SDCC Rathcoole Housing Development

Environmental Impact Assessment Report (EIAR)
Chapter 14: Material Assets (Traffic)

South Dublin County Council (SDCC)

October 2026

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14 Material Assets (Traffic)

14.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) presents an assessment of the likely effects of the Proposed Development on traffic and transport during the construction and operational phases.

The Environmental Protection Agency's (EPA) '*Guidelines on the information to be contained in Environmental Impact Assessment Reports*' (2022) defines 'material assets' as comprising:

- Built Services.
- Road and Traffic.
- Waste Management.

For the purposes of this chapter, only the local road network and associated traffic and transport impacts have been assessed. An assessment of built services and waste management are provided in EIAR Chapters 16 and 17 respectively

The assessment considers the potential impacts of construction traffic and the additional travel demand generated by the operational Proposed Development on the surrounding road network, together with impacts on walking, cycling and public transport, where relevant. The assessment also considers the proposed access arrangements and associated transport infrastructure.

The Proposed Development is described in **Chapter 2: Description of Development**.

14.2 Policy and Guidance

The following is a list if sources of information consulted during the preparation of the traffic and transport assessment:

- Project Ireland 2040: National Planning Framework (First Revision (2025) and National Development Plan (2021 – 2030).
- National Climate Action Plan (2025).
- National Sustainable Mobility Policy (2022).
- Regional Spatial and Economic Strategy for the Eastern and Midland Region (2019 – 2031).
- The Greater Dublin Area Transport Strategy (2022 – 2042).
- The Greater Dublin Area Cycle Network Plan (2023 – 2042).
- Sustainable Residential Development and Compact Settlements Guidelines for Planning Authorities (2024).
- South Dublin County Council (SDCC) Development Plan (2022 – 2028).
- The Design Manual for Urban Roads and Streets Department of Transport Tourism and Sport (DTTS) (2019).
- Traffic Signs Manual DTTS (2019).
- Advice Notes on Current Practice in the Preparation of Environmental Impact Statements EPA (2003).
- EPA (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports.
- PE-PDV-02045, Traffic and Transport Assessment Guidelines TII (2014).
- DN-GEO-03060, Geometric Design of Junctions (Priority junctions, direct accesses, roundabouts, grade separated, and compact grade separated junctions TII (2017).

- PAG-02017, Project Appraisal Guidelines for National Roads Unit 5.3 – Travel Demand Projections TII (2021).

14.3 Methodology

The methodology undertaken in the preparation of this Chapter follows the relevant policy and guidelines as outlined in Section 14.2 including EPA Guidelines (2022) and TII Guidelines for traffic and transport assessment (2014).

AECOM has undertaken a desktop review to inform this chapter, as well as commissioning traffic surveys which were undertaken in October 2025. In addition, an outline Construction Traffic Management Plan (CTMP) has been developed which includes consideration of construction traffic and the potential measures that may be required to manage traffic on site. The appointed construction contractor will be responsible for further developing the CTMP in relation to the Proposed Development proposals for formal agreement with South Dublin County Council.

The study area (refer to Section 14.3.1) for the assessment was established based on the anticipated traffic routing to the Proposed Development Site for construction and operational vehicles at points in which traffic could be most intensive, e.g. in proximity to the Proposed Development Site.

14.3.1Study Area

A description of the Proposed Development and the Site are provided in **Chapter 1 – Introduction & Methodology** and **Chapter 2 – Description of Development**. The Proposal Development includes the construction of 130 residential dwelling units with associated access and active travel infrastructure, two full-size adult GAA grass pitches, one junior GAA grass pitch, a pavilion and associated parking and ancillary works.

The study area is located approximately 15km west of Dublin City Centre (Co. Dublin) and within the administrative area of South Dublin County Council at Rathcoole, County Dublin as shown in Plate 14-1 overleaf.

From a transport perspective, the study area includes the local network that will be impacted by both construction operational traffic. The transport network in the vicinity of the Site comprises a series of local, regional and national roads, including the N7 which runs to the north of Rathcoole. Local urban roads, including Main Street and Stoney Hill, provide access to the Site via the Peyton Roundabout. The Proposed Development benefits from close proximity to the N7 which is accessed via Junction 4.

Plate 14-2 also overleaf shows the Proposed Site layout.

It is proposed that a new vehicular entrance and access road will be provided including widening works along Mullaly's Lane to include SDCC held lands and third-party lands (subject to a separate statutory process). The new vehicular entrance will comprise of a three-arm priority junction on Greenogue Drive and associated upgrade of access to Peyton Roundabout including upgrade and modification of the existing roundabout to reduce the number of vehicular arms from five to four. This arrangement minimises impacts on existing infrastructure while providing an efficient and safe access solution for the proposed development.

The proposed vehicular access incorporates the access arrangements associated with the separately permitted primary school development (ref: SD23A/0336), with modifications to provide access to the Proposed Development Site.

