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CHAPTER THREE RESIDENTIAL NEED & SPATIAL PLANNING POLICY

3.1 INTRODUCTION

There is significant policy at national, regional and local level which supports the development of a medium-high density residential scheme at this location. The proposed development has been carefully considered and designed in the context of such policy.

This chapter of the EIAR provides an overview of the policy which is supportive of the proposed development and demonstrates a plan – led approach to development. It rationalises the overall approach to development on the site and will assist in consideration of a balanced approach to development and environmental factors on the site.

3.2 STRATEGIC PLANNING POLICY

3.2.1 National Planning Framework - Project Ireland 2040

The National Planning Framework (NPF) published in February 2018 sets out a strategic development strategy for the country up to 2040. Amongst its key messages is the need to provide the highest possible quality of life for people and communities via well designed and managed built and natural environments. It provides for a number of National Policy Objectives (NPO) which must be adhered to in the advancement of development throughout the State. The NPF seeks to "deliver at least 40% of all new homes nationally, within the built-up footprint of existing settlements" (NPO 3a) and seeks to "deliver at least half (50%) of all new homes that are targeted in the five Cities and suburbs of Dublin, Cork, Limerick, Galway and Waterford, within their existing built-up footprints" (NPO 3b).

A recurring theme in the Framework is the requirement to facilitate balanced development throughout all regions of Ireland, and particularly, to accommodate significant growth in Ireland's cities other than Dublin. The NPO's promoting consolidation are further supported by NPO 11 which states that "in meeting urban development requirements, there will be a presumption in favour of development that can encourage more people and generate more jobs and activity within existing cities, towns and villages, subject to development meeting appropriate planning standards and achieving targeted growth".

Specifically, the NPF notes that Limerick has the potential to generate and be the focus of significant employment and housing growth to 2040. It is necessary for Limerick to further strengthen its position as the principal focus within the Region and to continue to address the legacy of regional growth having occurred outside the City area. This requires growing and diversifying the City's employment base and attracting more people to live in the City, both within the City Centre and in new, accessible green-field development areas. This means improving housing choice, supported by facilities and infrastructure.

The NPF further notes in National Policy Objective 10 "There will be a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate planning standards and achieving targeted growth".

Chapter Three Residential Need & Spatial Planning Policy

The proposed development at this location complies with the overarching themes of the NPF. It proposes a well-designed sustainable form of mixed-use and residential development on an existing, underutilised site located on the edge of Limerick city in an area identified for significant regeneration and where significant new road infrastructure is proposed to open land for development purposes.

The NPF provides a detailed narration on the Government's aspirations for Limerick and the Mid-West Region. The NPF states: "As a well-located regional centre situated mid-way between Cork and Galway on Ireland's Atlantic Economic Corridor and with good connectivity to Dublin, Limerick has the potential to generate and be the focus of significant employment and housing growth. It is necessary for Limerick to further strengthen its position as the principal focus within the Region and to continue to address the legacy of regional growth having occurred outside the City area".

National Policy Objective 10 states that "There will be a presumption in favour of development that encourages more people, jobs and activity within existing urban areas, subject to development meeting appropriate planning standards and achieving targeted growth". It states that the key test is meeting appropriate planning standards, which should be performance-based to ensure well-designed, high quality outcomes, rather than absolute in all cases. Although sometimes necessary to safeguard against poor quality design, the NPF notes that planning standards should be flexibly applied in response to well-designed development proposals that can achieve urban infill and brownfield development objectives in settlements of all sizes.

The proposed development supports a number of the NPF objectives in delivering housing on appropriately zoned residential land adjoining Limerick city centre, with good connectivity to the city centre and in proximity to areas of the city identified for social and physical regeneration.

3.2.2 Rebuilding Ireland – Action Plan for Housing and Homelessness (2016)

Rebuilding Ireland was launched in 2016 with the aim of addressing ongoing supply issues for residential accommodation in Ireland. The overarching aim of the Action Plan is to increase the delivery of housing from its current undersupply across all tenures and to help individuals and families meet their housing needs. The Action Plan provides a target to double the number of residential dwellings delivered annually by the construction sector and to provide 47,000 social housing units in the period up to 2021

3.2.3 Sustainable Residential Development in Urban Areas Guidelines 2009

The Sustainable Residential Development in Urban Areas Guidelines 2009 advocate the use of 'Universal Design', whereby a development is accessible and usable by as many people as possible, regardless of abilities or age. National policy makes it clear that sustainability is not confined to the physical environment. Sustainable neighbourhoods require a range of community facilities, and each district / neighbourhood will need to be considered within its own wider locality.

In this regard, a Sustainable Social Infrastructure Audit as required under the Limerick County Development Plan 2022 – 2028 has been completed and is detailed in Chapter 6.0 Population & Human Health. Further the proposed development is supported by ancillary facilities proposed under previous planning applications on the wider site including a creche and local neighbourhood centre.

The Guidelines encourage the sustainable and efficient use of land and seek to ensure that sustainable travel patterns are encouraged. A 10 minute walk from the site to the bus stop provides connectivity across the city via bus route No.302 on the Old Cratloe Road.

It recommends a number of qualitative standards regarding open space provision, design, accessibility, shared use and SUDs. All of these elements have been incorporated into the proposed design approach. Whilst some 15% of the site has been allocated to open space, it is the quality of that open space which is considered to be most important. In this regard an overall integrated approach to open space provision on the proposed site and wider masterplan area is proposed.

3.2.4 Sustainable Urban Housing: Design Standard for New Apartments: Guidelines for Planning Authorities (2022)

The Sustainable Urban Housing Design Standards for New Apartment (2022) provides for an update on guidance on apartment developments in response to the National Planning Framework and Rebuilding Ireland. These Guidelines seek to promote high density apartment development on residentially zoned land in appropriate locations in line with the above referenced NPF overarching policies in relation to encouraging residential development within existing urban settlements.

3.2.5 Urban Design Manual – A Best Practice Guide (2009)

The Urban Design Manual – A Best Practice Guide (2009) notes 12 no. criteria that should be used to facilitate assessment of planning applications and should, therefore, be used as a guide to steer best design practice for residential proposals.

As detailed in the Design Statement prepared by the project architects Fewer Harrington & Partners, the proposed development has been designed taking into account the 12 no. detailed design principles.

3.2.6 Delivering Homes, Sustaining Communities (2007)

This document provides the overarching policy framework for an integrated approach to housing and planning. It notes that demographic factors will continue to underpin strong demand for housing, which in turn will present considerable challenges for the physical planning of new housing and the provision of associated services. Sustainable neighbourhoods are areas where an efficient use of land, high quality design, and effective integration in the provision of where people want to live in.

3.2.7 Childcare Facilities – Guidelines for Planning Authorities (2001)

The Childcare Guidelines (2001) generally recommend the provision of childcare facilities for residential development with 75 no. units or more, albeit having regard to the existing geographical distribution of such facilities in the area and the emerging demographic profile of the area.

The masterplan layout provides for a creche facility with capacity for 107 no. children and 8 no. staff, in full compliance with the Childcare Guidelines. This planning application was recently permitted by Limerick City & County Council (P22/790).

23 AUG 2023

3.2.8 Design Manual for Urban Roads and Streets (DMURS) (2013)

A key objective of DMURS is to achieve safe, attractive and vibrant streets by balancing the needs of all users, and prioritising alternatives to car journeys. The manual advocates a design-led approach, which takes account of both the physical and social dimensions of place and movement.

Pedestrian and cycling connectivity both within and external to the site have been key design considerations, in particular linkages with the creche and proposed local neighbourhood centre.

3.2.9 Climate Action Plan, 2023

The Climate Action Plan 2023 (CAP23) is the second annual update to Ireland's Climate Action 2019 and is fundamental in implementing the Climate Action and Low Carbon Development (Amendment) Act 2021.

The plan implements the carbon budgets and sectoral emissions ceilings and sets out a roadmap for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050, as committed to in the Programme for Government. Key measures of the plan include ambitious home and business retrofitting and climate-based construction, and 500,000 homes retrofitted to BER B2 by 2030.

Energy, sustainability and climate action are key considerations influencing the design of housing on the site. The development is being designed to NZEB (Nearly Zero Energy Buildings) standards. Passive design measures include the use of the building fabric to take advantage of the site constraints/orientation to maximise the daylight factors, natural ventilation and solar benefits. Natural daylight factors in accordance with BRE and CIBSE recommendations have been targeted.

3.3 REGIONAL PLANNING POLICY

3.3.1 Regional Spatial and Economic Strategy for the Southern Region 2020

The Regional Spatial and Economic Strategy for the Southern Region (RSES) sets out a twelve year strategic development framework for the Southern Region. It establishes a broad framework for development and the way in which society, environment, economy and the use of land should evolve and works towards a broad vision of the Region's future, identifying key priorities for investment.

The city of Limerick is identified as a very important driver of national growth, a key regional centre that requires significant investment and growth. Limerick – Shannon is identified as a Metropolitan Area on the settlement typology. The MASP for Limerick – Shannon highlights the need to increase residential density in Limerick City and Shannon through a range of measures including reductions in vacancy, reuse of existing buildings. A dynamic approach to land-use within the footprint of existing settlements is sought by the RSES in order to maximise the opportunity of urban regeneration and infill sites to contribute to sustainable compact growth and revitalisation of our existing settlements of all scale.

The RSES supports infill development and the regeneration of key sites with higher densities through the provision of a number of key objectives including:

23 AUG ZUZ3

- Objective RPO10 which seeks, "the prioritisation of housing and employment development in locations within and contiguous to existing city footprints where it can be served by public transport, walking and cycling"; and
- Objective RPO165 which seeks to ensure that "local authorities, through appropriate Development Plan policies shall ensure the consolidation of development at higher densities within existing urban centres, with a focus on locations where it can be demonstrated that such development supports the use of walking, cycling and public transport".
- Objective RPO176 promotes a "10-minute" city and town concept which "aims to attain sustainable compact settlements whereby, a range of community facilities and services are accessible in short walking and cycle timeframes from homes or are accessible by high quality public transport services by connecting people to larger scaled settlements delivering services".

A Metropolitan Area Strategic Plan (MASP) has been prepared for the Limerick – Shannon Metropolitan Area. MASP Policy Objective 10a refers to 'Housing and Regeneration' and states the following: "It is an objective to support the environmentally sustainable densification of Limerick City Centre, the assembly of brownfield sites for development and the regeneration and redevelopment of Limerick City and Suburbs to accommodate residential use. The MASP recognises that initiatives such as the Living City and Living Georgian City initiatives and other interventions by agencies such as the Land Development Agency (and any environmental mitigation arising from the environmental assessment of such strategies) are essential to facilitate compact growth and increased residential density in the City Centre".

Further to this, RPO 10 of the RSES supports 'Compact Growth in Metropolitan Areas'.

