Limerick City and County Council

Limerick Urban Centre Revitalisation - O'Connell Street

Report for EIA Screening

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Contents

1 Introduction

Arup has been appointed by Limerick City and County Council (LCCC) to undertake an Environmental Impact Assessment (EIA) Screening appraisal for the Limerick Urban Centre Revitalisation – O'Connell Street (LUCROC) project.

This EIA Screening report contains necessary information to enable the competent authority, in this case LCCC, to undertake an EIA screening assessment and determine whether an EIA is required. The statutory consent process for the proposed scheme will vary dependent on the outcome of the EIA screening assessment, with the application being made to either LCCC (if no EIA is required, under Part 8 of the Planning and Development Regulations, 2001 to 2018 – the Regulations), or to An Bord Pleanála (if an EIA is required, under Part 10 of the Regulations). This document sets out the results of the EIA Screening and provides the competent authority, LCCC, with the information necessary to undertake the EIA screening assessment in respect of the proposed development.

2 Legislation and Guidance

2.1 Introduction

This section describes the relevant European, national and local legislation for this EIA screening report.

2.2 Overview

The current requirements for EIA are set out by the European Union in Council Directive 2011/92/EU, as amended by Directive 2014/52/EU (EIA Directive[1]). This legislation guides member states on the assessment of the effects of certain public and private projects on the environment.

The 2014 EIA Directive came into effect in May 2017 and was transposed into Irish legislation as the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (S.I. No. 296 of 2018). In Ireland, the requirements for EIA in relation to planning consents are specified in Part X of the Planning and Development Act, 2000 to 2018 (the Act), and in Part 10 of the Regulations. A review of this legislation was undertaken for the purpose of this EIA screening report.

The following guidance and consultation documents have also been considered during the preparation of this report:

- Department of Housing, Planning, Community and Local Government (2017) *Transposition of 2014 EIA Directive (2014/52/EU) in the Land Use Planning and EPA Licencing Systems*;
- Department of Housing, Planning, Community and Local Government (2017) *Implementation of Directive 2014/52/EU on the effects of certain public and private projects on the environment (EIA Directive): Advice on the Administrative Provisions in Advance of Transposition*;
- Department of the Environment, Community and Local Government (2013) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*;
- Department of the Environment, Heritage and Local Government (2003) Environmental Effect Assessment (EIA) *Guidance for Consent Authorities regarding Sub-Threshold Development*;
- Environmental Protection Agency (2017) *Revised Guidelines on the Information to be contained in Environmental Impact Statements (Draft August 2017)*;
- Environmental Protection Agency (2015) *Advice Notes for Preparing Environmental Impact Statements Draft September 2015*;

[1] All references in this report, to 'the EIA Directive', or 'the Directive', relate to EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU

- Environmental Protection Agency (2003) *Advice Notes on Current Practice in the Preparation of Environmental Impact Statements*;
- Environmental Protection Agency (2002) *Guidelines on the Information to be contained in Environmental Impact Statements*; and
- European Commission (2017) *Environmental Impact Assessment of Projects Guidance on Screening.*

2.3 EIA Directive 2014/52/EU

A European Directive for EIA has been in force since 1985 since the adoption of Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment.

The EIA Directive of 1985 has been amended three times by Council Directives 97/11/EC, 2003/35/EC and 2009/31/EC. It was ultimately codified and repealed by Council Directive 2011/92/EU on 13 December 2011. This Directive was further amended in 2014 by Council Directive 2014/52/EU which sets out the current requirements for member states on the assessment of the effects of certain public and private projects on the environment. The EIA Directive sets out the requirements of the EIA process, including screening the need for an EIA. Projects listed in Annex I of the EIA Directive require a mandatory EIA whilst projects listed in Annex II require screening to determine whether or not an EIA is required.

The proposed development does not require a mandatory EIA under the provisions of the EIA Directive as it does not meet the development criteria outlined in Annex I, and therefore a mandatory EIA is not required.

The proposed development may be classified as an 'urban development' under the provisions of Annex II *(10. Infrastructure Projects (b) Urban development projects, including the construction of shopping centres and car parks)* and therefore assessment is required to determine the need for an EIA, i.e. through this screening report.

Articles 4(4) and 4(5) of the EIA Directive set out the requirements for EIA screening of Annex II projects as follows:

> *"4(4) Where Member States decide to require a determination for projects listed in Annex II, the developer shall provide information on the characteristics of the project and its likely significant effects on the environment. The detailed list of information to be provided is specified in Annex IIA. The developer shall take into account, where relevant, the available results of other relevant assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The developer may also provide a description of any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.*

4(5) The competent authority shall make its determination, on the basis of the information provided by the developer in accordance with paragraph 4 taking into account, where relevant, the results of preliminary verifications or assessments of the effects on the environment carried out pursuant to Union legislation other than this Directive. The determination shall be made available to the public and:

(a) where it is decided that an environmental effect assessment is required, state the main reasons for requiring such assessment with reference to the relevant criteria listed in Annex III; or

(b) where it is decided that an environmental effect assessment is not required, state the main reasons for not requiring such assessment with reference to the relevant criteria listed in Annex III, and, where proposed by the developer, state any features of the project and/or measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment."

2.4 European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 (SI No. 296 of 2018) transpose the requirements of Directive 2014/52/EU, amending previous Directive 2011/52/EU, on the assessment of the effects of certain public and private projects on the environment (the EIA Directive) into planning law with effect from 1 September 2018.

2.5 Planning and Development Acts 2000 to 2018

As noted in **Section 2.2**, the current requirements for EIA in Ireland are outlined in Part X of the Planning and Development Acts 2000 to 2018 (the Act) and in Part 10 of the Planning and Development Regulations 2001 to 2018 (the Regulations).

Section 172(1) of Part X of the Act states:

> *(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.]

2.6 Planning and Development Regulations 2001 to 2018

The prescribed classes of development and thresholds that trigger the need for an EIA are set out in Schedule 5 of the Planning and Development Regulations 2001 to 2018 (the Regulations).

Section 2.5 of this report defines the criteria whereby a mandatory EIA is required, under the Act, relevant to the class of developments listed under Part 1 and Part 2 of Schedule 5 of the Regulations.

A review of the classes of development listed under Part 1 and Part 2 of Schedule 5 of the Regulations was therefore carried out to determine whether the proposed development falls into any of the development classes which require an EIA.

It is considered that the proposed development falls under the class of development described under Part 2 of Schedule 5 of the Regulations, namely:

10.Infrastructure projects

(a) Industrial estate development projects, where the area would exceed 15 hectares.

(b) (i) Construction of more than 500 dwelling units.

(ii) Construction of a car-park providing more than 400 spaces, other than a car-park provided as part of, and incidental to the primary purpose of, a development.

(iii) Construction of a shopping centre with a gross floor space exceeding 10,000 square metres.

(iv) Urban development which would involve an area greater than 2 hectares in the case of a business district, 10 hectares in the case of other parts of a built-up area and 20 hectares elsewhere.

(In this paragraph, "business district" means a district within a city or town in which the predominant land use is retail or commercial use.)

The proposed development could be considered to constitute "*urban development*" within a "*business district*". However, as the total area within the redline boundary for the proposed development is 0.96 hectares (ha), it does not exceed the 2-hectare threshold and therefore a mandatory EIA is not required.

2.7 Sub- Threshold EIA

2.7.1 Introduction

Section 92 of the Regulations defines sub-threshold development as '*development of a type set out in Part 2 of Schedule 5 which does not equal or exceed, as the case may be, a quantity, area or other limit specified in that Schedule in respect of the relevant class of development.*

As described in **Section 2.6**, the proposed development is considered to be a type set out in Part 2 Class 10 of Schedule 5 of the Regulations, but it does not exceed the relevant quantity, area or other limit specified in that Part. Therefore, it is a sub-threshold development and requires to be screened for EIA as detailed below.

Section 103 of the Regulations (as amended by the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018) sets out the requirements for screening a sub-threshold development for EIA as follows:

103.

(1) (a) Where a planning application for sub-threshold development is not accompanied by an EIAR, the planning authority shall carry out a preliminary examination of, at the least, the nature, size or location of the development.

(b) Where the planning authority concludes, based on such preliminary examination, that—

(i) there is no real likelihood of significant effects on the environment arising from the proposed development, it shall conclude that an EIA is not required,

(ii) there is significant and realistic doubt in regard to the likelihood of significant effects on the environment arising from the proposed development, it shall, by notice in writing served on the applicant, require the applicant to submit to the authority the information specified in Schedule 7A for the purposes of a screening determination unless the applicant has already provided such information, or

(iii)there is a real likelihood of significant effects on the environment arising from the proposed development, it shall—

(I) conclude that the development would be likely to have such effects, and

(II) by notice in writing served on the applicant, require the applicant to submit to the authority an EIAR and to comply with the requirements of article 105.

(1A) (a) Where an applicant is submitting to the planning authority the information specified in Schedule 7A, the information shall be accompanied by any further relevant information on the characteristics of the proposed development and its likely significant effects on the environment, including, where relevant, information on how the available results of other relevant assessments of the effects on the environment carried out pursuant to European Union legislation other than the Environmental Impact Assessment Directive have been taken into account.

(b) Where an applicant is submitting to the planning authority the information specified in Schedule 7A, the information may be accompanied by a description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment of the development.

2.7.2 Schedule 7A of the Planning and Development Regulations, 2001, as amended

The European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 amends the Regulations, with the inclusion of Schedule 7A to the Regulations, which sets out the information to be provided by the applicant or developer for the purposes of screening sub-threshold development for EIA.

An examination has been made as to whether the proposed development would or would not, individually and in combination with other developments, be likely to have significant effects on the environment (with reference to the criteria set out in Schedule 7 and 7A of the Regulations).

The criteria in Schedule 7A are represented in **Table 1**.

Table 1: Criteria outlined in Schedule 7A of the Planning and Development Regulations - Information to be provided by the applicant or developer for the purposes of screening sub-threshold development for Environmental Impact Assessment

Schedule 7A requirements	Relevant section of this screening report
1. A description of the proposed development, including in particular: (a) a description of the physical characteristics of the whole proposed development and, where relevant, of demolition works; and (b) a description of the location of the proposed development, with particular regard to the environmental sensitivity of geographical areas likely to be affected.	Section 3 Section 4
2. A description of the aspects of the environment likely to be significantly affected by the proposed development.	Section 3 and 5
3. A description of any likely significant effects, to the extent of the information available on such effects, of the proposed development on the environment resulting from: (a) the expected residues and emissions and the production of waste, where relevant; and	Section 5

(b) the use of natural resources, in particular soil, land, water and biodiversity.	
4. The compilation of the information at paragraphs 1 to 3 shall take into account, where relevant, the criteria set out in Schedule 7	Section 6 and 7

The criteria in Schedule 7 are presented in **Table 2** below.

