significance of all structures include the following;

- Dublin Central Masterplan Area Conservation Management Plan and its appendices (Molloy&Associates Conservation Architects)
- Architectural Heritage Impact Assessment reports for Site 2 and No.61 O'Connell Street (Molloy&Associates Conservation Architects)
- Planning applications for Sites 3 (DCC Reg. Ref. 2861/21 – ABP Ref. ABP-312603-22), Site 4 (DCC Reg. Ref. 2862/21 21 – ABP Ref. ABP-312642-22) and Site 5 (DCC Reg. Ref. 2863/21 – ABP Ref. ABP-313947-22) which are the subject of separate applications

Definitive findings determined by relevant design team consultants were reviewed to corroborate architectural heritage-centric research and opinion, with mitigating measures informing the proposed design.

As such, this chapter should also be read in conjunction with related documents identified below, submitted with each planning application and referred to in other chapters of this EIAR: -

- Dublin Central Masterplan Design Statement (Acme)
- EIAR Chapter 12 - Landscape and Visual Impact (ARC Architectural Consultants Limited)
- EIAR Chapter 16 - Cultural Heritage - Archaeology (Courtney Deery Heritage Consultancy Ltd)
- Outline Construction & Demolition Management Plan – Masterplan (Waterman Moylan Consulting Engineers Limited)
- Dublin Central Site 2AB Architectural Design Statement
- ACME, Architects and Urban Designers
- RKD, Architects
- Dublin Central Site 2C Architectural Design Statement
- Grafton Architects
- Planning Application Report for Site 2

- Stephen Little & Associates, Planning Consultants
- Site 2 Landscape Planning Report
- Gross Max, Landscape Architects
- Site 2 Sunlight Shadow & Daylight Analysis Report
- BDP, Services and MEP
- Site 2AB Energy and Sustainability Statement
- BDP, Sustainability
- Dublin Central Site 2: Structural Report
- Waterman Structures Ltd., Structural Engineering
- Dublin Central Site 2: Outline Construction and Demolition Management Plan
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Dublin Central Site 2: Subterranean Construction Method Statement
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Dublin Central Site 2: Basement Impact Assessment
- Waterman Moylan Consulting Engineers, Structural and Civil Engineering
- Site 2 Lighting Planning Report
- Studio Fractal, Lighting Consultant
- 'Urban Baseline Study-Pedestrian impact assessment- Pedestrian movement forecast' for Dublin Central, Space Syntax
- Transport Infrastructure Ireland; 'O'Connell Street Options Assessment Briefing Note'

Multiple external sources were consulted but not limited to the following: -

- EIA Directive (2011/92/EU) as amended by Directive 2014/52/EU, the Planning and Development Act, 2000 (as amended), the Planning and Development Regulations, 2001 (as amended), including as amended by S.I. No. 296 of 2018, European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018
- Guidelines on the Information to be contained in Environmental Impact Statements Assessment Reports (EPA, 2022)
- Guidance on the preparation of Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017)
- Environmental Protection Agency (2003) Advice Notes for preparing Environmental Impact Assessment Reports (September 2003)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out environmental impact assessment (Department of Housing, Planning and Local Government , August 2018)
- Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act, 2000; and the National Inventory of Architectural Heritage
- Planning and Development Act 2000, as amended
- Dublin City Development Plan 2016-2022
- Draft Dublin City Development Plan 2022-2028- not yet adopted at time of writing
- Record of Protected Structures (Volume 3 of the Dublin City Development Plan 2016-2022)

- Various historic cartographic sources of the masterplan area's chronological development

The rich historical contribution of the combined site to the changing character of the city arising from its connections with the urban battlefield of 1916 and 1922 merits adherence with the principles of certain international architectural heritage protection charters and standards in its redevelopment. Consideration under the following charters is integral to an assessment of impact, in their embedment with statutory policies and the Conservation Management Plan;

- Council of Europe Convention for the Protection of the Architectural Heritage of Europe (Granada) 1985, ratified by Ireland in 1991.
- ICOMOS Xi'an Declaration on the Conservation of the Setting of Heritage Structures, Sites and Areas, 2005.
- International Charter for the Conservation and Restoration of Monuments and Sites (Venice Charter 1964)
- Washington Charter for the Conservation of Historic Towns and Urban Areas (1987)
- The Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance (2013)

15.3 Receiving Environment

15.3.1 Dublin Central Masterplan

15.3.1.1 Context

The Dublin Central masterplan area comprises an expansive (c.2.2 Ha) site presenting a complex regeneration project, to be delivered in stages to overcome site and project constraints, the second stage of which is statutory consideration of Sites 2 and No.61 O'Connell Street. A first suite of planning submissions were made in May 2021 for Sites 3,4 and 5. For the purposes of this EIA chapter and as stated above, the development of Site 1 is not under detailed consideration given that it is still at design stage.

The site-wide cumulative masterplan has been prepared by Dublin Central GP Limited to set out the overall development vision, encompassing almost entirely of the regeneration of three city centre 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 masterplan site is of particular regional and national importance. Its links to the early-eighteenth century urban expansion of the capital city was central to the formation of its distinctive character and indeed the wider city.