3.3.3 Mid West Area Strategic Plan

The *Mid-West Area Strategic Plan (MWASP)* proposes that in order for the region to develop its economic strength, it needs to generate export-led growth in goods and services, promote innovation through research and development and secure long-term sustainability and growth. An objective set out in this strategy is to strengthen the role of Limerick City and its Environs as the core economic driver for the Region. The strategy has 5 focus points:

- 1. The revitalisation of Limerick City and its Environs;
- 2. Measures to deliver population growth, infrastructure and job creation in specific areas targeted in the RPGs;
- 3. Balanced regional development to promote sustainable urban and rural development;
- 4. Development of enterprise and employment; and
- 5. The identification and re-mediation of infrastructural deficits

23 AUG ZUZS

3.4 LOCAL PLANNING POLICY

3.4.1 Limerick County Development Plan 2022 - 2028

In the Limerick County Development Plan 2022 (CDP) the subject land and site is identified as part of Limerick City and Suburbs, identified for significant growth as Level 1 in the Settlement Hierarchy. Located in an area defined as the 'Suburban Edge' in the CDP, the subject land actually adjoins the

'Intermediate Urban Location'. The CDP expects the city and suburbs of Limerick to grow with the provision of 11,054 residential units between 2022 – 2028. The land is located within Urban Character Area O5 (Thomondgate/Moyross/Caherdavin/Ennis Road) where it is a specific objective to promote infill and brownfield development; retain existing green spaces; and to respect and reinforce the landmark status of Thomond Park.

The land lies in proximity to Moyross Regeneration Area, where it is an objective of the Council to support and facilitate the physical, economic and social framework strategies for the Regeneration Areas (Objective RA 01) and to integrate Regeneration Areas and communities into the mainstream social, economic and community life of the city.

Chapter 4.0 of the CDP promotes housing. Objective HO 02 promotes density in accordance with the 'Sustainable Residential Development in Urban Areas – Guidelines for Planning Authorities' and the accompanying 'Urban Design Manual', DEHLG, May 2009; and encourages increased densities that contribute to the enhancement of a town or village. Objective HO 01 prioritises social integration by providing a mix of house types and sizes to meet the demand throughout the period of the Plan.

The proposed development has been designed taking the aforementioned objectives into account. Located on primarily residential zoned land, the proposed development in the context of the overall masterplan has been advanced on the basis of higher densities, with an overall density of 37.3 units per hectare across the masterplan site (estimated 448 no. units on 22.53 hectares of land). The proposed application site (Phase 4) has a density of 35.12 units per hectare.

3.4.2 Limerick 2030 Spatial and Economic Plan

The Limerick 2030 Spatial and Economic Plan sets a framework for public sector action and private sector investment until 2030. The first element of the 2030 Plan is an Economic Strategy which identifies how Limerick needs to be positioned in order to best take advantage of economic opportunities in order to build a stronger local economy through the creation of employment and the attraction of investment.

The second element is a Spatial Plan focused on revitalising and redeveloping Limerick City Centre. There is little emphasis in the outer lying areas such as Cratloe in this plan. The final element is a Marketing Plan which aims to use Limerick's unique and positive attributes to change perceptions of how Limerick is viewed.

3.4.3 Limerick Shannon Metropolitan Area Transport Strategy (LSMATS)

The Limerick Shannon Metropolitan Area Transport Strategy (LSMATS) has been prepared by the National Transport Authority (NTA), in collaboration with Limerick City and County Council, Clare County Council and Transport Infrastructure Ireland (TII). The strategy provides a framework for the planning and delivery of transport infrastructure and services in the Limerick Shannon Metropolitan Area over the medium to long term. The Strategy will deliver a high-quality, accessible, integrated and more sustainable transport network that supports the role of the Limerick Shannon Metropolitan Area as the major growth engine of the Mid-West Region.

LSMATS provides for the delivery of Bus Connects along the Old Cratloe Road fronting the site, ensuring a bus service and connectivity to the city centre every 10 minutes

3.5 POLICY SUMMARY

Residential development on the subject site has significant support at national, regional and local level, appropriately zoned for residential development, adjoining new road infrastructure currently under construction and in proximity to established residential development. Within the Regional Spatial and Economic Strategy for the Southern Region, the MASP for Limerick – Shannon seeks to progress Limerick city and its suburbs as sustainable development areas for housing.

At a local level, the Limerick County Development Plan 2022 - 2028 identifies the subject lands as a future development area in the core strategy settlement structure. The CDP states that there is potential for an additional 11,054 residential units in the city having regard to the extent of land that is zoned and puts in place the necessary design and delivery parameters to guide such development.

This chapter of the EIAR has demonstrated that the proposal is in compliance with the provisions of national, regional and local planning policy and that it is consistent with relevant Ministerial Guidelines in relation to the development of apartment units and denser development. The proposed development and wider Masterplan area will provide a significant number of housing units on a site which is located in proximity to Moyross, a defined regeneration area, Technology University Shannon and Thomond Park.

The proposed development seeks to deliver residential units on an appropriately zoned residential site, in accordance with the principles of proper planning and sustainable development.

3.6 REFERENCES

Department of Housing Planning Community & Local Government, National Planning Framework 2018

Department of Public Expenditure & Reform, National Development Plan 2018

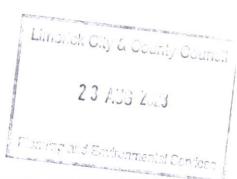
Sustainable Urban Housing: Design Standards for New Apartments 2022

Sustainable Residential Development in Urban Areas Guidelines 2009

Urban Development and Building Heights - Guidelines for Planning Authorities 2018

Regional Spatial and Economic Strategy for the Southern Region

Limerick County Development Plan 2022 – 2028 (as extended)



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CHAPTER FOUR

PROJECT SCOPING & CONSULTATION

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4.1 INTRODUCTION

The EPA Guidelines state that 'Scoping' is a process of deciding what information should be contained in an EIAR and what methods should be used to gather and assess that information. It is defined in the EC (2001) guidance as: 'determining the content and extent of the matters which should be covered in the environmental information to be submitted in the EIAR'.

The EIAR will be prepared to address those aspects identified in Article 5 and Annex IV of the EIA Directive and Schedule 6 of the Regulations. The EIAR will also be prepared in the context of Section 4 of the Draft Guidelines on the Information to be Contained in the Environmental Impact Assessment Reports, prepared by EPA (2017).

4.2 SCOPING

4.2.1 Scoping Approach

Mandatory scoping is not a requirement under the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, although provision is made for formal scoping with the planning authority under S.173(2) of the Planning & Development Act 2000 – 2018. Formal scoping with the planning authority under S.173(2) of the Act was not undertaken, given the nature of the development.

The project was initially scoped with the applicant and within the design team based on the expertise and past experience of the EIAR contributors for similar projects. Existing activities and features on site and similar developments in other locations also informed the process, including previous and current planning applications adjacent to the subject site and within the overall masterplan site.

The scope of the EIAR, conducted in respect of the proposed development, has had regard to the following statutory and guidance documents:

- Statutory requirements of the Planning and Development Act 2000, as amended and the Planning and Development Regulations 2001 - 2022;
- Environmental Impact Assessment of Projects: Guidance on Scoping, European Commission, 2017
- Guidelines on the Information to be contained in Environmental Impact Statements and Advice Notes on Current Practice in the Preparation of an EIS both published by the Environmental Protection Agency 2003;
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports, August 2022;
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment August 2018, Department of Housing Planning & Local Government
- The requirements of Limerick City & County Council as detailed in the Limerick Development Plan 2022 2028; and
- The likely concerns of third parties.

4.2.2 **Scoping Findings**

Table 4.1 below documents the scoping exercise undertaken in respect of this EIAR

Limerick City & County Council

Environmental Aspect	Detailed Assessment	Justification
Population & Human Health	Yes	The proposed development has the potential to impact on population and human health, employment, local community and amenity uses, during the construction and operational phases.
Biodiversity	Yes	The subject lands are not located within any Natura 2000 or nationally designated conservation sites but is located within 15km of a number of designated sites. There are a number of habitats that have been recorded on site. The proposed development therefore has potential to impact on biodiversity
Land & Soils, Geology & Hydrogeology	Yes	The proposed development includes a cut and fill exercise that involves the movement and deposition of soil. The impacts on geology and hydrogeology should therefore be assessed in terms of the groundworks, construction and operational phase of the proposed development.
Hydrology – Surface Water & Flooding	Yes	The proposed development does have the potential to impact on water (including flood risk, hydrology and drainage) as there will be ground disturbance associated with the proposed development.
Air Quality & Climate	Yes	Construction and operational phases will have the potential to give rise to air quality impacts, principally relating to traffic associated with the proposed development.
Noise & Vibration	Ouncill Yes	Construction and operational phases will have the potential to give rise to impacts relating to noise and vibration. A baseline noise survey has been undertaken to determine the prevailing noise level representative of the site and nearest noise sensitive locations.
Material Assets - Traffic & Transport	Yes	The transportation chapter of the EIAR is required to present an assessment of the potential traffic and transport impacts of the proposed development. The assessment will be influenced by the requirements set out within Traffic and Transport Assessment Guidelines TII, 2017.
Material Assets – Built Services	Yes	The Material Assets section of the EIAR will examine the likely significant effects of the construction and operation of the proposed development on intrinsic and valuable assets of material value.
Material Assets – Waste Management	Yes	The proposed development may generate waste arisings that will require management during construction and operation.
Cultural Heritage - Archaeology	Yes	The masterplan site is located in the Zone of Notification (ZoN) for one recorded archaeological site (as recorded by the Archaeological Survey of Ireland (ASI)) -

		Children's burial ground. Further, given the largely undeveloped nature of the lands, an assessment is considered necessary.	
The Landscape – LVIA	Yes	Given the scale of the buildings proposed wher compared to the existing undeveloped nature of the subject lands, the LVIA will consider effects on the landscape character of the existing. Yes setting (i.e. as a result of the construction and existence of the proposed development) and visual impacts (i.e. the extent to which the proposed development when built will affect the landscape)	
Daylight and Sunlight	No	The scale of the development at only two and three stories is reflective of the scale of development in the general area. Accordingly, it is considered that the scale of the development will not result in adverse impacts from a daylight, sunlight and / or overshadowing perspective.	
Major Accidents and Disasters	No	The subject site is not located within any consultation distances of any Serveso II sites. As a result, there is no expected impact arising from major accidents or disasters in respect of the proposed development.	
Interactions	Yes	There is the potential for multiple direct or indirect effects (from various environmental aspects) to result in an accumulation or magnified effects from the proposed development.	
Cumulative Impacts	Yes	The proposed development will be in proximity to other permitted and proposed development and thus has the potential to exacerbate or create larger, more significant effects	

Scoping is considered to be an iterative process and is ongoing throughout the development and preparation of the EIAR. In practice, it was undertaken on a continuous basis upon review of draft EIAR chapters and at fortnightly design team meetings.

2 3 AUG 2023

4.3 CONSULTATION

Prior to lodging this application, the required information has been issued for the Department of Housing, Planning and Local Government's EIA Portal. The purpose of this tool is to inform the public, in a timely manner, of applications that are accompanied by an EIAR. The portal provides a URL link.

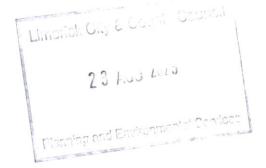
4.4 PRE – PLANNING MEETING

A pre-planning meeting was held with Limerick City & County Council on the 06th June 2021 and again on the 02nd June 2022 in respect of the proposed development for the entire masterplan site. Representatives from the Planning Department were present. The nature and extent of the proposed development in the context of the overall masterplan was presented at the meeting.

A number of issues were raised and discussed with the planning authority in respect of the proposed development. In summary the points discussed were as follows:

- Adjoining residential development needs to be considered and their amenities respected;
- The different phases of development need to be connected, visually and physically;
- Need for a greater mix of housing types;
- Delivery of services including the creche and local centre to be considered at an early stage, in tandem with the delivery of housing units;
- The design is to take into account DMURS standards and is to take account of the principles of safety, accessibility and sustainability; and
- Access to the development is to be designed around the proposed Coonagh Knockalisheen
 Distributor Road network, including the section of the existing local road network which is
 currently being upgraded.