Table 2: Criteria outlined in Schedule 7 of the Planning and Development Regulations (Criteria for determining whether development listed in Part 2 of Schedule 5 should be subject to an Environmental Impact Assessment)

1. Characteristics of proposed development
The characteristics of proposed development, in particular-
(a) the size and design of the whole of the proposed development,
(b) cumulation with other existing development and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment,
(c) the nature of any associated demolition works,
(d) the use of natural resources, in particular land, soil, water and biodiversity,
(e) the production of waste,
(f) pollution and nuisances,
(g) the risk of major accidents, and/or disasters which are relevant to the project concerned, including those caused by climate change, in accordance with scientific knowledge, and
(h) the risks to human health (for example, due to water contamination or air pollution).
2. Location of proposed development
The environmental sensitivity of geographical areas likely to be affected by the proposed development, with particular regard to—
(a) the existing and approved land use,
(b) the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground,
(c) the absorption capacity of the natural environment, paying particular attention to the following areas: (i) wetlands, riparian areas, river mouths; (ii) coastal zones and the marine environment; (iii) mountain and forest areas; (iv) nature reserves and parks; (v) areas classified or protected under legislation, including Natura 2000 areas designated pursuant to the Habitats Directive and the Birds Directive and; (vi) areas in which there has already been a failure to meet the environmental quality standards laid down in legislation of the European Union and relevant to the project, or in which it is considered that there is such a failure; (vii) densely populated areas;

3. Type and characteristics of the potential impacts
The likely significant effects on the environment of proposed development in relation to criteria set out under paragraphs 1 and 2, with regard to the impact of the project on the factors specified in paragraph (b)(i)(I) to (V) of the definition of 'environmental impact assessment report' in section 171A of the Act, taking into account—
(a) the magnitude and spatial extent of the impact (for example, geographical area and size of the population likely to be affected),
(b) the nature of the impact,
(c) the transboundary nature of the impact,
(d) the intensity and complexity of the impact,
(e) the probability of the impact,
(f) the expected onset, duration, frequency and reversibility of the impact
(g) the cumulation of the impact with the impact of other existing and/or development the subject of a consent for proposed development for the purposes of section 172(1A) (b) of the Act and/or development the subject of any development consent for the purposes of the Environmental Impact Assessment Directive by or under any other enactment, and
(h) the possibility of effectively reducing the impact.

As outlined, this report provides the relevant information necessary for the competent authority, LCCC, to undertake the EIA screening assessment.

For this EIA Screening Report, the criteria outlined in Schedules 7 and 7A of the Regulations are grouped under the following three headings, which are individually addressed in the following sections:

i. Characteristics of proposed development (**Section 3**);

ii. Location of proposed development (**Section 4**); and

iii. Characteristics of potential effects (**Section 5**).

3 Characteristics of the Proposed Development

3.1 Introduction

This section describes the physical characteristics of the proposed development with regard to the design, construction and operational elements of relevance to this EIA screening report.

LCCC is proposing to develop the Limerick Urban Centre Revitalisation – O'Connell Street (LUCROC) Project. The LUCROC project seeks to revitalise Limerick City Centre to a high quality public realm, thereby redefining its role as a destination within the Limerick and Shannon region and providing a stronger and more visually appealing urban link within the city centre.

The proposed development is comprised mainly of O'Connell Street, in Limerick City Centre, and makes up an area of approximately 0.96 Ha. Refer to **Section 4** for further detail on the proposed development site. The proposed development seeks to improve the retail and commercial attractiveness of the O'Connell Street area through the enhancement of public space and streetscape, and through traffic management and enhanced sustainable travel modes.

The proposed development will seek to reinforce and, where possible, enhance the different uses and characteristics of O'Connell Street, particularly in terms of the layout of the street (footpath and roadway widths); the extent of provision for vehicles (traffic management, parking and loading); the incorporation of heritage features (especially the surviving Georgian elements such as lightwells, cellars, coal-holes and ironwork); the rationalisation of street clutter (regulatory and directional signage in particular) and road markings; the introduction of appropriate streetscape elements (including surfaces, lighting, furniture and street trees); and improved legibility throughout the City Centre.

The proposed works will include reconfiguration of traffic movements to facilitate improved pedestrian, cyclist and bus accessibility, and improvements to the public realm along O'Connell Street and in its immediate vicinity at junctions.

The upgrade or replacement of underground services and structures may also be required. A detailed description of the proposed works is included in **Section 3.2** and **Section 3.3** herein.

3.2 Construction Phase

Construction works within the proposed development area will include excavation of the street surfacing and sub base, removal of existing surface materials, installation of new utilities, build-up of the street, repaving the street to include installation of new high quality public realm, planting trees and other decorative plants, and installation of new street furniture, street lighting and artworks. No demolition works will be required to facilitate the proposed development.

The works are to be undertaken on a phased basis, with an estimated length of time for all construction works to be completed of 12 to 18 months, with an anticipated start date of Q1 2020.

During the Ground Investigation works undertaken in 2017, it was discovered that a reinforced concrete slab, approximately 200mm thick, is present between the road surface and made ground overlaying the crowns of the barrel vault structures (Georgian cellars) as shown in Error! Reference source not found.. It is proposed to keep this concrete slab in place where present, and to replicate it elsewhere on the street if required for the protection of the vaulted cellars. The existing surfacing will be excavated as far as the tops of the barrel vaults, or to the top of the reinforced concrete slab where this is present. Localised deeper excavations through the concrete slab will be required for replacement and upgrade of utilities; however, the depth of these excavations will also be subject to the limit of the tops of the barrel vaults. Based on the site investigation carried out to date, it is estimated that the excavations will reach a maximum depth of approximately 1m below the existing surface level, with the majority of the excavations approximately 500mm below the existing surface level.

The exact location of trees and structural supports for e.g. street lighting will be determined as part of the detailed design process, in order to locate foundations such that they do not impact on vaults which are active or have the potential to become active in the future.

Barriers and hoardings will be installed to restrict access and to provide safety measures for workers and passers-by.

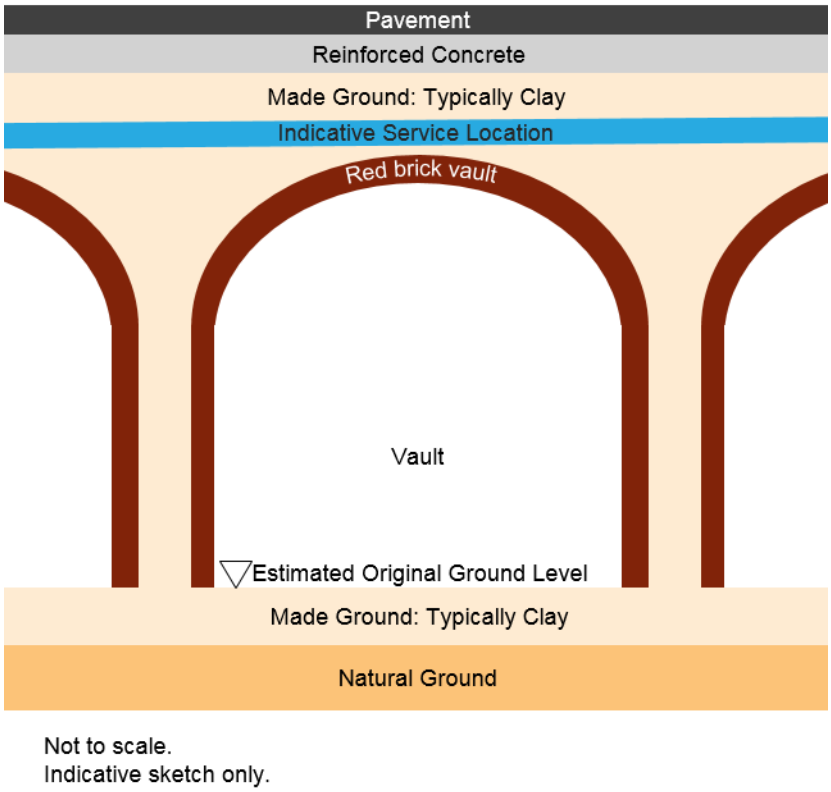

Figure 1: Indicative cross-section through vaults, parallel with street

Most of the existing services require upgrading or replacement. Localised deeper excavations through the concrete slab will be required for the replacement and upgrade of the utilities; however, the depth of these excavations will also be subject to the limit of the tops of the barrel vaults. This is described in **Section 5.6.**

Excavation works will be carried out on a phased basis to limit the impact on the activity of the street. This phasing will be set out in detail in an agreed Construction & Environmental Management Plan (CEMP) and Traffic Management Plan (TMP), which will be implemented for the duration of the construction phase. The block layout of O'Connell Street lends itself to divisions based on the cross-streets, although it is likely that multiple blocks will be under construction at any one time.

Access to the city centre and the properties on O'Connell Street will be maintained at all times during the construction phase. This may require night works for final surfacing, utility installation in the vicinity of property entrances, etc. Details of this scheduling will be confirmed as part of the CEMP and TMP.

The construction works should enable the retention of at least one lane of traffic on O'Connell Street at all times.

Temporary diversions may be required over one or multiple blocks, which will be facilitated using parts of the inner orbital loop of Henry Street-Sarsfield Street-William Street-Gerald Griffin Street-Parnell Street-Upper Mallow Street.

Side streets, Arthur's Quay, Bishop's Quay and Catherine Street, which run parallel to O'Connell Street, will also facilitate local diversions.

For example, if works necessitate the temporary closure of the block between Roches Street and Cecil Street, traffic could be diverted via Shannon Street, Bishop's Quay, Mallow Street and Henry Street.

Bus routes will be maintained through the city centre. Temporary relocation of bus stops will be required to facilitate construction works at their existing locations, and the reliability of cross-city services may be temporarily impacted by the construction works. However, all bus services can be retained on their existing routes while subject to some congestion due to the temporary reduction of lanes.

The number of construction staff on site will vary throughout the works. It is possible that multiple crews would be on site in different areas of O'Connell Street at any one time. Typically, crews would have 4-5 members, plus the operator of an excavator and/or mini-excavator. For resurfacing of asphalt, a typical crew would consist of 12-15 members plus associated plant, and delivery trucks. At any one time on a typical day, no more than 20-25 staff would be on site.

The Contractors Traffic Management Plan will include construction site offices, the location of which will be agreed with LCCC. Staff parking arrangements will need to form part of the Contractor's Traffic Management Plan and this will also be subject to agreement with LCCC. Construction vehicles will require access to works areas for delivery and removal of materials, but it is anticipated that these will require parking for a short duration only for loading and unloading of material. It is estimated that a maximum of 90 truck journeys would be required per block based on conservative evaluation of quantities required at the preliminary design stage.

The Contractor will ensure that the proposed works are carried out in accordance with the Safety, Health and Welfare at Work (Construction) Regulations 2013 (S.I. No. 291 of 2013). There is a low probability that accidents will occur as the construction works are standard in nature and well understood. Normal good construction practice will ensure that the risk of accidents will be low. It is envisaged that the risk of accidents, having regard to substances or technologies used is very low and therefore will not result in significant environmental effects.

3.3 Operational Phase

The proposed development includes the redistribution of space on O'Connell Street, from Denmark Street to Cecil Street, between various modes of transport and the public realm.

There are currently two southbound traffic lanes on O'Connell Street between Denmark Street and Mallow Street, with a short additional left turn pocket on the approach to Mallow Street. Between Mallow Street and Barrington Street there is one lane in each direction, which diverge around the O'Connell Monument at the Crescent.

Various kerbside activities are provided for along both sides of the street, including parking, disabled parking, taxi ranks, loading bays and bus stops. General parking occupies the vast majority of this space.