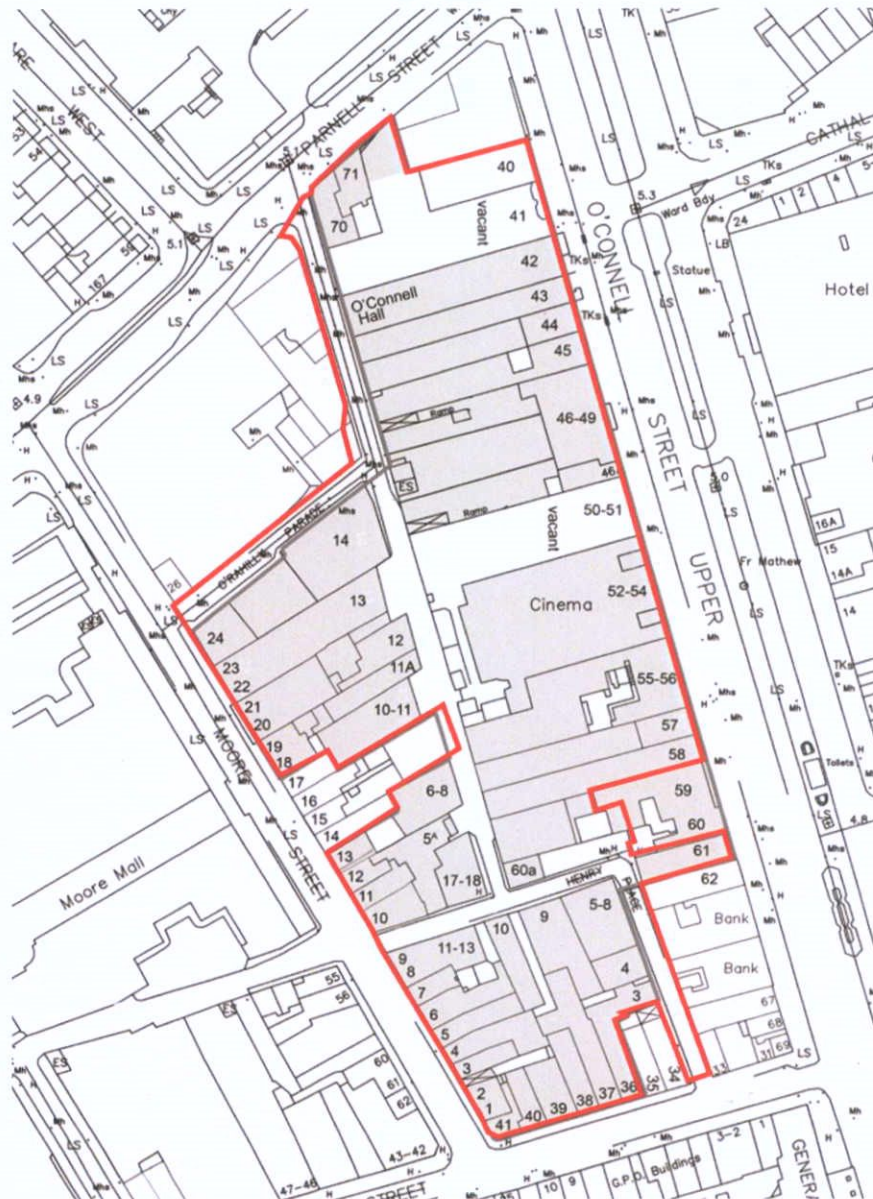


Figure 15.3.1: Masterplan area boundary outlined (red line is for visual demarcation only).

The subsequent growth of industrial and retail uses in the introduction of purpose-built shops, markets, factories and associated warehouses all fused with domestic accommodation, encapsulated a vibrant, diverse city in the nineteenth century.

The historic events of 1916 and 1922 centred around this area, with the aftermath of both radically transforming buildings and terraced streetscapes in their subsequent reconstruction.

The architectural and functional importance of O'Connell Street as the national main street and the retail importance of Henry and Moore Streets were pivotal in the emergence and consolidation of commercial activity synonymous with the area's urban and building character. Severely impacted by gradual decline in the last decades of the twentieth century, the area now requires a response to collective and appropriate redevelopment that will balance its urban and historic character with viable uses, amenities and infrastructure.



Figure 15.3.2: Aerial photograph of the masterplan area (red line is for visual demarcation only).

15.3.1.2 Chronological Development of the Masterplan Area

Please refer to Appendix A3 of the Dublin Central Masterplan Area Conservation Management Plan (Appendix 15.1) for further detail on the evolution of the enclosing environs.

Summary of the development of the city enclosing the masterplan area prior to and including the 17th Century

During the medieval period the lands around what is now Moore Street and O'Connell Street were part of St Mary's Abbey. The abbey was located in the Capel Street area and owned substantial lands on the northern side of the River Liffey in Dublin as well as extensive properties elsewhere.

Thomas Phillips's map of the city, prepared in 1685, shows that the development on the northern side of the Liffey spread eastward as far as Liffey Street, with Abbey Street continuing eastward to meet the river. The map was prepared with west at the top and has been turned to orientate northward in the detail reproduced below. The streets seen on the northern side of the river were laid out by Humphrey Jervis in the 1670s.

With the dissolution of the abbey in the sixteenth century the property was correspondingly offered piecemeal to prosperous families loyal to the crown.

Lands to the east of the abbey came into the ownership of the Moore family – probably in the time of Queen Elizabeth, who granted the lands of Millionth Abbey to Sir Edward Moore¹ Moore's son, Sir Garret Moore, was elevated to the peerage as Baron Moore of Mellifont, subsequently Viscount Moore of Drogheda. Two generations later the third viscount, Henry Moore, was advanced to an earldom, as Earl of Drogheda.



