



Environmental Impact Assessment Report

Volume 1: Written Statement incl. Non-Technical Summary

Mixed-Used Development at Dublin Central

For Dublin Central GP Limited

DCC PLAN NO 5126/22
RECEIVED: 26/10/2022

Prepared By: -

SLA | Stephen Little
& Associates

26 / 27 Upper Pembroke Street, Dublin 2, D02 X361
Phone: + 353 (1) 676 6507 | Email: info@sla-pdc.com

In Association with: -

ACME Architects, RKD Architects, Grafton Architects, Waterman Moylan Consulting Engineers, Waterman Structures Ltd., GrossMax Landscape Architects, Scott Cawley Ltd., BDP M&E Consultants, AWN Consulting, Molly & Associates Conservation Architects, ARC Architectural Consultants, Courtney Deery Heritage Consultants

SEPTEMBER 2022

TABLE OF CONTENTS OF THE ENVIRONMENTAL IMPACT ASSESSMENT REPORT

EIAR VOLUME 1 – WRITTEN STATEMENT, INCLUDING NON-TECHNICAL SUMMARY

- Chapter 1 – Introduction
- Chapter 2 – Non-Technical Summary
- Chapter 3 – Description of Proposed Development
- Chapter 4 – Examination of Alternatives
- Chapter 5 – Population and Human Health
- Chapter 6 – Biodiversity
- Chapter 7 – Land, Soils and Geology
- Chapter 8 – Water
- Chapter 9 – Climate (Air Quality & Climate Change)
- Chapter 10 – Climate (Sunlight & Daylight)
- Chapter 11 – Air (Noise & Vibration)
- Chapter 12 – Landscape and Visual Impact
- Chapter 13 – Material Assets (Transportation)
- Chapter 14 – Material Assets (Waste)
- Chapter 15 – Cultural Heritage (Architectural)
- Chapter 16 – Cultural Heritage (Archaeological)
- Chapter 17 – Risk Management (Major Accidents & Disasters)
- Chapter 18 – Summary of Mitigation Measures
- Chapter 19 – Summary of Cumulative Impacts and Interactions
- Chapter 20 – Summary of Residual Impacts
- Chapter 21 – Bibliography

DCC PLAN NO 5126/22
RECEIVED: 26/10/2022

EIAR VOLUME 2 – APPENDICIES

- Appendix 3.1 – Outline Construction & Demolition Management Plan – Masterplan
- Appendix 3.2 – Outline Construction & Demolition Management Plan – Site 2
- Appendix 3.3 – Outline Construction & Demolition Management Plan – No. 61 O'Connell Street Upper
- Appendix 6.1 – Protected Sites for Nature Conservation in the Vicinity of the Proposed Development and the Masterplan
- Appendix 6.2 – Desk Study Flora and Fauna Records
- Appendix 6.3 – Examples of Valuing Important Ecological Features
- Appendix 6.4 – Potential Roost Feature (PRF) Photos from Building Inspections (Masterplan)
- Appendix 7.1 – Environmental Assessment (Site Investigation)

- Appendix 8.1 – Irish Water Confirmation of Feasibility
- Appendix 9.1 – Ambient Air Quality Standards
- Appendix 9.2 – Dust Management Plan
- Appendix 11.1 – Glossary of Acoustic Terminology
- Appendix 11.2 – Air Quality Monitoring and Noise Control Unit's Good Practice Guide for Construction and Demolition
- Appendix 12.1 – Photomontages
- Appendix 14.1 – Resource & Waste Management Plan
- Appendix 14.2 – Operational Waste Management Plan
- Appendix 15.1 – Dublin Central Masterplan Conservation Management Plan
- Appendix 15.2 – Chronology Drawings
- Appendix 15.3 – 43 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.4 – 44 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.5 – 45 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.6 – 46-49 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.7 – 50-51 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.8 – 52-54 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.9 – 55-56 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.10 – 57 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.11 – 58 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.12 – 59 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.13 – 60A, 60B, 60C O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.14 – 61 O'Connell Street Upper; Building Inventory, Record and Description
- Appendix 15.15 – Outline Schedule of Proposed Works to Retained Fabric
- Appendix 15.16 – Impact Assessment – Public Realm
- Appendix 16.1 – Summary of National Monument Legislation
- Appendix 16.2 – Dublin City Development Plan 2016 – 2022 – Archaeology
- Appendix 16.3 – Archaeological Assessment Methodology
- Appendix 16.4 – Archaeological Testing Report

1 INTRODUCTION

This Environmental Impact Assessment Report (EIAR) presents the assessment of environmental impacts and applicable mitigation measures associated with the mixed-use development on a 2.2 Ha site referred to as the Dublin Central Masterplan located in Dublin City Centre. This EIAR also provides an assessment of lands labelled Site 2 – Dublin Central (hereafter, for the purposes of this EIAR, referred to as ‘the Proposed Development’).

This EIAR has been prepared on behalf of Dublin Central GP Limited (‘the Applicant’). This EIAR accompanies planning applications made to Dublin City Council (DCC) for Site 2 of the Dublin Central Masterplan respectively.

1.1 Summary of the Proposed Development

Chapter 3: Description of Proposed Development of this EIAR sets out the detailed description of the Proposed Development.

Dublin Central Masterplan

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

A site wide cumulative masterplan has been prepared by Dublin Central GP Limited (‘the Applicant’) to set out the overall development vision for the entire of the Dublin Central project, the Dublin Central Masterplan (‘the Masterplan’).

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

The Masterplan represents the full development planned by the Applicant for the entire of these urban blocks. The Masterplan area has been divided into six identifiable sites for the purpose of making separate planning applications. The development ‘proposed’ at this time is that subject of the planning application for Site 2.

Site 2 is primarily located within the urban block between O’Connell Street Upper and Moore Lane and bounded by No. 42 O’Connell Street Upper to the North and No. 62 O’Connell Street and Henry Place to the south.

For the purpose of making the planning application for Site 2 and No. 61 O’Connell Street, and considering the cumulative effect of the proposed and planned project, the Masterplan represents the interim design for Site 1 (March 2021) and proposal for Site 3, 4 & 5 as per the concurrent planning applications submitted to Dublin City Council in June 2021 (DCC Reg. Ref. 2861/21, 2862/21 and 2863/21 respectively refers – all currently subject of pending appeal to An Bord Pleanála). Further progress on planning design continues to be worked up in the meantime and is ongoing.

MetroLink Enabling Works

The Applicant has agreed a Memorandum of Understanding with the NTA/TII to complete the enabling works that would accommodate the planned future MetroLink O’Connell Street station under Dublin Central Site 2AB and Site 2C. This would also ensure that the Applicant’s project is structurally independent of, and not prejudicial to, the TII MetroLink Project. It should be noted that no metro enabling works will be undertaken by the Applicant until the NTA / TII have secured an enforceable railway order.

The 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 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 application or its accompanying EIAR.

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 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 proposed development to ensure that it is structurally independent of, and not prejudicial to, the MetroLink project. It follows that the 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.

Proposed Development

The description of Proposed Development can be summarised as: -

Site 2

Site 2 comprises a mixed-use scheme (c. 38,479 sq. m gross floor area) ranging in height from 2 – 8 storeys over single level basements including a new street between O'Connell Street Upper and Moore Lane, a new controlled Laneway from Moore Lane (adjacent No. 42 O'Connell Street Upper – a Protected Structure). The proposed development accommodates: -

- 6no. units for use as a 'licensed restaurant / café units with takeaway / collection facility' at ground floor level (Unit 1 – c. 67 sq. m and Unit 2 – c. 244 sq. m on Moore Lane, Unit 3 – c. 178 sq. m and Unit 4 – c. 75sq. m on O'Connell Street Upper, Unit 5 – c. 58 sq. m on New Street and Unit 6 – c. 296 sq. m on Moore Lane and New Street;
- 1no. unit for use as a 'licensed restaurant / café units with takeaway / collection facility' across basement, ground, 1st and 2nd floor (c. 878 sq. m) on O'Connell Street Upper;
- 8no. retail units, each for use as a 'shop' or 'licensed restaurant / café units with takeaway / collection facility' at ground floor level (Unit 1 – c. 1,041 sq. m on O'Connell Street Upper and Moore Lane, Unit 2 – c. 311 sq. m and Unit 3 – c. 260 sq. m on O'Connell Street Upper and New Street, Unit 4 – c. 452 sq. m on New Street, Units 5 – c. 251 sq. m on Moore Lane, Unit 6 – c. 162 sq. m and Units 7 – c. 58 sq. m on O'Connell Street Upper and Unit 8 – c. 40 sq. m on Moore Lane and new controlled Laneway); Temporary use of retail Unit 8 (c. 40 sq. m) as a delivery hub, pending the completion of same at Site 5 under DCC Reg. Ref. 2863/21;
- Office use (c. 33,714 sq. m) from 1st to 7th floor with access from O'Connell Street Upper, rear of No. 59 O'Connell Street upper and new plaza on Henry Place and new controlled Laneway. Terrace proposed at 1st, 3rd, 4th, 6th and 7th floor are proposed;
- Refurbishment of the 'Reading Room' (rear of No. 59 O'Connell Street Upper, Dublin 1) as 'licensed restaurant / café units with takeaway / collection facility' at ground floor level and ancillary café use at basement level (c. 244 sq. m in total).
- The single level basement comprises: -

- Access ramp from Moore Lane.
- 32no. car parking space.
- 372no. bicycle parking spaces with access to secure bicycle storage areas from the new plaza on Henry Place and the new controlled laneway from Moore Lane.
- Plant and waste storage areas.
- A structural box (120m length, 26m width, 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 Transport Infrastructure Ireland, 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. The MetroLink project will be the subject of a separate application for approval to be made by Transport Infrastructure Ireland. This part of the Dublin Central proposed development is referred to as the MetroLink Enabling Works.

All associated and ancillary site development and landscape works, conservation, demolition, landscaping, temporary works, including: -

- Conservation, repair, refurbishment, and adaptive reuse of part of the existing building fabric, including: -
 - Retention of part of the rear of Nos. 59 O'Connell Street Upper (known as the 'Reading Room') internal and external modifications and new shopfronts;
 - Retention of the facades of Nos. 57 – 58 O'Connell Street Upper (Protected Structures);
 - Retention of the facades of Nos. 52 – 54 O'Connell Street Upper (Carlton Cinema – Protected Structures) including the reinstatement of the canopies;
 - Retention of the facades of Nos. 43 – 44 O'Connell Street Upper (Protected Structures);
 - Retention of the facade of No. 45 O'Connell Street Upper;
 - Works to include repair and upgrade works (where required) of retained masonry, external and internal joinery, plasterwork and features of significance;
 - Conservation and repair of existing lightwells on O'Connell Street Upper;
- Demolition of all other existing buildings and structures on site (c. 22,521 sq. m) including No. 13 Moore Lane and No. 14 Moore Lane (otherwise known as Nos. 1 – 3 O'Rahilly Parade and Nos. 14 – 15 Moore Lane or Nos. 1 – 8 O'Rahilly Parade and Nos. 14 – 15 Moore Lane) to facilitate a temporary construction compound;
- Laying of services in Parnell Street westwards from Moore Lane for approximately 49 metres;
- Improvement works to the public realm on O'Rahilly Parade, Moore Lane, Henry Place, including the provision of a new entrance off O'Connell Street Upper for deliveries / emergency access. There are also adjustments and improvement works proposed at the junctions of Moore Street with Henry Place and with O'Rahilly Parade;
- Creation of a new street connecting O'Connell Street Upper with Moore Lane and provision of a new plaza at the junction of Moore Lane and Henry Place;
- 3no. telecommunication lattice towers which can accommodate 3no. 800mm antenna and 2no. 300mm microwave link dishes with associated equipment on the rooftop of Block 2C.
- 2no. ESB sub-stations;
- Building signage zones and retractable canopies.

No. 61 O'Connell Street Upper

No. 61 O'Connell Street comprises the conservation, repair, refurbishment and adaptive reuse of an existing commercial building (4 storey over basement) to include: -

- A licensed restaurant / café unit with takeaway / collection facility unit (c. 35 sq. m gfa) at ground floor level on O'Connell Street Upper and a licensed restaurant / café unit with takeaway / collection facility unit (c. 10 sq. m gfa) at ground floor level on Henry Place;
- 3no. 2bed apartments from 1st to 3rd floor (1no. unit per storey); 1no. gym / leisure studio (c. 172 sq. m gfa) at basement level;

All associated and ancillary site development works, conservation, demolition, landscaping, temporary works, including: -

- The creation of a new pedestrian link through part of the ground floor connecting O'Connell Street Upper and Henry Place;
- Bicycle (8no.) and bin storage to rear of No. 61 O'Connell Street at ground floor level;
- Building signage zones and retractable canopy.

1.2 Aim of the EIAR

An EIAR is defined in the Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022) as: -

"A report or statement of the effects, if any, that the proposed development, if carried out, would have on the environment."

The preparation of this EIAR is in accordance with Directive 2011/92/EU as amended by Directive 2014/52/EU (the Directive), the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001, as amended. It is also in accordance with the guidelines listed at paragraph 1.3 below.