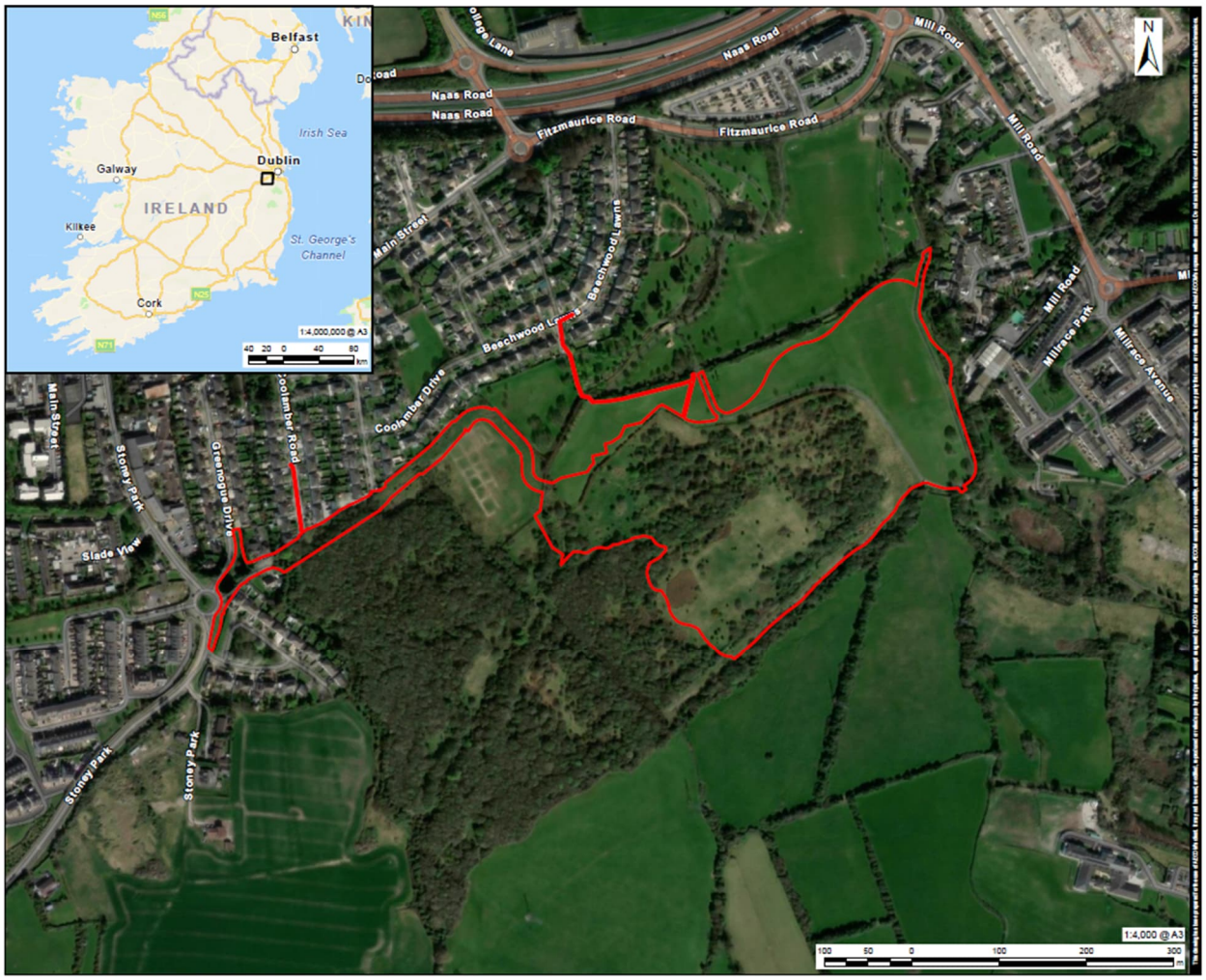


Plate 14-1 Site Location Map

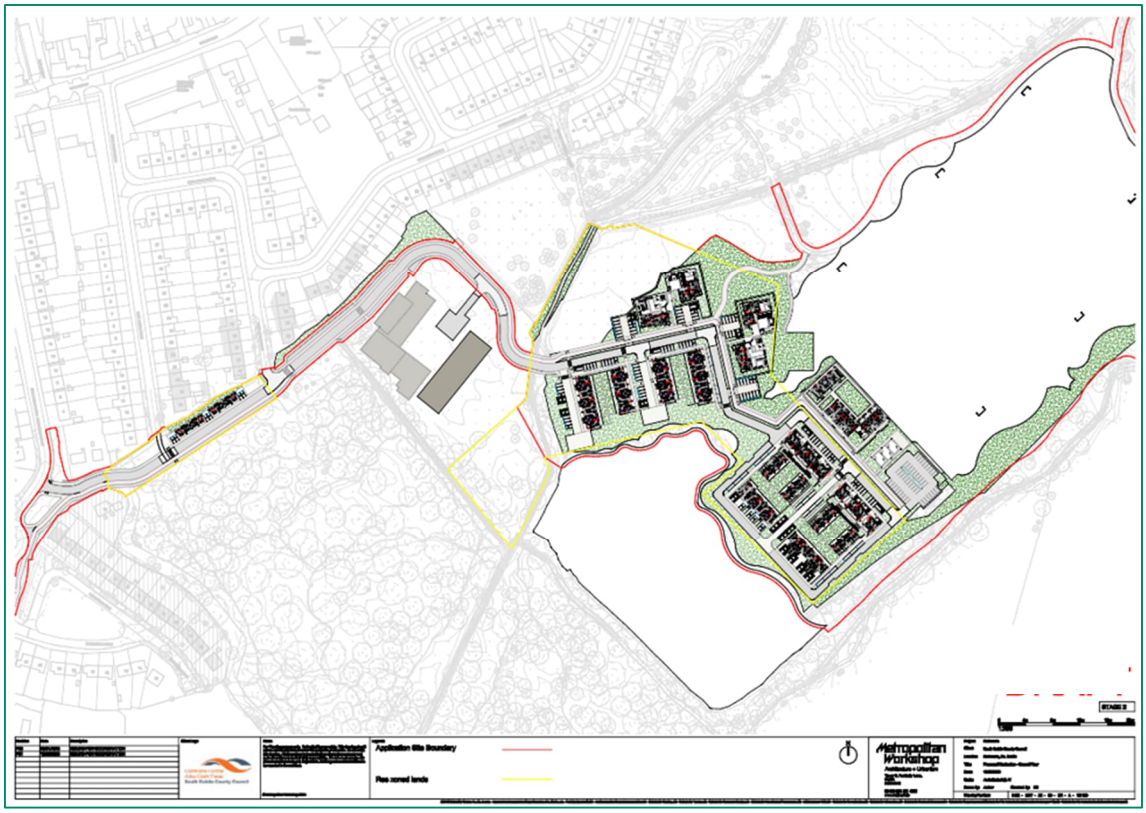


Plate 14-2 Proposed Development Site Plan

14.3.2 Land Use Zoning

As set out in the SDCC Development Plan (2022-2028) and as shown in Plate 14-3, the Site has been zoned as RES-N (New Residential), OS (Open Space) and RU (Rural and Agriculture).

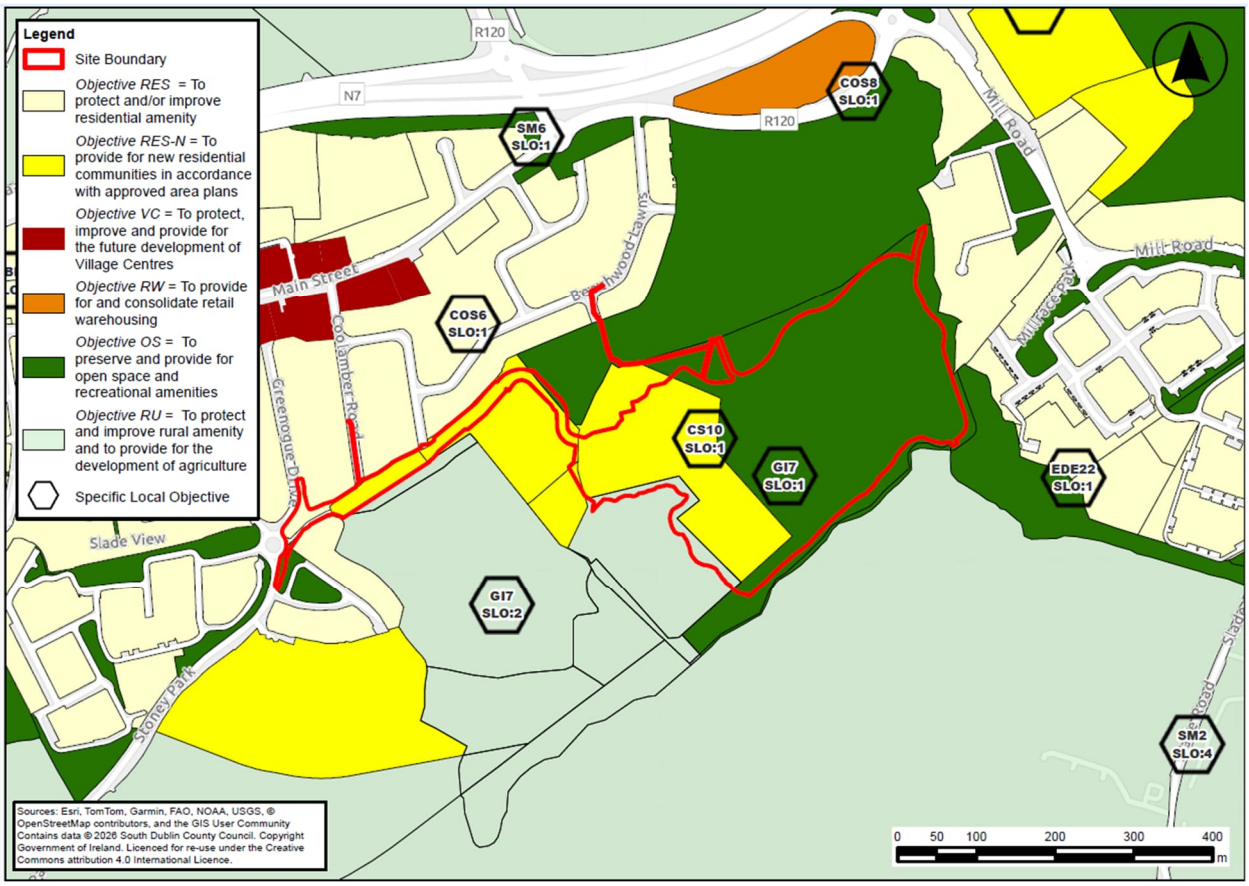


Plate 14-3 Land use zoning

Source: SDCC Development Plan (2022-2028)

14.3.3 Identifying Potential Environmental Effects

14.3.3.1 Construction Phase

The Proposed Development construction phase will generate traffic associated with delivery of plant, materials and construction staff arriving at/leaving the Site. An assessment has been undertaken of the likely impact of these activities on the surrounding transport network in line with TII Guidelines for traffic and transport assessment.

14.3.3.2 Operational Phase

Once operational, the Proposed Development will generate traffic to/from the residential units and as associated with the GAA grass pitches. An assessment has been undertaken of the likely impact of this additional traffic in line with TII Guidelines for traffic and transport assessment.

Traffic associated with the Proposed Development has potential to impact on the network of junctions and links in the vicinity of the Site. Following TII Guidelines, an assessment has been undertaken to determine where the percentage impact of the traffic associated with the Proposed Development exceeds 5% of the existing traffic volumes. Where this threshold is exceeded, further detailed analysis has been undertaken.

14.3.4 Describing Potential Effects

In accordance with the EPA Guidelines (2022), potential traffic and transport effects are characterised by considering parameters presented in Table 3.4 of the guidelines, as shown in Table 14-1 below.