The issues raised by Limerick City & County Council have informed the overall design and have been comprehensively accommodated within the overall masterplan. The design rationale seeks to create a sustainable and successful development, providing a new sense of place with new services and facilities, but all within easy distance of the city centre. The development seeks to make the most efficient use of new road infrastructure in the area which has been delivered to facilitate development and open up lands for development purposes.



CHAPTER FIVE

EXAMINATION OF ALTERNATIVES

5.1 INTRODUCTION

The presentation and consideration of various alternatives investigated by the project design team is an important requirement of the EIA process. This section of the EIAR document provides an outline of the main alternatives examined throughout the design and consultation process. This serves to indicate the main reasons for choosing the development proposed, taking into account and providing a comparison of the environmental effects.

This chapter should be read in conjunction with Chapter 3.0 'Spatial Planning Policy' as this provides the statutory and non-statutory support for residential development on the subject site, having regard to national, regional and local policy and objectives.

The Environmental Protection Agency's Advice Notes on Current Practice (in the preparation of Environmental Impact Statements) and, the Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) suggests that 'alternatives' to the main reasons for choosing the proposed development, may be described at a number of levels including inter-alia; alternative locations, design/layout, processes and mitigation. The EPA Guidelines states:

"The objective is for the developer to present a representative range of the practicable alternatives considered. The alternatives should be described with 'an indication of the main reasons for selecting the chosen option'. It is generally sufficient to provide a broad description of each main alternative and the key issues associated with each, showing how environmental considerations were taken into account is deciding on the selected option. A detailed assessment (or 'mini-EIA') of each alternative is not required."

5.2 RATIONALE FOR THE PROPOSED DEVELOPMENT

The proposed development of 54 no. units is a logical extension to an area of the site which was recently granted planning permission by Limerick City & County Council for 99 no. residential units under P21/1800 and for 86 no. residential units under P22/817. This decision granted under P21/1800 currently on appeal to An Bord Pleanála by a third party. The rationale for the proposed development is to provide a residential development with ancillary facilities in a landscaped setting, in proximity to services and facilities in the western environs of Limerick City. The proposal is predicated on the zoning of the site as a residential development area in the Limerick Development Plan 2022 – 2028 whereby new residential development is envisaged. It is within this statutory planning policy context that all alternatives have been considered.

In order to meaningfully consider alternatives relating to the proposed development of 54 no. units, consideration must be given to the evolution of the overall masterplan for the site. Once this has been considered then the logic for the development proposal becomes obvious, as it is just part of an overall intended scheme of development.

23 AJJ 2023

The key environmental and practical considerations which influenced the design of the proposed development and alternative locations and layouts on the subject lands included the following:

- The need to achieve sustainable densities in accordance with national guidelines Sustainable Residential Development in Urban Areas and the policies of the Limerick Development Plan 2022 - 2028, given the location of the subject site in proximity to services and facilities but also having regard to the existing public transport network on the Old Cratloe Road, which is due for improvement and upgrade under the Limerick Strategic Metropolitan Area Transport Strategy.
- The topography of the subject site and existing site features, including the Children's Burial Ground (archaeological site), significant hedgerows and neighbouring landuses.
- The need to ensure any residential development provides a good mix of housing types which meet current market demands and which are deliverable in the short to medium term.
- The need to provide for high quality open space.
- Protection of existing trees and hedgerows where possible to enhance the amenity and biodiversity of the area.
- The quality of the urban environment to be delivered and the associated impact on human health.
- Access, permeability and connectivity with surrounding areas and land uses.
- The need for an overall balance in biodiversity such that there is no net loss and a net gain where possible on the site.

Notwithstanding the above, pursuant to Section 3.4.1 of the EPA Guidelines, the consideration of alternatives also needs to be cognisant of the fact that "in some instances some of the alternatives described below will not be applicable – e.g. there may be no relevant 'alternative location'..." The Guidelines are also instructive in stating: "Analysis of high level or sectoral strategic alternatives cannot reasonably be expected within a project level EIAR... It should be borne in mind that the amended Directive refers to 'reasonable alternatives... which are relevant to the proposed project and its specific characteristics".

5.3 ALTERNATIVE LOCATIONS

Riverpoint Construction Limited (the 'Applicant') acquired the site due to its established and long-term residential zoning under the Limerick City Development Plan 2010-2016. The zoning was carried forward into the adopted Limerick Development Plan 2022 - 2028 which was itself subject to the Strategic Environmental Assessment (SEA) process.

The Applicant considered the subject land to represent a suitable site for development, being primarily zoned for 'new residential' use. It is an objective of the Development Plan to provide for new residential development and other services associated with residential development. While housing is the primary use in this zone, recreation, education, crèche/playschool, sheltered housing and small corner shops are also envisaged, subject to the preservation of neighbouring residential amenity.

23 AUG Z023

Prior to the acquisition, the site's ability to satisfy environmental criteria was considered by the applicant and it was found to offer the following attributes;

- The subject site offered the opportunity to bring a vacant greenfield site adjoined by existing residential development and educational uses into productive use, thus promoting the principles of compact growth.
- The site's location within a 6 minute walking distance of a bus stop on bus route No.302 on the Old Cratloe Road, along with its proximity to the Technological University Shannon (TUS) which has the potential to promote a modal shift from the private car to more sustainable forms of transport. This in turn would assist with achieving overarching environmental objectives such as improved air quality (CO2, NO2 and particulate emissions) and a reduction in noise pollution.
- The proximity of the site to significant employment nodes such as TUS, Thomond Park, Coonagh Cross, and Clondrinagh Industrial Estate would facilitate sustainable living in proximity to the workplace.
- The site is not subject to any statutory nature conservation designation and although there is a hydrological pathway via a drainage ditch which feeds into the flow network to a Designated European Site (Lower River Shannon SAC and River Shannon and River Fergus Estuaries SPA, any potential impacts can be mitigated through appropriate design measures.
- Given the site is zoned for development, and adjoins existing urban development to the east, including new road infrastructure, its capacity to absorb development without significantly effecting the existing landscape and visual characteristics of the surrounding area is high.
- The site is not located within an area identified as susceptible to flooding.

In light of the foregoing and following consideration of environmental and planning factors at a high level, it is considered that the masterplan site and proposed development is an appropriate location for residential development from an environmental perspective. The proposal adopts a plan led approach to development and seeks to deliver much needed housing in accordance with national, regional and local policy and guidance documents.

5.4 "DO NOTHING" ALTERNATIVE

In the event of the 'do-nothing' scenario, the current use of the site is likely to continue, whereby the majority of the lands would remain in agricultural use.

Having regard to the quantity of residential units proposed on the overall masterplan site and within the proposed development, with particular regard to the quantity and location of other zoned land in Limerick City, it is likely that in the event of a 'do-nothing' scenario, the core strategy and the requirement for an additional 11,054 households over the plan period would not be satisfied. This would likely have significant implications from a population and human health perspective.

The additional pedestrian and vehicular traffic movement that would be generated by the proposed project would not require to be catered for on the local network in a 'do nothing scenario'. Similarly, the additional demand / support for local infrastructure, services, and businesses would not be generated by any new population on site; nor would local housing demand be catered for.

A 'do-nothing' scenario was considered to represent an inappropriate, unsustainable and inefficient use of these strategically located residential zoned lands; particularly having regard to the opportunity to provide much needed housing in Limerick City.

As a result of the zoning of the lands and the specific reference to the strategic importance of the site from a residential capacity perspective contained within the Development Plan, together with consideration of the proximity of the lands and accessibility to Limerick City, the 'do-nothing scenario' was discounted.

5.5 ALTERNATIVE DESIGNS

5.5.1 Masterplan Approach

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The design approach for the proposed development is presented in the Architectural Design Statement prepared by the project architects, Fewer Harrington Architects and it should be read in conjunction with this chapter of the EIAR.

In summary, the proposed masterplan layout is designed to function as a sustainable and successful residential neighbourhood and accommodate a thriving sustainable community. The design of the scheme adopts an urban form with residential buildings arranged around a series of pocket green spaces, generally characterised as tree-lined lawns similar to a village green. The proposed development has sufficient variety in scale and form to respond to the scale of neighbouring two and three storey developments. In this regard the proposed development generally maintains the existing building scale.

A pre-planning meeting was held with Limerick City & County Council on the 06th June 2021 and again on the 02nd June 2022 and a number of matters were raised regarding the overall masterplan layout. Issues highlighted that are relevant to the environmental performance of the scheme are set out in the Table 5.1 below.

Issues Raised	Design Response	Environmental Improvements
Massing and layout of development needed reconsideration as it was based on a low density housing scheme	Increased density in line with national guidelines and enhanced mix of typologies to meet the needs of different demographics and tenure	Population & Human Health The design amendments resulted in; ✓ greater diversity of tenure mix, integrated development and more
nousing scrience	typologies.	sustainable compact growth. Climate Change ✓ greater density results in greater landuse efficiencies in line with the core strategy and an overall reduction in greenfield landtake.
Redesign of residential blocks to provide for a streetscape along the	Change in design approach to provide a continuous frontage along the central	Population & Human Health The design amendments resulted in;

central access road and to	access spins, thereby	/ in annual of the
central access road and to	access spine, thereby	✓ increased passive surveillance of the
address public safety	facilitating a strong urban	adjacent public roads which in turn
concerns and visual impact	edge to the public realm,	creates a sense of security for future
considerations	creating more human scale	occupants and the public.
	boundary conditions, and	√ enhanced quality of place and
	active frontage.	animation of the public realm and open
		space.
		✓ Natural overlooking of green spaces
		and public roads thereby creating safe,
	The state of the s	healthy and useable areas.
Limoth	Maria Company	
A A	k Oly & County Council	Landscape & Visual
l l	# · · · · · · · · · · · · · · · · · · ·	The reorientation of buildings
Ŋ.	2 3 AUG ZUZ3	contributes to;
1	2020	✓ a positive streetscape character, with
į.	#	building frontages and entries onto the
Caming a	rd Environmental Cention	surrounding road network.
the state of the state of	TOTAL SONIGES	√ Allows the creation of local green
		spaces and neighbourhood clusters
		thereby enhancing the overall visual
		quality of the scheme.
Reorientation and	The units are orientated in a	Climate Change
increased separation	manner which provides	✓ The incorporated design amendment
distances between blocks	maximum daylight	improves solar gain within the proposed
to allow for optimum	during the course of the day	scheme. This in turn improves the
sunlight penetration into	and reducing the effect of	energy efficiency of the development
communal spaces,	over-shadowing on nearby	thus minimising energy use and
particularly within the local	buildings	in turn decreasing Greenhouse Gas
neighbourhood centre.	cill	Emissions associated with the
		combustion of fossil fuels.
Reorientation of the houses	Amended linkages internally	Human Health
on the southern boundary	within the development	✓ Improved linkages and increased
to overlook the Children's	proposal.	permeability promote walking and
Burial Ground and to	ELasa	cycling.
facilitate linkages.		Climate Change/Air Quality
in inagoo.		
7		✓ Increased connectivity allows for
City .		greater access to alternative modes of
O,		transport including cycling and walking
		thus reducing the need for trips by car
		which in turn reduces emissions and
	140.00	benefits local air quality.
Reconsideration of the	Whilst 6 no. different areas of	Population & Human Health
street hierarchy and	open space are proposed	✓ The inclusion of well considered
building massing to provide	within the masterplan area,	public open space will contribute to a
an urban neighbourhood with good legibility	there is a larger area of open space provided centrally	sense of identity and place in the

within Phase 1. Larger 4 bed semi-detached units 'bookend' the rows of housing thereby accommodating legibility within the site and contributing towards enhanced urban design within the overall scheme.

proposed scheme thereby enhancing quality of life for future users.