The prescribed range of environmental factors are as follows: -

"The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on the following factors: -

- a) *population and human health.*
- b) *biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC.*
- c) *land, soil, water, air and climate.*
- d) *material assets, cultural heritage and landscape.*
- e) *the interaction between the factors referred to in points (a) to (d)"*

In addition, the guidelines quote Article 5(1) of the Directive when describing the contents of an EIAR, as follows: -

"the developer shall include at least: -

- a) *a description of the project comprising information on the site, design, size and other relevant features of the project.*
- b) *a description of the likely significant effects of the project on the environment.*
- c) *a description of the features of the project and/or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.*
- d) *a description of the reasonable alternatives studied by the developer, which are relevant to the project and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the project on the environment.*
- e) *a non-technical summary of the information referred to in points (a) to (d); and*

- f) *any additional information specified in Annex IV relevant to the specific characteristics of a particular project or type of project and to the environmental features likely to be affected."*

Article 94 of the Planning and Development Regulations 2001, as amended, provides for the information to be contained in an EIAR as follows: -

"94. An EIAR shall take into account the available results of other relevant assessments under European Union or national legislation with a view to avoiding duplication of assessments and shall contain—

- a) *the information specified in paragraph 1 of Schedule 6,*
- b) *any additional information specified in paragraph 2 of Schedule 6 relevant to the specific characteristics of the development or type of development concerned and to the environmental features likely to be affected,*
- c) *a summary in non-technical language of the information required under paragraphs (a) and (b),*
- d) *a reference list detailing the sources used for the descriptions and assessments included in the report, and*
- e) *a list of the experts who contributed to the preparation of the report, identifying for each such expert—*
 - (i) *the part or parts of the report which he or she is responsible for or to which he or she contributed,*
 - (ii) *his or her competence and experience, including relevant qualifications, if any, in relation to such parts, and*
 - (iii) *such additional information in relation to his or her expertise that the person or persons preparing the EIAR consider demonstrates the expert's competence in the preparation of the report and ensures its completeness and quality."*

1.3 EIAR Guidance

This EIAR has been completed in accordance with the requirements as set out in the EIA Directive (2014/52/EU) and relevant guidelines and documentation, including: -

- Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022).
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out environmental impact assessment (Department of Housing, Planning and Local Government , August 2018),
- Department of Housing, Planning and Local Government (2018) Circular PL 05/2018 - Transposition into Planning Law of Directive 2014/52/EU amending Directive 2011/92/EU on the effects of certain public and private projects on the environment (the EIA Directive) and Revised Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment.
- Advice Notes for Preparing Environmental Impact Statements Draft (EPA, 2015).
- Guidance on the preparation of Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU) (European Commission, 2017).
- EU Commission's SEA Implementation Guidance from 2003 (Paragraphs 5.25 and 5.26) refer to chapter on human health.
- Circular PL 1/2017 – Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive).
- Circular PL 8/2017 – Implementation of Directive 2014/52/EU – Advice on Electronic Notification Requirements.

1.4 The EIAR Process

1.4.1 Introduction

This section demonstrates the process that has been carried out by the Applicant and Design Team in the preparation of this EIAR. As described and shown Figure 1.1, the EIAR forms a part of the EIA process.

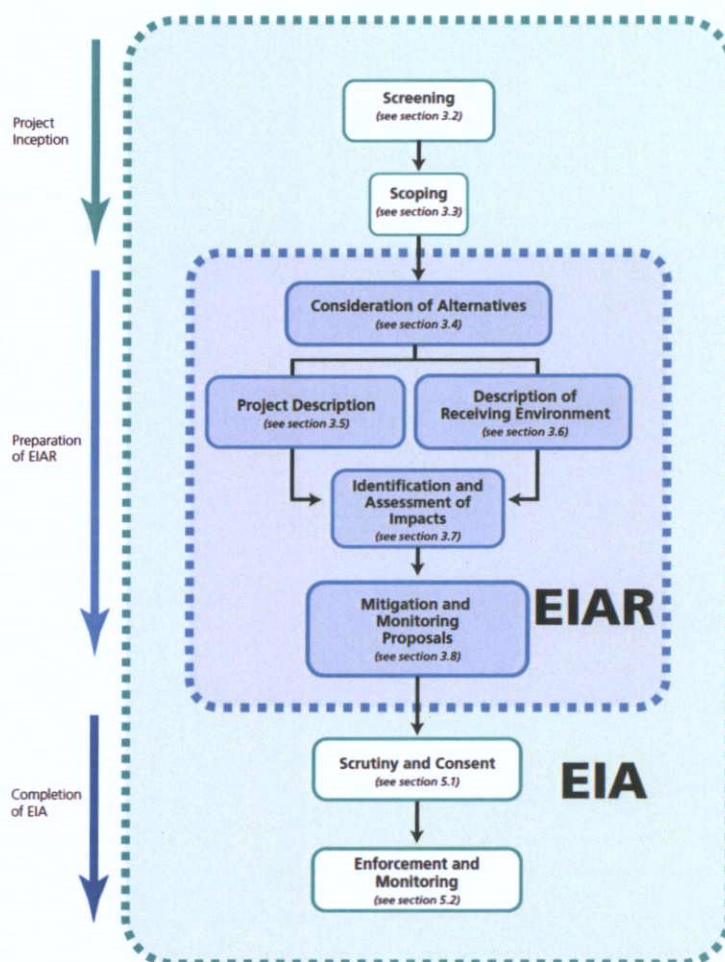


Figure 1.1: EIA Process - Extract taken from Figure 2.1, page 10 of the EPA Guidelines 2022.

Further explanation of the terms referred to in Figure 1.1 is provided below: -

Screening: -

"The process of assessing the requirement for a project to be subject to Impact Assessment based on project type and scale, as well as the significance or environmental sensitivity of the receiving environment."

Scoping: -

"The process of identifying the significant issues which should be addressed by a particular Impact Assessment as well as the means or methods of carrying out the assessment."

Environmental Impact Assessment Report (EIAR): -

"A report or statement of the effects, if any, that the proposed development, if carried out, would have on the environment."

Environmental Impact Assessment (EIA): -

"The process of examining the anticipated environmental effects of proposed project - from consideration of environmental aspects at design stage, through consultation and preparation of an Environmental Impact Assessment Report (EIAR), evaluation of the EIAR by a Competent Authority, the subsequent decision as to whether the project should be permitted to proceed, encompassing public response to that decision."

Competent Authority Decision

If, during the review, the Competent Authority determines that the information presented in an EIAR is not sufficient for it to make a determination, then the developer may be asked to provide further information.

If granting permission, the Competent Authority may attach conditions to the consent. The conditions will typically seek to ensure adherence to mitigation and monitoring measures presented in the EIAR. These may be augmented and modified by the Competent Authority.

If refusing the Competent Authority may cite specific evidence from the EIAR such as the non-conformity of potential impacts with official standards, impractical mitigation measures or uncertainty about environmental interactions.

1.5 Need for this EIAR

The revised EIA Directive (Directive 2011/92/EU, as amended by Directive 2014/52/EU) uses the term environmental impact assessment report (EIAR) rather than the previous environmental impact statement (EIS). Where current national guidelines and regulations refer to an Environmental Impact Statement or EIS, this must now be read to mean an Environmental Impact Assessment Report (EIAR).

Section 172 of Part X of the Planning and Development Act, 2000, as amended by regulation 17 of the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018) sets out the requirement for an EIA as follows: -

"172 (1) An environmental impact assessment shall be carried out by the planning authority or the Board, as the case may be, in respect of an application for consent for proposed development where either—

(a) the proposed development would be of a class specified in—

(i) Part 1 of Schedule 5 of the Planning and Development Regulations 2001, and either—

(I) such development would equal or exceed, as the case may be any relevant quantity, area or other limit specified in that Part, or

(II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or

(ii) Part 2 of Schedule 5 of the Planning and Development Regulations 2001 and either—

(I) such development would equal or exceed, as the case may be any relevant quantity, area or other limit specified in that Part, or

(II) no quantity, area or other limit is specified in that Part in respect of the development concerned, or

(b)

(i) the proposed development would be of a class specified in Part 2 of Schedule 5 of the Planning and Development Regulations 2001 but does not equal or exceed, as the case may be, the relevant quantity, area or other limit specified in that Part, and

(ii) the planning authority or the Board, as the case may be, determines that the proposed development would be likely to have significant effects on the environment."

The Fifth Schedule of the Planning and Development Regulations lists classes of development where an EIA is mandatory under Part 1 and where an EIA may be required under Part 2. Where a project falls within a criterion for a type of development and / or exceeds a threshold as listed in Part 1 or Part 2, then it must be subjected to EIA.

Under Schedule 7 & 7A of the Planning and Development Regulations the Proposed Development can be considered sub-threshold given the nature and scale of the proposals.

However, Site 2 sits within the broader context of the Masterplan which will see the redevelopment of the urban block between Parnell Street, O'Connell Street Upper, Henry Street and Moore Street. The combined site area for the Masterplan is c. 2.2 Ha within Dublin City Centre. This exceeds the threshold under Classes 10(b)(iv) of Part 2 of the Fifth Schedule of the Regulations, namely: *"Urban development which would involve an area greater than 2 hectares in the case of business district"*.

As such, having concluded a screening exercise an Environmental Impact Assessment Report is submitted to the Planning Authority with this Planning Application to consider the likely impacts of the Proposed Development.

1.6 EIAR Layout & Structure

The composition of this EIAR has been prepared to respect the EPA Guidelines (2022) and the screening and scoping stages described above. The layout and structure of this EIAR is laid out under 2 volumes, each containing specific sections as follows: -

- **Volume 1:** Written Statement, including Non-Technical Summary.
- **Volume 2:** Appendices.

Following on from the layout, the structure of the EIAR is shown in Table 1.1 below.

Chapter No.	EIAR Chapter Name	Consultant
1	Introduction	Stephen Little & Associates Chartered Town Planners & Development Consultants
2	Non-Technical Summary	Stephen Little & Associates Chartered Town Planners & Development Consultants with input from the consultants outlined below.
3	Description of Proposed Development	Stephen Little & Associates Chartered Town Planners & Development Consultants.
4	Main Alternatives	Stephen Little & Associates Chartered Town Planners & Development Consultants.
5	Population & Human Health	AWN Consulting Ltd.
6	Biodiversity	Scott Cawley Ltd.
7	Land, Soil & Geology	Waterman Moylan Consulting Engineers
8	Water	Waterman Moylan Consulting Engineers
9	Climate (Air Quality & Climate Change)	AWN Consulting Ltd.
10	Climate (Sunlight & Daylight)	BDP M&E Engineers
11	Air (Noise & Vibration)	AWN Consulting Ltd.
12	Landscape and Visual Impact	ARC Architectural Consultants
13	Material Assets (Transportation)	Waterman Moylan Consulting Engineers
14	Material Assets (Waste)	AWN Consulting Ltd.
15	Cultural Heritage (Architectural)	Molloy & Associates Conservation Architects
16	Cultural Heritage (Archaeological)	Courtney Derry Archaeology & Cultural Heritage
17	Risk Management	Stephen Little & Associates Chartered Town Planners & Development Consultants.
18	Summary of Mitigation Measures	Stephen Little & Associates Chartered Town Planners & Development Consultants.

Chapter No.	EIAR Chapter Name	Consultant
19	Summary of Cumulative Impacts & Interactions	Stephen Little & Associates Chartered Town Planners & Development Consultants.
20	Summary of Residual Impacts	Stephen Little & Associates Chartered Town Planners & Development Consultants.
21	Bibliography	Stephen Little & Associates Chartered Town Planners & Development Consultants.
-	Overall Co-ordination and Management of the EIAR	Stephen Little & Associates Chartered Town Planners & Development Consultants.

Table 1.1: Environmental Impact Assessment Chapters.

The relevant experts involved in the preparation of this EIAR can be found in Table 1.2 below.

DCC PLAN NO 5126/22
RECEIVED: 26/10/2022

Name	Years Exp.	Professional Qualifications	Professional Affiliations	Role
Stephen Little & Associates Chartered Town Planners & Development Consultants				
Stephen Little	30	Dip. Env. Mgmt, BA (Hons), Dip. TP, Dip. EIA Mgmt	MRTPI, MIPI	EIAR Manager Editorial Responsibility
Michael O' Sullivan	8	Masters in Planning and Sustainable Development (MPlan) Advanced Diploma in Planning & Environmental Law	MIPI	EIAR Co-ordinator. Introduction, Non-Technical Summary, Description of Development, Examination of Alternatives, Risk Management (Major Accidents).
Naoise O'Connor	2	Masters in Regional and Urban Planning (MRUP)	-	EIAR Assistant
AWN Consulting				
Paul Conaghan	10	BSc. (Hons), MSc	IAH	Population & Human Health
Ciara Nolan	5	BSc (Hons), MSc (Hons)	AMIAQM, AMIEnvSc	Climate (Air Quality & Climate Change)
Aoife Kelly	8	BSc (Hons) PhD PgDip	MIOA	Air (Noise & Vibration)
Leo Williams	6.5	BAI, MAI Mechanical & Manufacturing Engineering - Trinity College Dublin Diploma in Acoustics and Noise Control – Institute of Acoustics	MIOA	
Stephen Smyth	19	BAI, PhD Mechanical & Manufacturing Engineering - Trinity College Dublin	MIOA MIEI	
Chonail Bradley	8	BEnvSc	GradMCIWM	Waste Management
ARC Architectural Consultants				
Bill Hastings	51	B. Arch UCD 1970, 1st Honours Fellow of the RIAI RIAI accredited Grade 1 Conservation Architect Former Lecturer in Architecture, University College Dublin	Member of ICOMOS Ireland Member of the ICOMOS National Scientific Committee on Cultural Tourism	Landscape & Visual impact Assessment

Name	Years Exp.	Professional Qualifications	Professional Affiliations	Role
BDP M&E Consulting Engineers				
Patrick Kavanagh	11	C Eng MIEI, BE Building Services Engineering 1 st Honours BREEAM AP, LEED GA, WELL AP, BER Assessor, DEC Assessor, SEAI Energy Auditor, External Examiner TUD	Member Engineers Ireland, SEAI Energy Auditor, BRE, USGBC	Climate Daylight and Sunlight
Courtney Derry Archaeology & Heritage Consultancy				
Lisa Courtney	26+	BA, MSc, Dipl. Bus. Mgt., Adv. Dipl. in Planning & Env. Law, MIAI	Archaeologist and Cultural Heritage Consultant Member of the Institute of Archaeologists of Ireland (IAI) Member of the International Council of Monuments and Places (ICOMOS)	Cultural Heritage (Archaeology)
Siobhan Deery	23+	BA, MA, H-Dip (Ed.), Adv. Dip. in Planning and Env. Law, MIAI	Archaeologist and Cultural Heritage Consultant Member of the Institute of Archaeologists of Ireland (IAI) Member of the International Council of Monuments and Places (ICOMOS)	
Molloy & Associates Conservation Architects				
Maoliosa Molloy	23	B.Arch., BSc. Arch., MUBC, Dip. Arb., MRIA, RIBA, MCI. Arb., RIAI accredited Grade 1 Conservation Architect		Cultural Heritage (Architectural)
Michael O'Boyle	29	B.Arch., MUBC, MRIA, RIAI accredited Grade 1 Conservation Architect		
Shelly O'Donovan	19	B. Arch P. Grad. Dip RIAI accredited Grade 2 Conservation Architect		
Dr. John Olley	38	BEng, PhD		
Rob Goodbody	18	BA(Mod), DipEP, DipABRC, MA, MUBC, MIPI		
Sunni Goodson	11	BA, Msc Conservation of Historic Buildings, HNC Interior Design		
Scott Cawley Ltd.				
Siofra Quigley	4	Masters in Wildlife Biology and Conservation Zoology		Biodiversity
Niamh Burke	13	BSc Natural Sciences with Environmental Science PhD Salmonid Ecology	Chartered Environmentalist (CEnv) with the Society for the Environment (Soc Env) and a Full Member of the CIEEM	
Meave Maher-McWilliams	10	Biological Sciences Masters in Evolutionary and Behavioural Ecology	Associate member of CIEEM	

Name	Years Exp.	Professional Qualifications	Professional Affiliations	Role
Waterman Moylan Consulting Engineers / Waterman Structures Ltd.				
Stephen Dent-Neville	9	BA BAI in Civil, Structural & Environmental Engineering	MIEI CEng – Chartered Engineer with Engineers Ireland	Land, Soils & Geology & Water
Joe Gibbons	36	Dip Eng (Civil) CEng, MICE	Chartered Engineer	
Brian McCann	39	BE, MSc(Eng), DIC, CEng, Eurlng	Chartered Engineer Fellow Engineers Ireland Fellow Institution of Civil Engineers Member Association Consulting Engineers of Ireland.	Material Assets (Transport)
Fernando Silva	8	BEng (Environmental)	MIEI, CREA-SP	

Table 1.2: List of EIAR Experts.