The LUCROC project will reduce the width of traffic lanes between Denmark Street and Cecil Street to a maximum of 3.0m and reduce parking and other kerbside vehicular spaces. This space will then be adapted to provide wider footpaths and additional public realm areas.

Street furniture including seating areas, trees, planting, bicycle stands, and lighting will be provided throughout the proposed development, as well as features such as sculptures, pedestrian mini-plazas, and water installations.

In addition to the reallocation of space, the carriageway will be reconfigured to provide one vehicular lane and one bus lane along O'Connell Street from William Street to Cecil Street. All junctions in this section of the street will be converted to raised table junctions, where the street level will be flush with the footpath level at the junction, introducing traffic calming and indicating to motorists that pedestrians have priority at junctions. Traffic using the side streets which intersect O'Connell Street will therefore be required to ramp up and down to cross the street also.

The following sections describe how O'Connell Street will operate under the proposed measures.

Denmark Street to William Street

Figure 2: Proposed Design - Denmark Street to William Street

O'Connell Street will be converted to a shared surface between Denmark Street and William Street, as shown in **Figure 2** above, with a combination of street furniture, tactile paving and bollards rather than kerbs to delineate space accessible to vehicles. Two lanes of general traffic will remain on this section of O'Connell Street. An uncontrolled pedestrian crossing area will be provided at the western end of Cruise's Street to cater to the pedestrian desire line across O'Connell Street at this location. This crossing will be ducted to allow for future installation of signals should they be required.

A new bus stop will also be provided on Patrick Street, to the north of Denmark Street, in order to provide sufficient services to the city centre with the relocation of the existing stop outside the Augustinian Church further south.

Seven trees will be planted on this block, on the western side of the street. Seating, other lower-level planting, and bicycle parking areas will be provided between the trees. Four trees in planters will be provided on the eastern side of the street.

These will act as delineators between the carriageway and pedestrian area, as well as providing rest areas and meeting points for pedestrians and cyclists. The presence of trees will also soften the hard landscaping on the street and introduce a natural element in the built environment.

William Street to Roches Street

Figure 3: Proposed Design - William Street to Thomas Street

Figure 4: Proposed Design - Thomas Street to Roches Street

The shared surface will continue from William Street to Roches Street, as shown in **Figure 3** and **Figure 4** above. A combination of street furniture, tactile paving and bollards will again be used instead of kerbs to delineate space accessible to vehicles. The left-hand lane on this section of O'Connell Street will be a bus lane, catering for buses, cyclists, and other public transport vehicles such as taxis, while the right-hand lane will remain as a general vehicular lane. No parking or other kerbside activities will be permitted. Existing disabled parking bays, loading bays, taxi ranks etc. will be relocated to nearby side streets.

A horizontal deflection will be introduced at the junction of O'Connell Street, Thomas Street and Bedford Row. The carriageway will turn towards Bedford Row at the junction and revert to the centre of O'Connell Street to the south of the junction. Access will be maintained from Bedford Row, while Thomas Street will be closed to vehicular traffic. The horizontal movement will act as a traffic calming measure and will provide a pedestrian plaza area extending into Thomas Street. This central space will also allow the potential for a future artwork to be installed to create a further focal point for pedestrian gathering. An interactive surface-level water feature will also be installed opposite the Augustinian church.

A total of 22 trees will be planted on this block, with six at either end in a mirrored arrangement of three on each side. These will "bookend" the block which forms the core retail centre of the city and the key pedestrian priority area. A further six trees will be located on the eastern side of the street on the approaches to Thomas Street, with four trees framing the Augustinian Church. Seating, other lower-level planting, and bicycle parking areas will be provided between the trees in a similar arrangement to the Denmark Street – William Street block, providing continuity along the street. Grass areas will be placed between the trees and the carriageway in the vicinity of Thomas Street. Areas of planting and street furniture will again act as delineators between the carriageway and pedestrian area, as well as providing rest areas and meeting points for pedestrians and cyclists and alerting motorists to a change in layout at the junctions. The presence of trees will also soften the hard landscaping on the street and introduce a natural element in the built environment.

Roches Street to Cecil Street

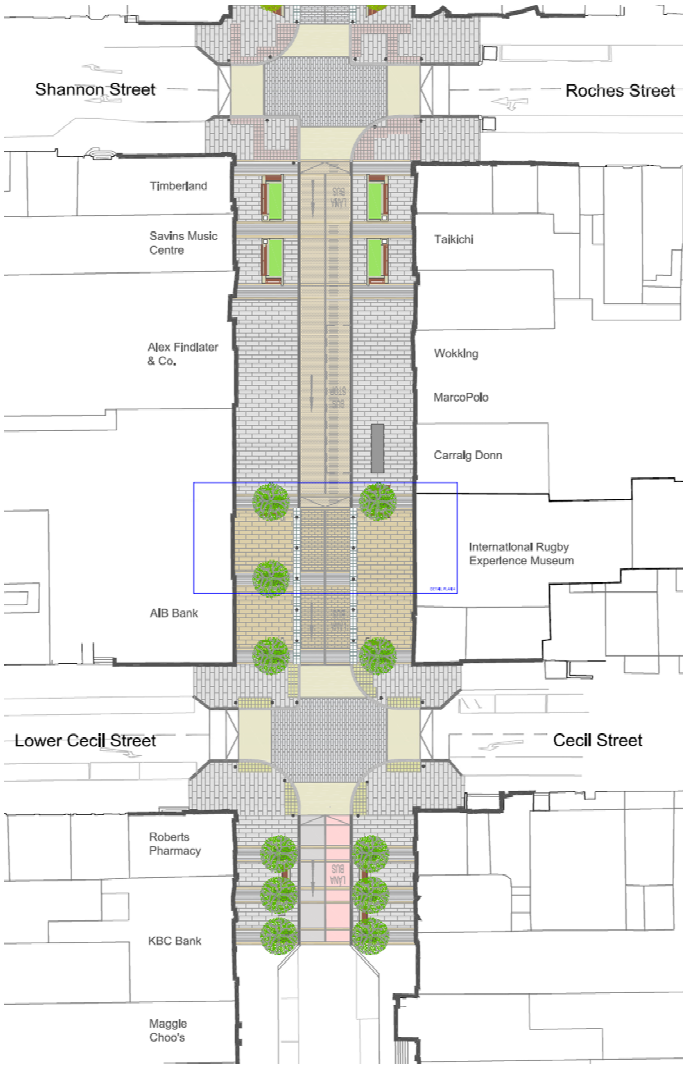

Figure 5: Proposed Design - Roches Street to Cecil Street

As shown in **Figure 5** above, from Roches Street to Cecil Street and to the immediate south of the junction with Cecil Street, the arrangement of two vehicular lanes travelling from north to south will continue with a bus lane on the left and a general vehicular lane on the right. There will be a level difference between the footpath and the carriageway on the northern section of this block, with the carriageway surfaced in asphalt to denote the non-shared nature of this section of the street. An indented bus stop will be provided in this section. No parking or other kerbside activities will be permitted. Existing disabled parking bays, loading bays, taxi ranks etc. will be relocated to nearby side streets.

An extended raised table junction at Cecil Street, similar to the shared surface areas further north will act as a traffic calming measure and provide a sense of place at the proposed International Rugby Experience, which will occupy the corner of O'Connell Street and Cecil Street.

A total of 11 trees will be planted on this block, around the junction of O'Connell Street and Cecil Street. These will act as a boundary to the scheme, similar to the arrangements at the William Street and Roches Street junctions.

Six trees will be planted on the southern side of the junction in a mirrored arrangement of three on each side. Five trees will be planted on the northern side in a similar arrangement, with three trees on the western side and two on the eastern side in order to frame the façade of the proposed International Rugby Experience. Seating, other lower-level planting, and bicycle parking areas will be provided between the trees on the western side. These will again act as delineators between the carriageway and pedestrian area, as well as providing rest areas and meeting points for pedestrians and cyclists and alerting motorists to a change in layout at the junctions. The presence of trees will also soften the hard landscaping on the street and introduce a natural element in the built environment.

3.4 Cumulation with Other Proposed Developments

In addition to the proposed development, other relevant projects and plans in surrounding areas in Limerick City have been considered. The purpose of this is to identify any possible significant in-combination or cumulative effects/impacts of the proposed development with other such plans and projects. The following projects were considered to be of relevance to the proposed development:

- The Gardens International Development on Henry Street, which comprises a large-scale five storey over basement office block on the site of the former GPO, Roche's Hanging Garden and the Mercantile Building. This project opened in March 2019 and therefore will be in operation during construction of the LUCROC project.
- The Opera development comprises a mixed-use development including a 14-storey landmark office building, with additional smaller buildings incorporating offices, retail premises, a library, an aparthotel and a small number of residential apartments. The completed development is projected to accommodate approximately 50,000 sq.ft of building accommodation. The Opera site is located on the south side of the River Abbey at the confluence with the River Shannon, opposite the Hunt Museum and east of Arthur's Quay Shopping Centre.

  The statutory consent application was recently submitted to An Bord Pleanála. Anticipated construction period is approximately six years on a phased basis and therefore it is anticipated that the construction of LUCROC and the Opera development will overlap should both developments receive statutory consent.
- The Kings Island Flood Relief Scheme (FRS) is another ongoing project in proximity to the proposed study area. The Flood Relief Scheme will consist of one or a combination of flood risk management measures at King's Island, just north of the proposed development. The scheme is being funded by the Office of Public Works. The project started in early September 2015, with construction works due to commence in 2019. It is therefore considered that the construction of LUCROC and the Kings Island FRS are likely to overlap.

- The Bishops Quay development (0.4 ha site at Lower Cecil Street and Bishops Quay) is another riverside development proposed for the city centre. The development consists of a mixed-use commercial and residential development scheme, with a commercial building comprising 15 storeys and a residential building comprising 7-storeys containing 35 No. apartments, all over a 2-storey basement. The scheme includes the creation of a new plaza on Henry Street and improvements to public areas surrounding the development. The project involves the demolition of the former ESB retail and commercial premises at Lower Cecil Street and Bishop's Quay and the refurbishment of No. 104 Henry Street Limerick, known as 'The Bishop's Palace' and a 2-storey over basement stone building known as 'The Coach House.' Planning permission for this development was granted in June 2017 by An Bord Pleanála. Construction programme is as yet unknown, and therefore the construction of LUCROC may overlap with the construction of this development.
- The International Rugby Experience museum, proposed for O'Connell Street, at a site on the corner of O'Connell Street and Upper Cecil Street has also received planning permission. It will comprise the demolition of three properties and the construction of a seven-storey building, with a two-storey portico fronting O'Connell Street, and a two-storey block to the rear. The development will see "a multi-media visitor experience, exhibition and education space" plus retail and cafe at ground floor level.

A walking culvert (approximately 1300mm high, 900mm wide) is also present along the centre of O'Connell Street, which acts as the combined foul and surface water sewer for the street.

Irish Water propose to undertake remedial works to the culvert as a separate project. The delivery of the LUCROC project is not dependent on the completion of the culvert remedial works. No information is available at this time on the scope and timing of the culvert remedial works, and as such, it is not considered in this assessment.

In considering the nature, scope and timeline of the proposed LUCROC project, it is not considered that the above-mentioned projects will contribute cumulatively to the impacts of this proposed development.