Figure 15.3.3: Detail of Thomas Phillips's map of Dublin, 1685 (British Library)

Summary of the development of the masterplan area in the 18th Century

The third Earl of Drogheda, also named Henry, suffered severe losses in the war of 1688-90. It may have been this that spurred the decision to develop the Dublin estates or it may have been seen as an appropriate move given the expansion of the population of the city in the years of peace following that war. Estimates of the population of the city suggest that it rose from 47,000 in 1695 to 75,000 in 1710 and 89,000 in 1715.² Whatever the reason, a substantial area was laid out for development in the opening years of the eighteenth century. From 1707 leases were granted of development sites along a grid of newly laid out streets, including Henry Street and Earl Street, as a continuation of Jervis's Mary Street, and an entirely new set of north-south streets to be known as Coles Lane, Moore Street, Prince Eugene Street, Drogheda Street and Marlborough Street. Also included were new east-west streets of modest size such as Melvill's Lane. Most of these names honoured the ground landlord – Henry, Moore, Earl, Drogheda, while Cole was his wife's family name. Marlborough Street and Prince

¹ Burke, 1830, p. 234

² Lennon, 2008, p. 10.

Eugene Street were named in honour of the two greatest military commanders of the day, who together had won a major victory at Blenheim shortly beforehand, in 1704.³

Charles Brooking's map, published in 1728, shows the Drogheda estate some twenty years after development had commenced. Brooking drew his map with south at the top and the extract above has been turned to the more conventional position with north at the top. The map suggests that Moore Street had been developed on both sides, as had Henry Street, while a great deal of the northern part of Drogheda Street remained as yet undeveloped and Prince Eugene Street was not depicted. Melvill's Lane is shown parallel to Henry Street to the north, and another street is shown to the south of Great Britain Street, near the top of the extract. This latter street may have been designed as a stable lane and survives in part as O'Rahilly Parade and Findlater Place.

From the initial impetus for developing the lands in 1707 the Moore family faded from the picture and took it no further. The estate was sold to Luke Gardiner, the most ambitious developer in Dublin at the time. Gardiner had begun his career in the Tara Street area in the early eighteenth century before developing Henrietta Street from the early 1820s. For the next eighty years the Gardiner family developed large swathes of the north city, acquiring additional lands to keep the momentum going. One source states that Luke Gardiner acquired the Drogheda estate on the death of the third Earl in 1714, but it is more likely that it was in 1727, on the death of the fourth Earl.⁴ It was from that time that he began to grant leases in the area and it seems unlikely that he had possession of such a large area of land prior to developing Henrietta Street and yet did nothing with it.⁵

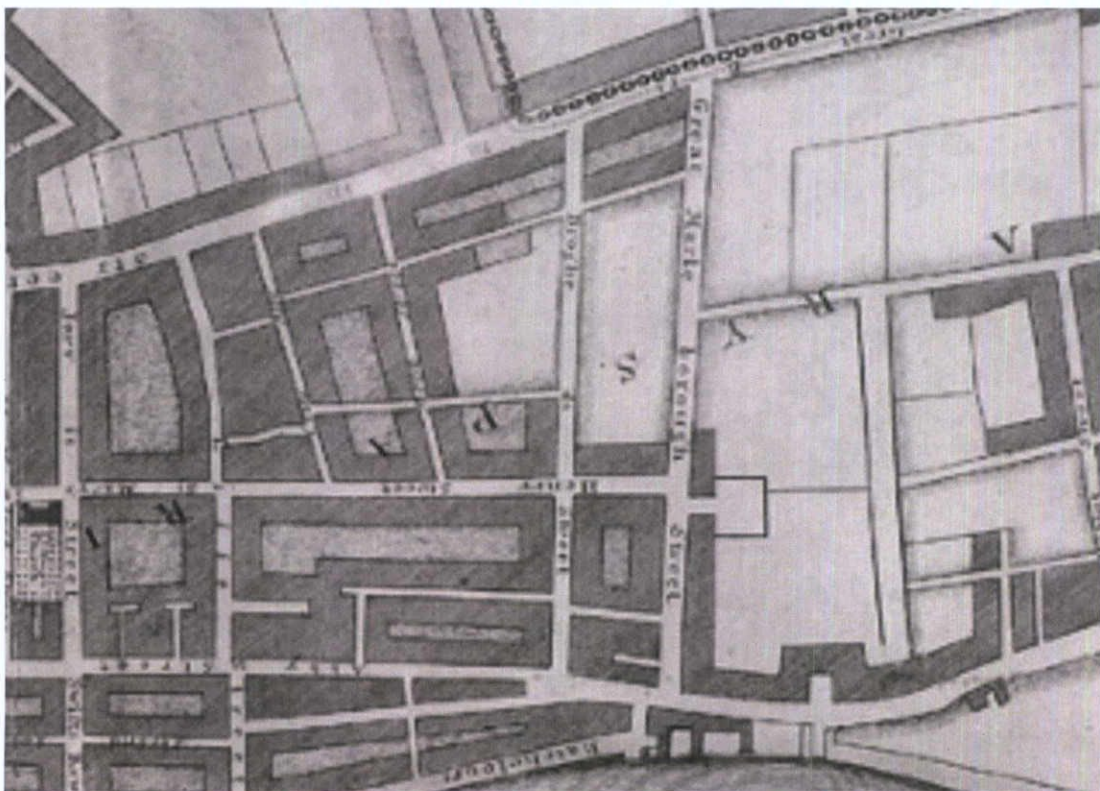


Figure 15.3.4: Detail of Brooking's map of 1728 (RIA)

³ https://en.wikipedia.org/wiki/Prince_Eugene_of_Savoy- checked in September 2022

⁴ Daly, 1957, p. 86

⁵ Registry of deeds book 63, page 10, number 44094 relating to Moore Street, 1730; book 66, page 164, number 45642, relating to Prince Eugene's Lane, 1731.