√ The inclusion of a network of pedestrian routes through the scheme and connecting with the wider area will have direct public health benefits.

Biodiversity

√ The inclusion of extensive tree planting within the open space and the retention of hedgerows on the boundary of the masterplan site will provide a habitat for wildlife and will enhance biodiversity within the proposed development.

Table 5.1 Design Amendments & Environmental Improvements

On foot of the pre planning meeting, the masterplan scheme was revised. Further, the masterplan has responded to issues raised in individual planning applications as they have been assessed and developments approved.

In summary, the scheme has evolved from its original form and the consideration of alternative designs has resulted in significant environmental improvements in terms of the landscape and visual contribution that the proposed development will contribute to this area of the city.

The comprehensive landscape plan will contribute to improved biodiversity and mitigates against the effects of climate change, in particular the proposed biodiversity area south of the Cratloe Road. Human health will benefit from the prioritisation of pedestrian and cycle linkages to the wider area including cyclepaths on the Cratloe Road and this will in turn promote a modal shift and reduce the need to travel by car.

5.5.2 **Proposed Development**

The proposed development has evolved from the masterplan concept agreed with the planning authority. The development has been modified on foot of a further information request from the planning authority (P22/1114), has been influenced from feedback provided at pre-planning stage. This iterative process inter alia highlighted environmental matters that informed the consideration of alternative layouts and designs including; open space provision, addressing the issues of population and human health in a city environment, biodiversity, and transportation.

ALTERNATIVE PROCESSES 5.6

This is not considered relevant to this EIAR having regard to the residential nature of the proposed development.

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23 AUG ZUZS

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ALTERNATIVE MITIGATION MEASURES 5.7

The mitigation measures outlined in the various chapters are considered appropriate to the location, nature and extent of the project and its potential impacts. As such, no alternative mitigation measures were considered.

5.8 CONCLUSION

Having examined various reasonable alternative designs, it is considered that the proposed design is a preferable option in terms of the sustainable development of the subject site insofar as the overall masterplan achieves circa 448 no. residential units with associated infrastructure. The net residential density achieved within the overall masterplan is 37.3 units per hectare.

The proposed creche and local neighbourhood centre, both the subject of separate planning applications and phases of development (P22/790 & P22/917), will assist in the place-making of the proposal and will contribute to fostering strong connections between the new population on site and the wider community. The current design of the application proposal achieves a strong mix of housing types, sizes, and designs and the introduction of apartment units in Phase 1 addressing the Children's Burial Ground within the overall masterplan development proposal has resolved the difficulty of achieving a critical mass of housing and presents a strong urban form.

5.9 REFERENCES

National Planning Framework

Limerick Development Plan 2022 - 2028

Environmental Protection Agency's Advice Notes on Current Practice (in the preparation of **Environmental Impact Statements)**

Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) imerick city & col



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CHAPTER SIX

POPULATION & HUMAN HEALTH

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6.1 INTRODUCTION

There are a wide range of issues which may impact on population and health. The purpose of this assessment is to identify and assess the potential health and wellbeing effects of the proposed development on the surrounding population, and to deliver evidence-based recommendations that maximise health benefits and reduce or remove potentially negative impacts.

The Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022) suggests that; "the assessment of impacts on population and human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in this EIAR e.g. under the environmental factors of air, water, soil etc."

In the application of this approach, consideration of the potential impacts of the proposed development on population and human health might therefore arise from a number of variables. For example; traffic and transportation, townscape and visual (landscape), water quality and biodiversity. These aspects are dealt with in the specific chapters in this EIAR which are dedicated to those topics. This Chapter refers to the findings of those assessments included elsewhere in this EIAR which human health effects might occur.

In addition to human health considerations, this chapter will assess the impacts the proposed developments will have on; (i) Demographics, (ii) Employment, and (iii) Community, with specific regard to economic activity, social considerations, land-use and health & safety.

The principal receptors that may be impacted by the proposed development include residential receptors; direct and indirect economic receptors; social and community facilities; and the transient population.

6.2 ASSESSMENT METHODOLOGY

The baseline information was gathered using desk top analysis of available mapping and aerial images; visits to the site and the surrounding area; analysis of census of population data; review of relevant documents; and a review of comments from statutory bodies during the scoping process.

A desk top analysis of current census data from the Central Statistics Office (CSO) and other national databases (see Section 6.9 for references) was undertaken including an assessment of demographic and employment figures.

The preparation of this Chapter was also informed by desktop studies of relevant policy documents and data sources including:

- Central Statistics Office (2021) Census 2016, Census 2011, Census 2006
- Cebsus Statistics Office (2023) Census 2022 DISTRICT Electoral Division Data
- Central Statistics Office (2021) CSO PxStat

- ESRI (2021) Quarterly Economic Commentary, Winter 2020
- DoHPLG (2017) Rebuilding Ireland Action Plan for Housing and Homelessness
- Childcare Act (1991) (Early Years Services) Regulations 2016
- Tusla Early Years Inspectorate Reports (2021) Registered Childcare Facilities
- Department of Health (2021) Health in Ireland, 2019
- Health Safety Authority (2021) www.hsa.ie
- HSE Service Records (2021) www.hse.ie
- ECAD (2021) Eircode Address Database
- Google Maps and Places (2021)

In order to assess the likely significant impacts of the proposed development on population and human health, an analysis of recent Census data was undertaken relating to the economic, demographic and social characteristics of the study area. For the purposes of this demographic analysis, the study area comprises 2 No. distinct enumeration areas identified by the Central Statistics Office (CSO) of relevance to the subject development, as follows:

- The local Electoral Division (ED) study area to which the subject site belongs, comprised of 10
 No. ED's on the northern side of the river including Ballynanty, Kileely A, Kileely B, Castle A,
 Castle B, Castle C, Castle D, Coolraine, Limerick North Rural and Farranshone; and
- 2. The larger combined Limerick City and County Local Authority (LA) administrative boundary.

These enumeration areas are identified in Figure 6.1 and provide demographic information for the local and regional populations which are likely to be impacted by the subject development. Where relevant, information with relation to the national averages in each demographic area is also provided.



Figure 6.1 Extent of CSO enumeration areas utilised in demographic analysis. Subject Site identified by red dot.

A land use analysis informed the location of potential receptors, whilst a practical understanding of the design, construction and operation of residential projects by the study team contributed to an understanding of the potential risks associated with the proposed development.

6.3 RECEIVING ENVIRONMENT

This section provides an overview of existing demographics, health status of the area, and the location of potential receptors. It should be noted that the description of the baseline environment of those factors under which human health effects might occur has been addressed elsewhere in this EIAR, under the environmental factors of traffic and transportation, townscape and visual (landscape), water quality and biodiversity.

6.3.1 Economic and Employment Activity

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6.3.1.1 National Outlook

The CSO's Quarterly Labour Force Survey (which has now replaced the Quarterly Household Survey) for Q1 2023, indicated that there was an annual increase in full-time employment, bringing total employment in the State to 2,608,500 an increase on Q1 2022 figures of 4.1%. There was a decrease in unemployment of 12.7% between Q1 2022 and Q1 2023.

The ESRI Quarterly Economic Commentary for Spring 2023 states that the economy has performed particularly well and the domestic economy is still expected to grow robustly this year. Modified domestic demand (MDD) is now forecast to grow by 3.8 per cent in 2023 and inflation is due to moderate to 4.5 per cent in 2023. Furthermore, employment numbers show a substantial increase in those employed in the pharmaceutical sector since the onset of the pandemic.

The above sources demonstrate that the national economy and employment levels are expected to sustain growth for the rest of the year in 2023. High on the agenda is the supply of residential dwellings to feed the increased need for residential dwellings particularly in urban areas.

6.3.1.2 Local Outlook

To understand employment and economic activity at a local level, reference is made to the Small Area Population (SAPs) figures within the Census of Population 2016 (CSO) encompassing the 10 no. ED's as detailed in Figure 6.1. The ED Study area had a population of 19,440 persons in 2016 and this increased to 20,542 persons n 2022, a 5.6% increase which is below the Limerick average growth rate of 8% and the national average of 8.1%.

At the local level, some 58.3% of the population (Limerick City & County) was in employment, which is slightly below the 61% national average in 2022, whilst 8.6% were unemployed or unable to work due to sickness. This local outlook represents a much improved employment situation in contrast to 2016 figures and reflects the high levels of employment nationally.

The travel to work data has not yet been published for 2022 and continues to be available for 2016 only. Notwithstanding the date of the information, it does provide the pattern of work activity and travel associated with it. Of those that do work a high proportion work within the city of Limerick. This

assumption is supported by the travel to work / school / college data by people aged 5 years and over living in the study area. According to the 2016 Census of Population, 32% of the population have a travel time of between 15 – 30 minutes minutes, whilst 18% have a travel time of under 15 minutes, which is significantly below the national average. Overall, it highlights that a significant proportion of people can secure education and employment within a short commute of where they live and indicates significant provision of employment and services in the area.

There is a strong preference (33%) towards the use of the private car for travel to work, school or college in the area which is followed by travel on foot which stands at a mere 7%. Figures for the rest of Limerick City and County indicated a similar profile of private car users (64%), followed by pedestrians (14%) and bus/coach passengers (7%) respectively.

6.3.2 Health & Social Patterns

6.3.2.1 National Outlook

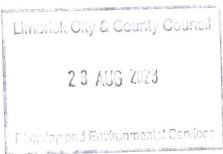
The 2022 CSO data illustrates that the population of the Irish State increased between 2016 and 2022 by 8.1%, bringing the total population of the Irish State to 5,149,139 persons. The rate of growth is significant as previous growth rates between 2011 and 2016 stood at 3.8%. The largest single contributor is net migration, although the economy has recovered in recent years with consequent population growth predominantly attributed to natural increase, greater economic activity and increased job opportunities.

The OECD published the Economic Survey of Ireland 2022 and highlights that the health of people in Ireland has improved significantly over the last twenty years with life expectancy now one of the highest in OECD.

6.3.2.2 Local Outlook

The total population of the study area according to the 2022 census is 20,542. The breakdown of population 2022 had not been published at the time of authoring. Based on the 2016 Population, the 15 - 19 age cohort and the 20 - 24 age group comprise 15% of the overall population. The next largest age group at 6% is those that fall within the 55 - 59 year age group. 20% of the overall population falls within the 30 - 44 year age group. This is significant in terms of service provision and has significant implications for housing provision and demand.

The Pobal Deprivation Index is Ireland's most widely used social gradient metric, which scores each small area (50 – 200 households) in terms of affluence or disadvantage. The index uses information from Ireland's census, such as employment, age profile and educational attainment to calculate this score. Whilst the subject site, located in Limerick North Rural ED is described as being 'marginally below average', the general study area also encompasses a 'very disadvantaged area' (Ballynanty) and also an 'Affluent area' (Farranshone).



6.3.3 Housing Stock & Structure

6.3.3.1 National Outlook

The National Residential Property Price Index (RPPI) increased by 3.6% in the 12 months to April 2023, with prices in Dublin rising by 1% and prices outside Dublin up by 5.6%. The median price of a dwelling purchased in the twelve months to April 2023 was €313,000.

There were 6,716 new dwelling completions over Q1 2023, a rise of 19.1% on the same three months of 2022. The average new dwelling size is continuing to gradually fall year on year. The average new dwelling size index for 2022 is at 75, three-quarters of the 2016 base index of 100.