In addition to the above, LCCC is considering the inclusion (in the proposed LUCROC development) of foundations to accommodate a proposed canopy structure over the main Thomas Street junction on O'Connell Street. The proposed canopy would be installed separately and would not form part of the LUCROC project. Should the construction of the two projects occur concurrently, the potential cumulative construction effects are not considered to be significant, given the nature and scale of the proposed developments.

A number of these projects aim to regenerate the city centre in Limerick and to improve the public realm in this area of the city, thus also improving accessibility and the visitor experience for the city centre area, as well as providing further retail/commercial opportunities. The operational impacts are likely to be positive, long term, cumulative impacts.

4 Location of the Proposed Development

4.1 Introduction

The proposed development comprises mainly of O'Connell Street, in Limerick City Centre, and makes up an area of approximately 0.96 Ha. The site and surrounding area is a highly urbanised environment within the commercial centre of Limerick City. The location of the proposed development is illustrated in **Figure 6**.

While the effects of the development may extend beyond O'Connell Street itself, the study area for the purposes of developing a proposal of street improvements is shown in **Figure 7** below.

The River Shannon (Lower) is located approximately 200m from the development area. The River Shannon flowing through Limerick City is predominantly freshwater with some saltwater movements. It is the main natural habitat in the city and is home to many plants and species. It is also a valuable public amenity and is used for activities such as fishing, rowing and boating.

O'Connell Street is currently a major vehicular thoroughfare and is multi-functional in character, having to meet the often-competing needs of local and through traffic, pedestrians and cyclists.

Figure 6: General Location of Project (Source: www.myplan.ie)

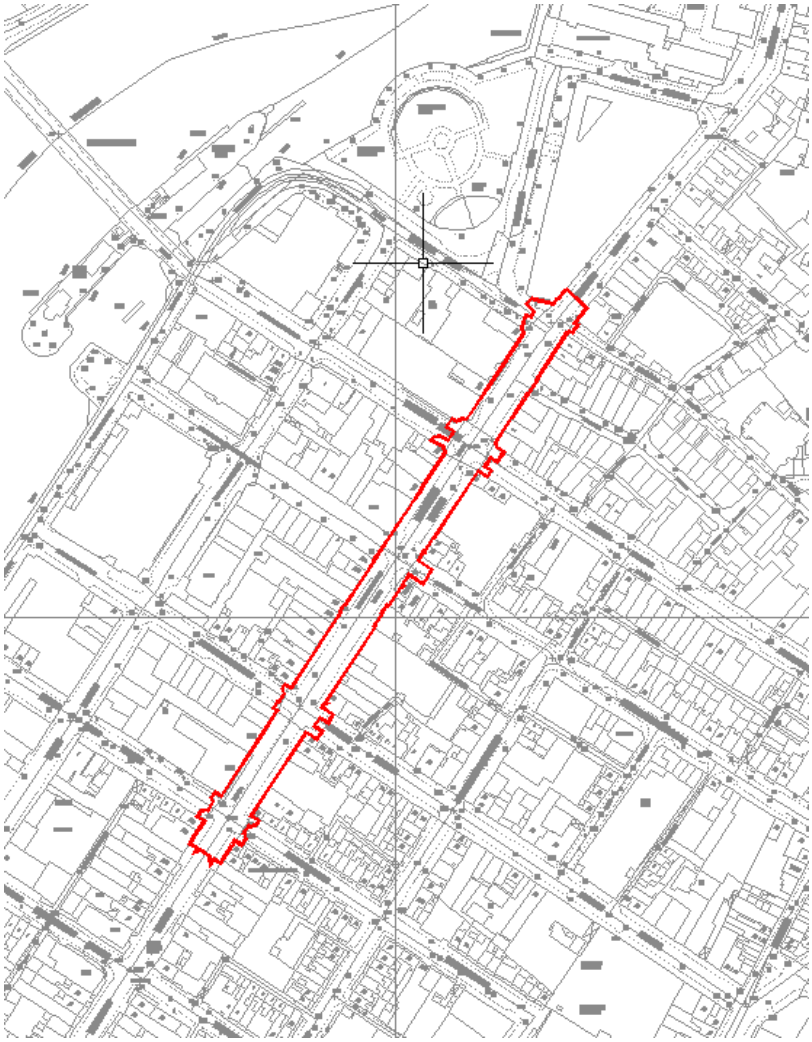

Figure 7: Proposed Development Area (0.96 ha)

Given this central location, the receiving environment experiences relatively high levels of pedestrian and vehicular traffic and there is a range of land assets and infrastructure in the immediate vicinity.

O'Connell Street is noted for its Georgian architectural heritage. Its city centre location also means that there is considerable retail, commercial and hotel/leisure/tourism activities in the area as well as residential, albeit that the area has been in decline for a number of years. The Limerick 2030 Plan – An Economic and Spatial Plan for Limerick, has been devised to "*transform Limerick city centre, its economy, and the way it is marketed as an ideal location over the coming years*'. The LUCROC project is proposed to form part of this urban regeneration.

O'Connell Street is multi-functional in character, having to meet the often-competing needs of local and through traffic, pedestrians and cyclists. At present, it has multi-lane, one-way traffic in a southbound direction for the majority of its length and associated vehicle-related provision that includes on-street parking, bus and taxi bays, large-scale traffic signage and road markings.

There are no bus priority measures, cycle lanes or segregated cycle paths within the City Centre area. Existing street furniture on O'Connell Street is varied and includes litter bins, bollards, cycle stands, planting containers, occasional sculptures and two seats. Street trees are presently limited to three semi-mature specimens. Surface finishes are mostly basic, with brushed concrete and asphalt throughout most of the area combined with limestone kerbs.

4.2 Existing Land Use and Natural Resources

The study area lies entirely within the city centre, with part of it zoned as City Centre Retail Area and part zoned as City Centre Commercial Area in the Limerick City Development Plan 2010 – 2016 (as extended)[2].

The existing land-use of the proposed development site is that of roadway (including pedestrian footpaths, disc parking, cycle parking, loading areas, bus/coach stops and taxi ranks). Most of the premises on O'Connell Street and the surrounding streets within the study area are commercial units, either entirely or partially, with additional retail area, services, storerooms or residential accommodation on upper floors. Existing adjoining land-use is illustrated in **Figure 8**.

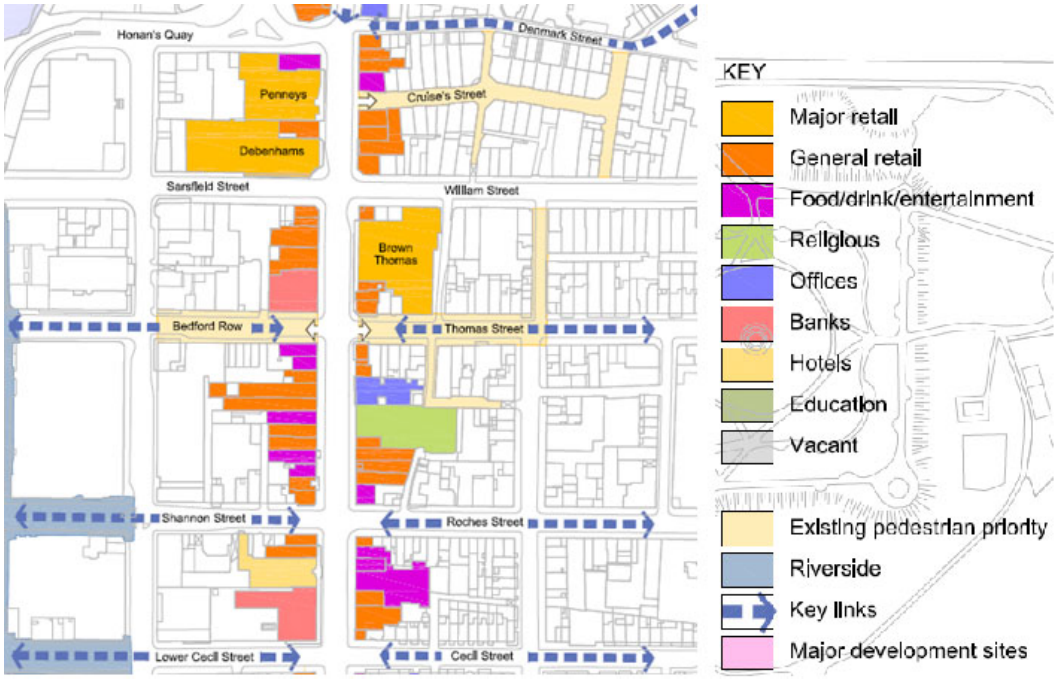

Figure 8: Adjoining Land-Uses

[2] In accordance with the provisions of section 28 of the Electoral, Local Government and Planning and Development Act 2013, a decision was made not to commence the review of the Limerick County and Limerick City Development Plans 2010-2016. The Plans will therefore continue to have effect until a new Development Plan for Limerick City and County is prepared in accordance with the requirements of Section 11B of the Planning and Development Acts 2000, as amended.

5 Characteristics of Potential Effects

5.1 Introduction

The third and final criterion set out in Schedule 7 of the Regulations for determining whether a development would or would not be likely to have significant effects on the environment relate to the potential significant effects of the proposed development. These are described in **Section 5.2 - Section 5.11** below.

5.2 Population and Human Health

According to the Census 2016 results, there are 5,335 no. people living within the immediate study area, representing a population increase of 26% from 2011 figures.

According to the Limerick Economic and Community Plan (LECP), 2011 census data indicates a profile of good population health in Limerick. However, there is a pattern of health inequalities, with a higher proportion of those in lower social classes, spatially disadvantaged and other communities in fair or poor health compared with more affluent groups.

The 2016 Census results also provide information on the self-perceived health status of the country. According to the data, the highest percentage of the population of the study area identified themselves as being of 'very good health', and the lowest percentage of the population identified themselves as being of 'very poor health.'

During the construction phase of the proposed development, there will be some disruption to nearby residents, retail and commercial activities, road users and pedestrians during the proposed works, as well as some noise and dust emissions. However, best construction practice will be implemented to ensure that noise and dust emissions will be kept within the required limits and a traffic management plan will be implemented for the duration of the construction works.

Construction works, and site hoardings associated with the construction phase of the proposed development are predicted to result in a slight, negative and temporary effect on the population and human health of the study area through increased risk of annoyance among residents, reduced physical activity and social disorder.

A slight negative, temporary impact on Population and Human Health is therefore anticipated during the construction phase.

When completed, the proposed development is expected to result in a positive effect on the population of Limerick City, as well as visitors to the area. An enhanced streetscape, with a multi-functional role and improved legibility, linking the core retail blocks from Denmark Street to Cecil Street will support the growing economic role of the urban core, hinterland, and region by enhancing its attractiveness, and redefining the premier street's role.

The LUCROC project will encourage citizens and visitors to use sustainable urban mobility options to journey into, out of and around the Urban Centre through implementation of the project actions and subsequent improvements to sustainable urban mobility infrastructure to the Urban Core.

This project also seeks to contribute to tackling identified economic, environmental, climate, demographic and social challenges in the Urban Centre including but not limited to the following:

- a lack of socio-economic mix;
- declining urban centre population;
- declining retail, commercial and office investment;
- and low visitor and shopper numbers;
- high level of car journeys including through-traffic; and
- low public transport usage.