1.7 Structure of Each Environmental Topic

Each environmental topic (Chapters 5 – 17) of this EIAR has been structured in accordance to the EPA Guidelines 2022, under the headings below.

In the first instance, within each chapter the Masterplan is assessed based on the design / layout at the time of submission (Site 1 – March 2021. Site 3, 4 & 5 – Planning Application made to DCC, June 2021 and all currently subject of pending appeal to An Bord Pleanála). As such, this considers the redevelopment of the entire urban block including the works required to facilitate the provision of the future Metro Station being proposed separately by TII.

Subsequently, each chapter will assess the Proposed Development (Site 2) which is the subject of the planning application to Dublin City Council.

1.7.1 Introduction

All of the relevant introductory text and descriptions for the Chapter are located under this Section.

1.7.2 Methodology

An outline of the methodology employed in the assessment, including where possible a reference to the EPA guidelines.

1.7.3 Receiving Environment (Baseline Situation)

Existing Environment relevant to the environmental factor being assessed for this project.

A dynamic description of the specific environment into which the proposal will fit, taking account of other developments likely to occur. The particular aspects of the environment, for each topic, are discussed in terms of their context, character, significance and sensitivity.

1.7.4 Characteristics of the Proposed Development

Detailed descriptions / descriptions outside the scope of the relevant environmental factors being assessed should be removed. These may be referred to the main project description under Chapter 3: Description of Proposed Development.

The characteristics relevant to the environmental factors being assessed should be considered for the Demolition and Construction and Operational Phases.

1.7.5 Potential Impacts of the Proposed Development

The potential impact of the proposed development includes a general description of the possible types of impacts that projects of this kind would be likely to produce, for Demolition, Construction and Operational Phases.

This includes a consideration of the 'Do-Nothing' impact. The 'Do-Nothing' impact describes the environment, as it would be in the future if no development of any kind were carried out.

Potential impacts without mitigation measures are considered in this section: -

- Construction and Operational Phase Impacts.
- Operational Phase Impacts.
- Do-nothing impacts.

1.7.6 Mitigation Measures

A description of any specified remedial or reductive measures considered necessary, resulting from the assessment of potential impacts.

A description of any post development monitoring of effects on the environment which might be necessary, covering the monitoring methods and the agencies responsible for their implementation.

Where required, a description of reinstatement measures and the agencies responsible for their implementation.

All of the proposed mitigation measures of this EIAR are grouped into Chapter 18: Summary of Mitigation Measures.

1.7.7 Predicted Impact of the Proposed Development

An assessment of the specific impacts of the subject proposal on the environment, as found by expert analysis and judgment, having regard to the receiving environment, the characteristics of the proposal, the potential impacts and any mitigation measures.

The predicted impacts, for both demolition and construction and operational stages, are assessed having regard to their character, magnitude, duration, consequences and significance.

A '**Worst Case**' impact is also considered for both the construction and operational phases of the development: -

- Construction Phase.
- Operational Phase.
- Worst Case impact.
- Interactions.
- Cumulative.

All of the Predicted Impacts of this EIAR are grouped into Chapter 18: Summary of Mitigation Measures.

Interactions and Cumulative Impacts are examined under Chapter 19: Summary of Cumulative Impacts & Interactions.

1.7.8 Monitoring

Required where impact pre-mitigation is potentially significant. Allows for assessment of effectiveness of mitigation measures.

1.7.9 Difficulties Encountered

Required where impact pre-mitigation is potentially significant. Other difficulties include access to site to carry out surveys during restriction in place due to Covid-19.

1.7.10 Bibliography

A list of reference material used in compiling the chapter. This will feed into Chapter 21: Bibliography.

1.7.11 Consultations

A list of consultations held in the course of the preparation of the EIAR, including the following details: -

- Agency / Body.
- Date of Consultation.
- Nature of Consultation (i.e. meeting, email, phone call).

The EIAR team has engaged in consultations, where necessary, with the relevant authorities. It has also engaged with the Design Team. The outcome of this engagement has been identified where relevant in the preparation of each EIAR Chapter.

We refer also to Section 1.9: Public & Stakeholder Consultation, below.

1.8 Assessment of Impacts

Clarity of method, language and meaning are vital to accurately explain the full range of effects. Adherence to a systematic method of description can be of considerable assistance in this matter.

The relevant terms listed in the table below can be used to consistently describe specific effects. All categories of terms do not need to be used for every effect.

1.8.1 Quality of Effects

With regards to the '**Quality of Effects**', it is important that any such effects are clearly identified, especially to non-specialist readers.

These effects which may occur can be characterised into 3 types: positive, negative or neutral.

Firstly, if the proposed element of the project improves the quality of the receiving environment it is seen as a Positive Effect.

Secondly, where such a change does not affect the quality of the receiving environment it can be described as a Neutral Effect.

Finally, Negative /Adverse Effects can be described as a change, which reduces the quality of the environment.

1.8.2 Describing the Significance of Effects

In terms of 'Describing the Significance of Effects', it is outlined under the EIAR Guidelines that such effects are specific to each different environmental topic. Interactions between factors are considered at Chapter 19: Summary of Interactions and Cumulative Impact.

The EIAR Guidelines state that in the absence of specific definitions, there are 7 potential useful definitions set out under Table 1.3.

Type of Effects	Description of Effect
Imperceptible	An effect capable of measurement but without significant consequences.
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight Effects	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities.
Moderate Effects	An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends.
Significant Effects	An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment.
Very Significant	An effect which, by its character, magnitude, duration or intensity, significantly alters most of a sensitive aspect of the environment.
Profound Effects	An effect which obliterates sensitive characteristics.

Table 1.3: Describing the Significance of Effects.

1.8.3 Describing the Extent and Context of Effects'

When 'Describing the Magnitude of Effects', the EIAR will address the: Extent (i.e. Describe the size of the area, the number of sites, and the proportion of a population affected by an effect), Duration (i.e. time period, please refer to Section 5 below for more detail), Frequency (i.e. its recurrence) and Context (i.e. whether the foregoing magnitudes will conform or contrast with established baseline conditions).

1.8.4 Describing the Probability of Effects'

In 'Describing the Probability of Effects', a clear description of effects as outlined above enables the Competent Authority (Dublin City Council and / or An Bord Pleanála) to properly complete an assessment when making a decision. The probability is broken into 2 no. types: -

- The Likely Effects in so far as: The effects can reasonably be expected to occur as a result of the planning project if all mitigation measures are properly implemented.
- The Unlikely Effects in so far as: The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.

1.8.5 Describing the Duration and Frequency of Effects

In describing the Duration of Effects, it is important to acknowledge that different environmental topics have varying concepts of 'Duration'. Therefore, it is acknowledged under EIAR Guidelines 2022, that the following timescales as shown under Table 1.4 below provides a broad definition of useful times: -

Description of Effect	Timescale for each effect
Momentary Effects	Seconds to Minutes
Brief Effects	Less than a day
Temporary Effects	Less than a year
Short-term Effects	Lasting 1 to 7 years
Medium-term Effects	Lasting 7 to 15 years
Long-term Effects	Lasting 15 to 60 years
Permanent Effects	Lasting over 60 years
Reversible Effects	Effects that can be undone, through remediation or restoration.
Frequency of Effects	Describe how often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually)

Table 1.4: Describing the Duration and Frequency of Effects.

1.8.6 Describing the Types of Effects

Under the Guidelines, describing the Types of Effects are identified into 8 different types of, and inter-related effects: -

- **'Indirect Effects'** (also referred to as Secondary or Off site Effects) – effects on the environment, which are not a direct result of the project, often produced away from the project site or because of a complex pathway.
- **'Cumulative Effects'** – The addition of many minor or significant effects of other projects, to create larger, more significant effects.
- **'Do Nothing Effects'** – The environment as it would be in the future should no project of any kind be carried out.
- **'Worst case Effects'** – The effects arising from a project in the case where mitigation measures substantially fail.
- **'Indeterminable Effects'** – When the full consequences of a change in the environment cannot be described.
- **'Irreversible Effects'** – When the character, distinctiveness, diversity or reproductive capacity of an environment is permanently lost.
- **'Residual Effects'** – The degree of environmental change that will occur after the proposed mitigation measures have taken effect.
- **'Synergistic Effects'** – Where the resultant effect is of greater significance than the sum of its constituents, (e.g. combination of SO_x and NO_x to produce smog).

1.8.7 Determining Significance

The above Sections 1.8.1 – 1.8.6 above provide a helpful guide in determination of the significance of the impact. The language described in the above Sections has been used in the preparation of this EIAR.

Figure 1.2 taken from the EPA Guidelines (2022) illustrated how the character of a predicted impact to the sensitivity of the receiving environment can determine the significance of the impact.

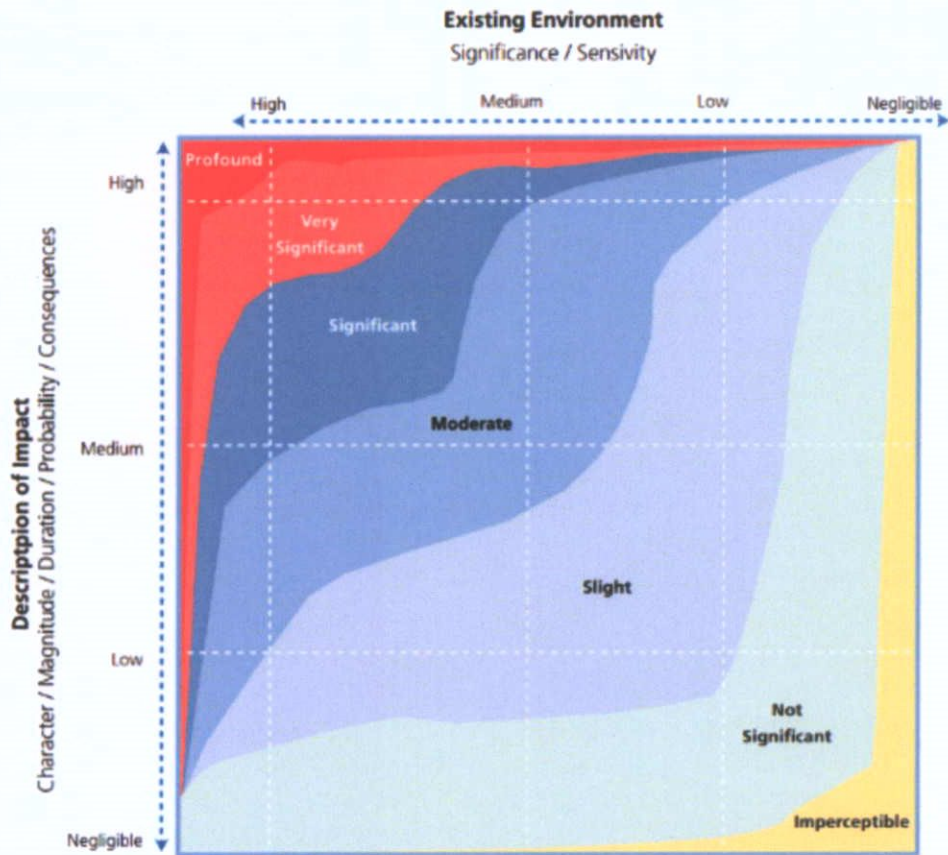


Figure 1.2: Chart showing typical classifications of the significance of impacts (Figure 3.4, EPA Guidelines 2022, page 53).

1.9 Public & Stakeholder Consultation

The structure, presentation and the non-technical summary of the EIAR document, as well as the arrangements for public access, all facilitate the dissemination of the information contained in the EIAR. The core objective is to ensure that the public and local community are aware of the likely environmental impacts of projects prior to the granting of consent.

1.9.1 Submissions in relation to the EIAR

Statutory Consultation

This EIAR and application will be available for inspection free of charge or purchased on payment of a specified fee (which fee shall not exceed the reasonable cost of making such a copy) during public opening hours excluding Bank Holidays at the following location: -

- The Offices of Dublin City Council, Civic Offices, Wood Quay, Dublin 8.

Prescribed Bodies

Prior to submitting the planning application for the Proposed Development, the Applicant has engaged with the following Prescribed Bodies: -

- Transport Infrastructure Ireland.
- Irish Water.
- Irish Aviation Authority.

EIAR Portal

As of the 1 September 2018, there is an obligation on the applicant, where an EIAR has been prepared, to submit the relevant information to the EIA Portal.

The Applicant has submitted an application form, a copy of the public notice and a site location plan to the Department of Housing Planning and Local Government.

A copy of this submission and acknowledgement receipt issued by the Department of Housing Planning and Local Government accompanies the planning application.