Across different types of dwelling, the divergence in growth rates between house prices and apartments had somewhat narrowed. Apartment completions in Q1 2023 were more than double what they were three years ago and over five times higher than five years ago.

Housing for All - a New Housing Plan for Ireland' is the government's housing plan to 2030. It is estimated that Ireland will need an average of 33,000 new homes to be provided each year from 2021 to 2030. Housing output in Ireland to date, has not reached the required targets.

6.3.3.2 Local Outlook

In 2022, 65% of households in Limerick owned their own home, with a further 27% renting. This compares to 66% of households owning their home nationally and 28% renting. There has been an increase in housing stock of 4.5% across the city and county.

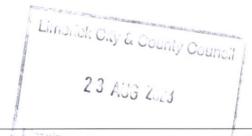
Within Limerick City & Suburbs, there has been a forecasted need for 11,054 households between 2022 – 2028, to facilitate a total population of 123,242 in 2028. Accordingly, 259 hectares of land is zoned to accommodate housing growth, including the subject land.

The Limerick City North Electoral Area, in which the subject site is located, had only 5% vacancy rate in 2022, in contrast to the 7.7% vacancy rate across Limerick city and county.

Low levels of household growth, coupled with continued population growth has resulted in an increase in the average household size across the State, where growth in average household size has decreased from 2.75 persons to 2.74 persons. The average household size in the study area remains at 2.73 persons,

6.3.4 Social Services & Infrastructure

A social infrastructure audit was undertaken for the proposed development site within the study area. The study identified infrastructure facilities in the vicinity of the subject proposal including education and training facilities, childcare services, community and cultural facilities, religious and burial sites, healthcare services, open space and recreation facilities and retail centres.



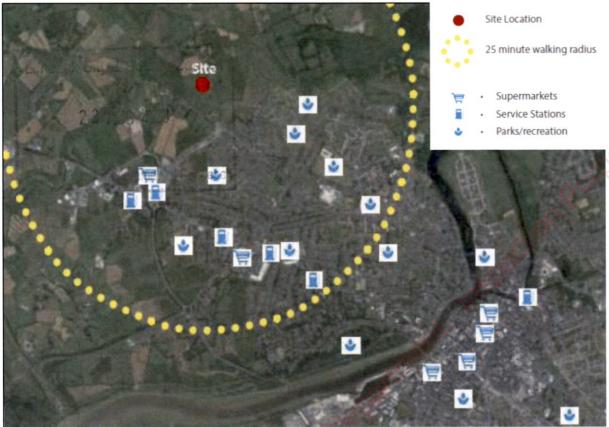


Figure 6.2 General Overview of Services Relative to the site

6.3.4.1 Recreational & Sporting Facilities

In proximity to the subject site there are an array of sports facilities and open space. The TUS University provides extensive sporting facilities and although they primarily service the university itself, they are available to local sporting organisations on a pre-arranged basis. Many clubs have facilities in the area including Thomond Rugby Club, Na Piarsigh GAA club grounds, Shelbourne Football Club and the Limerick Lawn Tennis Club.

There are also many open green areas serving housing developments which can be used on an informal bass for active recreational use. The closest park to the subject site is Shelbourne Park and the Moyross Sports Field. Notwithstanding a lack of parkland in the vicinity of the site, it is noted that significant land has been zoned for open space & recreation purposes, neighbouring the subject land, in the recently adopted Limerick Development Plan 2022 – 2028.

6.3.4.2 Health Facilities

There are five health care / medical centres within the study area (excluding dentists, pharmacies and physiotherapists). These include the Laya Health & Wellbeing Clinic; the Meadow Springs Medical Centre, Treaty Medical Centre, Ennis Road Medical Centre and Ballynanty Medical Centre. The Milford Care Centre on Plassey Park Road offers specialist hospice facilities and a nursing home. There are other family doctor practices at intermittent locations throughout the study area.

Figure 6.3 identifies the general location of 2 no. public hospitals in proximity to the site along with the closest health centre and pharmacy.

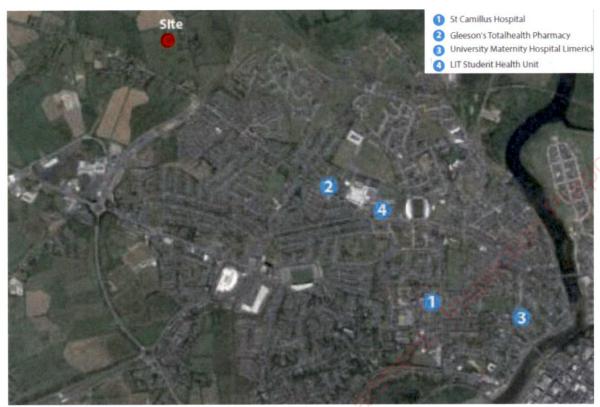


Figure 6.3 Healthcare Facilities

6.3.4.3 Childcare Facilities

The subject site is proximate to three existing childcare facilities in the area as detailed in Figure 6.4, including Naionra na nOg (pre school); Learning for Life Limited (montessori & after school) and Kids Inc MQI (after school care). These facilities are within walking distance of the subject site. The Naionara na nOG childcare facility located at the Shannonvale Complex on the Cratloe Road is a substantial facility. At the last Tusla Inspection in 2020, the facility had capacity for 100 no. children in the morning and 55 no. children in the afternoon.

This facility, associated with the other two smaller facilities, provides for childcare capacity services in the area and would be adequate to accommodate some housing (Residential Phase I) within the masterplan site.

Irrespective of existing childcare facilities in the area, the overall masterplan for the site proposes a creche facility with capacity for 107 no. children & 8 no. staff. This facility is proposed as Phase 2 of the overall development as per planning reference P22/790. The facility has been granted planning permission and it has been conditioned that the facility provided in advance of the proposed development (Phase 4). It has been sized to accommodate the totality of housing proposed within the masterplan site. Using the childcare provision guidelines of 20 child places per 75 no. dwellings, a childcare facility with capacity to accommodate 26 no. children is required for the proposed development of 98 no. dwelling units.

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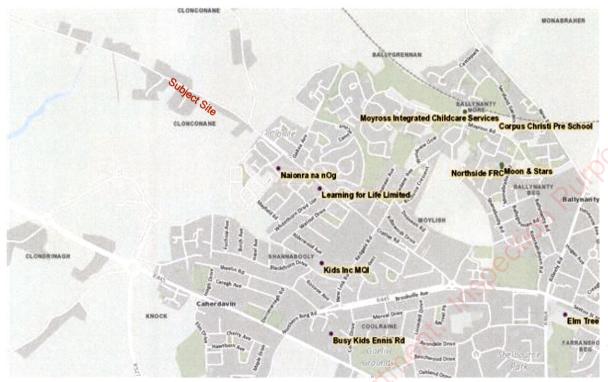


Figure 6.4 Location of Surrounding Registered Childcare Facilities. Source Pobal Childcare Services

6.3.4.4 Educational Provision

There are five primary schools, two secondary schools and a University on the northside of Limerick and in proximity to the site. Enrolment figures for 2022/23 indicate that 1,460 no. children attend the five primary schools of Scoil Chriost Ri, John F. Kennedy Memorial School, Thomond National School, Gaelscoil Sairseal and Corpus Christ Catholic School. This represents an increase of 46 no. students on the 1,414 enrolment figure the previous year. See Table 6.1 with breakdown of enrolment figures for 2020/21:

Name	Enrolled 2022/23	Enrolled 2021/22
Scoil Chrost Ri	302	306
John F. Kennedy Memorial School	250	250
Thomond National School	216	215
Gaelscoil Sairseal	309	276
Corpus Christ Catholic School	383	367

Table 6.1 Primary Schools and Enrolment Figures (Source: Department of Education & Skills website, 2022/23).

Within the secondary school of Ard Scoil Ris and Thomond Community College, enrolment figures for 2022/2023 indicate that 1,349 students attended both schools, which is a lower figure than the 1,323 pupils that were enrolled in 2021 / 22. This demonstrates some capacity on the system to accommodate additional pupils in the future. However, enrolment numbers in secondary schools are more based on choice than locational circumstances with secondary school student travelling further to avail of a particular school.

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Figure 6.5 Primary and post primary schools in the vicinity of the site

6.3.4.5 Community Services Provision

Caherdavin Community Centre, Moyross Community Centre and St Munchins Community Centre all provide services in the area. Whilst there is no post office in proximity to the site, post offices located at the Jetland Centre in Caherdavin south east of the site and in Ballynanty north east of the site, provide local services.

The closest public library is the city library located in Limerick city centre. However, this facility can be easily accessed by bus from the subject site.

The Limerick Baptist Church off the Old Cratloe Road is closest to the site. Mayorstone Park Garda Station is located in proximity to Thomond Park, an 8 minute walk from the site.

6.3.4.6 Retail & Commercial Services

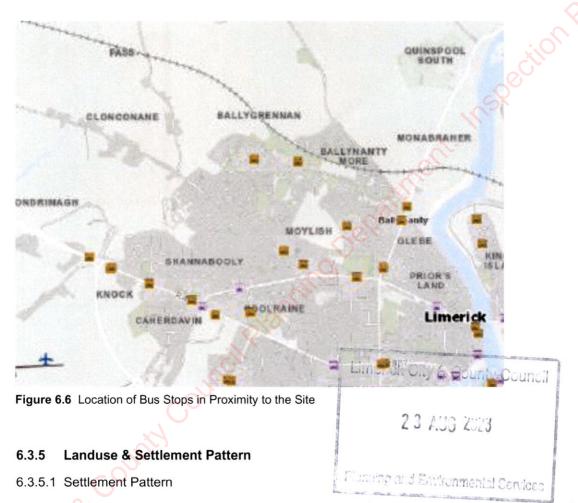
The Jetland Centre in Caherdavin is accessible from the subject site, whilst a number of smaller facilities operate in proximity to the site on the Cratloe Road including a Spar and a Centra in the Woodview Shopping Centre. The proposed development includes provision for a Neighbourhood Centre (Delivery 4), which is intended to be delivered in advance of the proposed development (Delivery 6). A new Aldi supermarket was recently granted planning permission to the north east of the site on the Knockalisheen Road which will be directly accessible once the new road adjoining the site is constructed.

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2 3 AUG 2023

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6.3.4.7 Transport Services

East of the site on the Cratloe Road there is a bus stop which gives access to the city via Bus route no. 302. The proposed development has taken the provisions of the Limerick Shannon Metropolitan Area Transport Strategy (LSMATS) into consideration. Under the strategy, a bus corridor is to extend along the Old Cratloe Road beyond the application site, effectively providing connectivity between the site and the city centre. Further, cycling infrastructure will be accommodated within and adjoining the proposed development as per the 'Proposed Limerick Cycle Network Map' detailed in LSMATS, in particular the proposed 'Green Route' on the old, realigned section of the Meelick Road as it approaches the Old Cratloe Road.



The general area comprising the masterplan site has a rural feel, notwithstanding significant residential and educational developments immediately to the east. The majority of site is surrounded by green fields apart from low density dwellings and Willow Grove development to the north and west, and the county club bar on the Old Cratloe Road - Pass Road junction. Further to the east, developments such as Thomond Village, Clonile and Shannonvale lie next to the site and mark the edge of the built up area of the Limerick suburbs.

A growing and developing suburban area to the north west of Limerick City, the character of the area is dominated by mid – low density residential development with clusters of commercial development interspersed at nodal locations. The settlement pattern is varied, dominated by individual 'housing estates' with little permeability and connectivity.