Table 14-1: Description of Effects

Potential Effect Parameter	Description
'Quality' of Effects	• **Positive Effects** – A change which improves the quality of the environment (for example, by increasing species diversity; or the improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities). • **Neutral Effects** – No effects or effects that are imperceptible, within normal bounds of variation or within the margin of forecasting error. • **Negative/ Adverse Effects** – A change which reduces the quality of the environment (for example, lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health or property or by causing nuisance).
Significance of Effects	• **Imperceptible** – An effect capable of measurement but without significant consequences. • **Not significant** – An effect which causes noticeable changes in the character of the environment but without significant consequences. • **Slight Effects** – An effect which causes noticeable changes in the character of the environment without affecting its sensitivities. • **Moderate Effects** – An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends. • **Significant Effects** – An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. • **Very Significant** – An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment. • **Profound Effects** – An effect which obliterates sensitive characteristics.
Extent and Context of Effects	• **Extent** – Describe the size of the area, the number of sites, and the proportion of a population affected by an effect. • **Context** – Describe whether the extent, duration, or frequency will conform or contrast with established (baseline) conditions (is it the biggest, longest effect ever?)
Probability	• **Likely Effects** – The effects that can reasonably be expected to occur because of the planned project if all mitigation measures are properly implemented. • **Unlikely Effects** – The effects that can reasonably be expected not to occur because of the planned project if all mitigation measures are properly implemented.
Duration and Frequency	• **Momentary Effects** – lasting from seconds to minutes. • **Brief Effects** – lasting less than a day. • **Temporary Effects** – lasting less than a year. • **Short-term Effects** – lasting one to seven years. • **Medium-term Effects** – lasting seven to fifteen years. • **Long-term Effects** – lasting fifteen to sixty years. • **Permanent Effects** – lasting over sixty years. • **Reversible Effects** – that can be undone, for example through remediation or restoration. • **Frequency of Effects** – Describe how often the effect will occur. (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).

14.3.5 Significance of Effect

The Significance of Effect is determined by considering two key factors:

- Description of Effect; and
- Significance / Sensitivity.

Plate 14-4 illustrates how significance is determined using these two elements.

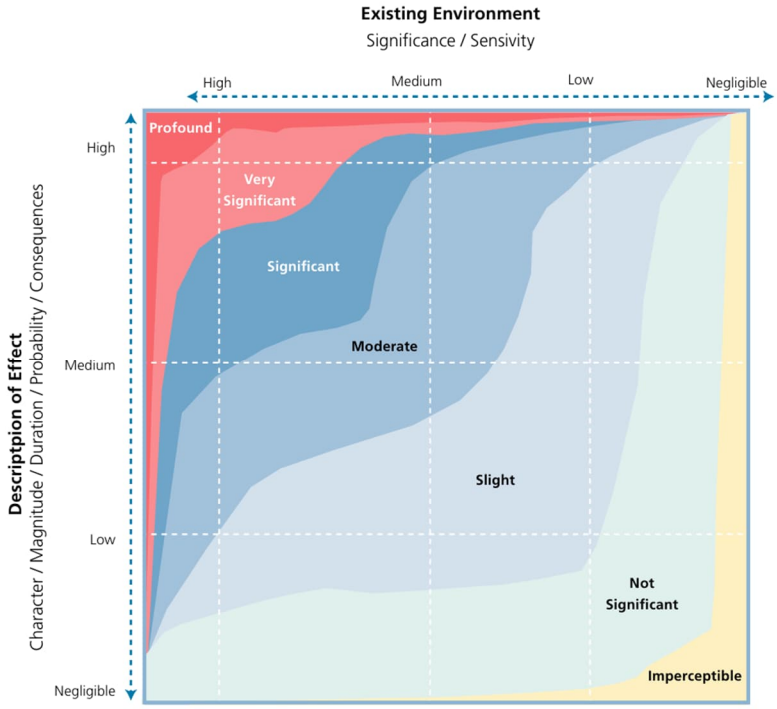


Plate 14-4 Determining Significance Matrix

Source: EPA Guidelines (2022)

This evaluation uses professional judgement and follows the significance classification in Plate 14-4 to determine the significance of potential effects. The significance of a predicted effect is based on a combination of the sensitivity or importance of the attribute and the predicted magnitude of any impact.

As outlined in **Chapter 01 – Introduction & Methodology**, once the description of the impact, including magnitude, character, duration etc. has been identified, this can be cross-referenced with the importance of the sensitivity of the receptor to derive the overall significance of effect as per the EPA guidelines (EPA, 2022).

14.3.6 Assumptions and Limitations

This traffic and transport assessment is based on the baseline data and the Proposed Development information as available at the time of the writing.

Key assumptions include:

- An outline CTMP has been prepared to outline the proposed approach to managing traffic during the Proposed Development construction phase.
- The construction phase is estimated to have a duration of approximately two years, from June 2027 to May 2029. Construction at its peak is the period that has been assessed i.e. Between January 2028 and June 2028.
- Should the start of Proposed Development construction be delayed, the conclusions of this assessment are not expected to change significantly.

14.4 Baseline Environment

This section sets out transport characteristics of the study area as outlined previously which has been reviewed taking cognisance of the following:

- Road network.
- Road safety.

- Walking infrastructure.
- Cycling infrastructure.
- Public transport infrastructure and services.

14.4.1Existing Road Network

The Site benefits from close connectivity to a range of national, regional and local roads. Those in the immediate vicinity of the Site are illustrated in Plate 14-5. The Site access is proposed via Mullally's Lane located to the west of the Site.

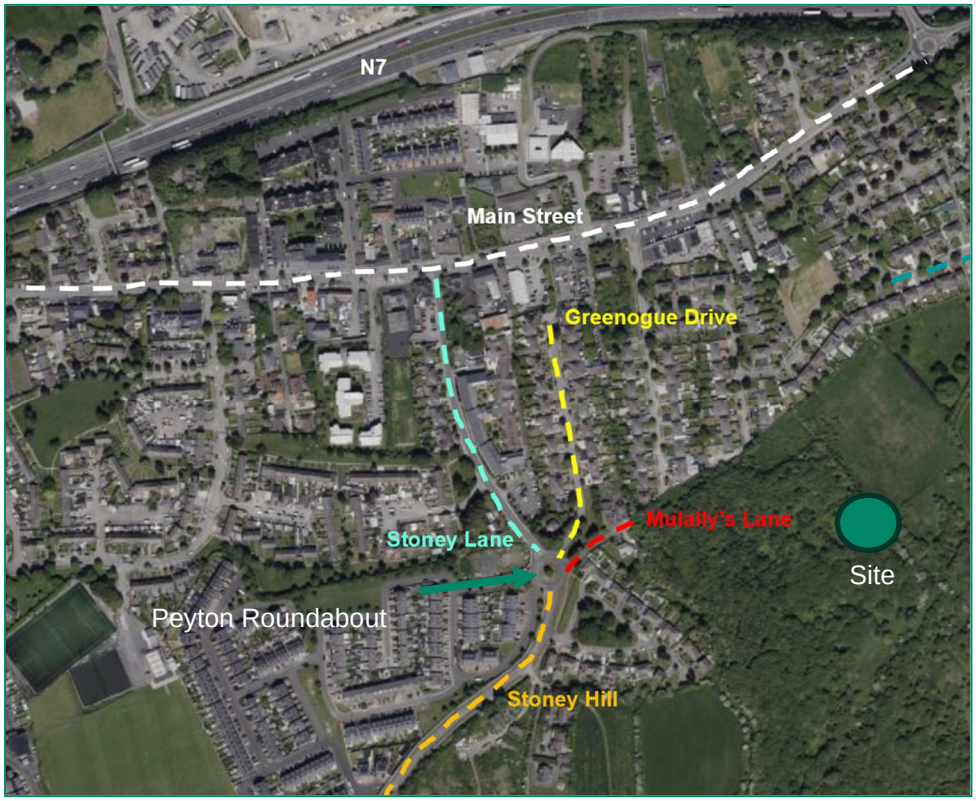


Plate 14-5 Local Road Network

Source: Bing Maps

14.4.1.1 Mullally's Lane

Mullally's Lane is a two-way single lane cul-de-sac which starts at the Peyton Roundabout and serves three residential properties. No footways are present along the carriageway. There is an uncontrolled pedestrian crossing located on the Peyton Roundabout at the Mullally's Lane arm.

14.4.1.2 Greenogue Drive

Greenogue Drive is a two-way single lane carriageway accessed via Peyton Roundabout serving multiple residential dwellings. A footway is present on both sides of the road. There is an uncontrolled pedestrian crossing located on the Peyton Roundabout at the Greenogue Drive arm.

14.4.1.3 Stoney Lane

Stoney Lane is a local road which connects to Stoney Hill Road at the Peyton Roundabout and forms a give way priority 3-arm T-junction with Main Street. Footpaths are provided along both sides of the carriageway. Dropped kerbs and tactile paving are provided at local accesses.

