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4 Population and Human Health

4.1 Introduction

This chapter was prepared by Nathan Smith of McCutcheon Halley Chartered Planning Consultants, who graduated from Oxford Brookes University with a BA Hons in Planning Studies in 1997 and a Diploma in Planning in 1998. Nathan has over 20 years professional experience in the field of planning and development consultancy, which has included providing consultancy services in respect of several major urban regeneration projects including EIAR's. Nathan is currently a Senior Planning Consultant in the Practice of McCutcheon Halley Chartered Planning Consultants.

According to European Commission's *Environmental Impact Assessment of Projects: Guidance on the Preparation of the Environmental Impact Assessment Report* (2017), human health is;

"a very broad factor that would be highly project dependent. The notion of human health should be considered in the context of the other factors in Article 3(1) of the EIA Directive and thus environmentally related health issues (such as health effects caused by the release of toxic substances to the environment, health risks arising from major hazards associated with the Project, effects caused by changes in disease vectors caused by the Project, changes in living conditions, effects on vulnerable groups, exposure to traffic noise or air pollutants) are obvious aspects to study. In addition, these would concern the commissioning, operation, and decommissioning of a Project in relation to workers on the Project and surrounding population."

The Environmental Protection Agency (EPA) *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* - Draft (2017) advise that "*in an EIAR, 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."*

This chapter addresses potential impacts of the proposed development of the proposed residential led development scheme at the former Chivers factory, Coolock, on population and human health. Potential impacts of this proposal on population and human health arising from traffic and transportation, air quality and climate, noise and vibration, townscape and visual, material assets: utilities and the risk of major accidents and/or disasters. These aspects are dealt with in the specific chapters in this EIAR dedicated to those topics.

4.2 Proposed Development

Briefly, the proposed development comprises of the demolition of existing buildings and redeveloping it for 495 Build to Rent residential units, which are proposed to be split into 4 no. proposed blocks (Blocks A1, A2 each with two 10 storey elements, and Blocks B & C ranging from 3no. to 7no. storeys and associated residential services and facilities, as well as courtyard spaces. In addition, the scheme includes for a service building comprising of a crèche (300 sq. m), café (34 sq. m) and gym (412 sq. m), as well as streets, public realm amenity and green open space. A full description of the development is provided in **Chapter 2** of this EIAR.

4.3 Methodology

The application area and surrounds were visited on a number of occasions in 2018 for the purposes of this assessment. The purpose of the site walkover and windscreen survey was to identify neighbouring industry and dwellings and to assist in the characterisation of land use. Ordnance Survey maps and aerial photography were also examined to assist in this survey.

In addition, a desk-based study of information on employment, education, health, tourism, amenity and community facilities was completed.

Publications and other data sources consulted included;

- Regional Planning Guidelines for the Greater Dublin Area 2010-2022
- Draft Eastern and Midlands Regional Spatial and Economic Strategy
- Dublin City Council Development Plan 2016-2022
- Central Statistics Office (CSO) website www.cso.ie
- Department of Education and Sciences (DES) website www.education.ie.

Information was gathered with respect to the demographic and employment characteristics of the resident population within the relevant catchment area, sourced from the 2011 and 2016 Censuses. The data collected included information on population, structure, age profile and household size, number of persons at work and the unemployment profile.

Additionally, reports prepared by McCutcheon Halley Planning drafted specifically for this proposed development and included with this application under separate cover were reviewed and have informed this chapter;

- Social Infrastructure Audit

This chapter has been prepared having regard to the following guidelines;

- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017)
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports – Draft (EPA, 2017);
- Guidelines on the Information to be Contained in Environmental Impact Statements (EPA, 2002); and,
- Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003).

The impact assessment section of this chapter follows the terminology (where applicable) used in the EPA Guidelines as set out in **Chapter 1** of this EIAR.

4.4 Baseline Scenario

The following provides a description of the receiving environment, with a focus on demography, land use and local amenity.

The subject site lies within the Dublin City Council administrative area, just north of Coolock Village Centre. The National Planning Framework identifies Dublin as being located within the Eastern and Midland Region. The NPF notes that Dublin needs to accommodate a greater proportion of the growth it generates within its metropolitan boundaries and to offer improved housing choice, transport mobility and quality of life. Its designation ensures that Dublin is considered a key growth area for the region and future development will be directed in this manner.

The recently published Draft Eastern and Midlands Regional and Spatial Economic Strategy (RSES) retains Dublin's prominent position, being located within that area defined as 'Dublin City and Suburbs'.

4.4.1 Housing

The Governments *Rebuilding Ireland - Action Plan for Housing and Homelessness* set a target to construct 25,000 homes annually to 2021. According to the CSO Q3 New Dwelling Completions

Report, 12,582 new dwellings have been completed in 2018. This is almost 50% below Rebuilding Ireland's annual target. Using the Eircode Routing Key, the CSO reports that just 52 no. of these completions are recorded in Dublin 17.

According to the Department of Housing, Planning and Local Government, Homelessness Report (2018), there were 1,326 homeless families recorded in Dublin during the week of 24th to 30th September. A further 3,940 people were accessing local authority managed accommodation in the same period.

The National Planning Framework - Ireland 2040 requires delivery of a baseline of 25,000 homes annually to 2020, followed by a likely level of 30-35,000 annually up to 2027. Within this output 112,000 households are expected to have their housing needs met in a social housing home over the next decade. To achieve the objective of compact growth, 40% of future housing delivery is to be delivered within and close to the existing footprint of built-up areas.

4.4.2 Land Use

To facilitate the delivery of residential development the Council formally varied the zoning of the lands proposed for residential development under Variation (No.5) of the Dublin City Development Plan 2016 – 2002:

- From Zoning Objective Z6 – To provide for the creation and protection of enterprise and facilitate opportunities for employment creation.
- To Zoning Objective Z1 – To protect, provide and improve residential amenities.

The variation area is outlined in red in Figure 4.1.