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Figure 6.7 Typologies & Landuse

6.3.5.2 Potential Receptors

Key potential receptors, to be assessed in this chapter, include residential, commercial, community and recreational receptors.

Residential Receptors

A row of 11 no. one off dwellings front onto the Meelick Road and adjoin the masterplan site. A total of 6 no. of these dwellings directly back onto the site to the north east. These are likely to be the most directly affected dwellings in the area, as the development extends immediately to their rear.

There are a further 8 no. detached houses located fronting onto the Old Cratloe Road adjoining the masterplan site and the application site to the west. Although slightly removed from the site, the houses immediately adjoining the masterplan site will be most directly affected.

There are a number of houses situated opposite the southern side of the Cratloe Road with 3 no. one off houses backing onto the masterplan site and specifically the proposed Phase 5 residential development. To the west, is the Willow Grove residential development, also located on the southern side of the Cratloe Road and slightly removed from the masterplan site and the proposed development.

Further to the east, located closer to TUS University are residential developments including Thomond Village, Clonile and Shannonvale. These mark the edge of the built up area of the Limerick suburbs and are effectively separated from the masterplan site by the proposed Coonagh - Knockalisheen Road which is currently under construction.

Within the masterplan site itself planning permission has already been granted by Limerick City & County Council for Phase 1 residential development (P21/1800) but is currently on appeal to An Bord Pleanála. These 99 no. residential units are planned to be developed and occupied prior to the construction of the proposed development (Phase 3 residential). Phase 2 and Phase 3 comprising 86 no. Units and 98 no. Units repectively have also been granted and are scheduled to be delivered before the proposed development Phase 4.

Commercial Receptors

The County Club Bar & Lounge is located to the south east of the site, situated in between the realigned Meelick Road to the west, the proposed Phase 2 residential development and old Meelick Road to the east and the proposed creche to the north.

There are no other commercial receptors in the area save for local shops and services, located further removed from the site to the east on the Old Cratloe Road.

A number of indirect economic receptors have also been identified to include suppliers of construction materials required to complete the proposed development. It is not possible to identify these suppliers at planning stage as use of these suppliers will be dependent on detailed construction drawings and requirements.

Community & Recreation Receptors

The closest community & recreation receptor to the site is the TUS University Moylish Campus situated further to the east along the Old Cratloe Road.

Future Receptors

To identify potential future receptors a review was undertaken of permitted development in and around the area over the last five years (including extension of duration of previous permissions). There are no significant planning permissions permitted adjoining or in proximity to the site, which could be affected by the proposed development, save for those phases of development already permitted within the masterplan site as detailed in Table 6.2.

Delivery	Development	Gross Site	Status	Plan Ref. No.
Delivery 1	Phase 1 - 99 residential units	3.31 ha.	Planning permission granted. Subject to third party appeal	P21/1800
Delivery 2	Childcare Facility.	0.43 ha.	Granted	P22/790
Delivery 3	Phase 2 - 86 residential units	2.19 ha.	Granted	P22/817
Delivery 4	12 residential units & neighbourhood facility	1.40 ha.	Further Information Response Submitted	P22/917
Delivery 5	Phase 3 - 98 residential units	9.45 ha.	Granted	P22/959
Delivery 6	Phase 4 - 54 residential units	2.55 ha.	Subject Development	P22/1114
Delivery 7	Phase 5 - 99 residential units	2.87 ha.	Future development	•

Figure 6.2 Developments Permitted within Masterplan Site & at Advanced Stage of Consent Process

Limerick City & County Council

23 AUG ZUZS

6.3.6 Health & Safety

The surrounding context consists of a mix of residential, transport, recreational and amenity related land uses. It does not include any man-made industrial processes (including SEVESO II Directive sites (96/82/EC & 2003/105/EC) which would be likely to result in a risk to human health and safety.

There is little health information available at county level and so there is a reliance on information at national level to inform on the general health of the wider Limerick area.

The Department of Health's report 'Health in Ireland, Key Trends 2019' (Department of Health, 2019) provides summary statistics on health and health care in Ireland over the past ten years. According to the key trends, in Ireland male life expectancy has increased by 3 years and female life expectancy has increased by 2 years since 2007 and is now above the average for the EU. The greatest gains in life expectancy have been achieved in the older age groups reflecting decreasing mortality rates from major diseases. The proportion of life expectancy at age 65 to be lived in good health is higher for both men and women in Ireland compared with the EU-28 average. In recent decades, Ireland has consistently recorded high rates of self-evaluated good health. Population health at the national level presents a clear picture of rapid decreases in mortality rates accompanied by a rapid rise in life expectancy during the past ten years. This has a knock-on impact on housing demand and need and will influence future housing mix and structures.

At county level, the creation of County Health Profiles is one of the key actions from the Healthy Ireland strategy which is our national framework for action to improve the health and wellbeing of the people of Ireland. The County Health Profile for Limerick City confirms that Limerick City is the most deprived Local Authority in Ireland, with 36.8 per cent of the population either very disadvantaged or disadvantaged. It further states that Limerick City has above average levels of those who stated they had bad or very bad health of (2.6% compared to 1.5% nationally) and those with a disability of 18.2 per cent.

6.3.7 Risk of Major Accidents and Disasters

The EIA Guidelines 2022 state that an EIAR must include the expected effects arising from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project. In this respect, taking cognisance of the other chapters contained within this EIAR document, it is not considered that the proposed development site presents risks of major accidents or disasters, either caused by the scheme itself or from external man made or natural disasters.

6.4 DESCRIPTION OF EFFECTS

This section provides an assessment of all of the potential and predicted impacts of the proposed development on population and human health. As outlined in Section 6.1, in accordance with the EPA Guidelines 2022, the assessment of impacts on population and human health refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in this EIAR.

A number of the likely impacts have already been 'designed out' of the development proposal. These measures have been dealt with comprehensively in respective chapters including Chapter 7.0

23 AUG 2023

Biodiversity; Chapter 9.0 Water Hydrology – Surface Water & Flooding; Chapter 11.0 Noise & Vibration; Chapter 16.0 The Landscape; and Chapter 12.0 Material Assets: Traffic & Transport.

Seven different 'Delivery Phases' of development, as detailed in Table 6.2, are proposed to effectively deliver the overall indicative masterplan. This application relates to Phase 4 (54 no. units) as detailed in Chapter 1.0 and 2.0 of this EIAR. Whilst seven different phases are proposed at this point in time, the reality is that some of the phases could be fast-tracked such that two phases advance in construction together. This, however, is very much dependent on market conditions and the specific requirements of contractors. In any case, should different phases cumulatively progress together, the overall impacts are unlikely to be different.

In order to ensure an effective and conclusive environmental assessment consistent with best practise, the assessment of potential effects on the environment also examines the collective cumulative effects of the overall development if all seven development phases, as detailed in Chapter 1.0, were implemented. The examination of the 'all phase' development scenario is consistent with best practice in order to examine a 'worst-case' scenario of the project effects.

6.4.1 'Do-Nothing' Scenario

A 'do nothing' impact would result in the subject site remaining in a green-field state and substantially undeveloped. Development to facilitate residential use would likely occur on the lands in a piecemeal manner, as planning permission has already been granted for 185 no. residential units as Phase 1 & 2. The effect of this development advancing in isolation from the remainder of the landholding would result in adhoc, piecemeal development. Further, it would result in an underutilisation of the site from a sustainable planning and development perspective, particularly considering the location of the lands in proximity to existing services and facilities and the provision of a new distributor road to the east of the site, Coonagh – Knockalisheen Road) which is intended to open up land for development purposes. The status of the environmental receptors described throughout this EIAR document would be likely to remain unchanged. The potential for any likely and significant adverse environmental impacts arising from both the construction and operational phases of the proposed development would not arise.

In terms of the likely evolution without implementation of the project as regards natural changes from the baseline scenario, it is considered there would be limited change from the baseline scenario in relation to population (human beings) and human health.

However, similarly the potential for any likely and significant positive environmental impacts arising from both the construction and operational phases of the proposed development would also not arise. The site is zoned for residential use purposes within the Limerick Development Plan 2022 -2028, with objectives to ensure a wide range of house types. The proposed use of the site is considered to be in accordance with the proper planning and sustainable development of the area.

The partial development of lands, in accordance with the planning consent for Phase 1 & 2 and the creche issued to date, which effectively subdivides the masterplan area, in isolation of the masterplan lands, would create a gap / infill site in an urban area next to a new road scheme (currently under construction) and good quality pedestrian and cycling infrastructure. Furthermore, without this development it is likely the critical mass and density potential on the northern side of Limerick city would not be realised.

6.4.2 Construction Impacts

Potential construction impacts arise from a range of issues discussed elsewhere in this EIAR: Traffic & Transport (Chapter 12.0); Noise and Vibration (Chapter 11.0); Air Quality and Climate (Chapter 10.0); and Biodiversity (Chapter 7.0). Construction impacts resulting from the delivery of the overall masterplan site are likely to be of medium effect, adverse and temporary in nature.

The construction phase of the proposed development will primarily consist of site clearance, excavation and construction works. Within the overall masterplan site, these works are likely to take place over seven different phases with a potential completion timeframe of five years. Given the extent of the subject site and the phased approach to development works, direct impacts are most likely to be experienced within the masterplan site itself and within those houses that will be occupied upon completion prior to another phase commencing.

Chapter 11.0 of this EIAR sets out a number of noise mitigation measures. Whilst there is potential for temporary noise impacts on nearby noise sensitive properties due to noise emissions from site activities during construction, the application of binding noise limits and hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise and vibration impact is kept to a minimum as far as practicable. For the duration of the construction period, construction noise impacts will be short-term, negative, slight to significant.

Within the subject site, the works will be undertaken in one phase over a 9 month timeframe. The works will largely be confined to the proposed development site. Notwithstanding the implementation of remedial and mitigation measures there will be some minor temporary residual impacts on population (human beings) and human health most likely with respect to nuisance caused by construction activities, particularly relating to noise and dust. The houses to be constructed immediately to the south east of the site and those existing one off houses adjoining the site on the Old Cratloe Road, will most likely be impacted. For the duration of the 9 month construction period, construction noise impacts will be short-term, negative, slight to significant.

It is anticipated that subject to the careful implementation of the remedial and mitigation measures proposed throughout this EIAR document any adverse likely and significant environmental impacts will be avoided. Positive impacts are likely to arise due to an increase in employment and economic activity associated with the construction of the proposed development, which is likely to have between 50-60 workers on site at any one time. As outlined above, the construction phase will have both direct and secondary positive economic impacts in this regard.

Potential impacts could occur as a result of inadequate site management or accidental spillage during construction, which could enter the local drainage ditches which have a hydrological connection with the a drainage ditch in the field (outside of the application site) to the west which connects with the Lower River Shannon Special Area of Conservation (SAC) and River Shannon and River Fergus Estuaries Special Protection Area (SPA) some 1.7km distant from the site. However, the likelihood of this happening is low given the design measures introduced as part of the development and detailed in Chapter 9.0 of this EIAR.

23 AUG 2023

The visual landscape will change once construction commences and it will take time for the proposed landscaping treatment to mature. These impacts further detailed in Chapter 16.0 Landscape, are likely to be moderate and short term in nature.

The overall predicted likely and significant impact of the construction phase for the application site will be short-term, moderate and likely to be neutral. Although the construction timeframe for the overall masterplan will be longer and more likely to be in the region of five years, the construction will be undertaken on a phased basis such that impacts will continue to be short-term, moderate and neutral in effect.