While the streets in the Drogheda estate had all been laid out and development had taken place, Gardiner was not content to leave it as it was. His most ambitious project in the estate was to demolish the buildings on the western side of the northern half of the comparatively modest Drogheda Street to increase the width of the street from 14 metres to 47 metres. The work began in the late 1740s and was completed in 1750, when he began to grant leases for building houses along that side. The improved street had carriageways on either side, separated by an enclosed mall for the use of the residents of the street and their servants and guests.⁶ At the same time as this development was under way, Gardiner renamed the street Sackville Street, in honour of the Lord Lieutenant, the Duke of Dorset, whose family name it was.

The alterations to Drogheda Street had knock-on effects for the lands to the rear and resulted in alterations to the street pattern to the west of Sackville Street. Prince Eugene Street would now be too close to the rear of the new houses and was closed, except for the southern end, and the grounds of the new houses were extended over it. Instead, a new stable lane was opened up, slightly to the west, running northward from Melvill's Lane to meet Great Britain Street, known today as Parnell Street.

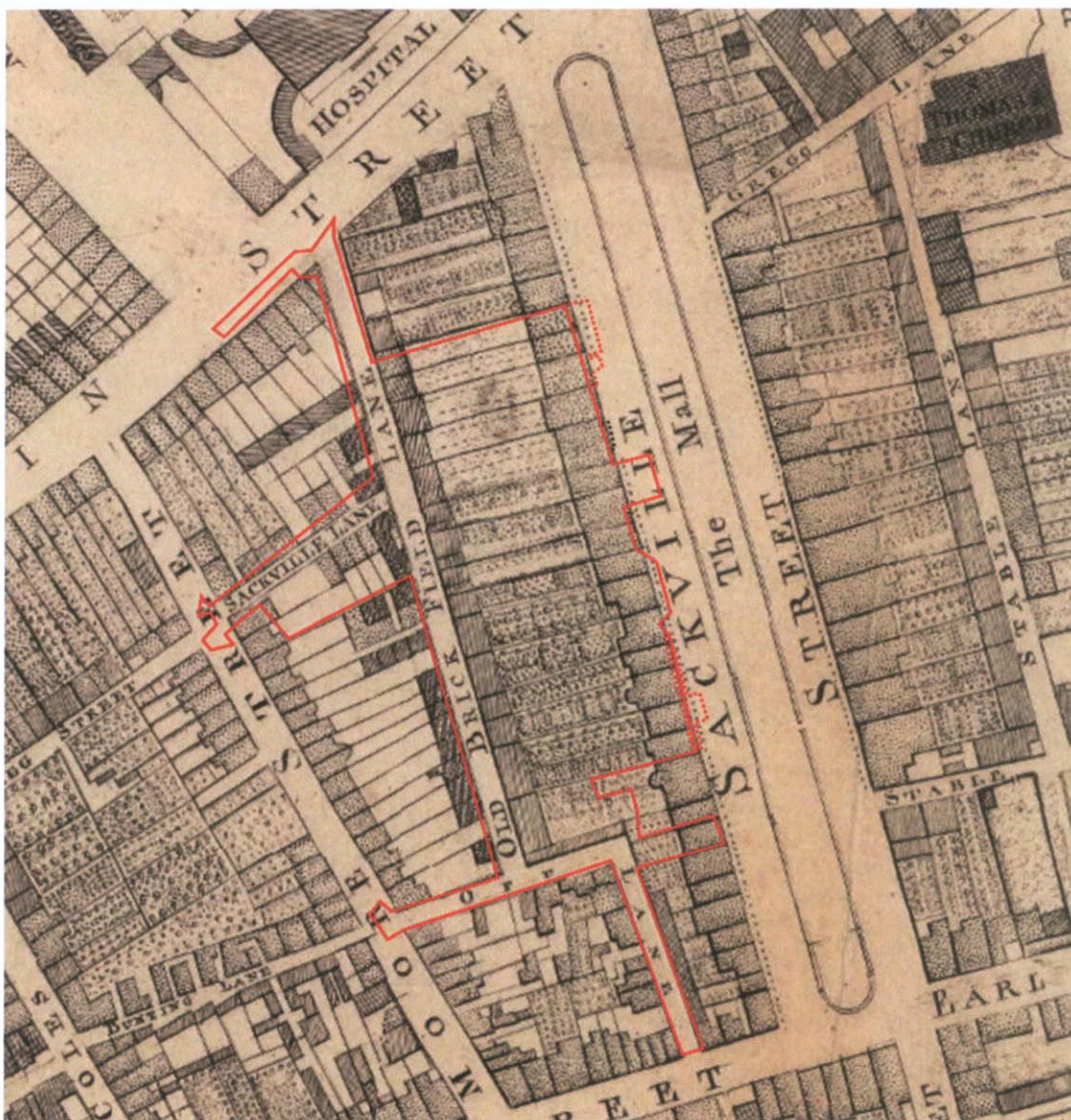


Figure: 15.3.5: Detail of Rocque's map of 1756 (Harvard Map Collection) with the outline of Site overlaid in red.

⁶ Sheridan, 2001, p. 93.

Figure 15.3.5, Rocque's map, published in 1756, shows the layout of the streets in and around the Dublin Central site much as they are today, though in some cases these had only recently been laid out. The western side of Sackville Street was now set back from its original building line, though not all of the sites had yet been built upon. It is notable that the plots at the northern end of Sackville Street extended back to Great Britain Street and there were no buildings fronting that street between Sackville Street and Old Brickfield Lane (present-day Moore Lane). The buildings on the eastern side of Old Brickfield Lane were not residential and have the appearance of mews buildings associated with the main houses on Sackville Street. As yet no building had taken place on the western side of Old Brickfield Lane. The block surrounded by Off Lane (present-day Henry Place), Henry Street and Moore Street was not affected by Gardiner's changes.