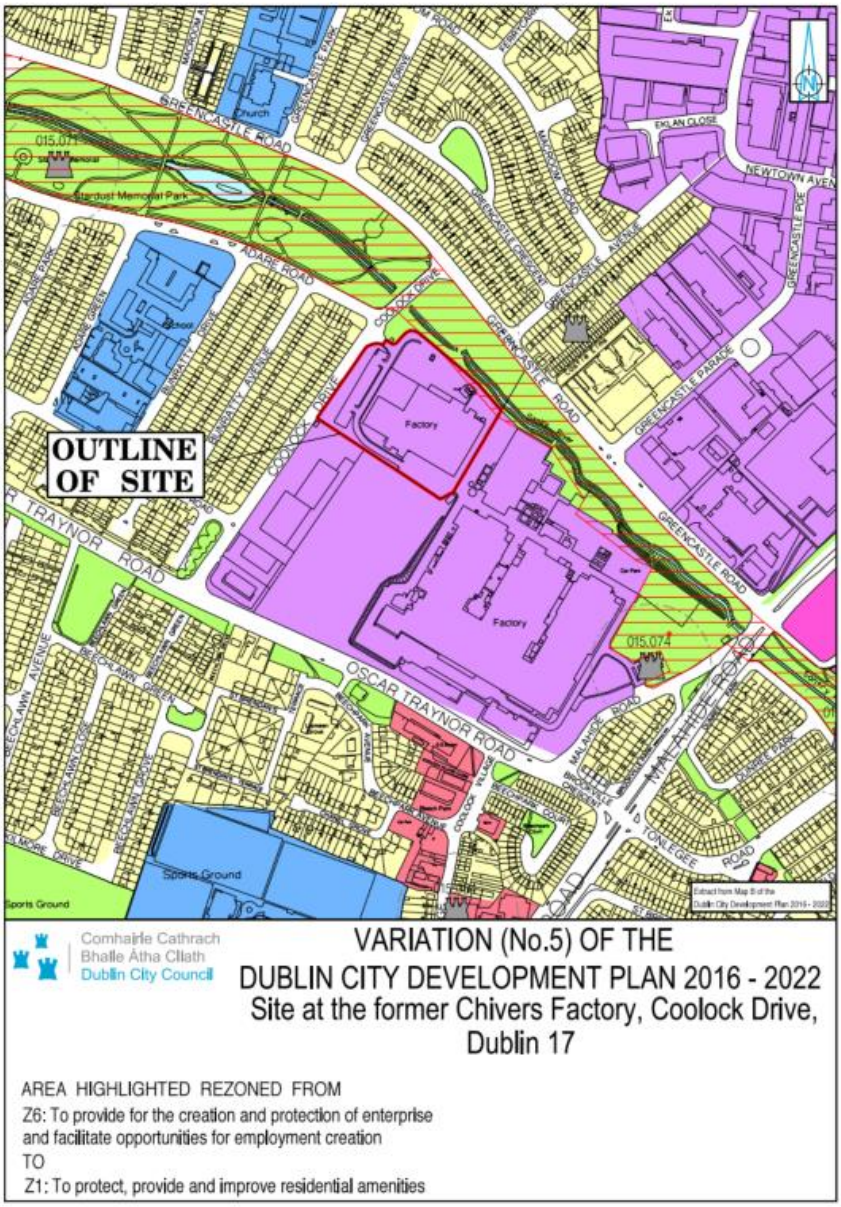

FIGURE 4.1 LAND USE ZONING (SOURCE: EXTRACT FROM DCDP VARIATION NO.5)

The Council agreed with the proposed variation that it was appropriate to change the zoning of the subject lands from Z6 (Employment / Enterprise) to Z1 (Sustainable Residential Neighbourhoods). The full reasons for the variation of this part of the site is shown in Appendix 3 of the Planning and Statement of Consistency Report that accompanies this planning application..

Therefore, the principle of residential development on the zoned Z1 lands is acceptable, subject to the consideration and acceptability of the site-specific matters.

The remaining lands within site (excluding the Council's highway land) comprises Z9 (Amenity / Open Space Lands / Green Network). The Conservation Area boundary (shown by the red hatching) overlays the Z9 lands, and a small proportion of the Z1 zoned lands, which are considered in more detail within the assessment of the design and landscaping of the proposal later in this report.

The total site area (i.e. the land included in the planning application red line boundary) is located at Coolock Drive, Coolock, Dublin as shown in Figure 2.1 and comprises c. 3.86 hectares. The application site is split into two parts, namely the Former Chivers Factory site and land beyond this within the ownership of Dublin City Council.

The part of the site (i.e. 3.61 hectares) which is proposed for the residential development and support amenities is located within a predominantly residential area, with two storey housing to the west and north. The closest housing to the site is located on the opposite side of Coolock Drive to the west, c.28m from the site boundary. To the south is a golf course, as well as an Aldi food store, which lies within a mixed-use retail site. To the east is a range of industrial units which form part of the Cadburys factory site. To the north east lies predominantly industrial buildings.

The site is accessed from Coolock Drive and is bound by a palisade fence on all its borders, with sporadically located mature trees and shrubs along its northern, western and southern boundaries. Greencastle Road runs from east to west in parallel with the northern boundary, whilst Coolock Drive runs north to south, parallel with the sites western boundary.

The part of the application site for highway and pedestrian improvement measures c. 0.25 hectares, which is in two distinct areas. The first comprises lands at Greencastle Road and Coolock Drive that includes the existing public highway and footpath, located immediately adjacent to the Former Chivers Factory site. This is included for pedestrian improvements, which form part of this planning application.

A further area is located c. 220m to the south of the proposed residential / local pedestrian improvements area. The land currently comprises the existing Oscar Traynor Road / Coolock Drive Road, as well as the connecting junction area.

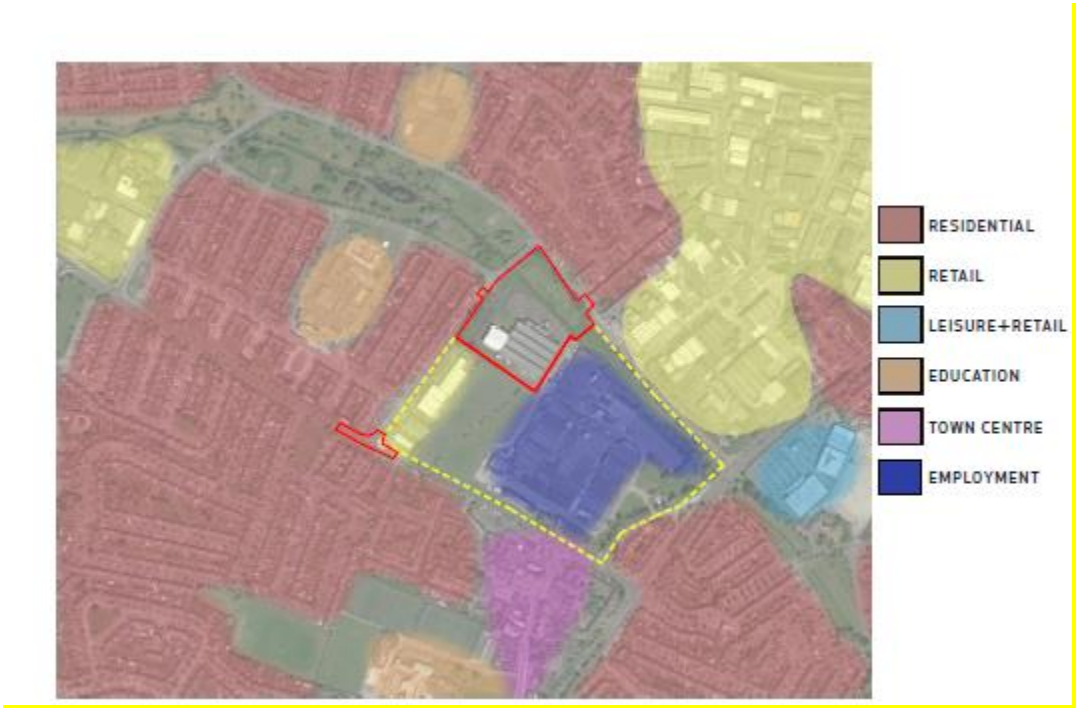

FIGURE 4.2 LAND USES IN SURROUNDING AREA

The SIA identified 208 No. Community Facilities within 2km of the development site. These developments were broken down into categories and are outlined below. A list of the facilities and services is included in Appendix 1 of the SIA.