6.4.3 Operational Impacts

Potential operational impacts arise from a range of issues discussed elsewhere in this EIAR including Landscape & Visual (Chapter 16.0); Traffic & Transport (Chapter 12.0); Noise & Vibration (Chapter 11.0); and Air Quality & Climate (Chapter 10.0).

The proposed development will result in a generally positive alteration to the existing undeveloped site in terms of the provision of residential units, to serve the growing population of the area in accordance with the objectives of the Limerick Development Plan 2022 – 2028, the associated growing population and the evidential need and demand for housing in the area. The proposed creche facility will complement existing creche operators in the area and the proposed local neighbourhood centre will provide local convenience shopping and other services, not only accommodating the proposed development, but also servicing existing residents in the area.

The proposed development will consist of 54 no. residential units/households. Using the average household size of 2.7 the proposed development is likely to result in a projected population of approximately 146 no. persons.

Having regard to the potential of the overall masterplan site to accommodate 448 no. units, including the subject site, the potential is for the masterplan to result in a projected population of approximately 1,210 people. This will result in a sizeable new community within the area. This is considered significant, permanent and positive, particularly in the context of current housing demand, but it will place significant additional strains on existing community facilities and services in the area and in the city. The important consideration is that the potential population generated from the proposed development has already been planned for in the context of the Limerick Development Plan 2022 - 2028 and the projected household growth in Limerick city of an additional 11,054 residential units between 2022 – 2028. The new Limerick Development Plan was adopted in 2022 with adequate planned provision made for supporting services and facilities over the plan period.

Positive impacts on population and human health will include health benefits associated with the provision of a highly permeable layout which encourages walking and cycling, along with amenity and recreational facilities within designated areas of open space.

The implementation of the range of remedial and mitigation measures included throughout this EIAR document is likely to have the impact of limiting any adverse significant and likely environmental impacts of the operational phase of the proposed development on population and human health.

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6.4.4 **Cumulative Impacts**

The potential cumulative impacts of the proposed development on population and human health have been considered in conjunction with the ongoing changes in the surrounding area. A planning history review was undertaken to identify any recently approved or pending developments which may have a cumulative impact with the proposed development. There are no significant developments permitted in the area, which have not yet been constructed, save for the Masterplan site itself which have been detailed in Table 6.2.

The proposed development does need to be considered in conjunction with the works currently underway, delivering the proposed Coonagh to Knockalisheen Distributor Project. This infrastructure project secured consent from An Bord Pleanála in 2021 and was subject to the preparation of an EIAR and Environmental Impact Assessment. The cumulative impacts associated with noise and dust during construction have been considered in Chapters 10.0 and 11.0 of the EIAR, whilst potential effects arising from increased traffic have also been considered in Chapter 12.0.

With regard to human health, the cumulative impact of the proposed development in conjunction with the proposed new Distributor Road will provide for the introduction of high-quality new neighbourhood in the area with a high level of accessibility and amenity. The overall cumulative impact of the proposed development will therefore be long term and positive with regard to human health by a County Council

6.5 LIKELIHOOD OF SIGNIFICANT EFFECTS

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6.5.1 Introduction

Floaring and Environg This section provides a description of the specific, direct and indirect, impacts that the proposed development may have during both the construction and operational phases of the proposed development. Additionally, this section addresses the socio-economic and employment impacts of the proposed development. For a more detailed assessment of potential impacts please refer to specific chapters of the EIAR which assess the environmental topics outlined in the EIA Directive.

6.5.2 Water

Construction Phase

Provision of water infrastructure for the proposed development would involve construction activities within the subject lands and on the adjoining public road to facilitate connections with existing infrastructure.

Construction works mainly involving trench excavations conducted in parallel with the other services. The potential impact on the local water services network would be short term and imperceptible. Therefore, the impact on human health and population in this regard is considered to be insignificant.

During the construction phase there is potential for weathering and erosion of the surface soils from precipitation and run-off and surface water runoff may also contain increased silt levels or pollutants from the construction processes. Within the wider masterplan where works are proposed in proximity to the existing drainage ditch within the site, there is potential for discharge of these contaminants to the Lower River Shannon Special Area of Conservation (SAC) and River Shannon and River Fergus

Estuaries Special Protection Area (SPA) which has the potential to cause pollution and consequential impacts to human health and population. A berm shall be constructed at the western boundary of the site to prevent any flow of surface water into the drainage ditch during construction. Further mitigation measures are outlined in Chapter 9.0 – Surface Water & Flooding and Chapter 7.0 Biodiversity.

Operational Phase

The impact of the operational phase of the proposed development on the public water supply will increase the demand on the existing supply. A pre-connection enquiry (Connection Reference No CDS22003876) was lodged with Irish Water who has confirmed that there is adequate capacity within the existing public water services network to facilitate the proposed development and wider masterplan development.

It is proposed to provide watermain around the development to form a fully loopednetwork, ensuring security and quality of supply. The proposed internal water supply network for the development has been designed in accordance with Irish Water Code of Practice July 2020. It is proposed to connect the development to the 250mm diameter main to be installed as part of the Old Cratloe Road upgrade works south of the development. Individual houses will have their own connections to the distribution main via service connections and boundary boxes. As such additional water quantities would need to be treated at the reservoir and supplied through the existing network to the site. This will require extra cost as well as increasing abstraction volumes from the existing source. The impact on human health and population in this regard is considered to be insignificant.

Wastewater will be discharged to the public sewer. Irish Water has confirmed that there is adequate capacity (Connection Reference No. CDS22003876). The impact on human health and population in this regard is considered to be insignificant. It is proposed to provide a single gravity foul sewer system to serve the current proposed development. The foul sewerage from the overall development is planned to discharge to the foul network to be installed as part of the Old Cratloe Road upgrade works south of the development.

Surface water run-off discharge rates from the development sites may be increased because of an increase in impermeable surfaces, shorter flow paths through pipes and reduced roughness co-efficient. However, implementation of SUDs features would aim to maintain runoff rates as close as possible to existing greenfield runoff rates. SUDs will be implemented in accordance with the recommendations of the GDSDS and Limerick County Council requirements. Therefore, the potential impact on population and human health in this regard is considered to be insignificant.

6.5.3 Noise

Construction Phase

During the construction phase there will be extensive site works, involving construction machinery, construction activities on site, and construction traffic, which will all generate noise. The highest noise levels will be generated during the general construction activities. The construction noise levels for this development will occur over an approximate twelve month period for the proposed development while cumulatively it may occur for a five year period having regard to the overall masterplan. Noise levels will only occur during daytime hours which will serve to minimise the noise impacts at local existing receptors over the course of the construction phase.

23 AUG ZUZ3

It is predicted that the construction phases shall result in a short-term increase in noise levels in the area as well as introducing tonal and impulsive noise as a result of construction activities such as pneumatic breaking, cutting, excavating, vehicle movements and general manual construction activities. The predicted noise levels are however expected to occur for only short periods of time at a limited number of properties, in particular those situate on the Meelick Road and those already constructed within the Masterplan site (Phase 1 & 2).

Due to the phased nature of the Massterplan site and the proposed development (54 units) which will occur over an approximate twelve month period, there will be slight to moderate impacts on existing residents in nearby residential areas and in particular on those residents who will occupy the new units in Phase 1 & 2. However, the proposed construction phase noise mitigation measures as detailed in the Noise and Vibration chapter of this EIAR shall ensure that all construction activities are controlled and managed and audited by an independent acoustic consultant to confirm that the mitigation measures are implemented throughout the construction phase.

Operational Phase

The main potential for altering the noise environment once the development is operational, and thus impacting neighbouring residential receptors, is road traffic noise associated with the development.

The UK Design Manual for Roads and Bridges (DMRB, Volume 11, Section 3, Part 7) states that it takes a 25% increase or a 20% decrease in traffic flows in order to get a 1dBA change in traffic noise levels. During the operational phase of the proposed development, there will be an increase in vehicular traffic associated with the site on some surrounding roads but the effect has been determined to be negligible. The traffic figures account for the entire Masterplan of which this development is only a part of, as such it is reasonable to assume that the impact for this development will be even lower. Accordingly, there will be an imperceptible impact on existing ambient noise levels at existing residential development in proximity to the existing roads and junctions within the surrounding area as a result of road traffic alterations associated with the proposed development.

The subject development includes the provision of surface car parking spaces for the residential units. Vehicles using car parking areas generally travel at speeds <20kmph which result in relatively low noise levels. On site car parking within the proposed development will have no impact on adjacent residential developments.

Within the proposed development, sounds generated by everyday domestic activities including waste facilities, pedestrians, children, and use of open spaces, are part of everyday living, and are not considered "noise" in the sense of a potential nuisance. This activity noise would not have any potential for impact beyond the boundaries of the site. In particular, the design of the proposed development has ensured that there will be no impacts on adjacent sensitive receptors.

6.5.4 Air Quality & Climate

Construction Phase

During the construction phase, site clearance and ground excavation works have the potential to generate dust emissions rising from the operation and movement of machinery on site. This has a potential impact on population and human health.

Construction equipment including generators and compressors will also give rise to some exhaust emissions. However, due to the size and nature of construction activities, exhaust emissions during construction will have a negligible impact on local air quality. CO2 will be released into the atmosphere as a result of the movement of construction vehicles and use of plant. However, emissions associated with such activities will not be significant.

Construction traffic to and from the site shall result in a short-term increase in the volume of diesel fuelled HGV's along the local road network which will generate additional hydrocarbon and particulate emissions from the vehicle exhausts. However, the activities detailed above will result in an imperceptible impact on local air quality and sensitive receptors.

Mitigation measures are outlined in Chapter 10 – Air Quality and Climate including avoiding unnecessary vehicle movements and manoeuvring and limiting speeds on site so as to minimise the generation of airborne dust and spraying surfaces with water and wetting agents to control dust emissions.

Various elements associated with the construction phase of the proposed development have the potential to impact local ambient air quality, however the potential construction phase impacts shall be mitigated as detailed in Chapter 10.0 to ensure there is a minimal impact on ambient air quality for the duration of all construction phase works. It is predicted that the operational phase of the development will not generate air emissions that would have an adverse impact on local ambient air quality or local human health.

It is predicted that the activities detailed above will result in an imperceptible impact on local air quality and sensitive receptors. Therefore, the potential impact on human health and population in this regard is considered negligible.

Operational Phase

The operational phase of the proposed development will result in a slight impact on local air quality primarily as a result of the requirements of new buildings to be heated and with the increased traffic movements associated with the development.

The proposed landscaping scheme include native trees, grasses and shrubs which will also contribute albeit in a minor way to the adsorption of Carbon Dioxide from the atmosphere and the release of oxygen to the atmosphere.

It is predicted that the operational phase of the development will not generate air emissions that would have an adverse impact on local ambient air quality or local human health, as stated in Chapter 10 – Air Quality and Climate.

Planning and Environmental Cervices

6.5.5 Landscape and Visual Impact

Construction Phase

The construction phase will have short term landscape and visual impacts. It is envisaged that construction will occur over a twelve month period and cumulatively on site over a five year period. There will be a perceptual and visual change on the landscape as a result of works. However, the landscape has already been disturbed with construction works associated with the Coonagh –

Knockalisheen Road and so the baseline is already that of a landscape in transition. These works are temporary in nature and are not considered significant on population and human health.

However, as already detailed in Chapter 16.0 – Landscape and Visual Impact Assessment, in order to ensure that the visual impacts from construction works, as viewed from neighbouring housing is minimised, effective screening shall be provided around the proposed development on site and each subsequent phase of development. Landscaping on site and within each phase of development shall commence within the first planting season after houses have been constructed on site and prior to completion of development.