5.3 Biodiversity

The study area of the proposed development is an urban environment in the habitat class of 'buildings and artificial surfaces' (BL3).

There are no natural or semi-natural habitats within this site. All of the habitats which occur are frequent in urban and developed areas and none are of conservational value. There are no rare or notable species of flora within the site. Further, the fauna species associated with the study area are commonly occurring species in urban habitats and none is of conservation value. Overall, the site has negligible ecological interests and is not of conservation value.

Due to the nature and scope of the proposed development, an overall positive impact on biodiversity is predicted due to the introduction of new habitats and species. It is proposed to provide an increased number of semi-mature trees on the pathway either side of O'Connell Street on each block. In addition, planters and sections of grass will be integrated into proposed seating areas at the northern end of the street. Refer to **Section 3** for further detail on proposed landscaping.

As discussed in **Section 5.7**, given the low level of emissions predicted from the proposed development, the nature and duration of the works proposed, the proposed depth of excavations, the existing drainage network and the presence of the underlying vaults, the construction phase of the proposed development will result in a 'neutral' impact on the River Shannon. Subsequently, the construction phase of the proposed development is not expected to result in a significant negative effect on the River Shannon and River Fergus Estuaries SPA, the Lower River Shannon SAC, or their features of conservation interest. However, a screening for Appropriate Assessment (AA) report has been prepared for the proposed development to determine the potential for effects on Natura 2000 sites.

As well as Natura 2000 sites, there are a number of Natural Heritage Areas (NHAs) and proposed Natural Heritage Area's (pNHAs)within 15km of the study area. Some of these have also been designated as SACs and include the following:

- Woodcock Hill Bog NHA (002402);
- Gortacullin Bog NHA (002401);
- Loughmore Common Turlough pNHA (000438);
- Fergus Estuary and Inner Shannon North Shore pNHA (002048);
- Knockalisheen Marsh pNHA (002001);
- Garrannon Wood pNHA (001012);
- Dromore and Bleach Loughs pNHA (001030);
- Inner Shannon Estuary- South Shore pNHA (000435);
- Glenomra Wood pNHA (001030);
- Skoolhill pNHA (001996);
- Tory Hill pNHA (000439); and
- Adare Woodlands pNHA (000429).

It is not expected that the proposed development will have significant effects on any of these sites. There is the potential for minor, temporary effects during the construction works, such as increased noise and disturbance or effects on water quality. Standard construction best practice measures will ensure that these effects are not significant.

5.4 Historical, Cultural and Archaeological

The proposed development is located within an area rich in architectural heritage. There are a number of features listed in both the National Inventory of Architectural Heritage (NIAH) and on the Limerick City Development Plan 2010–2016 Record of Protected Structures (RPS): 13 buildings and features in the study area are listed in the NIAH and 43 buildings and features are listed in the RPS **(Figure 9)**. One of the features listed on both the NIAH and RPS is a freestanding post box located on the western side of O'Connell Street between Denmark Street and William Street. There are no Records of Monuments and Places (RMP Sites) within the study area.

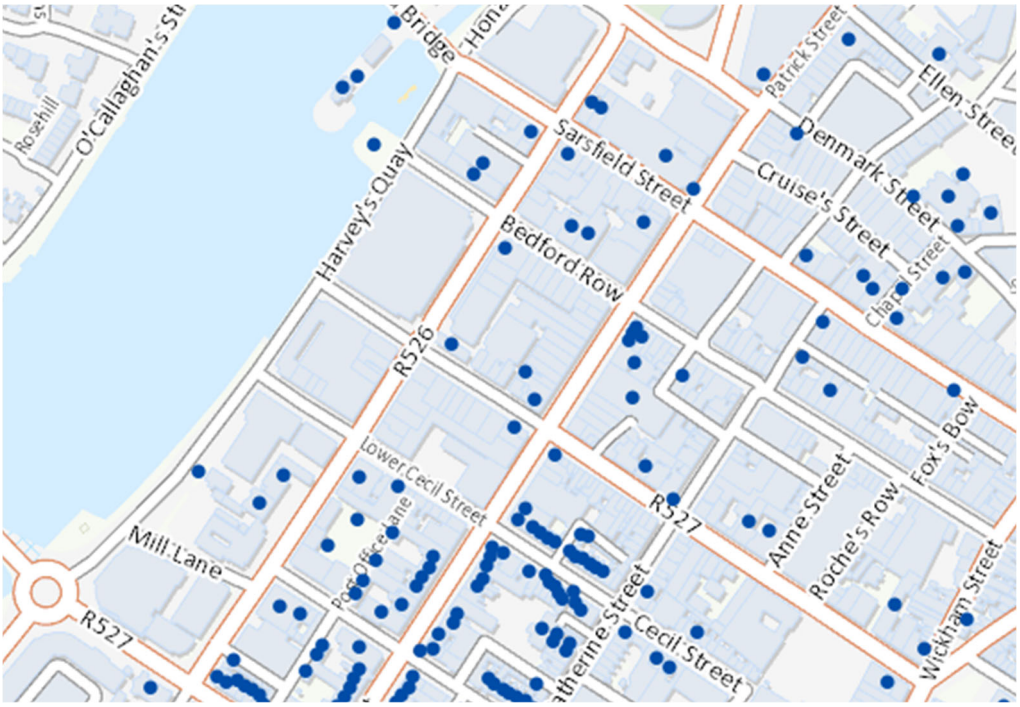

Figure 9: Protected Structures - Proposed Study Area9:

The Georgian terraces located along the street have basements with access to vaulted coal cellars that are situated under the pavements and part of the road. A number of historic coal hole covers and limestone surrounds, which were originally in place to facilitate coal deliveries into the vaulted cellars of the Georgian buildings, are still in place on O'Connell Street. These are predominantly towards the southern end of the street and outside of the LUCROC study area, although there are six coal hole covers and a number of limestone surrounds present between Thomas Street and Cecil Street on the eastern side of O'Connell Street.

Beyond the cellars, running down the centre of the road, is a series of vaulted walking culverts that run at right angles to the cellars and constituted the sewerage system of the Georgian city. Refer to **Section 5.6** and **Figure 9** for further detail on the existing basements and barrel vaults.

5.4.1 Construction Phase

No significant negative effect on archaeology is anticipated as a result of the construction of the proposed development.

Considering the proximity of the historic terraces to the street in the study area, it is possible that the level of excavation activity during the construction phase may have a potential effect on the historic structures through the transmission of vibrations.

In the absence of appropriate measures, there is the potential for effects on the vaulted cellars and culverts under the street during ground excavations, with possible damage or destruction of structures that are fragile or near the surface.

Work methods and plant and machinery will be selected to ensure there is no likelihood of structural or cosmetic damage of neighbouring buildings and structures, including the underground cellars and culvert.

5.4.2 Operational Phase

Once the proposed development has been completed there will be potential effects on the Architectural and Cultural Heritage of the area, both positive and negative.

Redistribution of space between various modes of transport and the public realm

This will have a positive effect on the setting of the Georgian terraces, significant public buildings and on established public spaces. Dismantling and resetting the freestanding feature of the post box may have a potentially slight negative effect if it is damaged and/or moved to a new location.

Paving design

Overall, the paving design will have a positive effect on the setting of the historic buildings in terms of material quality and textures. There is the possibility that there may be some loss of or alteration to coal hole covers. However, coal hole covers will be retained where possible.

Tree planting

The provision of trees on O'Connell Street will have a positive effect on the setting of the historic structures by creating an environment that will be a potential asset for future heritage-led regeneration in the town area.

In order to protect the existing vaults, trees will only be planted in a way that doesn't damage the integrity of the structure of the vault. If there is room above an existing vault to plant a tree, the vault roof will be protected from future penetration of roots with a special membrane. In cases where the ground above the crown of an unused or permanently blocked vault is shallow, the use of those vaults for planting of root balls will be assessed on a case by case basis by the design team, in discussion with the owners of the corresponding building, as to whether it may be used for the root system of a tree. If the vault is not currently in use but remains accessible, it will not be decommissioned for tree planting.

The planting of trees at intervals along the street will have a slight effect on the setting of the historic buildings by potentially altering the historic urban character of the street.

Lighting design

Overall, the proposed lighting will have a positive effect on the street by creating an improved ambience. The majority of existing public lighting on O'Connell Street is mounted on the façade of buildings, as it is difficult to install tall lighting columns with deep footings, due to the shallow depth of available ground on top of the existing vaults. Future upgrades to the public lighting will involve wall-mounted lanterns. Any rooted lighting columns to be installed as part of the works will be decorative only on short columns with shallow foundation requirements.

Proposed amendments to wall-mounted lighting will potentially have a slight effect on the buildings if wiring is exposed.

Road signage

It is intended to rationalise existing road signage as part of the works. Where possible, signage will be removed or reduced. Digital signage will also be considered. There will also be the need to consider new signage where changes to the road layout are proposed, i.e. shared spaces, way-finding, speed limits, etc. Road signage will have a slight effect on the setting.

Water features, sculpture, seating

The high quality of the design and materials will have a positive effect on the setting of the historic buildings. The location of the features will have a positive effect on their immediate settings.

Bollards

The location and number of bollards will have an imperceptible effect on the setting of the historic buildings.

In summary therefore, based on the above, no significant adverse effects on the archaeological, architectural and cultural heritage of the area are considered likely as a result of this proposed development.

5.5 Landscape and Visual

As previously discussed, O'Connell Street is Limerick's premier street and forms the central spine of the Georgian new town, linking the business and residential districts to the south with the original medieval quarter of the city to the north. It is clearly defined by mostly 4-storey buildings that include several Protected Structures and other buildings of historic importance, set within a traditional and distinctive street pattern that is largely intact. Although building styles vary, with the traditional brick terraces of the southern Georgian area giving way to more recent additions within the northern retail core, the building lines are consistent and reinforce the presence of O'Connell Street as the major thoroughfare of the city.

It is likely that there will be temporary negative effects on the surrounding landscape during the construction phase of the proposed development. Physical effects to the streetscape of O'Connell Street are predicted and will involve the excavation of the street and removal of existing surface materials, installation of new utilities, build-up of the street, repaving the street to include installation of new high quality public realm, planting trees and other decorative plants, and installation of new street lighting and artworks. During the construction phase, the presence of hoardings, building materials, construction vehicles etc. will result in a temporary effect to the landscape and visual setting.

Once operational, the proposed development is expected to result in a positive effect on Landscape and Visual in that it will reinforce, and where possible enhance, the different uses and characteristics of O'Connell Street.

This is particularly relevant in terms of the layout of the street (footpath and roadway widths); the current and revised extent of provision for vehicles (traffic management, parking and loading); the incorporation of heritage features (especially the surviving Georgian elements such as lightwells, cellars, coal-holes and ironwork); the rationalisation of street clutter (regulatory and directional signage in particular) and road markings; the introduction of appropriate streetscape elements, including surfaces, lighting, furniture and street trees; and improved legibility throughout the City Centre.

5.6 Land and Soils

The site of the proposed development contains buildings from the Georgian and Victorian age, which were constructed at the then-ground level. As outlined in **Section 5.4**, arched barrel vaults were included in the construction of these buildings, which extend across to meet a culvert in the centre of the street. A new street level was then formed by constructing on top of the arched vaults, which formed the street level of O'Connell Street as it is today.