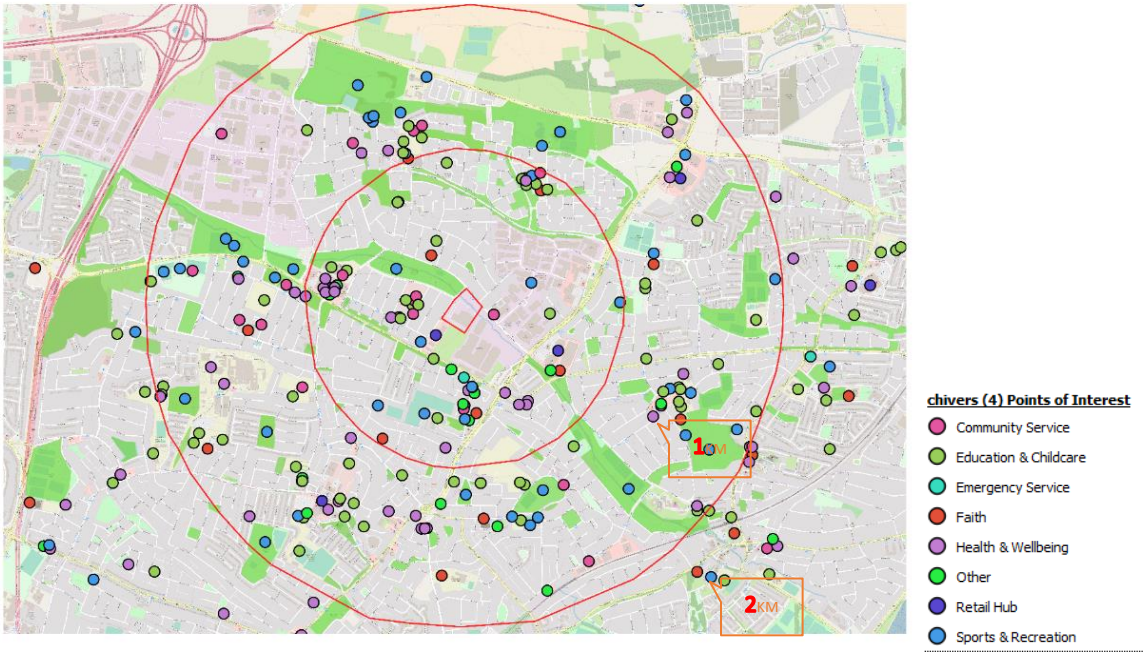

FIGURE 4.3 FACILITIES WITHIN 2KM OF THE DEVELOPMENT SITE (SOURCE: SIA BY MHP)

Figure 4.4 provides an overview of the available bus infrastructure within a 1km walking catchment of the site.

FIGURE 4.4 BUS TRANSPORT ACCESSIBILITY (SOURCE: TRAFFIC AND TRANSPORTATION ASSESSMENT (TTA) BY AECOM)

4.4.3 Demographic Profile

The profile of the area has been reviewed against the following matters:

- Demographics;
- Small Area Population Statistics; and
- Existing Facilities:
  - Community Service Facilities
  - Education & Childcare
  - Health and Wellbeing
  - Sports & Recreation.

4.4.3.1 Demographics

Population figures from the Central Statistics Office (CSO) Electoral Divisions data was used to create a profile of the area surrounding the site. The catchment area was defined as a 1km buffer of the site which intersects 10 No. Electoral Division Areas (EDs). Electoral Divisions where a very small area not consisting of housing which fell within the 1km of the site, were excluded as the population does not fall within the buffer.

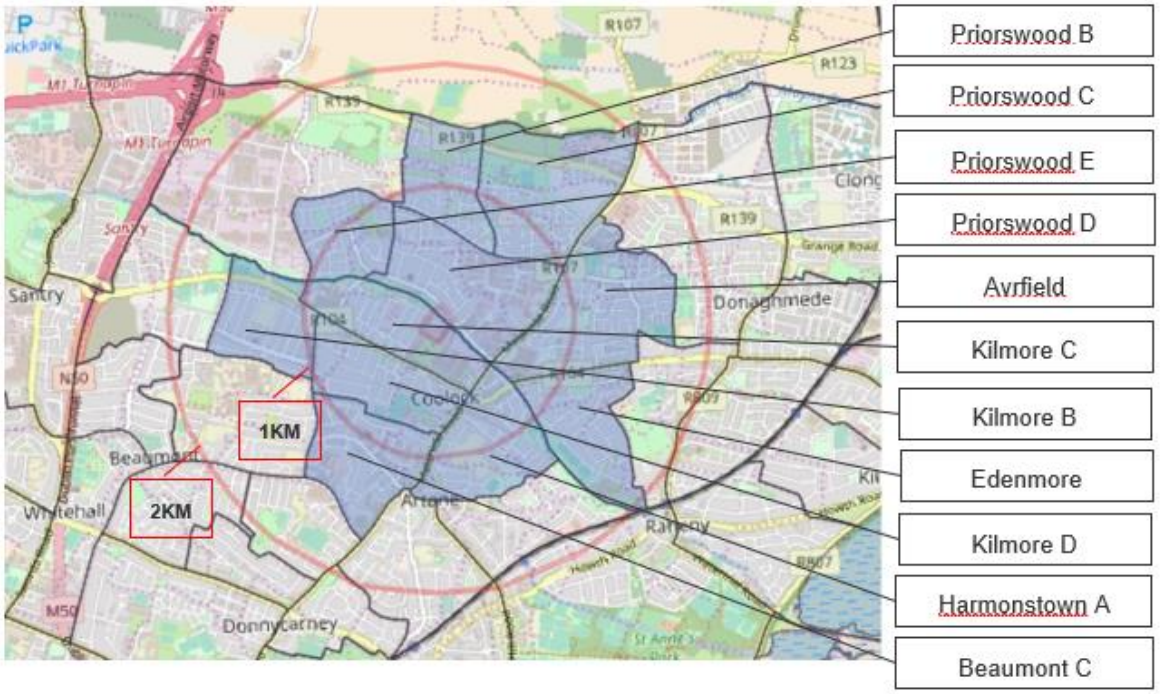

FIGURE 4.5 SITE WITH 1KM BUFFER AND HIGHLIGHTED EDS

	2016	2011	Population Change	Percentage Population Change
Ayrfield	5639	5395	244	5%
Beaumont C	3242	3106	136	4%
Harmonstown A	2808	2722	86	3%
Kilmore C	1490	1415	75	5%
Kilmore D	2032	2082	-50	-2%
Kilmore B	2681	2600	81	3%
Priorswood C	4854	4491	363	8%

	2016	2011	Population Change	Percentage Population Change
Priorswood D	2756	2729	27	1%
Priorswood B	2728	2673	55	2%
Priorswood E	2839	2821	18	1%
Edenmore	2836	2725	111	4%
Total	**33905**	**32759**	**1146**	**3.5%**

TABLE 4.1 ELECTORAL DIVISION AREAS AND POPULATION CHANGE 2011-2016

The EDs show an overall population increase of 3.5% for the local area between 2011 and 2016 as demonstrated in Table 5.1. This is consistent throughout the EDs with the exception of Kilmore D, which saw a slight reduction. The overall population trend is expected to continue with increased population growth and urbanisation putting pressure on the need for more homes.

4.4.3.2 Small Area Population Statistics

A more detailed profile of the population can be obtained using Small Area Population Statistics (SAPs). The 1km catchment intersects 72 SAPs.