1.10 Statement of Difficulties Encountered

No exceptional difficulties were experienced in compiling the necessary information for the proposed development.

Although not a particular difficulty, the Covid-19 restrictions created difficulties in terms of access to all buildings / the Masterplan area to conduct surveys. This was noted as difficulty as part of the preparation of the Chapter 6: Biodiversity.

In preparation of Chapter 13: Material Assets (Transportation) the Covid-19 restrictions created difficulties in terms observing local traffic conditions.

Where any specific difficulties were encountered these are outlined in the relevant chapter of the EIAR.

1.11 Forecasting Methods Used

The methods employed to forecast the effects on the various aspects of the environment are standard techniques used by each of the particular individual disciplines.

The general format followed is to identify the receiving environment, to add to that the 'loading' of the proposed development on the various aspects of the environment considered, to put forward amelioration measures as necessary to lessen or remove a potential impact, and thereby to arrive at a net predicted impact.

1.12 Quotations

EIARs by their nature contain statements about the proposed development, some of which are positive and some less than positive. Selective quotation or quotations out of context can give a misleading impression of the findings of the study.

Therefore, the study team urge that quotations should, where reasonably possible, be taken from the conclusions of specialists' section or from the non-technical summary and not selectively.

1.13 Errors

While every effort has been made to ensure that the content of this EIAR document is error free and consistent there may be instances in this document where typographical errors and / or minor inconsistencies do occur. These typographical errors and / or minor inconsistencies are unlikely to have any material impact on the overall findings and assessment contained in this EIAR.

2 NON-TECHNICAL SUMMARY

This Environmental Impact Assessment Report (EIAR) presents the assessment of environmental impacts and applicable mitigation measures associated with the mixed-use development on a 2.2 Ha site referred to as the Dublin Central Masterplan located in Dublin City Centre. This EIAR also provides an assessment of lands labelled Dublin Central Site 2 and No. 61 O'Connell Street Upper (hereafter, for the purposes of this EIAR, referred to as 'the Proposed Development').

This EIAR has been prepared on behalf of Dublin Central GP Limited ('the Applicant'). This EIAR accompanies 2no. planning application made to Dublin City Council (DCC) for Site 2 and No. 61 O'Connell Street Upper of the Dublin Central Masterplan.

The EU Directive requires the production of a Non-Technical Summary as part of the production of an EIAR. The Non-Technical Summary ensures that the public is made aware of the environmental implications of any decisions on new developments to take place. The Non-Technical Summary is laid out in a similar, but summarised format to the main EIAR, describing the project, existing environment, impacts and mitigation measures.

Assessments have been conducted in an integrated, collaborative and analytical process in accordance with the Guidelines on the environmental topics to be examined. This seeks to identify the potential for significant adverse environmental impacts arising from the proposed project. Where significant adverse environmental impacts have been identified as potentially occurring during the construction and operational phases of the development, specified ameliorative, remedial or reductive measures are identified.

2.1 Purpose of the EIAR

The objective of this EIAR is to identify and predict the likely environmental impacts of the Dublin Central Masterplan and the Proposed Development as well as to describe the means and extent by which they can be reduced or ameliorated, to interpret and communicate information about the likely impacts; and to provide an input into the decision making and planning process.

2.2 A Note on Quotations

Environmental Impact Assessment Reports by their nature contain statements about the proposed development, some of which are positive and some less positive. Selective quotation or quotations out of context can give a misleading impression of the findings of the study.

Therefore, the study team urge that quotations should, where reasonably possible, be taken from the overall conclusions of specialists' section or from the non-technical summary, and not selectively from the body of the individual chapters.

2.3 The Requirement for an EIAR

The process to determine whether an EIA is required for a proposed development is called Screening. This is dependent on the mandatory legislative threshold requirements or the type and scale of proposed development and significance or environmental sensitivity of the receiving environment.

Annex I of the EIA Directive 85/337/EC requires as mandatory the preparation of an EIA for all development projects listed therein. Schedule 5 (Part 1) of the Planning & Development Regulations 2001-2018 brought Annex 1 of the EIA Directive directly into Irish planning legislation. The Directive prescribes mandatory thresholds in respect to Annex I projects. Annex II of the EIA Directive provides EU Member States discretion in determining the need for an EIA on a case-by-case basis for certain classes of project having regard to the overriding consideration that projects likely to have significant effects on the environment should be subject to EIA.

Schedule 5 (Part 2) of the Planning & Development Regulations 2001 – 2018 set mandatory thresholds for each project class. Sub-section 10(b)(iii) and (iv) addresses 'Infrastructure Projects' and requires that the following class of project be subject to EIA: (b)(i) Construction of more than 500 dwelling units. Category 10(b)(iv) refers to 'Urban development which would involve an area greater than 2 hectares in the case of business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.'

Under Schedule 7 & 7A of the Planning and Development Regulations the Proposed Development can be considered sub-threshold given the nature and scale of the proposals.

However, Site 2 and no. 61 O'Connell Street Upper sit within the broader context of the Masterplan which will see the redevelopment of the urban block between Parnell Street, O'Connell Street Upper, Henry Street and Moore Street. The combined site area for the Masterplan is c. 2.2 Ha within Dublin City Centre. This falls under Classes 10(b)(iv) of Part 2 of the Fifth Schedule of the Regulations, namely: "Urban development which would involve an area greater than 2 hectares in the case of business district".

As such, having concluded a screening exercise an Environmental Impact Assessment Report is submitted to the Planning Authority with this Planning Application to consider the potential impacts of the Masterplan and the Proposed Development separately.

2.4 Description of Proposed Development

Dublin Central Masterplan

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

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

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

The Dublin Central Masterplan ('the Masterplan') represents the full development envisaged by the Applicant for the entire of these urban blocks. The Masterplan area has been divided into seven identifiable sites for the purpose of making separate planning applications. The only development 'proposed' at this time is that subject of planning applications for Dublin Central – Site 2 and No. 61 O'Connell Street Upper.

Site 2 is primarily located within the urban block between O'Connell Street Upper and Moore Lane and bounded by No. 42 O'Connell Street Upper to the north and No. 59 O'Connell Street and Henry Place to the south. No. 61 O'Connell Street Upper is bound by No. 62 O'Connell Street Upper to the south, the east side of Henry Place to the west, the west side of O'Connell Street Upper to the east and No. 60 O'Connell Street Upper to the north.

For the purpose of making the planning application for Site, and considering the cumulative effect of the proposed and planned project, the Masterplan represents the interim design for Site 1 (March 2021) and permitted proposals for Site 3 & 4 (DCC Reg. Ref. 2861/21 and 2862/21 respectively refer – granted permission by DCC 12 January 2022 now subject of appeals to An Bord Pleanála) and Site 5 (DCC Reg. Ref. 2863/21 refers – Clarification of Further Information response submitted to DCC in May 2022). This is notwithstanding that further progress on planning design continues to be worked up in the meantime and is ongoing.

MetroLink Enabling Works

The Applicant has agreed a Memorandum of Understanding with the NTA/TII to complete the enabling works that would accommodate the planned future MetroLink O'Connell Street station under Dublin Central Site 2AB and Site 2C. This would also ensure that the Applicant's project is structurally independent of, and not prejudicial to, the TII MetroLink Project. It should be noted that no metro enabling works will be undertaken by the Applicant until the NTA / TII have secured an enforceable railway order.

The 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 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 application or its accompanying EIAR.

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 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 proposed development to ensure that it is structurally independent of, and not prejudicial to, the MetroLink project. It follows that the 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.

Site 2

Site 2 comprises a mixed-use scheme (c. 38,479 sq. m gross floor area) ranging in height from 2 – 8 storeys over single level basements including a new street between O'Connell Street Upper and Moore Lane, a new controlled Laneway from Moore Lane (adjacent No. 42 O'Connell Street Upper – a Protected Structure). The proposed development accommodates: -

- 6no. units for use a 'licensed restaurant / café units with takeaway / collection facility' at ground floor level (Unit 1 – c. 67 sq. m and Unit 2 – c. 244 sq. m on Moore Lane, Unit 3 – c. 178 sq. m and Unit 4 – c. 75sq. m on O'Connell Street Upper, Unit 5 – c. 58 sq. m on New Street and Unit 6 – c. 296 sq. m on Moore Lane and New Street;
- 1no. unit for use a 'licensed restaurant / café units with takeaway / collection facility' across basement, ground, 1st and 2nd floor (c. 878 sq. m) on O'Connell Street Upper;
- 8no. retail units, each for use as a 'shop' or 'licensed restaurant / café units with takeaway / collection facility' at ground floor level (Unit 1 – c. 1,041 sq. m on O'Connell Street Upper and Moore Lane, Unit 2 – c. 311 sq. m and Unit 3 – c. 260 sq. m on O'Connell Street Upper and New Street, Unit 4 – c. 452 sq. m on New Street, Units 5 – c. 251 sq. m on Moore Lane, Unit 6 – c. 162 sq. m and Units 7 – c. 58 sq. m on O'Connell Street Upper and Unit 8 – c. 40 sq. m on Moore Lane and new controlled Laneway); Temporary use of retail Unit 8 (c. 40 sq. m) as a delivery hub, pending the completion of same at Site 5 under DCC Reg. Ref. 2863/21;
- Office use (c. 33,714 sq. m) from 1st to 7th floor with access from O'Connell Street Upper, rear of No. 59 O'Connell Street upper and new plaza on Henry Place and new controlled Laneway. Terrace proposed at 1st, 3rd, 4th, 6th and 7th floor are proposed;

- Refurbishment of the 'Reading Room' (rear of No. 59 O'Connell Street Upper, Dublin 1) as 'licensed restaurant / café units with takeaway / collection facility' at ground floor level and ancillary café use at basement level (c. 244 sq. m in total).
- The single level basement comprises: -
 - Access ramp from Moore Lane.
 - 32no. car parking space.
 - 372no. bicycle parking spaces with access to secure bicycle storage areas from the new plaza on Henry Place and the new controlled laneway from Moore Lane.
 - Plant and waste storage areas.
- A structural box (120m length, 26m width, 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 Transport Infrastructure Ireland, 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. The MetroLink project will be the subject of a separate application for approval to be made by Transport Infrastructure Ireland. This part of the Dublin Central proposed development is referred to as the MetroLink Enabling Works.

All associated and ancillary site development and landscape works, conservation, demolition, landscaping, temporary works, including: -

- Conservation, repair, refurbishment, and adaptive reuse of part of the existing building fabric, including: -
 - Retention of part of the rear of Nos. 59 O'Connell Street Upper (known as the 'Reading Room') internal and external modifications and new shopfronts;
 - Retention of the facades of Nos. 57 – 58 O'Connell Street Upper (Protected Structures);
 - Retention of the facades of Nos. 52 – 54 O'Connell Street Upper (Carlton Cinema – Protected Structures) including the reinstatement of the canopies;
 - Retention of the facades of Nos. 43 – 44 O'Connell Street Upper (Protected Structures);
 - Retention of the facade of No. 45 O'Connell Street Upper;
 - Works to include repair and upgrade works (where required) of retained masonry, external and internal joinery, plasterwork and features of significance;
 - Conservation and repair of existing lightwells on O'Connell Street Upper;
- Demolition of all other existing buildings and structures on site (c. 22,521 sq. m) including No. 13 Moore Lane and No. 14 Moore Lane (otherwise known as Nos. 1 – 3 O'Rahilly Parade and Nos. 14 – 15 Moore Lane or Nos. 1 – 8 O'Rahilly Parade and Nos. 14 – 15 Moore Lane) to facilitate a temporary construction compound;
- Laying of services in Parnell Street westwards from Moore Lane for approximately 49 metres;
- Improvement works to the public realm on O'Rahilly Parade, Moore Lane, Henry Place, including the provision of a new entrance off O'Connell Street Upper for deliveries / emergency access. There are also adjustments and improvement works proposed at the junctions of Moore Street with Henry Place and with O'Rahilly Parade;
- Creation of a new street connecting O'Connell Street Upper with Moore Lane and provision of a new plaza at the junction of Moore Lane and Henry Place;
- 3no. telecommunication lattice towers which can accommodate 3no. 800mm antenna and 2no. 300mm microwave link dishes with associated equipment on the rooftop of Block 2C.
- 2no. ESB sub-stations;

- Building signage zones and retractable canopies.

No. 61 O'Connell Street Upper

No. 61 O'Connell Street comprises the conservation, repair, refurbishment and adaptive reuse of an existing commercial building (4 storey over basement) to include: -

- A licensed restaurant / café unit with takeaway / collection facility unit (c. 35 sq. m gfa) at ground floor level on O'Connell Street Upper and a licensed restaurant / café unit with takeaway / collection facility unit (c. 10 sq. m gfa) at ground floor level on Henry Place;
- 3no. 2bed apartments from 1st to 3rd floor (1no. unit per storey); 1no. gym / leisure studio (c. 172 sq. m gfa) at basement level;

All associated and ancillary site development works, conservation, demolition, landscaping, temporary works, including: -

- The creation of a new pedestrian link through part of the ground floor connecting O'Connell Street Upper and Henry Place;
- Bicycle (8no.) and bin storage to rear of No. 61 O'Connell Street at ground floor level;
- Building signage zones and retractable canopy.

DCC PLAN NO 5126/22
RECEIVED: 26/10/2022

2.5 Examination of Alternatives (Chapter 4)

Potential alternatives to the Proposed Development were considered as the scheme progressed. The 'Do-Nothing' alternative was explored, with a conclusion that a do-nothing approach would be contrary to the Development Plan objectives for the redevelopment of this underutilised, brownfield city centre site to deliver mixed-use development at this highly accessible location.

A number of site layout and alternative designs were considered during the iterative design process in consultation with Dublin City Council. The site's planning history was also considered.

The development as now proposed is considered to have arrived at an optimal solution in respect of making efficient use of zoned, serviceable lands whilst also addressing the potential impacts on the environment relating to residential, visual, natural and environmental amenities and infrastructure.

It is considered that the proposed development is wholly consistent with relevant national and local planning policy, regenerate a key city centre site and minimises the potential for environmental impacts.

2.6 Population & Human Health (Chapter 5)

Masterplan

The Human Health Chapter (Chapter 5) of the EIAR evaluates the impacts if any, of the proposed development on human health, the potential receptors within the environs of the site include commercial businesses, residents and tourists in the area.