15.3.2 Proposed Development

15.3.2.1 Context

The subject application concerns the development of Site 2 to the east and No.61 O'Connell Street, to the southeast of the Dublin Central Masterplan Area.

The buildings and plots within Site 2 are; No.43, No.44, No.45, Nos.46-49, an open plot at Nos.50-51; Nos.52-54 O'Connell Street Upper (the former Carlton cinema), Nos.55-56, No.57, No.58 O'Connell Street Upper, all of which were reconstructed in the 20th century with fragments of 18th century fabric surviving within; rear of No.59 O'Connell Street Upper, including a regency annex and a reading room associated with the former Sackville Street Club and No.60A O'Connell Street Upper, part of an 18th century coach house range at the junction of Moore Lane and Henry Place. No.61 O'Connell Street is positioned to the south of Site 2 where adjoining Henry Place to the west.

A standalone appendix to the appended Dublin Central Masterplan Area Conservation Management Plan comprises an historic urban landscape assessment carried out by Dr. John Olley (Appendix A3 of Appendix 15.1), a summary of which is contained below.

A second, complimentary component of the urban assessment is a study of the reconstruction of O'Connell Street following the 1922 Civil War, below.

Both pieces of research trace the evolution of Site 2 and No.61 O'Connell Street as part of a continually evolving city through to its present-day character within the wider urban and masterplan area. They in turn frame an understanding of the past and present-day characteristics of the site from its 18th century origins as one of the first significant retail quarters in the city, supported by ancillary market/light industrial uses onto Moore Lane, together with the largescale reconstruction of the urban block post the 1922 Civil War.

15.3.2.2 Chronological Development of the Application Site

Please refer to Appendices 15.2-14 for detail on the evolution of each building and its plot

Please refer to Appendix 15.1 (Appendix A4) of the Dublin Central Masterplan Conservation Management Plan for a more detailed account of the impact on the Civil War in 1922 on the site.

O'Connell Street⁷ played a central role in many of the events that comprise the Decade of Centenaries, most obviously in the 1913 Lockout, the 1916 Rising and the 1922 Civil War, as well as the mass rallies organised by John Redmond in 1911 and 1912.⁸ Through the first two of these events O'Connell Street Lower was the main focus of attention and O'Connell Street Upper retained a low profile for the most part. In the wake of the Rising a committee was established under the chairmanship of Sir William Goulding to assess claims for damage. More than three hundred claims were lodged in relation to properties in O'Connell Street Upper, though many of these related to properties on the southern

end of the eastern side such as McDowell's jewellers and W H Lawrence, photographers. Approximately ten claims were submitted in relation to properties within the Dublin Central Masterplan Area, with a claim within Site 2 limited to No. 49 O'Connell Street Upper⁹ for superficial damage due to rifle fire and shell fire and damage to personal property through these causes and looting.

Compensation was just one issue that needed to be addressed in the aftermath of the Rising. Reconstruction was another and amongst the issues was the question of insurance. Some property owners did not have their premises insured, while others had insurance, but found that the cover excluded damage through act of war.¹⁰ A week after the Rising the traders who had lost property in the events of Easter week met in the Mansion House and appointed a committee to be called the Dublin Fire and Property Losses Association to lobby government for compensation for their losses.¹¹ The first action of the committee was to send a telegram to the Prime Minister seeking a meeting. The committee then sought details of losses from those affected, with the sum claimed in compensation and within a few days claims totalling £2 million had been lodged.¹²

The potential for regulating the nature of new buildings that were to replace those damaged to ensure a unity of approach was recognised by *The Irish Builder and Engineer* and others, such as the Professor of Architecture at UCD, W A Scott.¹³ The Lord Mayor chaired a meeting in the Mansion House to discuss the topic and this was attended by officials of the Corporation, representatives of the Local Government Board, The Royal Institute of Architects of Ireland (RIAI), the Architectural Association of Ireland and the Housing and Town Planning Association of Ireland.¹⁴ These moves, however, were opposed by the Property Losses Association, which saw the potential for delays in reconstruction and added expense to the detriment of the property owners.¹⁵

The Dublin Reconstruction (Emergency Powers) Bill was put before the Westminster parliament in August and proposed giving Dublin Corporation powers to acquire land compulsorily to widen or improve streets that had been damaged in the Rising and also proposed powers to lend money to landholders for the reconstruction of their buildings.¹⁶ There was opposition to the bill from a number of quarters, including those who saw it as allowing undue interference with property rights and others who considered that it would put a burden on the ratepayers and taxpayers.

During the passage of the Bill Dublin Corporation established a committee to discuss reconstruction with a view to making representations to parliament and this included Raymond Unwin, a leading town planner of the day, Richard C Orpen, president of the RIAI, the City Architect and a number of other experts in the field.¹⁷ Detailed negotiations took place during the autumn during which the question arose as to whether the reconstructed street should have uniform elevations. This was rejected by the committee, as it was "thought better to leave the greatest freedom to architects provided they are consistent with securing a general harmony of treatment under the coordinating direction of the city architect".¹⁸

¹¹ *Freemans Journal*, 9th May 1916.

¹² *Irish Times*, 11th May 1916; *Freemans Journal*, 13th May 1916.

¹³ Shaffrey, 1988, p. 150.