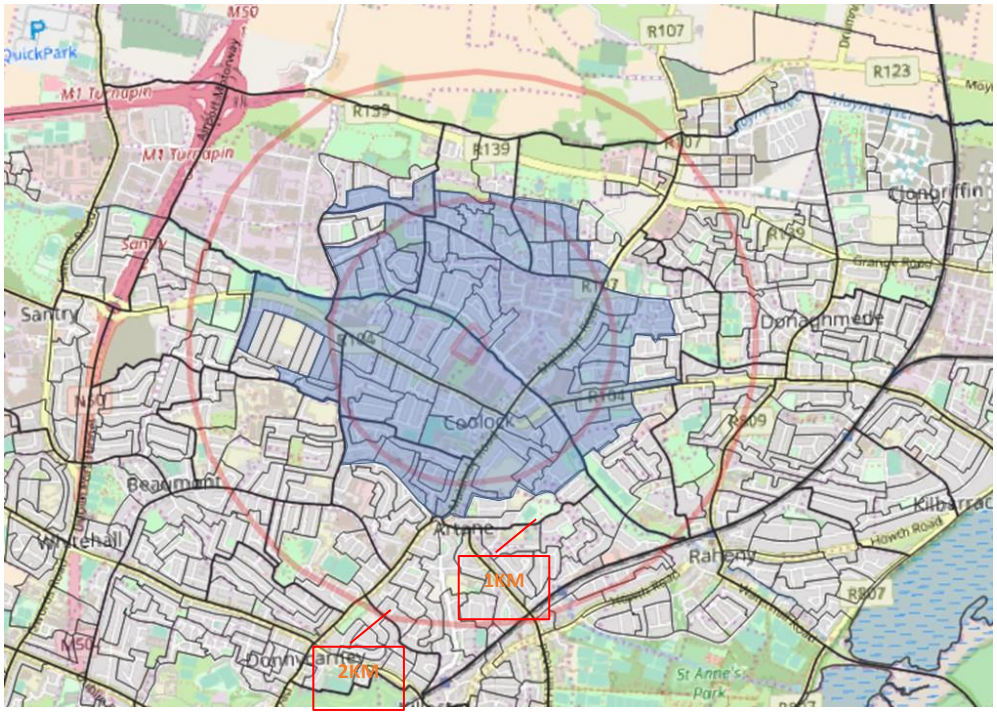

FIGURE 4.6 SITE WITH 1KM BUFFER AND HIGHLIGHTED SAPS

These 72 SAPs demonstrate an age profile consistent with the age of housing, comprising of an ageing population demonstrated by the peak of population over 65 and a high concentration of children. The existing housing stock consists of terrace and semi-detached 2-3 bed houses which were first occupied in the 1960s.

The older age profile of the area consistent with a steady population in occupation since this time, which is supported by data that shows 96% of the population have been in residence in excess of 1 year, which is the only measure of population turnover available through the census figures. The high proportion of children is representative of that available housing stock as being family dwellings, with only 3% of the population of the area being at the 'pre-family' life cycle stage and 42% being families with children.

This population breakdown will shift over the next 10 years but is likely to maintain a high concentration of young persons under the age of 15 and a reduction in the percentage of people over 65. Just over 2000 of the population are entering this age bracket in the next decade, which may not exceed the mortality rate for this cohort.

Age Group	Population 2016	% of Total
0-14	3773	18%
15-24	2852	14%
25-34	2624	13%
35-44	2591	13%
45-54	2893	14%
55-64	2080	10%
65+	3814	18%
Total	20627	

TABLE 4.2 AGE POPULATION WITHIN THE SMALL AREAS

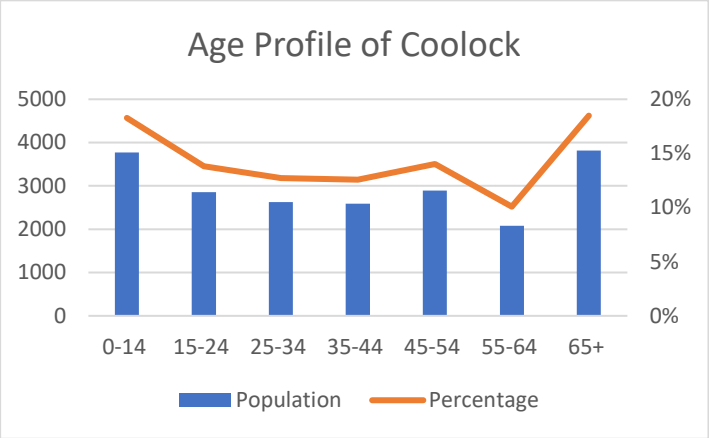

FIGURE 4.7 AGE DISTRIBUTION OF THE EDS WITHIN THE BUFFER

4.4.3.3 Existing Facilities

The baseline survey undertaken identified 208 No. Community Facilities within 2km of the development site. These developments were broken down into categories and are outlined below. A listing and location of the facilities and services is included in Appendix 1 of the SIA.

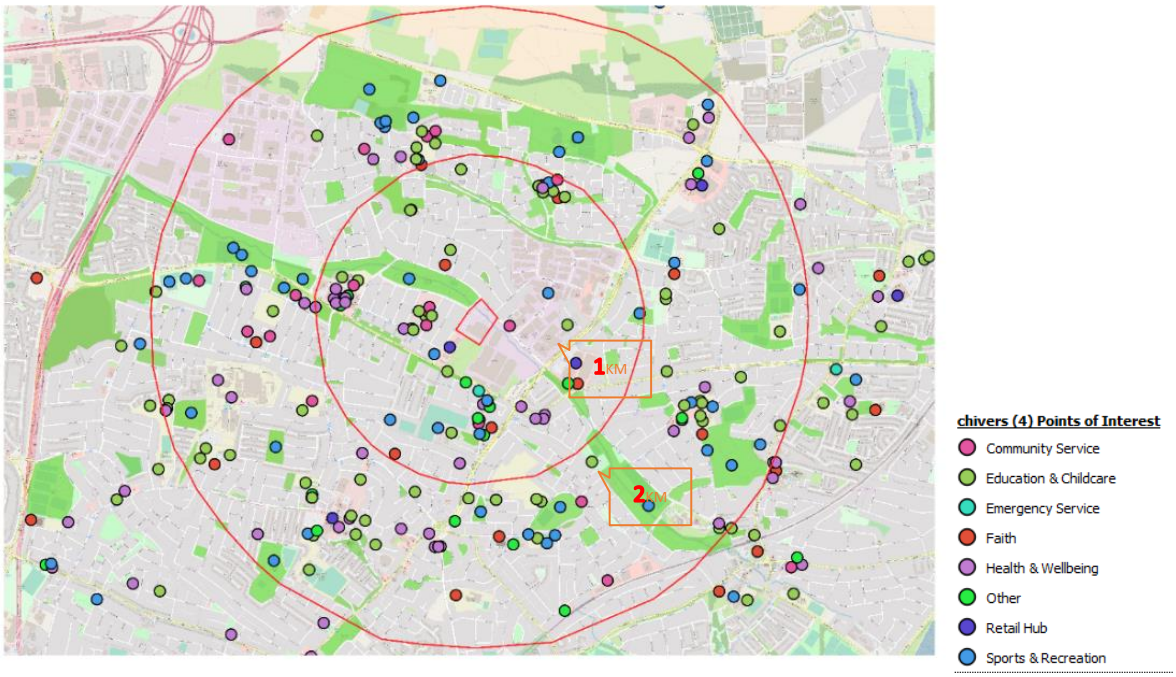

FIGURE 4.8 TOTAL SURVEY WITH ALL IDENTIFIED POINTS

4.4.3.2.1 Community Service Facilities

23 No. Community Service Facilities were identified within the 2km accessibility zone consisting of active living and retirement clubs, Youthreach Programmes, Family Support Services, Parish centres. 10 No. of these were located within 1km of the site.