14.4.1.4 Main Street

Main Street is the primary street running through Rathcoole and connects with Stoney Lane at a stop-controlled T-junction. It provides access to surrounding residential properties and local businesses in the settlement. Footpaths and public street lighting are provided along both sides of Main Street enabling pedestrian movement in the area. A posted speed limit of 50 km/hr applies along this section of road, with on-street parking provided at various locations on both sides of the carriageway.

14.4.1.5 N7

The N7 Naas Road is a national route located approximately 0.5km north of the Site and is the nearest major road serving the area. The route forms a key strategic connection within the region, providing links to Dublin, Naas, Portlaoise and the wider national road network. Roadway lighting is provided along both sides of the N7 carriageway, with the road being subject to a posted speed limit of 100 km/hr. The N7 would facilitate construction traffic access the Site due to the good existing operational conditions of the road.

14.4.2 Traffic Surveys

Traffic surveys were carried out by an independent survey company (TRACSIS) for the Proposed Development. The results from the traffic surveys have been used to inform the baseline conditions on the network in the vicinity of the Site.

Classified Junction Turning Counts (JTCs) were undertaken on a neutral weekday on the 15th October 2025 between 07:00-10:00 and 16:00-19:00. The survey recorded data in 15-minute intervals and was classified into car or taxi, Light Goods Vehicle (LGV), Heavy Goods Vehicle (HGV), buses, motorcycle and pedal cycle. The JTCs were undertaken at the following locations as shown in Plate 14-6.

- **JTC 1-** Main Street/ Naas Road (three-arm priority junction);
- **JTC 2-** Main Street/ Johnstown Road (three-arm priority junction);
- **JTC 3-** Main Street/ Stoney Lane (three-arm priority junction);
- **JTC 4-** Peyton Roundabout (five-arm priority roundabout);
- **JTC 5-** Main Street/ Coolamber Road (three-arm priority junction);
- **JTC 6-** Main Street/ R120 College Lane/ R120 Fitzmaurice Road (three-arm priority roundabout);
- **JTC 7-** R120 Fitzmaurice Road/ Beechwood Lawns (three-arm priority junction); and
- **JTC 8-** R120 Fitzmaurice Road/ Mill Road/ N7 Slip Roads (four-arm priority roundabout).

Automatic Traffic Counts (ATCs) were undertaken at two locations (ATC1 - Coolamber Drive and ATC2 - Rathcoole Park) within proximity to the Site on the surrounding road network as identified in Plate 14-6.

The ATC data was collected over a seven-day period commencing the 15th October 2025 for 24-hours each day. The ATC data includes classified traffic volumes and speed information. The data has been used to derive an Average Annual Weekday Traffic (AAWT) factor, which has been applied to the junction turning count data and average vehicle speeds across the road network.

Queue Length surveys were also collected in five-minute intervals at all JTC junctions (JTC 1 to JTC 8), by lane at the same time periods as specified in the Classified Junction Turning Counts.

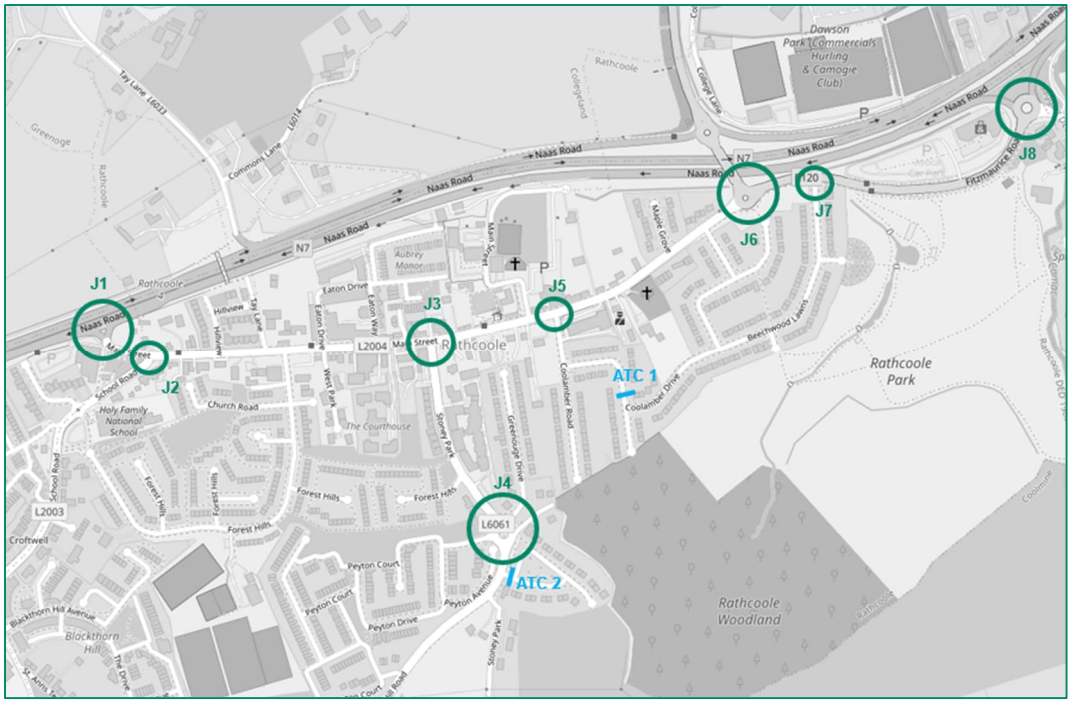


Plate 14-6 Traffic Survey Locations

Source: Bing Maps

14.4.2.1 Survey Results

Following the analysis of the JTC survey data, network peak hours were identified as between 07:45 and 08:45 in the AM and 16:45 and 17:45 in the PM. Table 14-2 summarises the total traffic recorded at the junctions during both the morning and evening peak hours.

Table 14-2: Summary of Traffic Survey Results

Junction	Total Junction Traffic Movement (PCUs)	
	(07:45-08:45) AM Peak Hour	(16:45-17:45) PM Peak Hour
1 - Main Street/ Naas Road	7,230	8,920
2 - Main Street/ Johnstown Road	741	921
3 - Main Street/ Stoney Lane	826	1,010
4 - Peyton Roundabout	284	384
5 - Main Street/ Coolamber Road	775	1,025
6 - Main Street/ R120 College Lane/ R120 Fitzmaurice Road	1,874	2,071
7 - R120 Fitzmaurice Road/ Beechwood Lawns	1,281	1,571
8 - R120 Fitzmaurice Road/ Mill Road/ N7 Slip Roads	1,280	1,745

14.4.3 Road Safety

As part of the road network analysis, a review of the Road Safety Authority (RSA) traffic collision database has been undertaken for the road network in the vicinity of the Site to identify any collision trends. This review aimed to assist in the identification of any potential safety concerns in relation to the existing road network.

The RSA website was recently updated in May 2026 with collisions noted up to 2024. Interrogation of the published data between 2020 and 2024 (latest available) shows two collisions on Main Street in the vicinity of the Site, as shown in Plate 14-7. The collision data notes the serious injury of a cyclist with no other vehicles involved. The other collision involved the minor injury of an E-scooter driver/ other. Based on the limited number and nature of the recorded incidents, it is not considered that there is an identifiable pattern or concentration of traffic collisions within the vicinity of the Site or at adjacent junctions.

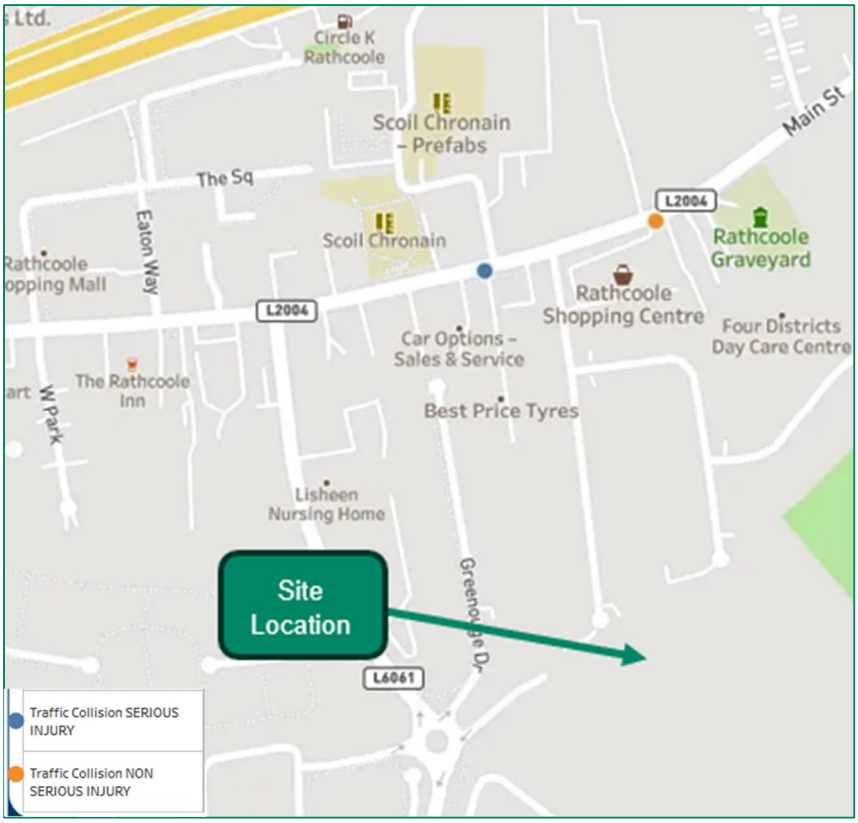


Plate 14-7 RSA Collision Data (2020-2024)