The relevant factors where potential human health impacts may occur are due to emissions to air, noise emissions, water, soil, sunlight, material assets, traffic, risk of natural disaster.

The construction of the Dublin Central Masterplan will last 15 years and during that time there will be an overall positive impact on local businesses. Local Amenities and businesses will experience greater use by construction employees. With the use of specified mitigation measures access to the O, Connell Street, Parnell Street, Henry Street, and Moore Street areas will be unimpeded, and tourism should not be significantly impacted.

Once operational there will be Positive, Significant, Long-Term Impacts to local businesses, tourism and amenity. The proposed development will provide public open spaces, community meetings areas, and cultural facilities, all of which will have a significant and positive impact on local amenities.

The proposed development will improve tourism resources in Dublin City Centre City, providing increased tourism accommodation (150 no. bed hotel) which will be augmented by the provision of retails, cafes, restaurants, and community and cultural provisions.

The development is not predicted to give rise to any material impacts (potable water, sewerage, electricity, gas supply) on the resident populations in the site environs, there is sufficient capacity to absorb this proposed development.

As demonstrated in Chapter 9 emissions from both the construction and operation of the proposed development for all scenarios will be compliant with all National and EU ambient air quality limit values and, therefore, will not result in a significant impact on human health.

The noise levels that are encountered at the nearest noise sensitive locations are predicted to be within relevant noise criteria that have been adopted here for the operation of the proposed development and associated infrastructure. These criteria have been selected with due consideration to avoid any potential for human health to avoid both sleep disturbance and normal day to day resting and concentration. The resultant impact on human health is not significant.

The proposed development will not generate any perceptible levels of vibration during operation and therefore is not predicted impact from vibrations on human health.

Traffic Assessments have shown that once operational that any increases in traffic associated with the proposed development will be insignificant in terms of the projected downturn in traffic use in this area.

The impact of the proposed development on sunlight access to the adjacent properties is defined as Not Significant. This is the second lowest definition of impact taken from the Guidelines on the Information to be Contained in Environmental Impact Statements prepared by the Environmental Protection Agency (2022).

Site 2

The Human Health Chapter (Chapter 5) of the EIAR evaluates the impacts if any, of the proposed development on human health, the potential receptors within the environs of the site include commercial businesses, residents and tourists in the area.

The relevant factors where potential human health impacts may occur are due to emissions to air, noise emissions, water, soil, sunlight, material assets, traffic, risk of natural disaster.

The construction of the proposed development will last 11 years and during that time there will be an overall positive impact on local businesses. Local Amenities and businesses will experience greater use by construction employees. With the use of specified mitigation measures access to the O, Connell Street, Parnell Street, Henry Street, and Moore Street areas will be unimpeded, and tourism should not be significantly impacted.

Once operational there will be Positive, Significant, Long-Term Impacts to local businesses, tourism and amenity. The proposed development will provide public open spaces, community meetings areas, and cultural facilities, all of which will have a significant and positive impact on local amenities.

The proposed development will improve tourism and employment resources in Dublin City Centre City, providing increased retails, cafes, restaurants, and community and cultural provisions.

The development is not predicted to give rise to any material impacts (potable water, sewerage, electricity, gas supply) on the resident populations in the site environs, there is sufficient capacity to absorb this proposed development.

As demonstrated in Chapter 9 emissions from both the construction and operation of the proposed development for all scenarios will be compliant with all National and EU ambient air quality limit values and, therefore, will not result in a significant impact on human health.

The noise levels that are encountered at the nearest noise sensitive locations are predicted to be within relevant noise criteria that have been adopted here for the operation of the proposed development and associated infrastructure. These criteria have been selected with due consideration to avoid any potential for human health to avoid both sleep disturbance and normal day to day resting and concentration. The resultant impact on human health is not significant.

The proposed development will not generate any perceptible levels of vibration during operation and therefore is not predicted impact from vibrations on human health.

Traffic Assessments have shown that once operational that any increases in traffic associated with the proposed development will be insignificant in terms of the projected downturn in traffic use in this area.

The impact of the proposed development on sunlight access to the adjacent properties is defined as Not Significant. This is the second lowest definition of impact taken from the Guidelines on the Information to be Contained in Environmental Impact Statements prepared by the Environmental Protection Agency (2022).

No. 61 O'Connell Street Upper

The Human Health Chapter (Chapter 5) of the EIAR evaluates the impacts if any, of the proposed development on human health, the potential receptors within the environs of the site include commercial businesses, residents and tourists in the area.

The relevant factors where potential human health impacts may occur are due to emissions to air, noise emissions, water, soil, sunlight, material assets, traffic, risk of natural disaster.

The construction of the proposed development will last approximately 2 - 3 years and during that time there will be an overall positive impact on local businesses. Local Amenities and businesses will experience greater use by construction employees. With the use of specified mitigation measures access to the O'Connell Street, Parnell Street, Henry Street, and Moore Street areas will be unimpeded, and tourism should not be significantly impacted.

Once operational there will be Positive, Significant, Long-Term Impacts to local businesses, tourism and amenity. The proposed development will provide public open spaces, community meetings areas, and cultural facilities, all of which will have a significant and positive impact on local amenities.

The proposed development will improve tourism and employment resources in Dublin City Centre City, providing increased retails/cafes/restaurants provisions.

The development is not predicted to give rise to any material impacts (potable water, sewerage, electricity, gas supply) on the resident populations in the site environs, there is sufficient capacity to absorb this proposed development.

As demonstrated in Chapter 9 emissions from both the construction and operation of the proposed development for all scenarios will be compliant with all National and EU ambient air quality limit values and, therefore, will not result in a significant impact on human health.

The noise levels that are encountered at the nearest noise sensitive locations are predicted to be within relevant noise criteria that have been adopted here for the operation of the proposed development and associated infrastructure. These criteria have been selected with due consideration to avoid any potential for human health to avoid both sleep disturbance and normal day to day resting and concentration. The resultant impact on human health is not significant.

The proposed development will not generate any perceptible levels of vibration during operation and therefore is not predicted impact from vibrations on human health.

Traffic Assessments have shown that once operational that any increases in traffic associated with the proposed development will be insignificant in terms of the projected downturn in traffic use in this area.

The impact of the proposed development on sunlight access to the adjacent properties is defined as Not Significant. This is the second lowest definition of impact taken from the Guidelines on the Information to be Contained in Environmental Impact Statements prepared by the Environmental Protection Agency (2022).

2.7 Biodiversity (Chapter 6)

The assessment considered the potential direct, indirect and cumulative impacts on biodiversity within the zone of influence of the proposed development. The proposed development consists in the construction of offices, hotels, cultural use in the form of an extension to the National Monument, café/restaurants, residential units, retail units, the inclusion of open space, site development and landscape work, completed across six Sites, on O'Connell Street Upper, Dublin 1. The assessment was undertaken in line with a number of guidance documents including the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018 as updated September 2019).

Baseline ecology surveys were undertaken at the proposed development site in June and July 2020, and April 2022 and included: -

- Habitat and flora surveys;
- Breeding bird surveys;
- Mammal surveys; and
- Bat surveys.

Breeding birds were the only key ecological receptors identified within or occurring within the zone of influence of the proposed development site.

In addition, European and Nationally designated sites were identified as key ecological receptors. The proposed development site does not overlap with any European or nationally designated sites. The nearest European site is South Dublin Bay and River Tolka Estuary SPA, located c. 2.3km to the north east of the proposed development site in Dublin Bay. Surface water drains from the site into the River Liffey, ultimately discharging into Dublin Bay and subsequently South Dublin Bay SAC, North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay pNHA, Dolphins, Dublin Docks pNHA, and North Dublin Bay pNHA. During construction, contaminated surface waters could potentially be transferred to downstream European and National sites via this drainage connection. Despite this viable connection, as concluded in the Hydrological and Hydrogeological qualitative risk assessment (AWN, 2021), Appropriate Assessment Screening (submitted alongside the planning documents) and Biodiversity Chapter reports contained in the EIAR, there will be no likely significant effects on any European or National sites arising from this linkage during construction or during the operation of the proposed development.

Potential impacts arising from the proposed development during the construction phase are considered to be; disturbance and displacement of fauna species, and loss of potential nesting/roosting sites. Potential impacts arising from the proposed development during the operational phase are considered to be: disturbance and displacement of fauna species.

The proposed landscape plan has been developed in order to enhance the site as much as possible and provide opportunities for biodiversity in an urban, city centre development. Landscaping elements will include replacement/new tree, hedge, and bulb planting across various levels of the buildings, including on balconies, podiums, courtyards, and roof terraces. As the majority of these areas will be heavily shaded at times, this is echoed in the species proposed for planting. Perimeter planting of evergreen hedges along roof terraces, will offer screening to the residents, whilst also providing nesting opportunities for birds. Green and blue roofs which are proposed, will benefit invertebrate species, birds and the overall biodiversity value of the site, whilst also filtering rainfall before discharging to the local surface water drains.

Mitigation measures have been proposed, in addition to the design considerations summarised above. All of the mitigation measures will be implemented in full and are industry standard, and tried and tested, effective control measures to protect biodiversity and the receiving environment. Considering the elements included within the design of the proposed development, and the implementation of the mitigation measures in the associated planning application documents to avoid or minimise the effects of the proposed development on the receiving environment, no likely long-term significant residual effects on biodiversity are predicted.

2.8 Land, Soil & Geology (Chapter 7)

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the impact that the proposed mixed-use developments at the Dublin Central Masterplan and also at Site 2AB, Site 2C and 61 O'Connell Street Upper of Dublin Central will have on the surrounding soil and geology in the vicinity of the site. It also sets out mitigation and remedial measures and methods of monitoring once the development is operational.

A full description of the development can be found in Chapter 3: Description of Proposed Development of this EIAR.

Assessment Methodology

A desktop study was carried out to assess existing data from the Geological Survey of Ireland (GSI). This information was supplemented by a review of geotechnical Site Investigations carried out within the Dublin Central site by IGSL in 2008. This comprehensive ground investigation assessed the soil, rock and groundwater conditions across the site.

Receiving Environment

The subject development is located in Dublin City Centre. Topographic survey data shows that the subject site and the surrounding roads are generally flat, at a level of between 4.85m OD Malin and 5.40m OD Malin.

The site is a brownfield site, comprising of numerous buildings including various retail units, restaurants, offices, and derelict buildings. The baseline conditions associated with the Dublin Central Masterplan area are considered to be the same for the individual sites which are subject to this planning application (i.e. Site 2AB, Site 2C and O'Connell Street Upper). The groundwater vulnerability in the vicinity of the site is low.

Intrusive ground investigations were carried out at the site in 2008 by IGSL. Waste Acceptance Criteria (WAC) testing was carried out on soil samples. There was no evidence of significant contamination in any of the samples and the tested parameters, where detected, are at levels generally below the inert WAC.

Potential Impacts

The removal of topsoil during earthworks and the construction of roads, services and buildings, in particular basements and foundations, will expose subsoil to weathering and may result in the erosion of soils during adverse weather conditions. Surface water runoff from the surface of the excavated areas may result in silt discharges to the River Liffey. Excavations for foundations, remaining roadworks and services will result in a surplus of subsoil. Surplus subsoil will be used in fill areas where applicable.

Dust from the site and from soil spillages on the existing road network around the site may be problematic, especially during dry conditions. Accidental oil or diesel spillages from construction plant and equipment, in particular at refuelling areas, may result in oil contamination of the soils and underlying geological structures.

During the operational stage of the development it is not envisaged that there will be any ongoing impacts on the underlying soil as a result of the proposed development.

Mitigation Measures (Ameliorative, Remedial or Reductive Measures)

Building and road levels are designed to minimise the cut and fill balance. Nonetheless, given the proposed new basement areas it is anticipated that there will be a significant surplus of soil to be removed from the site. Surplus subsoil and rock that may be required to be removed from site will be deposited in approved fill areas or to an approved waste disposal facility.

Where contaminated soils are encountered during the works, they will be excavated and disposed of off-site in accordance with the Waste Management Acts, 1998-2006, and associated regulations and guidance. Wheel wash facilities at the construction entrances and regular cleaning of the adjoining road network will prevent the build-up of soils from the development site on the existing public roads. Dampening down measures with water sprays will be implemented during periods of dry weather to reduce dust levels arising from the development works.

Measures will be implemented throughout the construction stage to prevent contamination of the soil and adjacent watercourses from oil and petrol leakages. During excavation works, temporary sumps will be used to collect any surface water run-off thereby avoiding of standing water within the basement and other excavations. Silt traps, silt fences and tailing ponds will need to be provided by the contractor where necessary to prevent silts and soils being washed away by heavy rains during the course of the construction stage.

After implementation of the above measures, the proposed development will not give rise to any significant long term adverse impact. Moderate negative impacts during the construction stage will be short term only in duration.

Residual Impact

With the protective measures noted above in place during excavation works, any potential impacts on soils and geology in the area will be minimised.

The proposed development will result in a surplus of excavated material, which may contain contaminants. Any contaminated material will be exported to an approved licensed waste facility.

No significant adverse impacts on the soils and geology of the subject lands are envisaged.

Monitoring

Monitoring during the construction stage is recommended, including monitoring surface water discharging to the existing drainage network, monitoring cleanliness of the adjoining road network and to ensure prevention of oil and petrol spillages.

Reinstatement

Trenches opened during construction will be backfilled with subsoil to reinstate existing ground levels. Upon completion no impact is foreseen.

2.9 Water (Chapter 8)

Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the impact that the proposed mixed-use developments at the Dublin Central Masterplan and also at Site 2AB, Site 2C and 61 O'Connell Street Upper of Dublin Central will have on the water supply network

in the vicinity of the site. It also sets out mitigation and remedial measures and methods of monitoring while the development is operational.

A full description of the development can be found in Chapter 3: Description of Proposed Development of this EIAR.

Assessment Methodology

Research for this section included a review of Ordinance Survey and Topographical surveys of the subject site and surrounding area and a review of the existing water supply and drainage layouts from Irish Water / Dublin City Council records for the area.

Receiving Environment

There are a number of existing interconnected water supply mains in the vicinity of the Dublin Central Masterplan site. Existing buildings at the subject site are currently fed water by various connections to this existing network.