Category	Count
Employment Support	2
Family Service	5
Library	1
Parish or Community Centre	3
Retirement Club	2
Social service or Information Centre	4
Specialist or Youth Club	6

TABLE 4.3 BREAKDOWN OF COMMUNITY FACILITIES BY TYPE

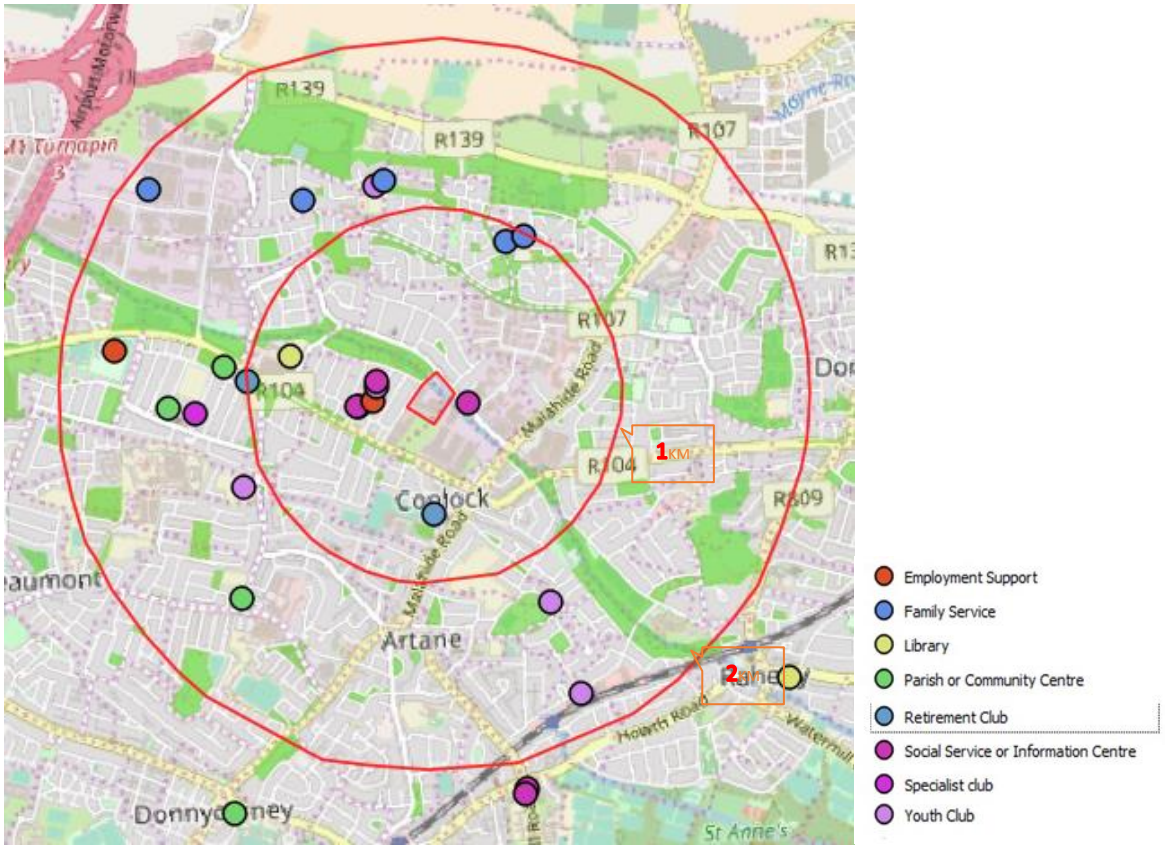

FIGURE 4.9 COMMUNITY SERVICE FACILITIES BY TYPE

4.4.3.2.2 Education & Childcare

61 No. Childcare and Education facilities are located within the 2km accessible zone. 30 No. of these are creches, Montessori or playgroup services. 21 No. are Primary Education Services and 4 No. are Second Level Education. The remaining 6 No. facilities are third level college of further education or training institutes. 17 No. of these facilities were located within 1km of the site.

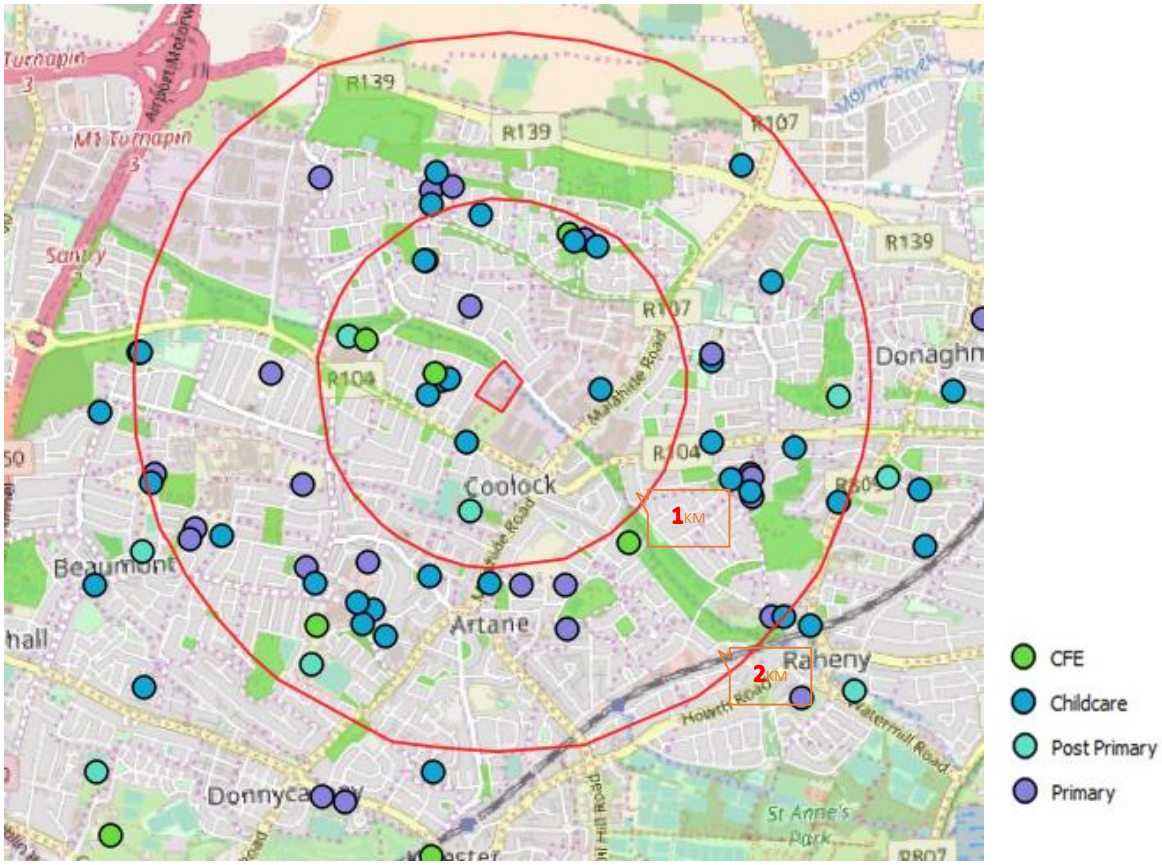

FIGURE 4.10 EDUCATION & CHILDCARE FACILITIES BY TYPE

4.4.3.2.3 Health and Wellbeing

There are 44 No. facilities associated with Health and Wellbeing identified within the 2km accessible zone. 2 No. hospitals and 5 No. specialist care locations, 18 No. primary care or GP services, 13 No. pharmacies, 5 No. dental practices and a number of physical therapy, mental health and specialist care facilities. 16 No. of these facilities are located within 1km of the site.