¹⁴ *Belfast Newsletter*, 20th May 1916.

¹⁵ *Irish Times*, 31st May 1916.

¹⁶ *Freemans Journal*, 4th August 1916.

¹⁷ Shaffrey, 1988, p. 152.

¹⁸ Miller, p. 288.

The act was finally passed in December 1916.¹⁹ In its final form the act required that plans for reconstruction within the destroyed areas were to be submitted for the approval of the City Architect. The exemplar for the design of new buildings in the street was a sketch prepared by Richard C Orpen depicting “coordinated design with unequal frontage”, allowing a great diversity within certain parameters rather than a fully unified design.²⁰

A further complication in the anticipated reconstruction was the shortage of building materials. The use of steel in construction had been banned because of its importance in the war effort and timber was also in short supply – and there was hesitation about using such a flammable material. Concrete was seen as a solution to this problem, particularly as there was an abundant supply of rubble for use as aggregate.²¹

The reconstruction of O’Connell Street Lower proceeded, but before it was complete the second battle of O’Connell Street, in July 1922, wreaked havoc in the northern part of the street. While the focus of the fighting was on the eastern side of O’Connell Street Upper, in the area known as “The Block”, between Cathedral Street and Parnell Street, some damage also occurred on the western side of the street.

The reconstruction of O’Connell Street Upper had the benefit of the experience gained over the previous six years. Another significant factor was that Ireland was now independent and its own government was responsible for new legislation – initially the Provisional Government and, from December 1922, the Free State Government. In 1923 the Damage to Property Compensation Act was passed, addressing applications to the courts for payments arising from damage during the Civil War. Section 10 allowed the judge in these cases to attach conditions to an award and in some cases obliged the attachment of conditions, including subsection 2(a) which stated that “if the injured building was situate in Upper Sackville Street, commonly known as O’Connell Street Upper, in the City of Dublin, the judge shall attach a full re-instatement condition to his decree”.²²

Section 3 required that anyone proposing to erect a new building on the site of one that has been damaged or destroyed must lodge details including plans and elevations with the city architect, who may request further particulars. In the case of O’Connell Street, Upper and Lower, the act went further, requiring the submission of these details whenever reconstructing *or altering* a building, whether or not it was to be on the site of a building damaged in the “recent disturbances”.²³ The act also gave the Corporation powers of compulsory acquisition where premises were damaged or destroyed buildings had been left derelict after a period, or where they were required for improvements to the street in relation to the reconstruction in the areas affected by the recent disturbances.

Given the fire damage in 1916 and again in 1922, when fire had raged unchecked through buildings and groups of buildings, the matter of combustibility was to the fore in the consideration of reconstruction. Accordingly, as cited above, the emphasis was on concrete as the dominant building material and when steel was used it was encased in concrete. In many cases, such as the Gresham Hotel, the floors were also of concrete.²⁴

From 1922 the city architect was Horace O’Rourke, and he devised the design criteria for the reconstruction of O’Connell Street with the guidance of Raymond Unwin, the town planner.²⁵ The RIAI formed a committee of three architects to provide advice and this committee met with Horace O’Rourke no less than twenty-four times, the outcome of which was a decision was to avoid what was

¹⁹ *Irish Independent*, 22nd December 1916.

²⁰ De Róiste, 2016a, p. 122.

²¹ De Róiste, 2016a, p. 124.

²² *Damage to Property (Compensation) Act, 1923*.

²³ *Dublin Reconstruction (Emergency Provisions) Act, 1924*.

²⁴ De Róiste, 2016b, p. 176.

²⁵ Bannon

been “an incoherent or uncoordinated reconstruction” and to opt for coordinating the design of street frontages.²⁶ The result has been described as “more successfully unified facades, but arguably a more muted and flatter streetscape ... giving a repetitive, if cohesive, appearance to this part of the street”.²⁷ This statement may be valid in relation to the principal area of reconstruction at this time, on the eastern side of the street, where The Block came to be dominated by buildings with very wide frontages – the Gresham Hotel, the Savoy Cinema and Hammam Buildings, and with relatively restrained facades.

On the western side, including plots within the subject development site however, the outcome was different, firstly because the damage was more limited and confined to limited areas, and secondly because each of the reconstructed buildings had its own character and a significant amount of surface modelling. Nos.43 and 44 O'Connell Street Upper, rebuilt in 1925, have stone fronts with a significant amount of surface embellishments. The facades of Nos.57 and 58 were greatly enlivened by the use of red brick walling adorned with stone detailing, particularly in the case of No.57, which had a heavy shopfront of granite, incorporating Doric columns, above which a frame of granite encased the large first-floor windows. The design of Nos.55-56 seems to have been agreed in 1926 and it closely resembles the style adopted following the 1916 Rising in Henry Street, Abbey Street and elsewhere.²⁸ However, the building was not constructed until 1931.²⁹ Considering the involvement of so many architects and others as advisors to the city architect in devising the approach to the architecture of reconstruction it is ironic that the only building that eschewed 1920s Baroque was No.45, which deliberately looked back to the Neoclassical public buildings of late-eighteenth century Dublin and which was designed by Harold Leask, on behalf of the Board of Public Works.³⁰

²⁶ De Róiste, 2016b, pp. 170-172.

²⁷ Shaffrey, 2014, p. 412.

²⁸ *Irish Times*, 18th June 1926.

²⁹ Ryan, Brenda, 2019, “The Monument Creamery Ltd (1918-1966) – 100 Year’s Anniversary Appreciation”, in *Dublin Historical Record*, vol. 72, no. 2; *Evening Press*, 7th September 1931; *Irish Independent*, 23rd November 1931.