The drainage network surrounding the Dublin Central Masterplan site consists of combined foul and surface water sewers. Foul and surface water currently run uncontrolled / unattenuated from the Dublin Central Masterplan site, discharging to the existing combined network via several connections.

In addition to the combined drainage network, there is a 225mm concrete surface water sewer in Parnell Street and there is a 375mm concrete surface water sewer in Henry Street approximately 110m west of the Dublin Central site's southern boundary. The site is generally flat, at a level of approximately 5m OD Malin.

Potential Impacts

During the construction of the new foul sewers there is the potential for surface water to be discharged to the existing public foul sewer system due to pipes and manholes being left open.

There is a risk of pollution of groundwater and water courses by accidental spillage of foul effluent during connections being made to live sewers.

There will be a net peak foul water flow of 49l/s discharging to the foul water system serving the Dublin Central Masterplan site. Foul and surface water currently flow uncontrolled / unattenuated from the Dublin Central Masterplan site to the existing combined network. The proposal will result in a net reduction in flows to the network.

The development of the Dublin Central Masterplan will result in a net reduction in the runoff volume through the introduction of SuDS devices and in a reduction in the runoff rate through the introduction of flow control devices and attenuation storage.

Mitigation Measures (Ameliorative, Remedial or Reductive Measures)

Mitigation measures will be implemented on a site by site basis in line with best practice standards. A method statement setting out in detail the procedures to be used when working in the vicinity of existing watermains will be produced by the contractor for any construction works within the vicinity of watermains and for roads or services crossing watermains.

All new foul sewers will be tested by means of an approved air test during the construction stage in accordance with Irish Waters Code of Practice and Standard Details. All private drainage will be inspected and signed off by the design Engineer in accordance with the Building Regulations Part H and BCAR requirements. The connection of the new foul sewers to the public sewer will be carried out under the supervision of Irish Water and will be checked prior to commissioning.

Surface water will be attenuated privately within each site of the Dublin Central Masterplan, and will discharge to the public network at a controlled rate limited to 2l/s from each site. The SuDS treatment

train will treat the surface water discharging to the public network, removing pollutants from the runoff. Maintenance of these SuDS devices will be required to ensure that they continue to treat the surface water as designed.

Residual Impact

No significant adverse impacts are expected to arise during the construction stage if the proposed remedial and reductive measures are implemented.

There will be a water demand for the completed Dublin Central Masterplan of approximately 708m³ per day. Through the introduction of SuDS measures and by removing surface water flows for Site 2A from the combined network, the implementation of the Dublin Central Masterplan will result in a net decrease in the wastewater flows discharging to the existing combined drainage system.

Monitoring

Monitoring will be implemented on a site by site basis in line with best practice standards. Water usage and potential leakage will be monitored by Irish Water using the water meters which will be installed on the supply pipes so that the development can be monitored in sections. The location of these meters will be agreed with Irish Water and the meters will be linked to Irish Water's monitoring system via telemetry. The surface water network (drains, gullies, manholes, AJs, SuDS devices, attenuation systems) will need to be regularly maintained and where required cleaned out. A suitable maintenance regime of inspecting and cleaning shall be incorporated into the safety file/maintenance manual for the Dublin Central Masterplan.

Reinstatement

Any existing roads and footpaths that are opened to facilitate water supply, foul water drainage and surface water drainage connections will be reinstated.

2.10 Climate (Air Quality and Climate Change) (Chapter 9)

AWN Consulting Limited has been commissioned to conduct an assessment of the likely impact on air quality and climate associated with the proposed mixed-use Dublin Central development at O'Connell Street, Dublin.

In terms of the existing air quality environment, baseline data and data available from similar environments indicates that levels of nitrogen dioxide, particulate matter less than 10 microns and less than 2.5 microns are generally well below the National and European Union (EU) ambient air quality standards.

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and compliance with European Union's Regulation 2018/842. The EPA state that Ireland had total ESR GHG emissions of 46.19 Mt CO₂eq in 2021. This is 2.71 Mt CO₂eq higher than Ireland's annual target for emissions in 2021. The EPA predict that Ireland can comply with the GHG targets for 2021 – 2030 provided full implementation of the measures outlined within the Climate Action Plan and the use of the flexibilities available.

Impacts to air quality and climate can occur during both the construction and operational phases of the proposed development. With regard to the construction stage the greatest potential for air quality impacts is from fugitive dust emissions impacting nearby sensitive receptors. Impacts to climate can occur as a result of vehicle and machinery emissions as well as embodied carbon in construction materials. In terms of the operational stage air quality and climate impacts will predominantly occur as a result of the change in traffic flows on the local roads associated with the proposed development.

The UK Institute of Air Quality Management guidance was used to assign a high level of sensitivity to dust soiling impacts to the area in the immediate vicinity of the proposed development. The local area

is considered of low sensitivity to human health impacts from dust emissions. The scale and nature of the construction works were reviewed, and it was determined that a high level of dust control was required for the demolition and construction phases of the proposed development. Once the dust mitigation measures outlined in Appendix 9.2 of Chapter 9 are implemented, dust emissions are predicted to be short-term, negative and imperceptible and will not cause a nuisance at nearby sensitive receptors. Construction phase traffic can also impact air quality, particularly due to the number of HGVs accessing the site. Construction phase traffic emissions were modelled as part of the air quality assessment and are predicted to have a short-term, negative, localised and imperceptible impact on air quality. It is not predicted that significant impacts to climate will occur during the construction stage, impacts to climate are predicted to be short-term, neutral and imperceptible.

Potential impacts to air quality and climate during the operational phase of the proposed development are as a result of increased traffic volumes on the local road network. The changes in traffic flows were assessed against the UK Design Manual for Roads and Bridges (DMRB) screening criteria for an air quality assessment. As the changes in traffic did not meet the screening criteria no air quality or climate assessment was required, and it can be determined that the operational phase of the proposed development will have an imperceptible, neutral and long-term impact on air quality and climate. In addition, the proposed development has been designed to minimise the impact to climate where possible during operation.

The best practice dust mitigation measures that will be put in place during construction of the proposed development will ensure that the impact of the development complies with all EU ambient air quality legislative limit values which are based on the protection of human health. Therefore, the impact of construction of the proposed development is likely to be short-term, localised, negative and imperceptible with respect to human health. Operational phase predicted concentrations of pollutants are predicted to be significantly below the EU standards, the impact to human health is predicted to be imperceptible, neutral and long term.

No significant impacts to either air quality or climate are predicted during the construction or operational phases of the proposed development.

2.11 Climate (Sunlight & Sunlight) (Chapter 10)

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the impact that the proposed development at Site 2 of the Dublin Central masterplan will have on the surrounding environment in relation to daylight, sunlight and overshadowing.

This chapter was completed by Patrick Kavanagh of Building Design Partnership. Patrick is a Chartered Engineer with a BE Hons degree in Building Services Engineering. Patrick is an SEAI Energy Auditor, BER Assessor, LEED Green Associate, BREEAM and WELL Accredited Professional.

The assessment of daylight and impact of overshadowing was prepared using the methodology set out in BRE 209, *'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice'*, Third Edition 2022, by P.J. Littlefair. This is the non-statutory guide referred to in the Dublin City Council Development Plan 2016 – 2022, and sets out guidelines that are most commonly used in Ireland and the UK to assess the impacts of development on daylight, sunlight and overshadowing.

A Daylight, Sunlight and Overshadowing assessment is normally carried out with particular regard to potential impacts on the living spaces and private open spaces of residential properties. In the case of the proposed development, there are no existing residential properties impacted by overshadowing due to the site location and orientation to other existing buildings. This is illustrated in the shadow plans included within the body of the technical report.

The analysis does however investigate the impact that the Proposed Development has on the surrounding buildings as well as the public realm within the ACA. Whilst there are no dwellings impacted by the Site 2 developments the guidance methodology is used to target existing buildings in the study as listed below: -

- No. 70 to 74 Parnell Street.
- No. 37 & 38 O'Connell Street Upper.

- O'Connell Hall and No.42 O'Connell Street.
- No. 59 to 61 O'Connell Street Upper.
- No. 14 to 17 Moore Street.
- No. 6 to 8 Moore Lane.

Two criteria were used as to assess the impact on these existing buildings: -

Criterion 01 (CR01) – A pass is achieved if the percentage loss of sunlight is less than 20%. This percentage is used because BRE 209 suggests that a loss of 20% would represent a noticeable loss of sunlight.

Criterion 02 (CR02) – A pass is achieved if the number of sunlight exposure hours for a specific façade exceed 25% (359.5 hours) of the annual probable sunlight hours (APSH) as recommended by BRE.

O'Connell Hall, No. 42 O'Connell Street and Nos. 6 – 8 Moore Lane have not past Criterion 1 as the impact of Proposed Development will create a “noticeable loss” of sunlight as defined by BRE. It is however important to recognise that these elevations have an atypical access to sunlight given their city centre environment and orientation and so development of any significant scale in this location will necessarily have an impact. All three pass Criterion 2 demonstrating that they still receive access to daylight that would be accepted by BRE.

All other assessed façades comply with Criterion 1 & 2.

With respect to direct sunlight on amenity spaces; the BRE 209 guide recommends that in all relevant amenity spaces; at least half of the area should receive at least **two hours** of sunlight on 21st March. In the context of the Proposed Development, the areas of interest are as follows: -

- New Public Square within the Dublin Central Masterplan.
- Existing pedestrian areas of streetscapes directly adjacent to the proposed development (i.e. Moore Lane, Henry Place and O'Connell Street).

The new public square created in Dublin Central Masterplan receives high levels of sunlight throughout the year with over 90% of the space achieving 2 hours of direct sunlight on the 21st March.

The analysis of the existing public realm within the ACA which includes O'Connell Street Upper, Moore Lane and Henry Place demonstrates that high levels of direct sunlight throughout the year is still achieved post development with approximately 55% of the space achieving 2 hours of direct sunlight on the 21st March complying with BRE 209 recommendations.

It is therefore demonstrated that new and existing amenity spaces will receive high levels of sunlight and the BRE 209 guidelines are met.

The impact of the Proposed Development on sunlight access to adjacent properties is therefore defined as **Moderate Effects**: *An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends.* This definition of impact is taken from the *Guidelines on the Information to be contained in Environmental Impact Assessment Reports* prepared by the Environmental Protection Agency.

The definition is chosen because the scale of the Proposed Development will have an impact on the shadow environment directly adjacent the site; but this change is consistent with a pattern of change that would be reasonable in an urban city centre environment and no neighbouring residential amenity or living space access to daylight and sunlight is materially impacted.

No mitigation measures are proposed as the impact of Sunlight and Daylight is relatively insignificant and considered consistent with development within a city centre environment.

The residual impact on the development is minor as the scale of the development at Site 2 will have a minor impact on the shadow environment but the consequences of this will not be noticeable due to the site orientation and existing urban density of the area.

2.12 Air (Noise & Vibration) (Chapter 11)

Chapter 11 of the EIAR provides information on the assessment of noise and vibration impacts on the surrounding environment during the construction and operational phases of the proposed mixed-use Dublin Central development at O'Connell Street, Dublin.

When considering the potential impacts, the key sources will relate to the short to medium term construction and the long-term impacts associated with the development as a whole once operational.

The existing noise and vibration environments across the development site and in the vicinity of the nearest existing NSLs are dictated by transportation sources in the study area including the existing surrounding road network and Luas line.

The nearest existing residential NSLs to the proposed development are those located at Greeg Court Apartments, to the west site boundary, along Moore Street. The Rotunda Hospital is located to the north of the site boundary on Parnell Street. Apart from the receptors identified above, there are protected buildings identified at 14 to 17 Moore Street to the west of the site boundary. Commercial NSLs include Jurys Inn Hotel Parnell Street and Lynams Hotel, which are located beyond the northern boundary on O'Rahilly Parade and eastern boundary on Henry Place respectively. Other hotels in close proximity to the eastern site boundary are Holiday Inn Express and The Gresham Hotel on O'Connell Street. The existing noise climate in the vicinity of the proposed development has been surveyed. The prevailing noise levels at roadside positions are mainly contributed to by traffic on the busy main road and pedestrian activity, while at positions further from main roads, individual vehicle movements and pedestrian activity are the dominant noise sources.

During the construction stage of the proposed development, the construction activities will involve intrusive works, utilities and structural works and general site works. The assessment has determined that there is the potential for the recommended construction threshold value (75 dB L_{Aeq}) to be exceeded when intrusive works and utilities and structural works are undertaken respectively within 20m and 15m of the immediate site boundary, for commercial and clinical receptors. At residential receptors there is the potential for the recommended construction threshold value (70 dB L_{Aeq}) to be exceeded when intrusive works and utilities and structural works are undertaken within 30m and 15m respectively of the immediate site boundary. The only significant source of vibration is expected to be due to excavations, piling and foundation activities. Due to the distance between the aforementioned works, the vibration transmission would be expected to be below the recommended guidelines criteria.

During the Metro Enabling Works (MEW), specifically the more intensive demolition and D-wall activities, there is potential for the associated construction noise to exceed the threshold values. During piling, excavation and general construction works, predicted noise levels are less and are within the threshold values at the majority of receptors assessed.

The use of best practice noise control measures including screening, hours of operation, scheduling of works within appropriate time periods, strict construction noise limits, liaising with the public and noise monitoring during this phase will aim to minimise impact of construction noise experienced at nearby receivers. Similarly, vibration impacts during the construction phase will be well controlled through the use of low impact equipment and adherence to strict limit values which will be subject to monitoring at the nearest sensitive buildings.

Following implementation of mitigation measures, the residual construction noise impact will be negative, moderate to significant and short-term when intrusive site works are undertaken within 10m of commercial and clinical receptors, and within 15m of residential receptors. At distances between 10m to 15m of the commercial receptors the residual noise impacts are negative, slight to moderate and short-term noise impact. At distances greater than 20m, the residual noise impacts are negative, not significant and short-term. When utilities and structural construction works are within 10m of commercial receptors the residual construction noise impact will be negative, slight to moderate and short-term. At distances greater than 15m, the residual noise impacts are negative, not significant and short-term. There will be a negative, not significant and short-term noise impact during general construction work activities at the closest noise sensitive receptors. Furthermore, these occurrences at closest boundaries will only be short-term and the vast majority of the construction

works will take place at distances from the receptors where no significant impacts are predicted and the construction noise and vibration criteria will be below the recommended construction threshold value.