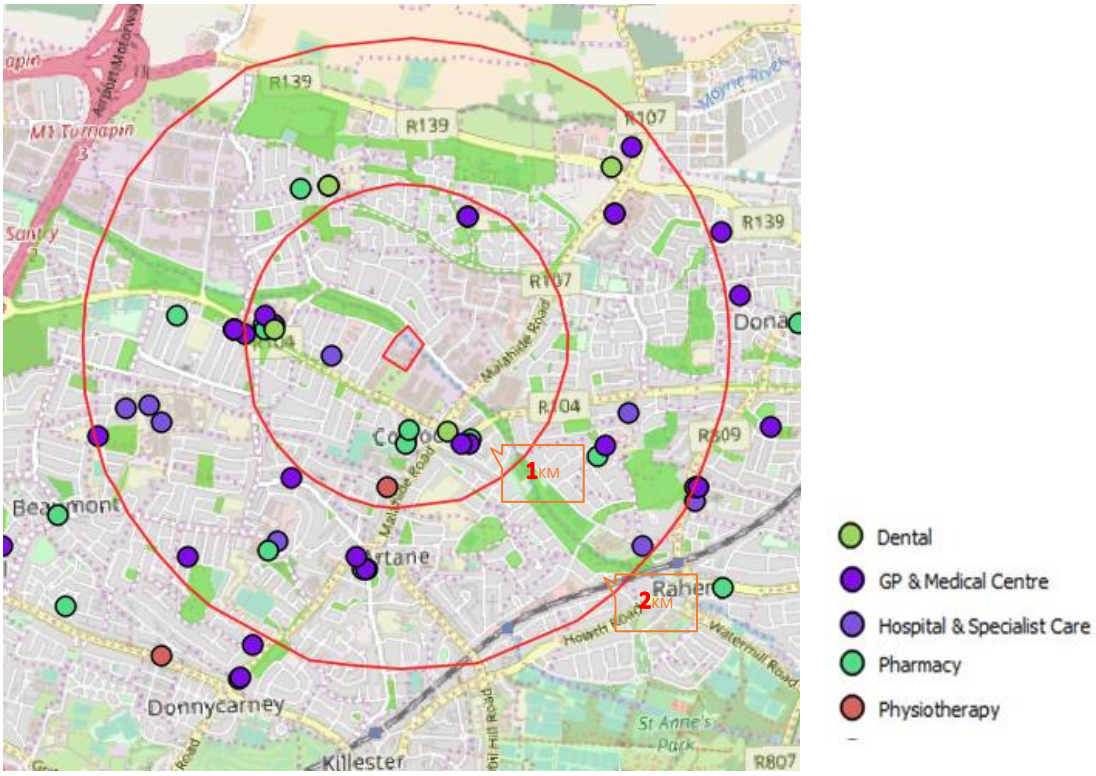

FIGURE 4.11 HEALTH FACILITIES BY TYPE

4.4.3.2.4 Retail and Other

The availability of key retail services including Banks, Post Office and Credit unions, recycling centres and retail hubs is outlined below. There are 22 identified features within the 2km accessible zone. 5 No. of these are retail locations. 6 No. Post Offices, 2 Credit Union offices and 4 No. Banks. 4 No. Bring centres or recycling locations are identified. There are 12 No. identified centres of faith, all of Christian denominations. 12 No. of the facilities are located within 1 km of the site.

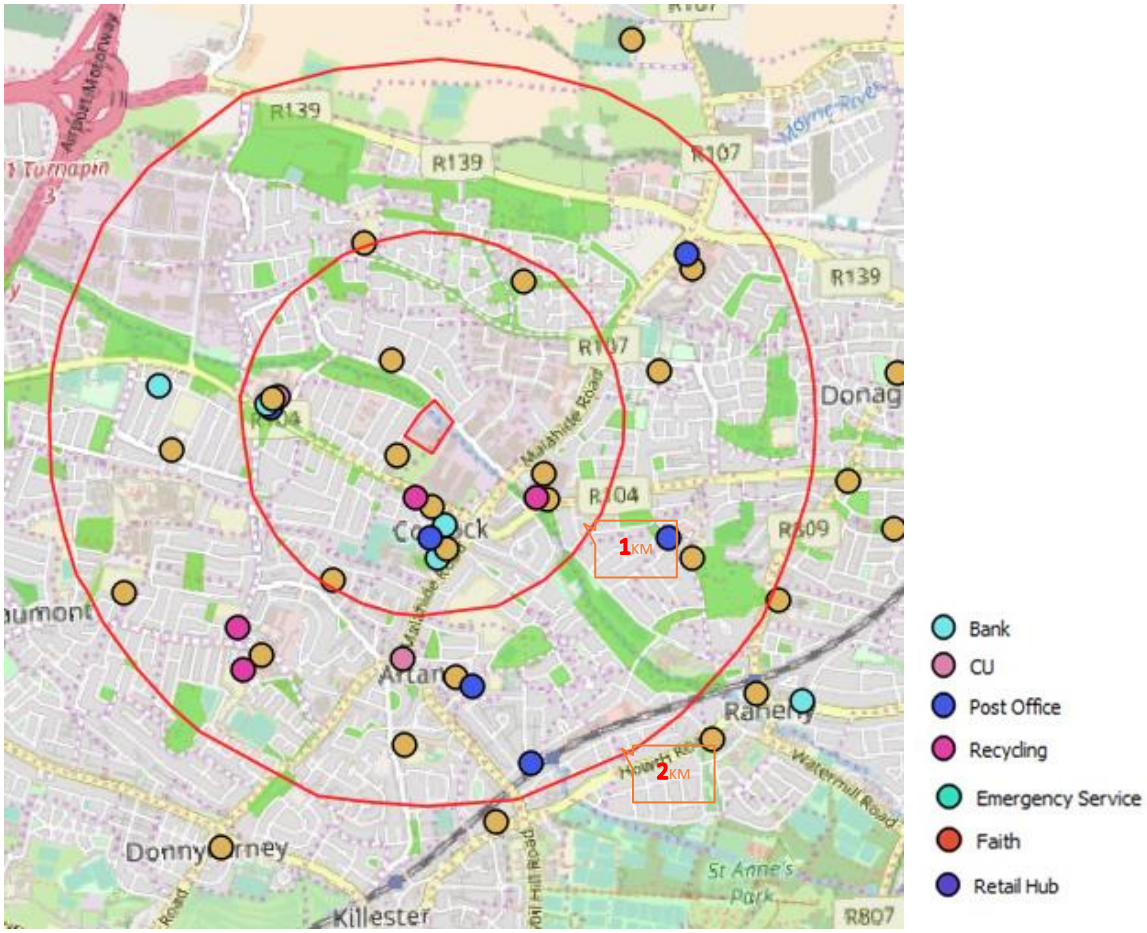

FIGURE 4.12 RETAIL & OTHER FACILITIES BY TYPE

4.4.3.2.5 Sports & Recreation

There are 45 No facilities for sports and recreation identified within the 2km accessible zone. These include 12 No. GAA or football clubs, 12 No. Parks with facilities including playgrounds, football fields and pitch and putt, 11 No. fitness facilities including gyms, sports pitches and a swimming pool. There are also a variety of recreational activities such as scouts and playgrounds. The majority of these facilities such as the sports clubs and playgrounds cater to youth recreation and provide an essential service to the area. 10 No. of these facilities are located within 1 km of the site.