The barrel vaults frequently extend under the street from both sides and are separated at the street centre line by drainage culverts.

A variety of drainage culverts are known to exist in Limerick. They vary from "walk-in" and "semi walk-in" culverts with vertical walls and arched crowns to oval or circular sewers to box culverts.

Collapses are known to have occurred in sections of these culverts and in the barrel vaults over the years.

Similarly, the gas distribution grid is known to consist of a wide range of gas pipes of varying materials, joints and conditions. In areas of basements, they are thought to be laid relatively close to the road surface and often not far above the basement and culvert crowns.

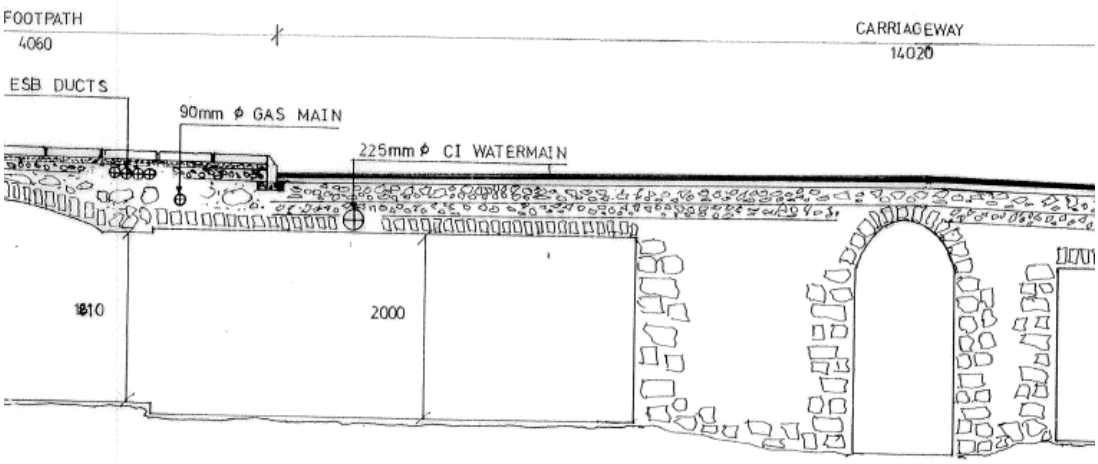

Figure 10: Cross section showing a typical basement, walking culvert and services in O'Connell Street Limerick (Arup survey of basements and culverts 1987)

The Georgian buildings along O'Connell Street also contain basements constructed at the original ground level. These features are of heritage significance. Some of the basements are not accessible today. A number of Georgian buildings have been demolished and replaced with new buildings which may not include basement access. Access to the basements and/or the barrel vaults have been covered over, or the basements and/or barrel vaults have been in-filled with concrete. **Figure 10** shows a typical cross section of the basements and barrel vaults along O'Connell Street.

Due to the urban setting of the study area, the site is predominantly underlain by Made Ground. Historic site investigations completed in the study area revealed the made ground to comprise gravelly clay, sandy clay, sandy silt and clayey gravel. The subsoil in the study area comprises made ground (Refer to **Figure 11**). Historic site investigation information indicates the presence of very soft to firm brown/grey sandy gravelly silt and clay underlying the study area.

In areas around the Shannon River, alluvial silts and clay generally underlie medium dense to very dense estuarine/alluvial very silty sand and gravel, although these coarser grained deposits may be interlayered with pockets or lenses of clay and silt.

Historic site investigation in the vicinity indicates that the overburden thickness varies across the site from c. 3.0m to 10.0m.

However, as discussed, the streetscape of O'Connell Street is elevated above original ground level by the construction of above ground brick vaults which were in turn covered in soil in order to form a level surface for the street to be constructed. Any shallow excavations along the street will therefore not penetrate into the natural ground but the made ground placed on top of the vaults.

The made ground over the vaults was further characterised following a site investigation undertaken in 2017 consisting of 85 No. slit trenches carried out along O'Connell Street. Typically, this made ground overlying the vaults consists of sandy gravelly silt with some cobbles, boulders and fragments of concrete and brick.

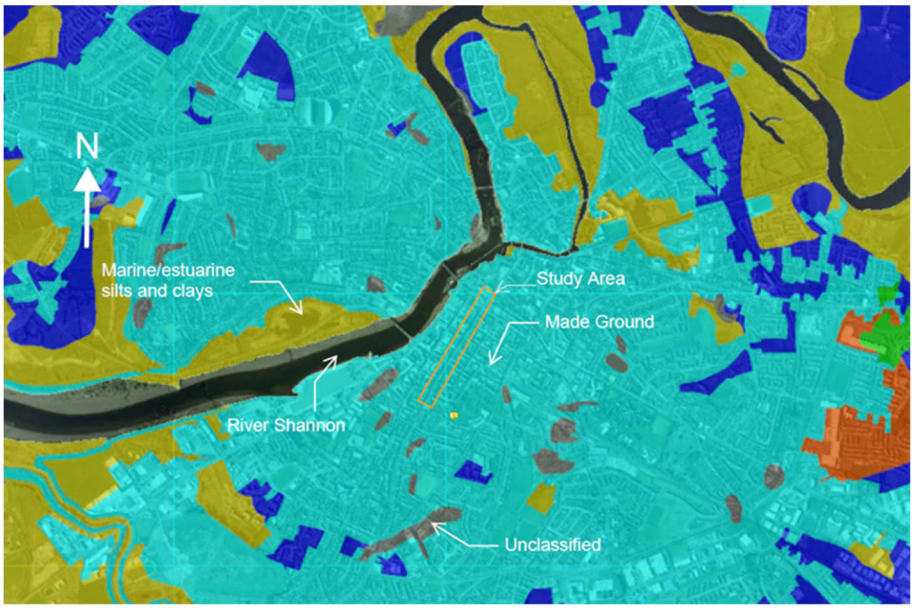

Figure 11: Subsoil in the vicinity of the project area (Source: www.gsi.ie)

The project area is underlain by Carboniferous Visean Limestones (undifferentiated) (refer to **Figure 12**). The available site investigation data generally noted c. 2.0m to 4.0m thick beds of cobbles, boulders and weathered rock overlying strong light to dark grey Limestone Bedrock.

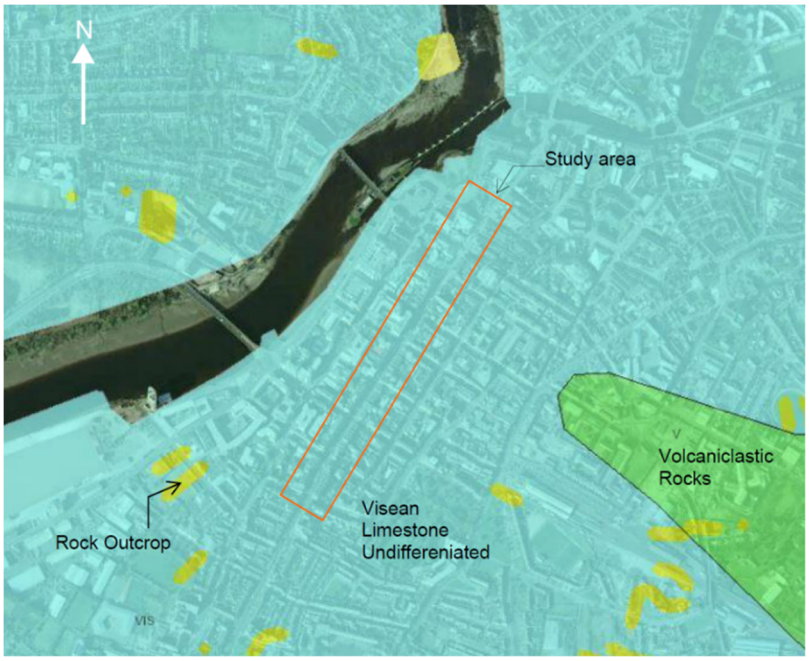

Figure 12: Bedrock Geology in the vicinity of the project area (Source: www.gsi.ie)

No soil contamination is expected to arise from the construction phase of the proposed development. If excavated soil cannot be reused on-site, it will be transported from the site and disposed of at a suitable licensed facility. Inert construction and demolition waste will also be removed off site in a similar manner. It is estimated that the maximum potential volume of material which may be excavated from the site would be approximately 5,100m^3. It is not predicted that the proposed development will impact on geological features.

No significant negative effects on land and soils are therefore predicted during the construction phase of the proposed development.

The operational phase of the proposed development is predicted to have an overall neutral long-term effect on the land and soils within the study area.

5.7 Water Quality, Hydrology and Hydrogeology

The proposed development along O'Connell Street is in an urban environment comprised of buildings and artificial surfaces. O'Connell Street is located in close proximity (approximately 200m as the crow flies) to the River Shannon. **Figure 13** provides an overview of the surface water features in proximity to the proposed development.

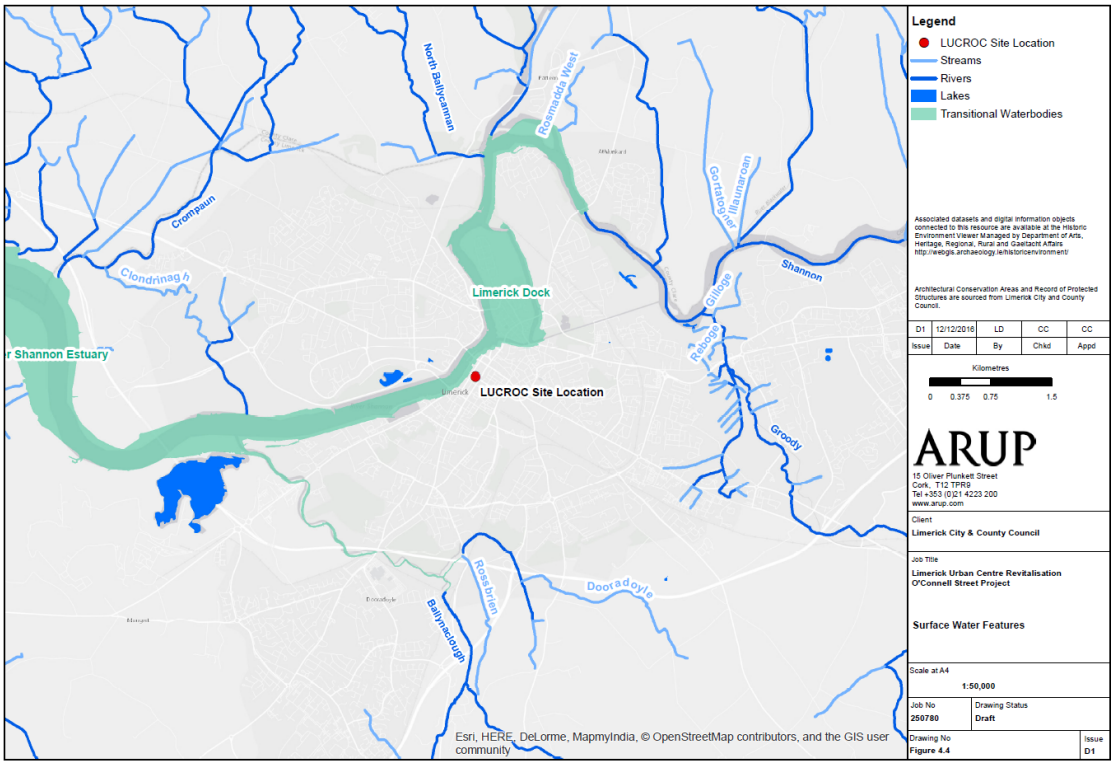

Figure 13: Surface Water Features in Proximity to Proposed Development Site

Routine monitoring of biological water parameters is undertaken along the entire course of the river. Water Quality at the following three sampling points along the River Shannon (Lower) upstream of Sarsfield Bridge provides an indication of water quality entering the estuary (Refer to **Table 3**):

(2060) Incherky Quay (RHS);

(2500) Castleconnell: World's End; and

(2600) Athlunkard Br (d/s LHS).