Source: Road Safety Authority (RSA), Map of Road Collisions in Ireland

14.4.4 Walking Infrastructure

Plate 14-8 illustrates the area that can be reached within a 20-minute walk of the Site. The Site is situated on the edge of the Rathcoole urban area where provision for pedestrian movement is generally good. Locally footways are provided on both sides of local carriageways that range from approximately 1.5m to 2.5m in width. Connections to the Site can be made from Main Street through existing routes along Stoney Lane, Greenogue Drive, Coolamber Drive, Coolamber Road and Beechwood Lawns. Footways are provided along all these routes. There are no footways provided along Mullally's Lane.

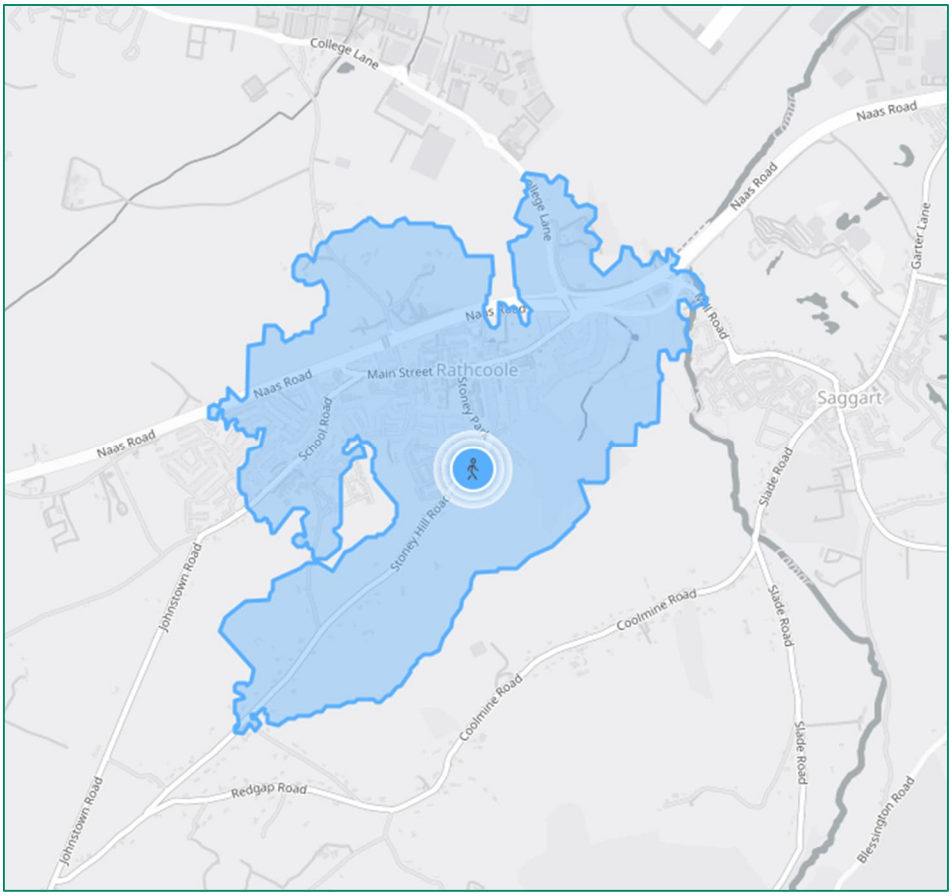


Plate 14-8 Walking Catchment - 20 Minute Isochrone

Source: https://app.traveltime.com/ © OpenStreetMap contributors

14.4.5 Cycling Infrastructure

There is currently no segregated cycling infrastructure within the study area. Plate 14-9 demonstrates the catchment within a 15 to 30-minute cycle from the Site. Saggart, Newcastle and Fortunestown are within an approximate 15-minute cycle of the Site, while Clondalkin, Tallaght and Celbridge are within an approximate 30-minute cycle of the Site.

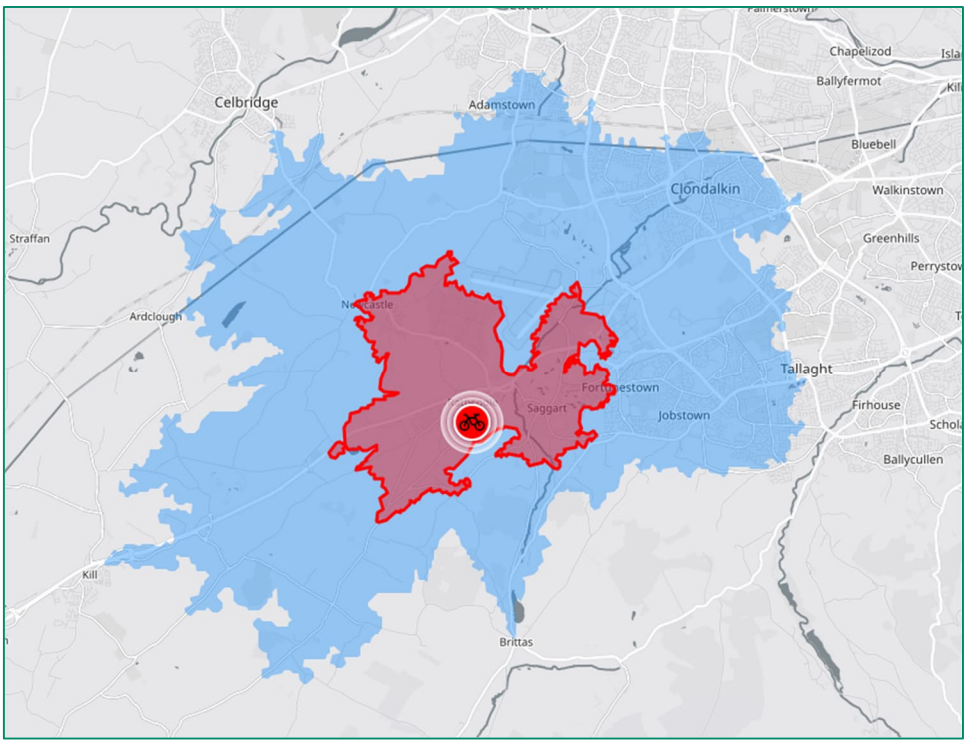


Plate 14-9 Cycling Catchment - 15 and 30 Minute Isochrone

Source: https://app.traveltime.com/ © OpenStreetMap contributors

14.4.6 Bus Travel

The Site benefits from a good bus transport connection, operated by Dublin Bus and Go Ahead Ireland. These services provide links from Rathcoole to the city centre and intermediate destinations. Plate 14-10 displays the scheduled frequency for buses.

Table 14-3: Bus Services within the Locality

Bus Route	Weekday		Saturdays		Sundays / Bank Holidays	
	To City Centre	From City Centre	To City Centre	From City Centre	To City Centre	From City Centre
69	20	18	21	18	12	12
69X	1	1	-	-	-	-
69N	-	-	-	3	-	-
	To Tallaght	To Maynooth	To Tallaght	To Maynooth	To Tallaght	To Maynooth
W6	36	36	34	34	30	30

Source: https://www.transportforireland.ie/

Plate 14-10 illustrates a 30 to 60-minute public transport journey catchment from the Site, during the morning weekday peak hour (08:00-09:00). Both Newcastle and Kill are within a 30-minute journey time in the AM peak, expanding to Naas, Celbridge and Clondalkin within a 60-minute journey time.