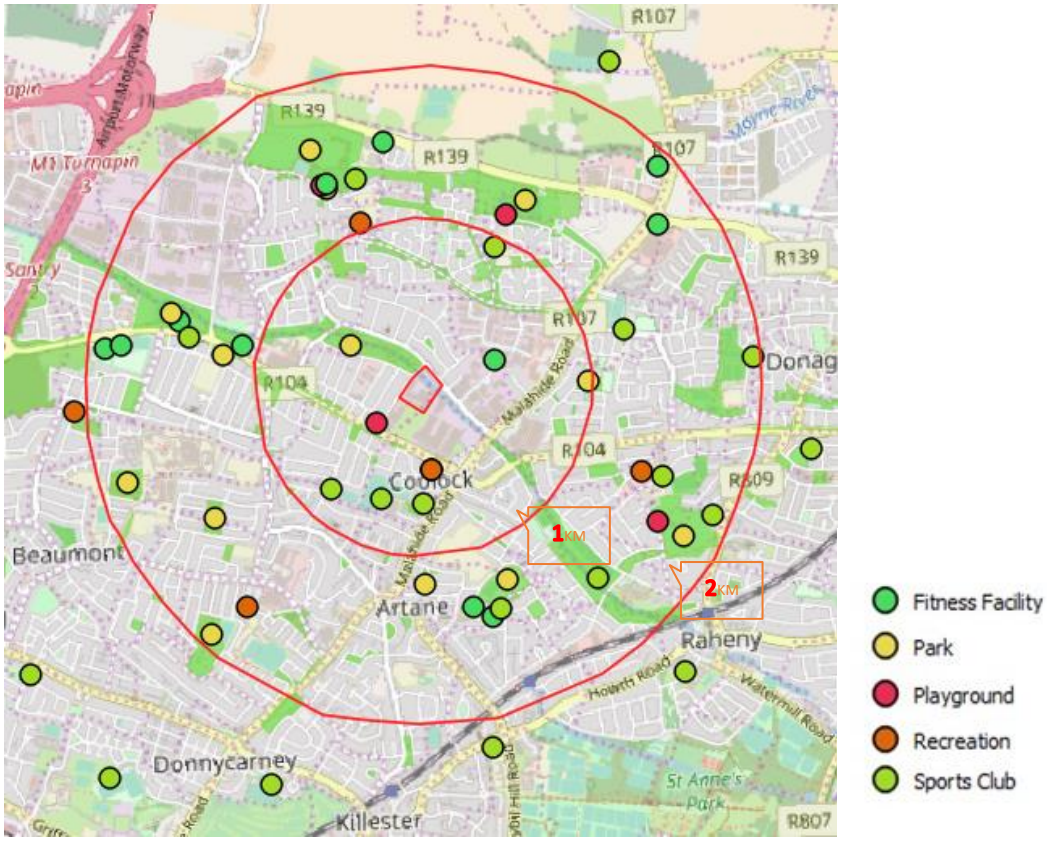

FIGURE 4.13 SPORTS & RECREATION FACILITIES BY TYPE

4.5 Impact Assessment

This section of the assessment describes those effects that are likely to arise in the absence of mitigation. Section 4.7 of this report sets out the mitigation measures required to alleviate such effects and the assessment of impacts post mitigation is presented in the Residual Impact Section.

Potential Impacts are considered under the following headings:

- Land use
- Human Health Impacts
- Population & Economic Activity Impacts
- Local Amenity Impacts

In each case construction and operational impacts are considered. It should be noted that the construction phase impacts include the proposed demolition works.

4.5.1 Do Nothing Scenario

If the proposed development is not realised, it is anticipated that the subject site would remain vacant in the short to medium term. The application area is a significant landbank at a pivotal location and left unoccupied for any significant period it would likely go into decline. In terms of this subject matter, Population and Human Health, vacant sites can have adverse effects on the character of an area resulting in urban blight and decay. Anti-social behaviour is often associated with vacant sites and this would have a negative effect on the local population.

4.5.2 Construction Phase

4.5.2.1 Land use

The proposed development complies with the statutory land use zoning. There will be no severance of land, loss of rights of way or amenities as a result of the proposed development.

Development of the subject site is aligned with the objective to achieve compact growth contained within the National Planning Framework and will realise the efficient use of currently-underutilised brownfield land with higher housing density that is well served by public transport.

The impact is likely and will have a permanent significant positive effect that will achieve local and wider county, regional and national objectives.

4.5.2.2 Human Health

Construction sites pose potential risks to the health and safety of the public. However, access by the public would be considered trespassing on private property.

With mitigation in place, the effect is unlikely and neutral and not significant.

It should be noted that the potential for effects on human health during the construction phase are dealt with in this EIAR under the more specific topics of the environmental media by which they might be caused including air, traffic and noise.

4.5.2.3 Population and Economic Activity

A key characteristic of the proposed development in terms of its potential economic impact relates to its capital value, of which a significant portion will be for the purchase of Irish sourced goods and services. The construction phase will provide a boost for the local construction sector in terms of employment generation and capital spend on materials and construction labour costs.

It is expected that during peak activities, approximately 300 people will be working directly on the construction site. The staff will comprise of managerial, technical, skilled and unskilled workers. As far as practicable local labour will be employed. It is unlikely that the proposed development will increase the population of the area as a result of the construction phase.

In addition to direct employment, there will be substantial off-site employment and economic activity associated with the supply of construction materials and provision of services such as professional firms supplying financial, architectural, engineering, legal and a range of other professional services to the project.

Revenue generated during the construction phase will have an associated benefit for the local area with respect to expenditure on local goods and services.

The impact of the construction phase will at least extend to the county in terms of the requirement for labour, goods and services. The effect will be significantly positive in the short-term.

4.5.2.4 Local Amenities

Construction works, and emergence of the new structures will be seen in the context of existing views of surrounding public roads and industrial buildings. Many of these are significant developments, which will have the effect of backgrounding and contextualising the proposed works.

Works to the public road will require a road opening licence and temporary closures may be required. The impact of these works is neutral, not significant and temporary.

Any effects will be slight, localised and short-term in duration. Please refer to Chapters 5, 6, 11 and 12 of this EIAR for information on the effects on landscape and visual, traffic, noise and air quality.

4.5.3 Operational Phase

4.5.3.1 Land use

The proposed development complies with the statutory land use zoning. It will deliver 495 no. residential units of which 49 no. will be for the purposes of Part V, social housing.

Given the existing housing crisis, it is anticipated that a high-density mixed-use development at this location would result in a likely significant positive impact with a permanent duration as it would realise the objectives of urban consolidation through the efficient use of a zoned and serviced landbank to provide inter alia much needed housing together with high-quality amenities for future occupants.

4.5.3.2 Human Health

The proposed design provides for the segregation of pedestrians and traffic and incorporates the principles of universal access and the requirements of Part M of the Building Regulations so that the development will be readily accessible to all, regardless of age, ability or disability.

The integration of energy efficient measures into the design will provide for healthier living standards for future occupants and less dependence on fossil fuels for energy generation with a resultant improved air quality and thus the impact is likely to be locally significantly positive and of permanent duration.

Adequate and appropriate exposure to light is critical for health and well-being. Light impacts human health and performance by enabling performance of visual tasks, controlling the body's sleeping and walking system and affecting mood and perception.

This application is accompanied by a '**Daylight, Sunlight and Overshadowing" report** and it concludes that the daylight and sunlight received by the neighbouring properties will not be compromised as a result of the proposed development. The report demonstrated that the design of the dwellings within the proposed development has been such that very good levels of daylight and sunlight will be achieved. Similarly the gardens and open spaces have been design so that the recommended sunlight levels are exceeded.

The design has been reviewed by a Fire Consultant and has been assessed as meeting all requirements to ensure the protection of future occupants in the event of a fire.

Insufficient physical activity has been identified by the World Health Organisation as the fourth leading risk factor for global mortality. Urban air pollution and traffic injuries are also responsible for a further 2.6 million deaths annually. The proposed scheme prioritises both pedestrian and cyclists and thus promotes active movements for future occupants. The health benefits of active transport (walking and cycling combined with public transport) can prevent many of these deaths from physical inactivity.