Table 3: River Shannon (Lower) Biological Quality Ratings

Biological Quality Ratings (Q Values)													
Station Nos.	**1972**	**1984**	**1987**	**1990**	**1993**	**1996**	**1999**	**2002**	**2008**	**2011**	**2012**	**2014**	**2015**
2060	-	-	-	-	-	-	-	-	3-4	4	-	4	-
2500	4-5	4	4	4	3-4	3-4	3-4	4	3-4	-	3-4	-	3-4
2600	-	4	4	4	3-4	3-4	3-4	3-4	-	-	-	-	-

Water quality in 2015, which is representative of the most recent data, was assessed as being similar to previous year's i.e. 'moderate' or 'slightly polluted' over most of the River Shannon (Lower).

Conditions were found to be still unsatisfactory at Castleconnell (World's End) in August 2015 where the macroinvertebrate fauna indicated moderate ecological conditions.

There will be no direct discharges to surface water during the construction phase of the proposed development.

The likelihood that the release of contaminated surface water could cause a significant effect to the River Shannon is considered highly unlikely given the existing drainage network in place and given the nature of the activities proposed.

Surface water run-off which is collected on site will be released via the existing network to a closed wastewater collection network which is treated in the Bunlicky waste water treatment plant prior to discharge to the Shannon estuary, in accordance with the EPA waste water discharge licence.

As such, the construction phase of the proposed development is not predicted to result in a significant negative effect on hydrology or surface water quality.

As above, surface water run-off which is collected on site during the operational phase will be released to the existing closed network which is treated in the Bunlicky waste water treatment plant prior to discharge to the Shannon estuary, in accordance with the EPA waste water discharge licence.

As such, no significant negative effects on hydrology or surface water quality are envisaged during the operational phase of the proposed development.

As previously outlined, groundwater can be found at a minimum of 3m below ground level within the study area. However, as previously described, a reinforced concrete slab, approximately 200mm thick, is present between the road surface and made ground overlaying the crowns of the barrel vault structures.

It is proposed to keep this concrete slab in place where present, and to replicate it elsewhere on the street as required for the protection of the vaulted cellars. The existing surfacing will be excavated as far as the tops of the barrel vaults, or to the top of the reinforced concrete slab where this is present. Localised deeper excavations through the concrete slab will be required for replacement and upgrade of utilities; however, the depth of these excavations will also be subject to the limit of the tops of the barrel vaults. Based on the site investigation carried out to date, it is estimated that the excavations will reach a maximum depth of approximately 1m below the existing surface level, with the majority of the excavations approximately 500mm or less below the existing surface level.

Thus, in considering the nature of the proposed development, the proposed depth of excavations, and the presence of the underlying vaults, no significant negative effect on hydrogeology is predicted during the construction phase of the proposed development.

5.8 Air Quality and Climate

The proposed development is located at O'Connell Street in Limerick City, which is an urban environment. The Environmental Protection Agency's publication Air Quality in Ireland 2015 (2016) provides an overview of ambient air quality trends in Ireland. The publication states that according to EU legislation Ireland is divided into zones for the assessment and management of air quality. The area in which the development sites are located is Zone C. The proposed development is in Zone C (other cities and large towns). Air quality is measured by monitoring the levels of various pollutants. This monitoring checks whether air quality meets standards that are considered adequate for protection of human health and environment. The EPA reports that air quality in this zone is 'Good' with reference to parameters PM_{10}, nitrogen oxides, sulphur dioxide, carbon monoxide and metals.

No significant air quality effects are envisaged from the proposed construction works. Air emissions from the exhausts of construction plant, machinery and haulage trucks are likely to be slightly elevated during construction. Potential dust emissions may also arise during construction. These will only be significant during periods of dry weather when dust may be raised from dry surfaces and stockpiles. During such periods, the level of dust produced will still be small.

No odour emissions are envisaged from the proposed construction works.

No significant air quality effects are envisaged during the operational phase.

5.9 Noise and Vibration

Noise will be generated during the construction of the proposed development due to construction traffic, construction machinery, excavation, etc. It is possible that some of this work will take place during night-time hours.

There is currently no published statutory Irish guidance relating to the maximum allowable noise level that may be generated during the construction phase of a project.

BS 5228-1:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites - Noise, sets relative construction noise criteria with reference to the existing noise environment. These limits are considered the most appropriate noise limits to apply in this instance as they consider the existing baseline noise environment and include night-time limits. The significance criteria are the recommended range of 'total noise' (i.e. the ambient combined with the construction noise) which should not be exceeded for each assigned category. Table 4 sets out construction noise criteria presented in BS5228.

Table 4: BS 5228 (Part 1) ABC Assessement Categories and Thresholds (BSI, 2014)

Assessment Category and Threshold Value Period L_{Aeq}	Threshold Value in Decibels (dB)		
	A[A)]	B[B)]	C[C)]
Night (23:00-07:00hrs)	45	50	55
Evening [D)]	55	60	65
Day (07:00-19:00hrs)	65	70	75

A) Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as category A values

B) Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as category A values

C) Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are higher than category A

D) 19:00 – 23:00hrs weekdays, 13:00-23:00hrs Saturdays and 07:00-23:00hrs Sundays

As the ambient day-time, evening and night-time noise levels recorded in Limerick City Centre are above Category A limits, it is proposed to apply Category C limits. These limits will be applied at the nearest sensitive receptor to the construction works. Sensitive receptors are defined in BS5228 as any occupied premises outside a site used as a dwelling, place of worship, educational establishment, hospital or similar institution or any other property likely to be adversely affected by an increase in noise level.

Any proposed night-time works will be carried out in consultation with LCCC and will be undertaken in accordance with BS 5228-1: 2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites (BSI 2009). It is therefore considered that the effect of construction noise on residential dwellings or other noise sensitive locations in the immediate vicinity of the site will be temporary, moderate effects. No prolonged adverse noise effects on residential dwellings are expected. The main vibration source during the construction phase will be during excavation of existing road surfaces, paving and pathways. A variety of items of plant will be in use, such as excavators, breakers, pneumatic drills, lifting equipment, dumper trucks, compressors and generators. There will be vehicular movements to and from the site that will make use of existing roads and site access points.

As such, there is potential for some vibration effect during the construction phase which could affect the condition of the vaults and culvert. Vibration monitoring will be carried out prior to and during the works to minimise this potential effect.

No significant noise or vibration effects are predicted during the operational phase of the development.

5.10 Traffic and Transportation

As described in **Section 4**, O'Connell Street is currently a major vehicular thoroughfare and multi-functional in character, having to meet the often-competing needs of local and through traffic, pedestrians and cyclists. At present, it has multi-lane, one-way traffic in a southbound direction and associated vehicle-related provision that includes on-street parking, bus and taxi bays, large-scale traffic signage and road markings. Vehicles therefore dominate the space, to the detriment of other more vulnerable road users and the public realm generally.

There are no bus priority measures, cycle lanes or segregated cycle paths within the City Centre area.

Construction Phase

Normal construction working hours will be from 08.00 to 17.30 Monday to Friday. The works will be subject to a Construction Stage Temporary Traffic Management Plan, to be agreed with LCCC and An Garda Síochána, and some tasks will require night-time works. It is estimated that there will be no more than 20-25 employees on the site at any one time. This will be confirmed by the contractor in the Construction Stage Temporary Traffic Management Plan. The estimated length of time for all construction works to be completed is 12-18 months.

The level of traffic generated during the construction phase of the proposed development will be relatively low and will largely consist of general construction traffic for material deliveries, removal of waste material, and general plant (excavators, dumpers, rollers etc.). The following activities will also generate construction traffic and will be on a once-off basis during the construction period:

- Delivery and removal of construction equipment/plant.
- Delivery and removal of lifting and hoisting equipment.

Access for construction traffic to the construction areas will be via existing city centre streets, primarily Henry Street, Parnell Street and Arthurs Quay via Patrick Street and the cross-streets of Sarsfield Street, William Street, Roches Street, Shannon Street and Cecil Street.

It is anticipated that construction staff will comply with the agreed Construction Stage Temporary Traffic Management Plan, which will be agreed with LCCC prior to the commencement of works. Consideration therein will be given to the minimisation of traffic movements for construction staff, to and from site. The number of parking spaces to be provided within the site compound and the location of same will also be agreed with LCCC in advance.

Traffic will be facilitated along the majority of the street for the duration of the works, as will pedestrian movements and access to the buildings on O'Connell Street.

However, temporary diversions may be required over one or multiple blocks, which will be facilitated using parts of the inner orbital loop of Henry Street-Sarsfield Street-William Street-Gerald Griffin Street-Parnell Street-Upper Mallow Street. Similar to access for construction traffic, local diversions will be facilitated using the inner orbital loop, Arthur's Quay and the cross-streets of Sarsfield Street, William Street, Roches Street, Shannon Street, Cecil Street and Glentworth Street. For example, if works necessitate temporary closures between William Street and Roches Street traffic will be diverted via the inner orbital route. For the block between Roches Street and Cecil Street traffic could be diverted via Shannon Street, Bishops Quay, Mallow Street and Henry Street. Details of the necessary diversions will be developed as a function of the construction phasing as part of the Construction Stage Temporary Traffic Management Plan; however, diversions are possible for each block using the existing road system as outlined above.

While the construction phase will not generate large additional volumes of traffic, it will increase delays and congestion for existing traffic on the network as the construction works will take place on public lands, on the existing carriageway and footpaths. The construction works should enable the retention of at least one lane of traffic on O'Connell Street at all times, resulting in slight delays during some elements of work. Works will be staged so as to reduce disruption to the movement of people to and from the city centre as much as possible.

Access to areas of the City Centre will be restricted for part of the duration of the works, should this be deemed necessary to ensure the safety of residents and tourists (pedestrians and cyclists in particular).

Operational Phase

The proposed development will result in a positive effect on traffic and transportation based on the following principles:

- The promotion of walking, cycling and public transport to/from/around the area:
  - Improvements to the public realm on O'Connell Street including increased footpath widths, shared surfaces, and shorter crossing distances for pedestrians;
  - Provision of dedicated southbound bus lane between William Street and Cecil Street.
- Reduction to one lane of general traffic from William Street to Cecil Street will discourage through traffic on O'Connell Street, and promote the use of the outer ring road and inner orbital route for traffic not seeking to access the city centre; and
- The introduction of sustainable travel information for access to/from and within the urban centre, such as RTPI, Parking Guidance, Variable Message Signage, and Public Bike Schemes.