³⁰ www.dia.ie

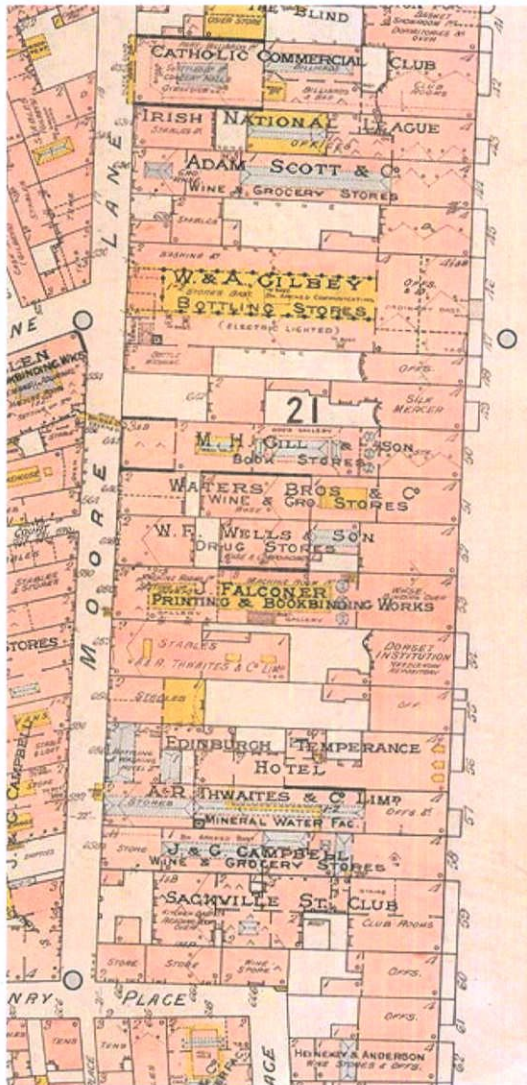


Figure 15.3.6: Goads' Fire Insurance Map 1893

The plan of the 18th century houses on Sackville Street are intact, and most appear to be in commercial use, with many having been extended to the rear.

No.59 is occupied by the Sackville Street Club. Note that the regency annex, positioned between the former reading room and the main building is shown as having an attached building to the rear. This adjoining structure was subsequently removed.

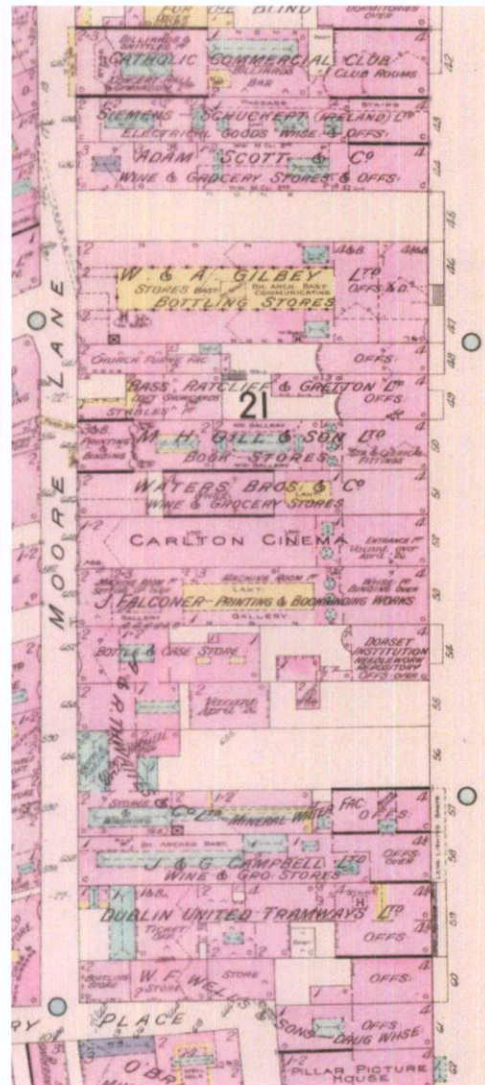


Figure 15.3.7: Goads' Fire Insurance Map 1926

Note the gradual infilling of basement lightwells on O'Connell Street relative to the earlier 1893 map and the vacant plots at Nos 55-56, post the initial early 20th century reconstruction works.

No.59 is now occupied by Dublin United Tramway and the western elevation of the former reading room is now enclosed by a glazed roof structure.



Figure 15.3.8: An aerial photograph of Site 2AB (in part), 1955 provides an interesting overview of the complex at the rear of No.59. The roof of reading room and the 'regency annex' is visible, with a lantern-roofed structure (since demolished) in the interstitial space. Source 'The Morgan Collection', National Library of Ireland.