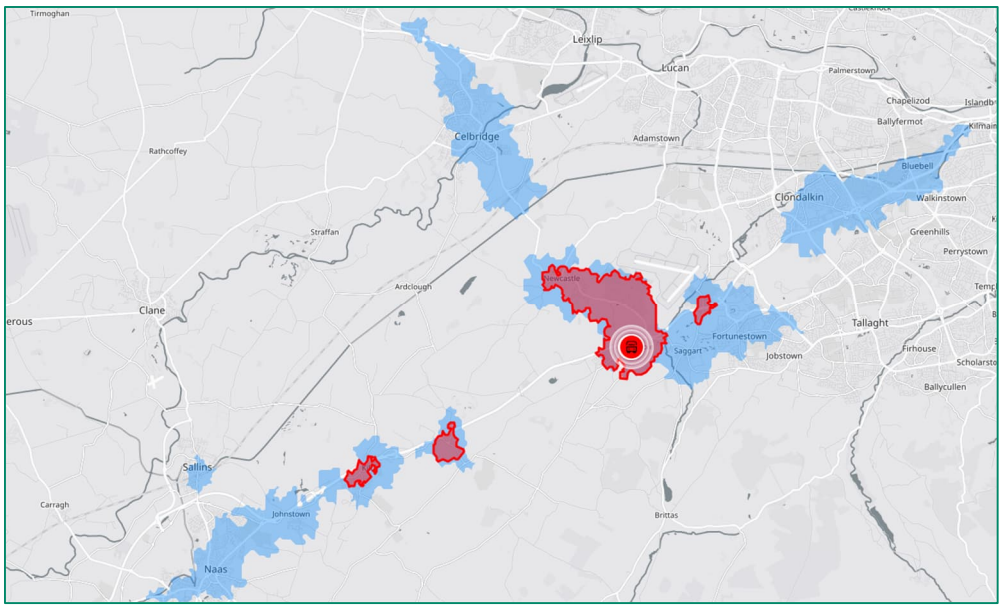


Plate 14-10 Public Transport Catchment - 30 and 60 Minute Isochrone

Source: https://app.traveltime.com/ © OpenStreetMap contributors

14.4.7Rail and Luas Travel

The Site is located approximately 8.5km from the Hazelhatch and Celbridge railway station where train services between Dublin City Centre and various destinations, including Portlaoise, Kilkenny, Carlow and Waterford.

Furthermore, the Saggart Luas station and Cheeverstown Luas Park & Ride station are located approximately 3km and 6km respectively to the north-east of the Site providing access to Luas Red Line services operating between Saggart and Connolly Station/The Point via Dublin City Centre.

Table 14-4: Existing Rail Travel Frequency

Time	Monday-Friday	Saturday	Sunday
Earlier than 07:00	7	-	-
07:00-10:00	4	9	9-12
10:00-16:00	4	6	
16:00-19:00	4	6	
Later than 19:00	11	11	11

14.5 Potential Impacts

14.5.1Construction

The Do Something construction scenario outlines the impact that the Proposed Development may have on the receiving environment. An oCTMP has been prepared and is appended to this EIAR (Appendix A14-1). The oCTMP sets out the proposed methods to control traffic during the construction phase, including the duration of the construction phase, access arrangements, traffic routing and potential impacts. The oCTMP will be further developed by the appointed contractor.

The impact of traffic flows associated with the construction period upon the receiving environment has been assessed.

The construction phase is predicted to take approximately two years from January 2028 to May 2029. The traffic assessment has been based on the period within this phase expected to generate the peak or

maximum vehicular traffic as detailed in the section below, i.e. the worst-case scenario to provide a robust assessment.

14.5.1.1 Trip Generations and Assumptions

For the purposes of this assessment, the peak months for construction have been considered as this would result in the greatest traffic impact on the local road network. The peak months for construction are anticipated to occur from January 2028 to June 2028 when activities will include Site establishment, clearance and alteration. Anticipated construction vehicles accessing the site are as follows:

- 40 daily construction vehicle trips (two-way); and
- 60 construction staff trips (private car/vans) (two way).

It is expected that around 10% of these trips will occur during the AM and PM peak hours on the local network, resulting in an estimated ten combined HGV and staff vehicle trips during each peak period.

14.5.1.2 Construction Traffic Distribution

The anticipated distribution of construction traffic has been based on the developed oCTMP and proposed haulage routes. The following assumptions have been made in regard to both deliveries and Site operative vehicle trips arriving at and departing from the Proposed Development Site:

- 100% of construction traffic will need to access the Site from the north, utilising the N7 and R120 travelling down Main Street, turning left onto Stoney Lane and continuing on to Mulally's Lane; and
- 100% of construction traffic will egress the Site southbound from Mulally's Lane to Stoney Lane, turning right on to Main Street before rejoining the N7 using the R120 overpass.

14.5.1.3 Proposed Development Impacts

Applying the estimated construction flows associated with the Proposed Development onto the surrounding junctions in the study area based on the proposed haulage routes, a percentage impact analysis has been undertaken in accordance with the TII Travel Demand Projections (Unit 5.3) for the peak year of construction (2028). The 2025 base traffic flows have been factored to 2028 as follows:

- 5.50% uplift from 2025 to 2028 (peak year of Proposed Development construction).

The EPA guidelines (2022) do not provide specific guidance in relation to the criteria for junction assessments. On this basis and from other scheme assessments prepared by AECOM, the guidelines which are included within the TII Traffic and Transport Assessment Guidelines have been used to identify the thresholds for junction analysis, which are as follows:

- "*Traffic to and from the development exceeds 10% of the existing two-way traffic flow on the adjoining highway*"; and
- "*Traffic to and from the development exceeds 5% of the existing two-way traffic flow on the adjoining highway, where traffic congestion exists or will exist within the assessment period or in other sensitive locations*."

It should be noted that the impacts associated with the construction phase will be temporary for the peak months of construction. The projected percentage impact of construction traffic within the study area during the peak year of Proposed Development construction (2028) is set out in Table 14-5.

Table 14-5: Percentage Impact of the Proposed Development Construction Phase (2028)

Junction	2028 Background Traffic (+CD)		2028 Peak Construction Traffic		% Impact	
	AM	PM	AM	PM	AM	PM
Naas Bypass / Main Street	7,732	9,454	0	0	0.00%	0.00%
Main Street / Johnstown Road	864	990	0	0	0.00%	0.00%
Main Street / Stoney Lane	987	1,084	10	10	1.01%	0.92%

Stoney Lane/ Greenogue Drive/ Mulally's Lane R'about	333	406	10	10	3.00%	2.47%
Main Street/ Coolamber Road	1,004	1,106	10	10	1.00%	0.90%
R120/ Beechwood Lawns R'about	2,111	2,246	10	10	0.47%	0.45%
R120/ Beechwood Lawns T- Junction	1,448	1,716	10	10	0.69%	0.58%
N7 Bypass/ Mill Road/ R120	1,465	1,911	5	5	0.34%	0.26%

As a result of this percentage impact analysis in Table 14-5, it is deemed that none of the junctions on the local network identified as part of the proposed haulage routes require additional peak hour junction modelling in line with the TII traffic and transport assessment guidelines for the Proposed Development construction phase. Therefore, the effect of construction traffic on the network during peak hours is considered to be **not significant** and **short-term** to the surrounding local transport network. The junctions will remain within capacity for the duration of the Proposed Development construction phase and as a result no mitigation is required at any of the junctions.

Upon completion of Proposed Development construction, the junctions would return to pre-development levels with the addition of the Proposed Development operational traffic. Although not necessary in terms of junction capacity, mitigation is proposed to manage construction related traffic impacts through the oCTMP.

14.5.2 Operation

The Do Something operational scenario considers the potential operational traffic impacts of the Proposed Development on the receiving local transport network. The assessment is based on existing peak hour traffic flows within the study area, accompanied with committed development traffic and traffic associated with the Proposed Development derived from the industry standard Trip Rate Information Computer System (TRICS). To ensure a robust assessment, forecast trips have been based on TRICS vehicular trips rates rather than person trip-rates with an assumed mode share. By not accounting for travel by non-car modes, the predicated traffic impacts present a worst-case scenario.

14.5.2.1 Trip Generation (TRICS)

Trip generation in relation to the Proposed Development has been determined from interrogation of the TRICS database (V8.26.3 – latest version at the time of writing). Average peak hour trip rates were extracted in relation to affordable / local authority flats and houses as shown in Table 14-6.

Table 14-6: Proposed Development Vehicle Trip Rates (TRICS) for the Proposed Development Operation

Dwelling type	AM (07:45-08:45) Arrivals	AM (07:45-08:45) Departures	Total	PM (16:45-17:45) Arrivals	PM (16:45-17:45) Departures	Total
Local Authority Houses	0.098	0.251	0.349	0.243	0.146	0.389
Local Authority Apartments	0.070	0.138	0.208	0.133	0.097	0.230
Total	0.168	0.389	0.557	0.376	0.243	0.619

Based on the above trip rates, the potential peak hour traffic generation has been calculated, as outlined in Table 14-7 and it is expected that the Proposed Development will generate 11 arrivals and 24 departures in the AM peak hour, and 23 arrivals and 15 departures in the PM peak hour.