Operational Phase

The operational phase of the proposed development has the potential to lead to positive impacts on population and human health. The proposed development will overlook pockets of open space whilst the development proposal will directly link with existing pedestrian footpaths on the Old Cratoe Road thereby encouraging walking.

The proposed development will accommodate a high-quality residential environment located close to existing services and amenities. The landscape design rationale for the masterplan site is based on the provision of a hierarchy of open space and play areas within the development. Accordingly, the proposed development is likely to have a positive impact on human beings.

6.5.6 Economic Activity

Construction Phase

The construction phase of the proposed development is likely to result in a positive net improvement in economic activity in the area of the proposed development site particularly in the construction sector and in associated and secondary building services industries.

It is anticipated that between 50 - 60 work personnel will be employed on site during peak construction periods. A considerable amount of the work will be undertaken by sub-contractors who will also work elsewhere on a phased basis over the construction period.

The construction phase will also have secondary and indirect 'spin-off' impacts on ancillary support services in the area of the site, such as retail services, together with wider benefits in the aggregate extraction (quarry) sector, building supply services, professional and technical professions etc. These beneficial impacts on economic activity will be largely temporary but will contribute to the overall future viability of the construction sector and related services and professions over the phased construction period.

The proposed development could have a slight negative impact on the surrounding area during construction phase due to traffic and associated nuisance, dust and noise. These issues and appropriate mitigation measures are addressed in Chapters 12.0 and 11.0 of the EIAR, in the Material Assets Traffic and Transport Assessment and the Noise and Vibration Assessment which accompany the application.

23 AUG 2023

Operational Phase

The operational phase of the proposed development will result in the provision of 54 no. residential units and associated open space. This will provide accommodation for approximately 146 no. persons, When the housing that could be generated by the overall masterplan is considered, the masterplan area could effectively house 1,210 no persons.

This increase in occupancy in the area will enhance local spending power and will assist with the delivery of a critical mass of population which will support a wide range of additional local businesses, services, transport infrastructure and employment opportunities. Further, provision of a creche and local neighbourhood centre will provide services to not only the proposed residential development but also to residents living in the area, thereby facilitating the development of a sustainable neighbourhood.

6.5.7 Social Patterns

Construction Phase

The construction phase of the proposed development is unlikely to have any significant impact on social patterns within the surrounding area. Some temporary additional local populations may arise out of construction activity. However, these impacts are imperceptible, temporary in nature and therefore not considered significant.

It is acknowledged that the construction phase of the project may have some short-term negative impacts on local residents. Such impacts are likely to be associated with construction traffic and possible nuisances associated with construction access requirements. These impacts are dealt with separately and assessed elsewhere in the EIAR, including Chapter 2 - Project Description; Chapter 10 - Air Quality and Climate; Chapter 11 - Noise and Vibration and Chapter 12 Material Assets - Traffic and Transport.

Such impacts will be short term and in the longer term, the completed scheme will have beneficial impacts for local businesses, residents and the wider community. Any disturbance is predicted to be commensurate with the normal disturbance associated with the construction industry where a site is efficiently, sensitively and properly managed having regard to neighbouring activities. The construction methods employed, and the hours of construction proposed will be designed to minimise potential impacts to nearby residents.

Operational Phase

The addition of circa 146 no. new residents to the area, generated by he application site, will have a significant, positive and direct impact on the area. Importantly, the predicted increase in population has been planned in a holistic and co-ordinated manner, under the provisions of the Limerick Development Plan 2022 – 2028 and similar to other developments already granted permission in the locality.

The Social Infrastructure Audit undertaken for the purpose of this EIAR (Section 6.3.4) confirms the proximity of the site to existing community support facilities including local and district shops, health facilities, employment opportunities and schools. These existing facilities within the vicinity of the site have the capacity to be shared and further utilised. They also have the potential to be augmented / expanded with additional facilities and services to serve a growing community.

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Enrolment for both primary schools within the area appear to be growing, whilst the last year saw a decline for secondary schools. There are no proposals detailed in the Development Plan to increase primary school capacity in the area, although there are a number of policies which proactively support future growth and expansion.

The subject site is served by public transport with bus links to Limerick City Centre and its range of higher order shops and services. Furthermore, the masterplan site provides for the development of a creche facility (granted permission) and local neighbourhood facilities in advance of the proposed development (Phase 3) thereby ensuring adequate services in the immediate area to serve the development.

6.5.8 Land-Use & Settlement Patterns

Construction Phase

The construction phase of the proposed development will primarily consist of site clearing, excavation and construction works. It is acknowledged that the construction phase of the project may have some short-term negative impacts on local residents. Such impacts are likely to be associated with construction traffic and possible nuisances associated with construction methods and activities. These impacts are dealt with separately and assessed elsewhere in the EIAR, including Chapter 2.0 - Project Description; Chapter 10.0 - Air Quality and Climate; Chapter 11.0 - Noise and Vibration and Chapter 12.0 Material Assets - Traffic and Transport. Construction works are likely to take place on a phased basis, which will moderate the potential impacts on adjoining land use.

As detailed in Chapter 16.0 – Landscape and Visual Impact Assessment, in order to ensure that the visual impacts from construction works, as viewed from neighbouring housing is minimised, effective screening shall be provided around the proposed development on site and each subsequent phase of development. Landscaping on site and within each phase of development shall commence within the first planting season after houses have been constructed on site and prior to completion of development.

Secondary land use impacts include off-site quarry activity and appropriate disposal sites for removed spoil. These facilities would already have gone through the planning consent process and any associated environmental impacts assessed accordingly. Whilst traffic to and from these facilities may marginally increase as a result of the development proposal, the impacts are not likely to be significant and shall be temporary in nature. The locations for these specific activities have not yet been identified and will be identified once a contractor has been appointed on site.

The construction phase may result in a marginally increased population in the wider area due to increased construction employment in the area. However, this would be temporary in nature and the impact would be imperceptible.

Operational Phase

The operational phase of the proposed development will result in the introduction of a residential land use to the subject site which will provide much needed housing for the growing population of the Limerick City and County area in general. The proposed use once constructed will function in synergy with adjoining residential development and other commercial uses in the area. The impact of the development on land use and settlement patterns will be positive having regard to its planned implementation as detailed in the Limerick Development Plan 2022-2028.

6.5.9 Health & Safety

Construction Phase

The construction phase of the proposed development may give rise to short-term impacts associated with construction traffic, migration of surface contaminants, dust, noise and littering. Secondary impacts may include resulting increased traffic arising from hauling building materials to and from the proposed development site which are likely to affect population and human health distant from the proposed development site, including adjacent to aggregate sources and landfill sites. Construction impacts are likely to be short term and are dealt with separately in the relevant chapters of this EIAR document.

The proposed development is designed to best industry standards, with emphasis on the health and safety of occupants, local residents and the community at large. A Project Supervisor, Design Process (PSDP), will be appointed at tender stage to coordinate the design effort and to address and minimise construction risks during the detailed design period. Notification of this appointment will be sent to the HSA by means of their Approved Form 1 (AF1).

As design advances and before construction commences, a Preliminary Health and Safety Plan will be drawn up by the PSDP and reviewed by the project team. This ultimately will be passed on to the appointed Project Supervisor Construction Stage (PSCS) to be developed into a Construction Health and Safety Plan, prior to construction commencing. Notification of this appointment and the commencement date of construction will be sent to the HSA by means of their Approved Form 2 (AF2). Construction on site will be managed through a Construction and Environmental Management Plan to be prepared by the appointed contractor. The construction methods employed, and the hours of construction proposed will be designed to minimise potential impacts. The development will comply with all Health & Safety Regulations during the construction of the project. Where possible, potential risks will be omitted from the design so that the impact on the construction phase will be reduced.

Operational Phase

The operational stage of the development is unlikely to precipitate any significant impacts in terms of health and safety. The design of the proposed development has been formulated to provide for a safe environment for future residents and visitors alike. The paths, roadways and public areas have all been designed in accordance with best practice and the applicable guidelines including DMURS. The proposed residential units along with the creche and local neighbourhood centre, which are part of the overall masterplan, accord with the relevant guidelines and will meet all relevant safety and building standards and regulations. This ensures a development which promotes a high standard of health and safety for all occupants and visitors.

The proposed development will not result in any significant impacts on human health and safety once completed and operational. The proposed development therefore is unlikely to result in negative impacts in relation to population and human health in this regard.

6.5.10 Risk of Major Accidents or Disasters

Construction Phase

Having regard to the topography, geology and location of the subject site, and its low risk of flooding due to its elevation which is well above flood risk zones A and B, it is not considered likely that there

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will be any impact related to a major accident or disaster during the construction phase of the proposed development, stemming internally from within the development, or externally.

The works proposed in proximity to roadways will be governed by best practice and appropriate safety procedures, ameliorating any risk of a major accident in those contexts.

Operational Stage

The proposed development will be located on land which is not at any significant risk of flooding. The entrance arrangements have been designed so as to avoid any risk of a major accident associated with the surrounding road network. It is considered that there is no significant risk related to major accidents or disasters, external or internal, man-made or natural in respect of the proposed development.

6.6 REMEDIAL AND MITIGATION MEASURES

Avoidance, remedial and mitigation measures describe any corrective or mitigative measures that are either practicable or reasonable, having regard to the potential likely and significant environmental impacts.

6.6.1 Construction Phase

A range of construction related remedial and mitigation measures are proposed throughout this EIAR document with reference to the various environmental topics examined and the inter-relationships between each topic. These remedial and mitigation measures are not likely to result in any significant and likely adverse environmental impacts on population and human health during the construction phases being avoided.

Limpick City & County Council

6.6.1.1 Mitigation by Avoidance / Design

No mitigation proposed

6.6.1.2 Mitigation by Prevention

POP & HH CONST 1: In order to protect the amenities enjoyed by nearby residents and the adjoining school, a Construction and Environmental Management Plan (including traffic management) shall be prepared by the contractor and implemented during the construction phase.

POP & HH CONST 2: A berm shall be constructed at the western boundary of the site to prevent any flow of surface water into the drainage ditch during construction.

6.6.1.3 Mitigation by Reduction

No mitigation required

6.6.2 Operational Phase

The operation phase is considered to have likely positive impacts on human beings in relation to the provision of additional residential units and high quality open space and pedestrian/cyclist facilities to

cater for the demands of a growing population and encourage active travel modes in accordance with the principles of sustainable development and residential zoning objectives pertaining to the site.

6.7 RESIDUAL EFFECTS

The proposed development will provide an overall positive socio-economic benefit through direct and indirect employment opportunities associated with the predicted growth in trade.

No negative residual impacts have been identified as a result of the proposed development.

6.8 MONITORING

In relation to the impact of the development on population and human health it is considered that the monitoring measures outlined in other chapters and relevant to other environmental topics such as water, air quality and climate and noise are sufficient to adequately address monitoring requirements.

6.9 REFERENCES

Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022)

Environmental Impact Assessment of Projects – Guidance on the preparation of the Environmental Impact Assessment (European Commission, 2017)

Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003)

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OECD Economic Survey of Ireland 2022

ESRI (2022) - Quarterly Economic Commentary, Autumn2022

ESRI (2018) – Ireland's Economic Outlook: Perspectives and Policy Challenges

Childcare Act (1991) - (Early Years Services) Regulations 2016

Health Safety Authority - www.hsa.ie

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23 AUG ZOZS