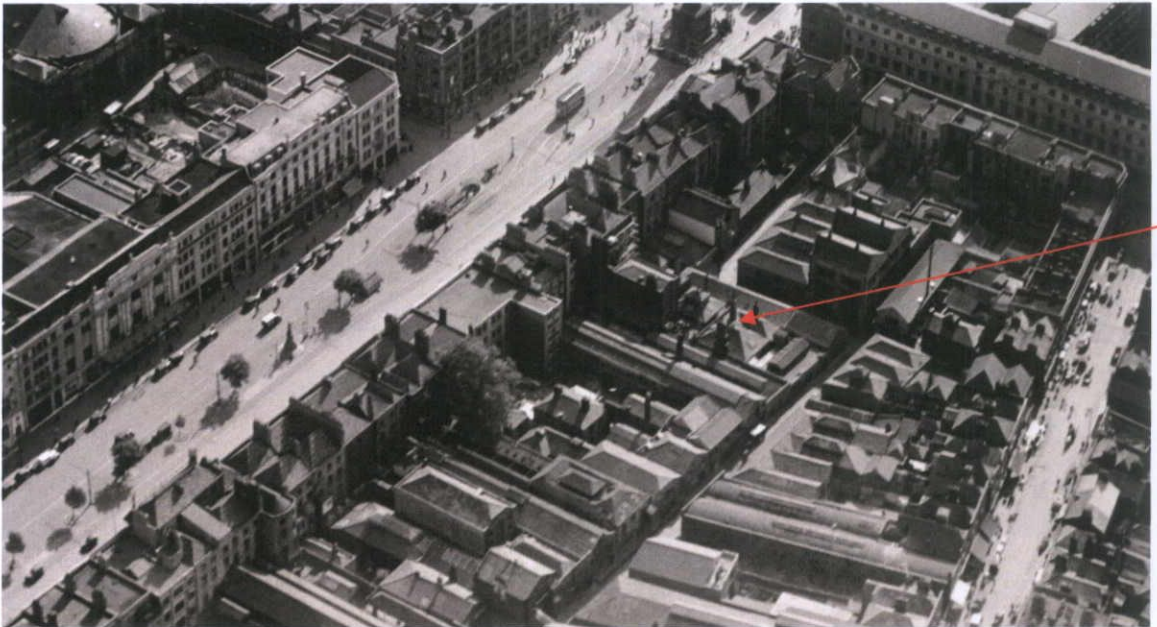


Figure 15.3.9: A wider aerial photograph of Site 2, 1947, with the former Reading Room to rear of No.59 demarked for orientation purposes. Source: Ref: XPW043448, Historic Environment Scotland

The reconstruction of O'Connell Street Upper was largely complete by the end of the 1920s, with only the site of Nos.55 and 56 remaining vacant until completion of its building in November 1931. Since that time there have been significant other changes in this part of the street, most of which did not attempt to conform to the design criteria set by Horace O'Rourke. Most notable amongst these were the Royal Dublin Hotel at Nos.40-41, the Dublin County Council offices at 46-49, the Carlton Cinema at Nos.52-54 and the façade of the Dublin Bus offices at No.59. With the exception of the latter these later developments changed the scale of the street through the introduction of broad plots and all except the Carlton opted for concrete as a facing material.

Throughout the debates on how reconstruction should be undertaken the design emphasis was on the street frontages, particularly the frontage of O'Connell Street Upper. Few other streets were considered during the post-1922 reconstruction and streets such as Moore Lane were never mentioned. This is partly due to the lesser importance of the street. A further significant factor was the low level of damage that occurred during either the 1916 Rising or the 1922 Civil War.

Comparison of the Goad insurances maps of 1893 and 1926 suggests that very little change had occurred in the buildings on either side of Moore Lane during that interval. Notably, in the aftermath of the destruction of 1922 which had affected the premises of A & R Thwaites at No.57 O'Connell Street Upper, the company continued its operations at the rear of its site on Moore Lane where it employed 80 people.³¹ Some reconstruction took place in Moore Lane in the wake of the Civil War damage, notably at No.45 where the site was almost totally cleared (some sections of early townhouse basement surviving), though the major changes to the wider character of Moore Lane (including Site 2) took place more gradually through the twentieth century, such as at the Royal Dublin Hotel, the Dublin County Council offices and car park and the Carlton sites (Nos. 40-41, 46-49 and 52-54) together with other sites along both sides of Moore Lane.

15.3.2.3 Outline Description of the Site and its Enclosing Urban Environs

Site 2AB and Site 2C predominantly comprise built plots, with building fabric ranging in origin from the 18th (limited extent surviving) through to the 20th centuries. The plots form a unified terrace of four-five storey over basement buildings onto O'Connell Street Upper to the east, reducing in height to one-two storeys where addressing Moore Lane to the west. Whilst the early terraced character of O'Connell Street Upper has survived from its 18th century origins, reflected in the predominant retention of original plot widths and the faithful reconstruction of each building in accordance with its founding typology, the Moore Lane terrace as existing departs significantly from its origins in encompassing terraced buildings of height with active commercial functioning and street level interaction.

The contextual environment within which Site 2 sits has also changed considerably from its early origins. The east side of O'Connell Street Upper was largely reconstructed in the aftermath of 1922, occurring within a 3-year period post the conflict. Incrementally, the character of the street itself, its median, carriageway and footpaths have all changed over time. The demolition of Nos.40-41 and Nos.50-51 O'Connell Street Upper introducing long term 'gaps' within the previously unbroken terrace has altered the quality of the urban environment without establishing a positive contribution countering such loss. In turn, trees planted in the late 20th century have enlivened the amenity of the public realm whilst obscuring the richness of their flanking terraces, reordering an original integral relationship between the east and west terraces and the shared open space between.

The character of Moore Lane to the west, once enjoying an animated industrial streetscape, has, in contrast with the abrupt wholesale loss of the west side of O'Connell Street in the 1920s, suffered a quieter and more gradual pattern of decline over the course of the 20th century with large scale purposefully-built commercial, industrial and amenity buildings collectively contributing to an enlivened street character now all removed, truncated or replaced with introverted facades evolving to eschew, rather than engage with the lane. Sole remnants within Site 2 exist to the rear, of Nos.59 and 60 O'Connell Street, with fragments of the street's 18th and 19th century origins in wall sections

³¹ *Freemans Journal*, 24th May 1923