A Microclimate **Wind Assessment** accompanies this application under separate cover. The assessment demonstrates that:

- Pedestrian comfort is achieved in all areas of the site in summer;
- In winter, the site is subject to higher and more frequent winds from the southwest which means pedestrian areas in-between Block B and Block C, in-between Block A1 and Block A2, and areas at the west corner of the service building have higher than desirable wind speeds;
- A limited number of areas of the site were identified as being uncomfortable for pedestrians in the **worst-case** winter season. These were identified to be south of the pedestrian spaces in-between Block B and Block C, and the southern corner of Block C;
- No areas of the site exceed the Lawson distress threshold for able-bodied pedestrians;
- There are areas that receive less frequent winds that exceed the 15m/s distress threshold for vulnerable pedestrians:
    - South of the pedestrian areas in-between Block B and Block C;
    - The pedestrian areas in-between Block A1 and Block A2;
    - West corner of the service building; and

- Small areas at the southernmost corner of the site.
- The distress threshold wind speed of 15m/s for vulnerable pedestrians was found to occur for no more than 5 hours annually in the worst case area i.e. South area in-between Block B and Block C.

However, with the introduction of the proposed landscape masterplan, it is expected all pedestrian spaces outlined above to be safe for their purpose of use.

Overall, the operational phase of the proposed development, in terms of human health is anticipated to be likely and significantly positive locally with a permanent duration.

4.5.3.3 Population and Economic Activity

In terms of the operational phase, the potential employment opportunities will be limited given the fact that residential is the predominant land use proposed. Notwithstanding this, there will be additional employment from the proposed retail elements and childcare facility. The economic impact of the operational phase on the immediate area would therefore be permanent slight and positive.

The provision of 495 quality homes within the proposed development will have a significant permanent positive impact on the population of Coolock, contributing to the settlement's growth in a compact manner and accommodating a substantial portion of the planned population growth of the town. It is envisaged that the proposed development will accommodate a projected full-time residential population of approximately 1,767 persons. This population will generate additional spending within the area which will likely have a permanent moderate positive impact on economic activity in the town centre. This increase in population will also support the ongoing provision of an efficient public transport system.

4.5.3.4 Local Amenity & Services

The proposed layout provides for excellent public amenity and recreational facilities, including a riparian park and high-quality public realm. The provision of amenity facilities within the development will be of benefit to future residents and existing residents in the local environs.

Access to local facilities in the Coolock area is impacted by a lack of permeability and large block sizes which characterise industrial areas. The subject site does not currently allow access or permeability between the Greencastle Road, Coolock Drive but the proposed layout provides for long-term connection to them via the proposed routes within the site and connectivity to the surroundings, the effect of this is significantly positive and will have a permanent duration.

The Proposed Development Demographic Assessment demonstrated an increased need for childcare and education which will be generated by the development with an estimated 282 children under 18. 30 creche and Montessori facilities were identified within the catchment. The proposed development is anticipated to generate c. 76 children (based on the 2001 guidelines and 2018 apartment guideline methodology), which have been calculated as follows:

- 2001 Guidelines / 2018 Apartment Guidelines: 495 (total no. of units) – 61 (studios) – 150 (1 bed apartment's) = 284 / 75 = 3.79 x 20 = 76 children (rounded up).

The creche is envisaged to be a full day care, and whilst it is envisaged 76 children could be generated from the proposed development, the creche has been designed for 80 no. children (which has used the space requirements outlined on page 93 of the DCC DP), to allow for some flexibility of space. It is expected to be sufficient and will not put additional strain on the capacity of childcare in the local area.

In primary education the additional potential estimated 153 students will be distributed over 21no. schools throughout the 8 year primary cycle. This is approximately 0.33% of overall school capacity within Dublin City Council and within the expected growth of students within the authority as accounted for by the Department of Education & Skills, Planning and Building Unit.

In terms of post primary, the potential estimated number of students equates to 108 students will be distributed throughout the 6 year post primary cycle. The Department of Education and Skills school building program 2016-2022 does not indicate a need for additional post primary schools within the Coolock area. The available training services within the accessible zone meet the service level criteria for a Large Town under the NPF infrastructure hierarchy. This level of provision within 2km constitutes excellent service provision for the community

4.5.3.5 Cumulative Impacts

The most likely cumulative impact of the proposed development is the demand it will place on local infrastructure and services. As is demonstrated in the preceding section, there is adequate capacity available within the identified local schools to cater for the projected impact.

The reports prepared by MH Planning and included with this application under separate cover, demonstrate that the proposed development of a mixed-use scheme at this location will not give rise to likely significant effects on existing infrastructure and amenities.

4.6 Mitigation Measures

4.6.1 Construction Phase

A site Construction and Environmental Management Plan (CEMP) will be prepared by the selected contractor prior to work commencing on site. The main purpose of a CEMP is to provide a mechanism for implementation of the various mitigation measures which are described in this EIAR and contained within the Construction and Environmental Management Plan that accompanies this application under separate cover.

All personnel will be required to understand and implement the requirements of the CDEMP and shall be required to comply with all legal requirements and best practice guidance for construction sites.

Project supervisors for the construction phase will be appointed in accordance with the Health, Safety and Welfare at Work (Construction Regulations) 2013, and a Preliminary Health and Safety Plan will be formulated during the detailed design stage which will address health and safety issues from the design stages, through to the completion of the construction phases.

Adherence to the construction phase mitigation measures presented in this EIAR will ensure that the construction of the proposed development will have an imperceptible and neutral impact in terms of health and safety.

4.6.2 Operational Phase

The proposed development has been designed to avoid negative impacts on population and human health through;

- The inclusion of a childcare facility within the proposed development;
- Incorporating extensive leisure and amenity facilities within the layout, including local play areas and extensive provision for walking and cycling throughout the development;
- Landscaping to mitigate against issues arising from microclimate conditions;
- The inclusion of a comprehensive foul and surface water management system;
- Energy efficient measures; and,
- High quality finishes and materials.

No significant risks to Human Health have been identified within this discipline in relation to the operational phase of the development. Accordingly, no further mitigation measures are required.

4.7 Residual Impact Assessment

It is anticipated that the proposed development will realise significant positive overall economic and social benefits for the local community and the wider Coolock area.

Strict adherence to the mitigation measures recommended in this EIAR will ensure that there will be no negative residual impacts or effects on Population and Human Health from the construction and operation of the proposed scheme. Indeed, the delivery of much needed housing and student accommodation will realise a likely significant positive effect for the local area.

4.8 Monitoring

Measures to avoid negative impacts on Population and Human Health are largely integrated in to the design and layout of the proposed development. Compliance with the design and layout will be a condition of any permitted development.

Monitoring will be undertaken by the Building Regulations certification process and by the requirements of specific conditions of a planning permission.

Monitoring of compliance with Health & Safety requirements will be undertaken by the Project Supervisor for the Construction Process.

4.9 Worst Case Scenario

The worst-case scenario where mitigation measures failed for a development of the type proposed is considered to be the risk of an accident during the construction phase. This is considered highly unlikely and indeterminable.

4.10 References

- National Planning Framework, Ireland 2040 – Our Plan (Government of Ireland, 2018);
- Sustainable Urban Housing: Design Standards for New Apartments (Guidelines for Planning Authorities) (Department of Housing, Planning and Local Government) (March 2018);
- Childcare Facilities (Guidelines for Planning Authorities) (June 2001);
- Regional Planning Guidelines for the Greater Dublin Area 2010-2022;
- Draft Eastern and Midlands Regional Spatial and Economic Strategy;
- Dublin City Council Development Plan 2016-2022;
- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (European Commission, 2017);
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports – Draft (EPA, 2017);
- Guidelines on the Information to be Contained in Environmental Impact Statements (EPA, 2002);
- Advice Notes on Current Practice in the Preparation of Environmental Impact Statements (EPA, 2003).
- Social Infrastructure Audit, MH Planning, 2019;
- Central Statistics Office (CSO) website www.cso.ie; and
- Department of Education and Sciences (DES) website www.education.ie.