During the operational stage of the proposed development the outward noise impact to the surrounding environment will include any servicing traffic on surrounding roads and plant noise from the residential and commercial buildings as part of the development.

The impact assessment has concluded that additional servicing traffic associated with the proposed development on local roads will have an insignificant impact on the surrounding noise environment.

Mechanical plant items will be designed to ensure any noise and vibration impacts during this phase will not exceed the recommended limit values at receptors outside the proposed development. The resulting impact is of neutral, permanent and imperceptible impact.

The impact of noise on the development itself has been assessed. Traffic noise along the surrounding roads is the primary noise source making up the noise levels across the development site. Mitigation measures have been recommended to facades overlooking the local road network so that appropriate internal noise levels are achieved.

2.13 Landscape and Visual Impact Assessment (Chapter 12)

Recently approved developments in the area of the Dublin Central site are very large in scale, including developments on O'Connell Street, Parnell Square, Parnell Street, Henry Street and Abbey Street; demonstrating that the surrounding area has a high capacity to absorb development. The scale and height of the approved development at the Jervis Centre is much greater and much taller than anything proposed as part of the Dublin Central Project, and existing developments along Parnell Street West, taken together, are far greater in extent than the whole of the Dublin Central Project.

ARC Consultants carried out an analysis of the potential visibility of development on Sites 2 and No. 61 O'Connell Street Upper from the surrounding urban area, including from 19 representative view locations, and found that from 4 of the locations there was no potential for development on these sites to be visible; and that from only 5 of the representative locations would development on these sites be openly visible. From the 5 locations where development would be openly visible, along O'Connell Street, ARC has assessed that the likely landscape and visual effects as ranging from moderate to significant.

From the remaining 10 view locations, ARC has assessed that the likely landscape and visual effects arising from the existence of development on Sites 2 and No. 61 O'Connell Street would range from imperceptible to slight.

2.14 Material Assets (Transportation) (Chapter 13)

Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) provides an assessment of the impact that the proposed mixed-use development at Site 2AB, Site 2C and 61 O'Connell Street Upper of Dublin Central will have on traffic and transportation.

A full description of the development can be found in Chapter 3: Description of Proposed Development of this EIAR.

Location

The site for the Master Plan development is located in the administrative area of Dublin City Council within the area bounded by Parnell Street, O'Connell Street Upper, Henry Street and Moore Street.

Scope

This Transport Assessment is a comprehensive review of all the potential transport impacts of the development including a detailed assessment of the transportation systems provided and the impact of the proposed development on the surrounding environment and transportation network.

Receiving Environment

The site for the proposed development comprises four city blocks. The blocks include a number of discreet buildings some of which are partly or totally vacant, a number of vacant plots, a number of car parks, van parks and depots and a diverse collection of 3 – 6 storey buildings accommodating a mix of land uses including convenience shops, retail outlets, financial institutions, offices, and other non-retail uses.

The surrounding area is a well-established city centre with a high provision of public transport including bus services and the LUAS Green Line.

Transportation Improvements

Construction of the Parnell Square Contraflow Cycle Facility is in progress.

Public transport improvements proposed include the Bus Connects upgrade of the city network and the provision of a MetroLink station under the proposed development.

Metro Enabling Works

The development will also include Metro Enabling Works for the future underground station at O'Connell Street Upper envisaged or planned at Sites 2AB and 2C as part of the Dublin Central Master Plan and to be undertaken by DCGP Ltd on behalf of TII / NTA in advance of tunnelling and station construction works.

The National Transport Agency (NTA) and Transport Infrastructure Ireland (TII) approached the Applicant in 2018 with a view to locating a future MetroLink Station serving O'Connell Street Upper within the Dublin Central site, in an effort to avoid locating the Station within the central median of O'Connell Street Upper. TII is in the process of finalizing the design of the MetroLink project.

The Applicant has agreed a Memorandum of Understanding with the NTA/TII to complete the enabling works that would accommodate the future station, but which would also ensure that the Applicant's project was structurally independent of, and not prejudicial to, the MetroLink project. These enabling works comprise the provision of a structural 'box' positioned below ground, within which the MetroLink project can be positioned and above which the Applicant's project can be constructed. The provision of this structural box (sometimes referred to as the "Station Box") and its ancillary works below ground are known collectively as the Metro Enabling Works (MEW) in the context of the Applicant's overall Dublin Central project.

The provision of the MetroLink O'Connell Street Upper Station and its associated tunnel works would be completed by the NTA/TII once ready to do so and subject to the required consents being in place. It is envisaged that the MEW works would be completed in advance of the NTA/TII tunnel boring machines reaching the area.

Timescale

The overall development of Dublin Central is programmed to commence in 2023 with completion some eleven years later in 2034.

Traffic Impact

During the Construction and Operational Stages, the trips expected to be generated by the proposed development will not exceed the 5% of the traffic on the adjoining roads which is the traffic threshold for a Transport Assessment. As a result, there will be minimal traffic impact on the surrounding road network during and post construction.

Mitigation Measures

Servicing and deliveries will be managed during the Operational Stage under the Servicing Strategy for Dublin Central.

Traffic and other movements on the road network during the Construction Stage will be managed under the Construction Traffic Management Plan and by carrying out the works in a number of stages to a sequence to be prepared in conjunction with Dublin City Council and implemented by the main Contractor.

During the Operational Stage, transportation movements will be managed by the *Travel Plan* promoting best practise mobility management and travel planning to provide for the necessary mobility via sustainable transport modes.

Residual Impact

The residual impact of the Construction Stage on the transportation environment in the area of the subject site is predicted to be temporary, short-term, slight, and negative.

The residual impact of the Operational Stage on the transportation environment in the area of the subject site is predicted to be permanent, long-term, slight, and positive.

2.15 Material Assets (Waste) (Chapter 14)

Masterplan

AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Dublin County Council as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

During the demolition and construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. Construction of basements, construction of new foundations and the installation of underground services will require the excavation of estimated 163,490m³ of material. 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. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 14.1) during the demolition and construction phases will ensure that the effect on the environment will be short-term, neutral and imperceptible.

During the operation phase, waste will be generated from the residents as well as the commercial tenants. Dedicated waste storage areas have been allocated throughout the development for residents and commercial tenants. The waste storage areas have been appropriately sized to accommodate the estimated waste arisings in both residential and commercial units. The waste storage areas have been allocated to ensure a convenient and efficient management strategy with

source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste, glass, cardboard and plastic, as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil, furniture and abandoned bicycles (Appendix 14.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Provided the mitigation measures outlined in Chapter 14 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, neutral and imperceptible.

DCC PLAN NO 5126/22
RECEIVED: 26/10/2022

Site 2

AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Dublin County Council as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

During the construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. Constructions of basements, new foundations and the installation of underground services will require the excavation of c.15,165m³ excavated material will need to be removed offsite from phase 2 AB and , c. 132m³ from phase 2 C. The excavated materials will be required to be exported off site due to the limited chances for reuse on site. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 14.1) during the construction phase will ensure that the effect on the environment will be long-term, imperceptible and neutral.

During the operation phase, waste will be generated from the residents as well as the commercial tenants. Dedicated waste storage areas have been allocated throughout the development for residents and commercial tenants. The waste storage areas have been appropriately sized to accommodate the estimated waste arisings in both residential and commercial units. The waste storage areas have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste, glass, cardboard and plastic, as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil, furniture and abandoned bicycles (Appendix 14.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Provided the mitigation measures outlined in Chapter 14 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.

No. 61 O'Connell Street Upper

AWN Consulting Ltd. carried out an assessment of the potential impacts associated with waste management during the construction and operational phases of the proposed development. The receiving environment is largely defined by Dublin County Council as the local authority responsible for setting and administering waste management activities in the area through regional and development zone specific policies and regulations.

During the demolition and construction phase, typical C&D waste materials will be generated which will be source segregated on-site into appropriate skips/containers, where practical and removed from site by suitably permitted waste contractors to authorised waste facilities. Where possible, materials will be reused on-site to minimise raw material consumption. Source segregation of waste materials will improve the re-use opportunities of recyclable materials off-site. Construction of basements, construction of new foundations and the installation of underground services will require the excavation of a small quantity of material. 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. Excavated material which is to be taken offsite will be taken for offsite reuse, recovery, recycling and/or disposal.

A carefully planned approach to waste management and adherence to the site-specific Resource and Waste Management Plan (Appendix 14.1) during the demolition and construction phases will ensure that the effect on the environment will be short-term, neutral and imperceptible.

During the operation phase, waste will be generated from the residents as well as the commercial tenants. Dedicated waste storage areas have been allocated throughout the development for residents and commercial tenants. The waste storage areas have been appropriately sized to accommodate the estimated waste arisings in both residential and commercial units. The waste storage areas have been allocated to ensure a convenient and efficient management strategy with source segregation a priority. Waste will be collected from the designated waste collection areas by permitted waste contractors and removed off-site for re-use, recycling, recovery and/or disposal.

An Operational Waste Management Plan has been prepared which provides a strategy for segregation (at source), storage and collection of wastes generated within the development during the operational phase including dry mixed recyclables, organic waste, mixed non-recyclable waste, glass, cardboard and plastic, as well as providing a strategy for management of waste batteries, WEEE, printer/toner cartridges, chemicals, textiles, waste cooking oil, furniture and abandoned bicycles (Appendix 14.2). The Plan complies with all legal requirements, waste policies and best practice guidelines and demonstrates that the required storage areas have been incorporated into the design of the development.

Provided the mitigation measures outlined in Chapter 14 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, neutral and imperceptible.

2.16 Cultural Heritage (Architectural) (Chapter 15)

The Dublin Central Masterplan Area is divided into six sites intended to be developed by Dublin Central GP Limited, who acquired the property in 2016 with a view to redesigning a previously permitted large-scale development (DCC Reg. Ref. 2479/08 – An Bord Pleanála Reg. Ref.PL29N.232347) within a renewed masterplan. 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.

Chapter 15 primarily reviews the proposed development of Sites 2AB and 2C (referred to as the 'combined' Site 2 in the chapter), and 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 combined Site 2 contains protected structures (upper facades as included in the current 2016-2022 City Development Plan) with No.61 O'Connell Street also having corresponding protection. The

entirety of the site under review in this chapter is within the O'Connell Street Architectural Conservation Area; shares boundaries to the north and south with protected structures and opposes the rear Moore Lane boundary of Nos.14-17 Moore Street, protected structures and a National Monument to the west. The Dublin Central Masterplan Area as a site abounds and is in proximity to protected structures and forms a considerable mass within the ACA.

In recognition of the cultural and architectural complexity of the Masterplan Area, a Dublin Central Masterplan Area Conservation Management Plan was prepared to set site-specific objectives and recommended policies as a mechanism to frame its appropriate redevelopment. The Plan and its extensive research has informed the development and provides a framework for assessing impacts.

Chapter 15 summarises the identification of structures of heritage significance within and in the environs of the development site. It refers to the recording of all building fabric on the site and observes the qualification of the significance of each building as informing a strategy of viable and purposeful retention and adaptive re-use. These baseline assessments have led to the retention of an 18th century building, the former Reading Room to the rear of No. 59 O'Connell Street and No. 61 O'Connell Street, who were both scheduled for demolition under the previously permitted development.

It is proposed to demolish and redevelop all other non-protected building fabric in the terrace in the amalgamation of plots and provision of replacement buildings, new pedestrian links and public spaces.

The chapter reviews aspects of change arising from the physical, visual or morphological effects for architectural and cultural heritage as a consequence of the proposed development, using a number of resources including the Record of Monuments and Places, the Dublin City Development Plan, cartographic and documentary sources and visual inspections of the building fabric.

The chapter examines predicted inter-relationships between the development and its singular and collective interactions with architectural heritage in the vicinity of the site, assessing potential impacts for the fabric, character and morphological setting of that heritage.

The assessment acknowledges key characteristics of the Architectural Conservation Area as enclosed by the boundaries of the development site and reviews potential impacts the development may present for its character.

Ameliorative measures are proposed where necessary to safeguard features of interest within and adjoining the site. The implementation of other mitigation measures detailed in the Chapter will ensure that the effect during the construction phase is neutral and imperceptible.

2.17 Cultural Heritage (Archaeology) (Chapter 16)

Introduction

The Dublin Central Masterplan area lies in the heart of Dublin City on the northern side of the River Liffey. The site is low lying and occupies ground that gently slopes south towards the Liffey. It lies partly within the statutory zone of archaeological potential (ZAP) for the Historic City of Dublin, RMP No. DU018-020. It is outside the medieval precinct walls of St. Marys Abbey in the area of the city that was predominantly developed in the early 18th century. It is south of Parnell Street (formerly 'Great Britain Street') which runs along the line of an ancient routeway/road that dates from at least the Late Medieval period. It is entirely urban in nature, composed of hard standing, buildings, and artificial surfaces. Since the 18th century the area has been subject to sequences of construction, infill, some demolition, and reconstruction within each property plot.

The surviving upstanding properties and relict remains of historic and architectural heritage merit are examined in detail in the Chapter 15: Cultural Heritage (Architectural).

Potential Impacts – Dublin Central Masterplan Area

The Dublin Central Masterplan area is located in the ZAP for the historic city of Dublin (RMP DU018-020). This is a zone of high archaeological potential relating to the development of the city since the earliest of times. Despite the intensive development of the area during the 18th to 20th centuries, which may have truncated or removed entirely the archaeology in its wake, the assessment has revealed the possibility for earthmoving works in this part of the city to encounter archaeological sites, soils or features associated with the following: -

Early Medieval and Medieval Potential

- The findspots of scattered burials associated with a Viking cemetery site (DU018-020495) is concentrated on the northern side of Parnell Street. The Viking burials have been found at 3.50m below present ground level in subsoil. Topographically the burial site is likely to have taken advantage of a high ridge overlooking the former Liffey estuary and a major routeway that ran along Parnell Street. The excavation of two large sites south of Parnell Street and north of O'Rahilly Parade adjacent to the Masterplan area did not identify any human remains.
- The site lies outside the walled precinct of St. Mary's Abbey, which in medieval times dominated the eastern lands of the northern suburb of the historic core. It is considered unlikely given the distance from the walled precinct that any structural remains associated with the abbey would be identified in the Masterplan area. Should features survive it is likely to be in the form of medieval cultivated soils and/or agricultural features, such as ditches, and boundaries.