Table 14-7: Forecast Vehicle Trip Generation for the Proposed Development Operation

Dwelling type	AM (07:45-08:45) Arrivals	AM (07:45-08:45) Departures	Total	PM (16:45-17:45) Arrivals	PM (16:45-17:45) Departures	Total
Local Authority Houses	5	13	18	12	7	19
Local Authority Flats	6	11	17	11	8	19
Total	**11**	**24**	**35**	**23**	**15**	**38**

14.5.2.2 Operational Traffic Distribution

The estimated Proposed Development operational AM and PM peak hour traffic has been distributed on the local transport network based on existing traffic movements as surveyed in October 2025. The operational traffic utilises local road network as outlined in section 14.4.1.

14.5.2.3 Proposed Development Impacts

In accordance with the TII guidelines, an assessment has been undertaken to establish the potential level of impact upon the key junctions of the local road network based on the Proposed Development 2029 opening year estimated traffic flows.

Only the opening year (2029) of the Proposed Development has been assessed. Any future year base flows would be greater than the flows presented in Table 14-8, hence a smaller percentage impact in comparison to the development flows would be recorded. As such, the opening year assessment is considered to represent the worst case.

Table 14-8 details the scale of local road network impacts predicted at each of the key local junctions during Proposed Development operation.

Table 14-8: Proposed Development Network Impact Assessment - Operational Phase

Junction	2029+Committed Development Total Flow		Development Total Flow		% Impact	
	AM	PM	AM	PM	AM	PM
Naas Bypass/ Main Street	7,879	9,633	1	3	0.02%	0.03%
Main Street/ Johnstown Road	878	1,009	5	7	0.60%	0.68%
Main Street/ Stoney Lane	1,037	1,103	29	26	2.84%	2.36%
Stoney Lane/ Greenogue Drive/ Mulally's Lane R'about	470	412	34	38	**7.25%**	**9.18%**
Main Street/ Coolamber Road	919	1,125	24	19	2.63%	1.71%
R120/ Beechwood Lawns R'about	2,097	2,287	22	18	1.05%	0.80%
R120 / Beechwood Lawns T- Junction	1,470	1,748	20	8	1.35%	0.44%
N7 Bypass/ Mill Road/ R120	1,489	1,946	20	8	1.31%	0.42%
New Site Access Mullally's Lane/ Greenogue Drive	0	0	34	38	**100.00%**	**100.00%**

Table 14-8 illustrates that the 5% and 10% threshold is exceeded at two of the junctions (indicated in bold in Table 14-8), namely the new Site access junction at Mullally's Lane and Stoney Hill Roundabout therefore further detailed modelling is required.

As a result of this percentage impact analysis, it is deemed that the two aforementioned junctions on the local network identified require additional peak hour junction modelling in line with the TII Traffic and Transport Assessment Guidelines for the Proposed Development operation phase.

14.5.3 Operation Phase Network Analysis

As detailed in Table 14-8, two of the junctions are predicted exceeded the 5% and 10% threshold as defined by the TII Traffic and Transport Assessment Guidelines and as such the operational assessment of these junctions has been undertaken using the Transport Research Laboratory (TRL) computer package Junctions 11.

In terms of Junctions 11, when considering priority-controlled junctions, a Ratio to Flow Capacity (RFC) value of 0.85 (85%) and less are indicators that a junction is operating within capacity. Where an RFC is between 0.85 – 0.90 the junction is approaching capacity, whilst RFC values between 0.9 – 0.99 are considered to be at capacity. A junction with an RFC greater than 1.0 is considered to be overcapacity.

A 90-minute weekday AM and PM period during Proposed Development operation has been modelled, from 07:30 to 9:00 and 16:00 to 17:30. Traffic flows were entered using an Origin-Destination table for the peak hours.

In order to analyse and assess the impact of the Proposed Development on the surrounding road network, modelled scenarios included:

- 2029 (Opening Year) Base + Development;
- 2034 Future Design Year (Opening year+5years); and
- 2044 Future Design Year (Opening year+10years).

The results of the operational assessment of both junctions are summarised in the section below.

14.5.3.1 New Site Access Mulally's Lane/ Greenogue Drive

Table 14-9 provides the model output for the new Site access junction at Mulally's Lane/ Greenogue Drive including the Proposed Development traffic generations which illustrates that the junction operates with spare capacity across all future year scenarios in both peak periods given that the RFC values remain significantly below 0.85 and queue lengths are minimal.

Table 14-9: New Site Access Mulally's Lane/ Greenogue Drive with Development Junctions 11 Outputs

		AM Peak		PM Peak	
Assessment Year	Arm	Queue (PCU)	RFC	Queue (PCU)	RFC
2029 (Opening Year) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04
2034 (Opening Year +5) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04
2044 (Opening Year +15) + Development	Site Access	0.2	0.17	0.0	0.03
	Greenogue Drive	0.2	0.19	0.1	0.04

Based on the analysis above, no mitigation measures are deemed necessary for the junction to accommodate the Proposed Development. The junction is expected to operate efficiently in both the AM and PM peak periods across all forecast years.

14.5.3.2 Stoney Lane/ Greenogue Drive/ Mulally's Lane Roundabout

Table 14-10 provides the model output for the new Site access junction at Stoney Lane/ Greenogue Drive/ Mulally's Lane Roundabout including the Proposed Development traffic generations. This illustrates that

the junction operates with spare capacity across all future year scenarios in both peak periods, with RFC values being significantly below 0.85 and queue lengths are minimal.

Table 14-10 Stoney Lane/ Greenogue Drive/ Mulally's Lane Roundabout with Development Junctions 11 Outputs

		AM Peak		PM Peak	
Assessment Year	Arm	Queue (PCU)	RFC	Queue (PCU)	RFC
2029 (Opening Year) + Development	Stoney Lane	0.1	0.12	0.2	0.17
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.16	0.2	0.16
	Peyton Avenue	0.1	0.13	0.1	0.08
2034 (Opening Year +5) + Development	Stoney Lane	0.1	0.12	0.2	0.18
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.17	0.2	0.17
	Peyton Avenue	0.2	0.13	0.1	0.08
2044 (Opening Year +15) + Development	Stoney Lane	0.1	0.12	0.2	0.19
	Greenogue Drive	0.1	0.12	0.0	0.03
	Stoney Hill	0.2	0.18	0.2	0.18
	Peyton Avenue	0.2	0.14	0.1	0.09

Based on the analysis above, no mitigation measures are deemed necessary for the junction to accommodate the Proposed Development. The junction is expected to operate efficiently in both the AM and PM peak periods across all forecast years.

14.5.4 Indirect, Secondary & Transboundary Effects

The EPA Guidelines (2022) states that indirect and secondary effects are those that are not a direct result of the project and are often produced away from the project site or because of a complex pathway.

The focus of transport impacts is on the network surrounding the Proposed Development. The analysis undertaken has demonstrated that the Proposed Development would not have an adverse impact upon the local transport network in the vicinity of the Site and that wider impacts are not anticipated.

14.6 Mitigation Measures

14.6.1 Construction Phase

The following traffic management measures will be implemented during the Proposed Development construction phase to manage potential construction traffic impacts. These measures are set out in the oCTMP and will be further developed, as appropriate, in the detailed CTMP to be prepared by the appointed Contractor prior to construction.

- Warning signs/ advanced warning signs will be installed at appropriate locations in advance of the construction access locations.
- Construction and delivery vehicles will be instructed to use only the approved and agreed means of access; and movement of construction vehicles will be restricted to these designated routes.
- Appropriate vehicles will be used to minimise environmental impacts from transporting construction material, for example the use of dust covers on trucks carrying dust producing material.
- Speed limits of construction vehicles to be managed by appropriate signage, to promote low vehicular speeds within the site.
- Parking of site vehicles will be managed and will not be permitted on public road, unless proposed within a designated area that is subject to traffic management measures and agreed with SDCC.
- A road sweeper will be employed to clean the public roads adjacent to the site of any residual debris that may be deposited on the public roads leading away from the construction works.

- On site wheel washing will be undertaken for construction trucks and vehicles to remove any debris prior to leaving the site, to remove any potential debris on the local roads.
- All vehicles will be suitably serviced and maintained to avoid any leaks or spillage of oil, petrol or diesel. Spill kits will be available on site. All scheduled maintenance carried out off-site will not be carried out on the public highway.
- Safe and secure pedestrian facilities are to be provided where construction works obscure any existing pedestrian footways. Alternative pedestrian facilities will be provided in these instances, supported by physical barriers to segregate traffic and pedestrian movements, and to be identified by appropriate signage.
- Pedestrian facilities will cater for vulnerable users including mobility impaired persons.