While construction will impact on bus services, all bus routes can be retained during construction, with resulting slight congestion due to the reduction of lanes.

As a separate measure, LCCC is considering the implementation of a 30kph speed limit on O'Connell Street. This measure, allied with the LUCROC measures will result in a positive effect.

5.11 Land Use and Material Assets

Existing land-use along O'Connell Street is described in **Section 4.2**.

There will be no direct effect on any property adjoining the subject site. However, there is the potential for indirect slight negative effects arising due to the proximity of premises to the works. Premises bounding O'Connell Street may experience temporary disruption to pedestrian and vehicular access to their premises. In addition, there is potential for dust and noise due to the construction works. These effects are addressed in **Section 5.8** and **Section 5.9**. Construction phase effects on land use and property are expected to be slight negative, temporary effects.

Short periods of downtime to local services and utilities may be experienced during the construction phase. This will result in a slight short term negative effect on utility services during the construction phase.

Electricity usage for lighting and heating of construction site offices and working areas is expected to be minimal, as most work will be carried out in daylight hours.

ESB Networks has been consulted during the preliminary design and has indicated that the low and medium voltage electrical services on O'Connell Street have not been updated for several decades, and modern cabling and junction boxes are required. It is intended to install these as part of the LUCROC works to minimise potential future disruption. Post construction this will have a positive effect, facilitating connections to and maintenance of the network without requiring the disconnection of whole blocks, as is currently the case.

Telecommunications lines are present throughout the street for Eir, Virgin Media, Enet and BT. These will be maintained, and ducting installed as necessary, with spare ducting to allow for future cabling for telecommunications and for LCCC for ITS purposes etc.

Gas Networks Ireland distribution pipelines will be maintained along O'Connell Street throughout the construction phase. There will be no effect on these in the operational phase.

An 8" cast iron watermain, constructed circa 1900, runs along the centre of O'Connell Street itself. There are numerous connections from this watermain to individual properties and to side streets leading off O'Connell Street itself. It is anticipated that this watermain will require replacement as part of the works, and a new watermain will be installed as close as possible to the location of the existing watermain in order to minimise disruption for transfer of connections.

A walking culvert (approximately 1300mm high, 900mm wide), which is of heritage significance, is also present along the centre of O'Connell Street, which acts as the combined foul and surface water sewer for the street.

It is assumed that there are multiple private connections to this from the buildings on O'Connell Street, as well as connections from side streets, although these are not all visible as connections may lie below the vaults under the street.

A new stormwater drainage system will be installed as part of the works in order to separate the storm and foul sewers. All surface water will be discharged to the existing surface water and sewerage network, and collected in the Limerick Main Drainage interceptor sewer, prior to appropriate treatment at the Bunlicky waste water treatment plant and discharge to the Shannon Estuary.

Irish Water also proposes to undertake remedial works to the culvert as a separate project. The delivery of the LUCROC project is not dependent on the completion of the culvert remedial works.

No significant negative effects on land-use or material assets are predicted during the construction or operation phases of the proposed development.

5.12 Cumulative Effects

Section 3.4 provides an overview of other relevant projects and plans in surrounding areas in Limerick City that have been considered in this screening assessment. The purpose of this is to identify any possible significant in-combination or cumulative effects/impacts of the proposed development with other such plans and projects.

Having regard to the relevant projects, it is not considered that either the construction or operation of the proposed development is likely to result in any cumulative environmental effects.

6 Screening Checklist

The likely significant environmental effects associated with the construction and operation of the proposed Limerick Urban Centre Revitalisation – O'Connell Street (LUCROC) project have been outlined in **Section 5.** The European Commission Guidance *Environmental Impact Assessment of Projects Guidance on Screening (Directive 2011/92/EU as amended by 2014/52/EU)* on EIA Screening provides a checklist to assist with the decision of whether an EIA is required based on the characteristics of a project and its environment. This screening checklist is presented in **Table 5**.

Table 5: Screening Checklist to determine if EIA is required based on the characteristics of a project and its environment

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
1. Will construction, operation or decommissioning of the project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc.)?	No	No - the Proposed development comprises sustainable urban development, in particular the enhancement of public space and street space- and is therefore compatible with the existing land use. There will be no impacts on land use outside of the proposed site boundaries.
2. Will construction or operation of the project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or are in short supply?	Yes	No - The proposed development would occur primarily on existing hard standing and require small quantities of natural resources. Standard construction materials would be used as part of the proposed development and the quantity of natural resources used would be relatively small given the scale of the proposed development. A screening report for Appropriate Assessment has been prepared in order to assist the competent authority in determining if the proposed development will have a significant impact on qualifying interests or conservation objectives of Natura 2000 sites, and whether the integrity of such sites will be adversely affected.
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	Yes	No - the types of standard construction materials that will be used will not be harmful to human health or the environment. Best construction practices will be implemented during the proposed works to protect human health and the environment.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
		The quantities of materials to be used will be relatively small.
4. Will the Project produce solid wastes during construction or operation or decommissioning?	Yes	No - small quantities of domestic waste and inert construction waste will be produced during the proposed works. This will be managed in accordance with waste legislation.
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air or lead to exceeding Ambient Air Quality standards in Directives 2008/50/EC and 2004/107/EC?	Yes	No - It is expected that dust and emissions from construction vehicles, plant and equipment may be released temporarily during construction. Best practice construction practices will be adopted during construction to minimise emissions and prevent discharge. All emissions will be kept within standard air quality limits outlined in the relevant legislation.
6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	Yes	No- It is expected that noise and vibration may occur temporarily during construction. Best practice construction practices will ensure that all activities will be kept within standard noise limits outlined in the relevant legislation.
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal wasters or the sea?	Yes	No - There will be no direct discharges to surface water during the construction phase of the proposed development. The likelihood that the release of contaminated surface water could cause a significant effect to the River Shannon is considered highly unlikely given the existing drainage network in place and given the nature of the activities proposed. All surface water will be discharged to the existing surface water and sewerage network, and collected in the Limerick Main Drainage interceptor sewer, prior to appropriate treatment at the Bunlicky waste water treatment plant and discharge to the Shannon Estuary.
8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	Yes	No-Construction activities would be undertaken with due regard to occupational health and safety. The site manager would be responsible for the management of health and safety on site during construction.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
		The proposed design has been developed in accordance with the standards to reduce the risk of accidents during operation. Standard best practice measures with regard to noise, air quality and traffic management during construction will also ensure no significant impacts on human health.
9. Will the Project result in environmentally related social changes, for example, in demography, traditional lifestyles, employment?	Yes	Yes – There is the potential for the proposed development to result in a positive impact in that it will enhance the public space and urban realm of Limerick City. In particular, when considered cumulatively with other planned projects in the city centre, there will be a significant, positive impact.
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality?	Yes	No - the LUCROC project sits within a suite of plans, programmes and projects for the development of the Mid-West and Limerick as its Gateway, the most relevant of which being the Limerick City Orbital Route. While the orbital route is not completed in full, each project will need to take account of its aims in order to provide a staged approach to its implementation. This will be particularly important for LUCROC as the long-term traffic management will be critical to its success. The proposed Opera site development, which is currently being finalised, could also result in cumulative impacts if both projects are constructed in parallel. Best practice measures in terms of noise, air quality and traffic management are being implemented to ensure such impacts are not significant.
11. Is the project located within or close to any areas which are protected under international, EU, or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	Yes	No- the River Shannon- which is designated as an SAC and SPA is located ~200m, from the study area, however, no significant impacts are anticipated as a result of the proposed development.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
		A report for the purposes of Appropriate Assessment Screening has been prepared to assist LCCC in determining the potential for impacts on Natura 2000 sites in respect of the proposed development. This concludes that there are no significant impacts on the Natura 2000 sites. The final determination in this regard will be made by LCCC.
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	No.	No further sites other than those mentioned in the response to Q11 above, on or around the location are considered important or sensitive for reasons of their ecology.
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	No.	No further sites other than those mentioned in the response to Q11 above, on or around the location are considered important or sensitive for reasons of their ecology.
14. Are there any inland, coastal, marine or underground waters (or features of the marine environment) on or around the location which could be affected by the project?	Yes	No- The River Shannon is located <200m from the proposed development. However, there will be no significant impacts on water quality, hydrology or hydrogeology as a result of the proposed works. All surface water will be discharged to the existing surface water and sewerage network, and collected in the Limerick Main Drainage interceptor sewer, prior to appropriate treatment at the Bunlicky waste water treatment plant and discharge to the Shannon Estuary.
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	No	No- There are no areas or features of high landscape or scenic value on or around the location which could be affected by the project.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	Yes	No- A traffic management plan will be implemented for the duration of construction works in order to minimise any disruption to traffic flow on the road network at the site and to minimise potential impacts to retail, commercial or tourist activity.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	Yes.	No - the proposed development seeks to improve the urban mobility of Limerick City Centre, in particular the study area through the promotion of walking, cycling and public transport use. This will likely see a reduction in private vehicle use and subsequent congestion in the City Centre.
18. Is the project in a location where it is likely to be highly visible to many people?	Yes.	Yes - the proposed development is located in the urban centre of Limerick City. Once operational, the proposed development will result in a positive impact on Landscape and Visual setting in that it will reinforce, and where possible enhance, the different uses and characteristics of O'Connell Street.
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	Yes	No - a number of features of heritage interest have been recorded within the proposed study area. Excavation works on site will be supervised by a suitably qualified conservation specialist to ensure that previously unrecorded areas or features of heritage interest are identified, should they exist.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	No	No- The proposed development is located in an existing urban area.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	Yes	No - it is envisaged that the proposed development will improve the O'Connell Street area for retail, tourism and commercial attractiveness through enhancement of public space and streetscape, and through traffic management and enhanced sustainable travel modes.

Brief Project Description	Yes/No	Is this likely to result in a significant impact Yes/No - Why
		Minor disturbance could be experienced by residents, employees and visitors to the area during the construction phase of the proposed development- however construction and traffic management plans will be prepared and implemented in order to minimise any impacts.
22. Are there any plans for future land uses on or around the location which could be affected by the project?	No	No
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	Yes	No - the proposed development is located within Limerick's city centre. The contractor would employ 'good housekeeping' and outline appropriate measures in the construction stage safety and health plan, traffic management plan and works methods statement to minimise impacts on the population.
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	Yes.	No - the proposed development in located in Limerick City Centre. No negative impacts are envisaged to occur to any of the land uses described.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	No	No- the proposed development in located in the urban centre of Limerick City. No negative impacts are envisaged to occur to any of the natural resources described.
26. Are there any areas within or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No	No.
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	No	No

7 Conclusion

On the basis of the information provided in this screening assessment, it is the view of Arup that significant environmental effects are unlikely to arise from the proposed development for the following reasons:

- This type of construction work involves normal routine construction methodologies. The project is not complex in nature and the effects on the environment are well known and can be managed successfully. The use of natural resources and the generation of waste will be kept to an absolute minimum. Standard construction good practices are proposed and will ensure that the potential effects of the proposed development are reduced to give at most a short term negative effect at a local scale;
- No likely significant effects are identified on the geographical area in which the works are proposed; and
- No likely significant effects are identified on the environment in which the works are proposed.

The information provided herein is to assist LCCC, as the competent authority, in reaching its EIA Screening Assessment determination.