Whilst the potential to reveal medieval remains is generally low, there may be undisturbed clays to the rear of the properties in the various blocks, which do not have cellars/basements. These are depicted as open yards in Rocque's 1756 and Scale's 1773 maps, it is in these locations were the highest potential lies to reveal these remains should they be present.

Post Medieval Potential

- There is a significant potential that features associated with the 18th century 'site of' a brickworks (DU018-020506) might be encountered during the earthmoving works. In addition to this, the former brickfield quarry pit was backfilled in the 18th century with up to 2m of reclamation deposits representing domestic refuse from the city, this infill material was mostly organic but also contained ceramics, glass and metal.
- Archaeological testing was undertaken in two vacant plots within the Masterplan area, at Nos 40-41 O'Connell Street and Nos 50-51 O'Connell Street (Licence Number 20E0649) and full excavation has taken place on two sites on Parnell street, north of the western side of the Masterplan Area. The results of these excavations indicate the possible and most representative archaeological findings for the development lands, they would potentially include a complex of house foundations, walls, vaults, drains, cobbled surfaces, and other features dating from the early 18th century and later. They are likely to extend across the entire site.

Nos. 14 – 17 Moore Street

- There will be a potential impact on the National Monument PO boundary where its boundaries are shared with Site 4. Proposed works in proximity to the National Monument, will include those associated with the demolition of existing buildings at Nos 18 and 19 Moore Street back to Moore Lane (10-11 Moore lane), No 13 Moore Street and its rear yard, and the retention works associated with 6-8 Moore Lane. The assessment of the potential impact on the physical fabric of the structures are described in Chapter 15 (Cultural Heritage -Architectural).
- From an archaeological perspective there is a potential that demolition of the adjacent structures or earthmoving works might reveal material remains associated with the 1916 Rising, for example, guns or other munitions buried or otherwise concealed around the

monument or backfilled into cellars in areas that are not currently visible or accessible. The discovery of such material would add to our knowledge of the battle and would ultimately form part of the national collection and interpretation of the site.

- Site preparation, enabling and earthmoving works in the vicinity of the National Monument has the potential to impact on below ground in-situ archaeological remains predating both the Georgian terrace and the development of the urban block. Test excavation of archaeological deposits in proximity to and within the national monument, has revealed infill organic deposits up to 2m in depth which are consistent with the recorded archaeological profiles found in this area of the ZAP for the Historic City of Dublin. This material, though of archaeological interest will not be critical to our understanding of the 1916 Rising event, and the significance attached to the buildings on Moore Street (Nos. 14 – 17). The findings will enhance our knowledge of the eastern development of the city in the 18th century.
- Site 2 is located to the east of the National Monument of Nos. 14 – 17 Moore Street (located c.20m from No. 17 Moore Street and to 31m to No. 9 Moore Lane). The development will have no impact on the properties. During the site preparation stage of Site 2 protection to the National Monument will be put in place. The protection zone to the National Monument will be removed upon completion of the construction works.
- The development of the Masterplan area preserves the grid of laneways within the block and as such the key views that support the interpretation of the 1916 events i.e., the existing sight lines along Moore Lane and the lack thereof along Henry Place. In addition, based on a full understanding of the historic fabric of the structures facing the lanes the proposed development will retain structures of historic interest (i.e., No 10 Moore Street, Nos. 20 – 21 Moore Street, Nos 6 – 8 Moore Lane and No 17 Moore Lane). The historic kerbs and stone sett pavements on O'Rahilly Parade and Moore Lane will be recorded in-situ, reworked and re-laid in suitable locations along the laneway. The retention of these historic elements will have an overall positive effect on the National Monument and its future use as a commemorative centre. They will enhance the experience of the public realm and will assist in the legibility of the 1916 events and how they unfolded, thus reinforcing the interpretation and experience of the national monument.

Potential Impacts – Site 2

There will be a direct impact on any subsurface archaeological features that might be encountered during the enabling, earthmoving and piling works within Site 2. Bulk excavation work to the piling mat level to a depth of 4.5m below the present ground level (BPGL) across the site will be carried out. This will remove any surviving historic building foundations and historic fill deposits that can be expected to exist on the site (on the basis of the evidence from surrounding sites as outlined above). It is estimated that any surviving archaeology would be encountered up to 3m BPGL at above the MEW bulk excavation works.

Potential Impacts – Site 2 Public Realm Works

As part of the future development proposals within the existing public streets / laneways, it will be necessary to identify, locate and decommission the historic utility services, which will involve opening up works along the laneways. New services are also proposed along the laneways and the historic paving will need to be lifted to facilitate this work. In addition, the lanes will also be used for construction access, and it would be challenging to secure the protection of an in-situ pavement beneath an active construction corridor (damage from existing traffic is evident). As part of the development, it is proposed to lift the surfaces and the kerbing and keep them securely off-site until they can be re-laid in the most suitable locations.

Potential Impacts – No. 61 O'Connell Street Upper

The proposed development of No. 61 O'Connell Street consists of the refurbishment of the building for residential use. The development will not involve excavation below the present basement level. Any archaeological remains that might survive beneath the existing basement will be retained in-situ and not impacted by the development.

Cumulative impacts

Considering the predicted impacts on archaeology, the mitigation measures proposed to identify and record the archaeological resource and the receiving environment, and the protective policies and objectives of the Dublin City Development Plans that will direct future development locally, significant cumulative negative effects on archaeology are not predicted.

General Mitigation

The following archaeological mitigation measures will be carried out within the Dublin Central Masterplan area under licence to the DHLGH: -

Monitoring

A programme of archaeological monitoring will take place at the pre-construction, site preparation and enabling works/ early stages of construction where any preparatory ground reduction works are required. This will be carried out in order to establish the presence or absence, as well as the nature and extent, of any archaeological deposits, features or sites that may be present, where ground investigation and earth-moving works are taking place. This will include the survey and recording of any surviving 18th century structures that may be revealed.

Test Excavation

Given that the development is within the ZAP for Dublin (DU018-020), an archaeological assessment and test excavation will be required. The testing will be carried out during the post demolition phase in areas where it is possible and safe to do so. It will be strategic and focused in areas where there are no existing basements. The testing will establish the nature and the level of disturbance across the site.

Excavation

In the event that archaeological features or deposits exist, the mitigation for development impact will involve an archaeological excavation which will be integrated into the early phases of the site's development programme. Archaeological excavation will ensure that this removal is systematically and accurately recorded, drawn and photographed, to achieve a full descriptive paper and digital archive, thereby adding to the archaeological record and to the knowledge of a specified area.

The results will be compiled in detailed reports which will be submitted to Dublin City Council and to DHLGH and the National Museum of Ireland in compliance with the awarding of a licence.

All mitigation measures will be carried out in accordance with an approved method statement which will be agreed in advance with the City Archaeologist.

Public Realm Works

The in-situ recording, cleaning and sequential lifting of the historic paving on Moore Lane and O'Rahilly Parade will be carried out by conservation contractors in association with the site archaeologist and conservation architect. It will be carried out in accordance with best practice as set out in the Department of Arts Heritage and Gaeltacht (now DHLGH) and Dublin City Council 2015 Advice Series 'Paving -the conservation of historic ground surfaces.'

A thorough record will be carried out during the site preparation/ enabling works stage of construction, that is, when the streets are safely closed to the public, and the heritage consultants can carry out the careful removal of tarmac and cement to complete a record and condition survey. The results of survey will identify where and how the setts will be re-laid.

A detailed methodology of the lifting, transport soring and reinstatement of the setts will be submitted to the heritage authority for prior approval.

Works in the vicinity of the National Monument Nos. 14 – 17 Moore Street

Appropriate conservation methodologies will be employed on all works carried out adjacent to the National Monument (see Chapter 15). The investigation, demolition, earthmoving and construction works within the previously defined assessment area for works in proximity to the National Monument for the development of Site 4 in the Masterplan area will require ministerial consent under Section 14 of the National Monuments Act (as amended). The consent application will be supported by detailed method statements compiled by the integrated conservation team for the Dublin Central project (comprising a conservation architect, structural conservation engineer, architect and archaeologist). This will include an archaeological strategy. The archaeological mitigation in the vicinity of the National Monument will as a minimum include archaeological monitoring of site investigation works, site preparation and temporary works as required including site clearance, post demolition testing will be carried out after demolition in the areas to the rear of Nos 18 and 19 Moore Street and in the rear yard of No. 13 Moore Street to establish the depth and nature of the infill material associated with the backfilling of the brickfield quarry. Archaeological excavation of archaeological soils or features that are encountered and impacted by the proposed development and the archaeological monitoring of earthmoving works.

During the site preparation stage of Site 2 protection to the National Monument (3m wide protection zone) will be put in place and be removed upon completion of the construction works.

General

Archaeological testing, monitoring and excavation will be carried out under licence from the DHLGH and the National Museum of Ireland, and will ensure the full recognition of, and the proper excavation and recording of all archaeological soils, features, finds and deposits which may be disturbed below the ground surface.

As the Site 2 work will include MetroLink Enabling Works (MEW) works on behalf of Transport Infrastructure Ireland (TII), the mitigation measures will be carried out in line with the most up to date version of the MetroLink Cultural Heritage Strategy, which is a live iterative document, and the Code of Practice for Archaeology (2017) between the Minister for the Department of Housing, Local Government and Heritage and TII.

These proposed strategies do not prejudice any further recommendations made by the Department, who may seek additional information or consider alternative strategies.

All archaeological issues shall be resolved to the satisfaction of the DHLGH and the National Museum of Ireland.

2.18 Risk Management (Chapter 17)

This assessment describes the proposed development in respect of its potential vulnerability to major accidents / disasters. It also considers the potential for the development to give rise to major accidents / disasters.

The scope and methodology of this assessment is based on the understanding that the proposed development will be designed, built and operated in line with best international current practice. As such, major accidents resulting from the proposed development would be very unlikely.

A risk analysis-based methodology that covers the identification, likelihood and consequence of major accidents and / or disasters has been used for this assessment. There are no Seveso sites in the vicinity of the site.

No potential scenarios during the construction phase were identified as requiring further assessment.

Two scenario with the highest risk score for a major accident and / or disaster was an 'incident at nearby Luas Station' and 'incident on future MetroLink'. These were identified as being 'very unlikely' to occur, but which would have 'very serious' consequences should it do so. This indicated a 'medium risk scenario'.

The Global Terrorism Index (GTI) is a comprehensive study analysing the impact of terrorism for 163 countries and which covers 99.7 per cent of the world's population. In 2018, Ireland ranked as the 65th country most impacted by terrorism of the 163 countries. Whilst the National Risk Assessment 2019 has identified the risk to Ireland from both domestic and international terrorism, there are no similar 'recorded incidents or anecdotal evidence' of attacks of this magnitude in Ireland. No mitigation is put forward specifically to deal with major accidents, however the mitigation proposed in other EIAR Chapters, along with the Outline Construction & Demolition Management Plans will collectively mitigate the risk of major accidents and disasters.

2.19 Summary of Mitigation Measures (Chapter 18)

This Chapter provides a summary of all the mitigation and monitoring measures proposed throughout the EIAR document for ease of reference for the consent authority and all other interested parties.

2.20 Summary of Residual Impacts (Chapter 19)

This Chapter provides a summary of all the residual impacts identified throughout the EIAR document for ease of reference for the consent authority and all other interested parties.

2.21 Summary of Cumulative Impacts & Interactions (Chapter 20)

This Chapter identifies the principle interactions between the potential impacts of the environmental factors identified in Chapters 5 – 17 inclusive, and as well as cumulative impacts arising based on best scientific knowledge.

All potential interactions have been addressed as required throughout the EIAR. During each stage of the assessment contributors have liaised with each other (where relevant) to ensure that all such potential interactions have been addressed.

3 DESCRIPTION OF PROPOSED DEVELOPMENT

3.1 Introduction

This chapter of the Environmental Impact Assessment (EIA) provides a Description of Proposed Development which will be assessed as part of the EIA process. The phrase 'Proposed Development' is used to describe the entire of the proposed development within 2no. separate and concurrent planning applications for Site 2 and No. 61 O'Connell Street. Site 2 is subdivided into Site 2AB and Site 2C with ACME / RKD Architects the lead Architect for Site 2AB and Grafton Architects the lead Architect for Site 2C and for the avoidance of doubt is 1no. planning application. This use of the phrase 'Proposed Development' within the EIA should not be confused with the separate proposed development that is the subject of each of the 2no. separate and concurrent planning applications.

The description of the Proposed Development provides details of this project which requires planning consent. It includes a description of the location of the project and its physical and environmental characteristics. The description of development as set out in this chapter is also set out in the following chapters prepared by consultants specialising in the environmental topics subject of the chapters. Detail of the Dublin Central Masterplan which underpins the Proposed Development is set out below also.

In line with the EIA Directive a description of the application site, design, size and scale of development are also discussed within this chapter. Consideration is also given to all relevant phases of development from construction through to operation. This chapter provides a broader summary description of the proposed development that is subject of this EIA. The environmental impacts of the proposed development are then examined for each of the prescribed environmental topics discussed in turn under Chapters 5 – 17. A summary of the proposed mitigation measures are set out in Chapter 18: Summary of Mitigation Measures. The residual impacts of the proposed development are summarised under Chapter 20: Summary of Residual Impacts.

MetroLink Enabling Works

The Applicant has agreed a Memorandum of Understanding with the NTA/TII to complete the enabling works that would accommodate the planned future MetroLink O'Connell Street station under Dublin Central Site 2AB and Site 2C. This would also ensure that the Applicant's project is structurally independent of, and not prejudicial to, the TII MetroLink Project. It should be noted that no metro enabling works will be undertaken by the Applicant until the NTA / TII have secured an enforceable Railway Order.

The 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 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 application or its accompanying EIA.

In the event that no Railway Order is granted for the MetroLink project, any Railway Order granted modifies the MetroLink project at this location, any Railway Order granted for the MetroLink project does not come into operation, the MetroLink project is otherwise 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.