HGV trips are anticipated to arrive and depart the Site at a uniform rate throughout the day, to avoid pressure on the morning and evening peak hour periods and will be required to follow designated haul routes as set out in the oCTMP. The mitigation measures will ensure that the presence of construction traffic will not lead to any significant environmental degradation or safety concerns in the vicinity of the proposed works. Furthermore, it is in the interests of the construction programme that deliveries, particularly concrete deliveries are not unduly hampered by traffic congestion, and as a result continuous review of haulage routes, delivery timings and access arrangements will be undertaken as construction progresses to ensure smooth operation.

14.6.2 Operational Phase

Based on the network analysis undertaken and reported herein, it was found that the effect of the Proposed Development operational traffic on the local road network will be Imperceptible and as such no mitigation measures will be required. Despite this, a Mobility Management Plan (MMP) has been prepared by AECOM to accompany the Traffic and Transport Assessment (TTA) to assist with promoting the use of more sustainable modes of transport to residents at the Proposed Development. The MMP Report is included in Appendix 14.2.

14.7 Residual Impacts

During construction, once the identified mitigation and monitoring measures are adhered to, it is considered that any impacts from the Proposed Development from a traffic and transport perspective will be **Imperceptible** and **short-term** effects.

Once operational, ensuring that appropriate design standards have been met and operational management plans are adhered to, it is considered that any impacts from the residential element of the Proposed Development from a traffic and transport perspective will result in **Imperceptible** and **long-term** effects.

It should be noted that trips associated with the GAA pitches element of the Proposed Development have not been considered in this assessment as the peak times for generated trips are outside of the identified network peak hours i.e. training usually takes place in the evening with matches at the weekend when residential trips are typically lower. The car parking associated with the GAA pitches is limited which acts as a parking demand measure therefore encouraging trips by more active modes.

14.8 Cumulative Impacts

A review of SDCC's online planning applications has been undertaken to establish the permitted applications within the vicinity of the Site that may overlap with the Proposed Development's construction and/ or operational traffic. A summary of each development along with when they received planning permission is presented in

Table 14-11 which also describes the potential impact from a traffic and transport perspective.

The traffic associated with the developments as outlined in

Table 14-11 have been included in the assessment combined with the baseline traffic flows and considered during both the construction and operational phases. The cumulative impacts of the committed developments in the locality are considered Imperceptible and long term on the basis that the trips associated with the Department of Education application are existing on the network currently and will

redistribute only and the trips associated with the remaining applications are considered to be negligible in relation to current traffic volumes in the locality.

Table 14-11: Committed Developments in Proximity of the Proposed Development.

Name of Case	Planning reference	Approval Date	Development Details	Included in the Assessment	Proposed Trips
Department of Education and Skills, 20 Classroom Primary School	SD23A/0336	20th May 2025	New primary school (Roll No. 20549P), including 20 classrooms, with a gross floor area of 3,449m^2 over 3 storeys. The proposed development will also provide a multi-purpose hall and all ancillary teacher and pupil facilities. Vehicular, cycle, and pedestrian access to the site is proposed to the north-west of the school, with staff and visitor parking spaces. Car and bus drop off and set down facilities and associated set down areas and accessible parking facilities. A secondary, future provision of pedestrian, vehicular and cycle access points are provided to the southern boundary of the site.	**Yes** – associated trips determined from the submitted Planning Application are included in the assessment	93 arrivals in the AM and 72 departures in the PM
Swiftbank Development, Application for demolition of existing single storey dwelling and the construction of 274 units	SHD3ABP-312501-22	2nd August 2022	Demolition of existing single storey dwelling and the construction of 274 units on a 4.62 ha (net) site (density 60 units per hectare). It will comprise of 51 houses, 38 duplex units and 185 apartments. The height of the proposed scheme will range from two storey houses and three storey duplexes to 5 storey and part 8 storey apartment blocks. The proposed residential mix will comprise of: 17 2-bed houses, 27 3-bed houses and 7 4-bed houses, 2 1-bed duplex, 17 2-bed duplex and 19 3-bed duplex units, 62 1-bed apartments, 119 2-bed apartments and 4 3-bed apartments. A 4-classroom crèche of c. 276m^2 and 2 substations are also included in the proposed development. 276 car parking spaces and 634 bicycle spaces are provided. A planted woodland berm will be developed along the northern boundary with the N7 to provide a sound barrier and amenity open space. There are a number of green spaces located in the centre of the site and on the south east and west of the site with natural play and SUDS elements as well as a large open communal space for the two apartment blocks to the south. Vehicle, pedestrian and cycle access to the site will be from the Mill Road. A new road will be constructed running east west at the southern boundary of the site. The residential element of the site will have two access points off the proposed new road.	**Yes** – associated trips determined from submitted Planning Application and included in the assessment	AM 22 arrivals and 55 departures. PM 42 arrivals and 20 departures
Muldowney's Pub, Application for demolition of existing structures and construction of 21 residential units	SD22A/0096	17th April 2023	Demolition of some of the existing structures on site to include a portion of an existing rubble wall; the rear extension of an existing cottage; existing structures, storerooms, and sheds to the west and north of Muldowney's Pub; the reconfiguration, renovation, and extension of the existing cottages on site to provide for 2 two bedroom units; the reconfiguration and renovation of Muldowney's Pub and storage yard; the construction of 21 residential units within 2 three storey blocks to the rear and side of Muldowney's Pub.	**Yes** – associated trips determined from submitted Planning Application and included in the assessment	AM 1 arrival and 4 departures. PM 4 arrivals and 2 departures.

14.9 ‘Do Nothing’ Scenario

In the Do-Nothing scenario, the Proposed Development would not proceed, and no development-generated traffic would arise. Background traffic growth on the surrounding road network would nevertheless be

expected to occur over time including traffic associated with the cumulative developments as outlined in Section 14.8.

Should the Proposed Development not take place, the surrounding road network would remain as per current conditions subject only to background traffic growth. Background traffic growth is anticipated on the surrounding road network at a rate of 1.8% per annum from 2016 to 2030, 0.62% per annum from 2030 to 2040 and 0.50% per annum from 2040 to 2050, as indicated by the TII Travel Demand Projects (Unit 5.3) for Dublin County. The rates have been applied to the 2025 baseline traffic flows and are summarised below for both Light Vehicles (LV) and Heavy Vehicles (HV):

- 2025 to 2029 (Opening Year) - LV - 1.0740 (or 7.4%) and HV – 1.133 (or 13.3%);
- 2025 to 2034 (Design Year) - LV - 1.1207 (or 12.07%) and HV – 1.235 (or 23.5%); and
- 2025 to 2044 (Forecast Year) LV - 1.864 (or 18.64%) and HV – 1.429 (or 42.87%).

These numbers are general traffic growth predictions for Dublin County and do not account for any local factors associated with growth in future years.

14.10 Summary

This chapter of the EIAR has assessed the potential transport impacts and effects of the Proposed Development on the surrounding local transport network. The receiving environment has been assessed in terms of walking, cycling, public transport and road infrastructure.

As part of the assessment, the Proposed Development has been assessed with respect to the EPA Guidelines (2022) and the TII Traffic and Transport Assessment Guidelines (2014).

The anticipated peak construction traffic flows (during site establishment, clearance and alteration phase) would be 100 daily trips, with 10 trips in both the AM and the PM peak hours. Such traffic flows indicate that the Proposed Development will result in **Imperceptible** and **short-term** effects from a traffic and transport perspective during the construction phase.

An oCTMP has been prepared indicating the potential construction traffic routing, staff numbers, construction scenarios and measures that could be implemented to minimise the impact on the surrounding road network. This will be further developed by the appointed contractor and will be subject to agreement with SDCC Roads Department.

The traffic impact assessment for the operational phases has shown that further detailed modelling was required as TII's impact thresholds were met. Junction modelling was undertaken using Junctions 11 software in relation to the proposed Site access on Mulally's Lane and Stoney Hill Roundabout. This analysis found that during the Proposed Development operational phase, the junctions would operate within capacity in the opening year of the development (2029), in the horizon years i.e. opening +5 and opening +15 years.

The analysis undertaken illustrates that once operational, the effects of the Proposed Development on the existing road network will be **Imperceptible** and **long term**.

Therefore, it is considered that there will be no significant traffic related effects within the study area during the construction and operation of the Proposed Development.

14.11 References

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