

# Stage 1/2 Road Safety Audit

Proposed Large Residential  
Development at Castlelands,  
Mallow, Co. Cork

Reside (Castlepark) Ltd

October 2024

HDC1340/15

**Hegsons Design Consultancy Limited**

Dublin | Cork | Bedford | High Wycombe | Buxton | Saint-Denis-Le-Gast



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Stage 1 / 2 Road Safety Audit

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# 1 Introduction

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This report details the findings of a Stage 1/2 Road Safety Audit carried out on the proposed large residential development at Castlepark, Castlelands, Mallow, Co Cork, on behalf of Reside (Castlepark) Ltd.

The Audit Team members were as follows:-

Ken Hegarty, BE, MEngSc, CEng MIEI, MCIHT     Hegsons Design Consultancy Ltd

Seamus Quigley, BE, CEng, MIEI, MCIHT     Hegsons Design Consultancy Ltd

The site was inspected on the 27<sup>th</sup> September 2024 between 09.30am and 10.30am, in daylight, by foot and in a car, during dry weather conditions. Record photographs were taken.

The subject site is located within lands at St. Joseph's Road, Mallow, Co. Cork and is located approximately 800m east of Mallow town centre. The site is bordered by existing residential developments to the west and north and green fields to the south and east. Mallow GAA complex is located approximately 1.2km north-east of the site. The land use in the area is generally a mix between residential and agricultural.

The proposed development is a large residential development consisting of 469 No. residential units, 1 No. Crèche on site and an upgrade of the existing former lodge. The LRD comprises of 5no. development phases namely 1a, 1b, 1c, phase 2 and phase 3. Phase 1a and 1b of this LRD are being assessed under a different planning application 24/04519. The layout is outlined on a series of architectural, engineering and landscaping plans that should be viewed in conjunction with this report.

The proposed residential development consists of 68 No. 4-bed semi-detached dwellings, 132 No. 3-bed detached and semi-detached dwellings, 60 No. 3-bed townhouse dwellings, 42 No. 2-bed townhouse dwellings, 164 No. duplex and ground floor apartments and 3 No. 1-bed bungalows. The development also proposes the provision of 122 No. child Creche.

The development also includes the provision of 589 No. on-site car parking spaces and secure cycle parking spaces. The scheme layout incorporates site access points off Kingsfort Avenue, both to the west of the subject development site. Access streets are proposed on Kingsfort Avenue at the following locations:

- West of Bower Lane;
- At Kingsfort Square;
- At the southeast end of Kingsfort Avenue; and
- Along Maple Square.

An internal off-road shared footway/cycleway is proposed between Kingsfort Avenue at Bower Walk, and the existing Blackwater Amenity Corridor, linking with the proposed internal streets and open spaces.

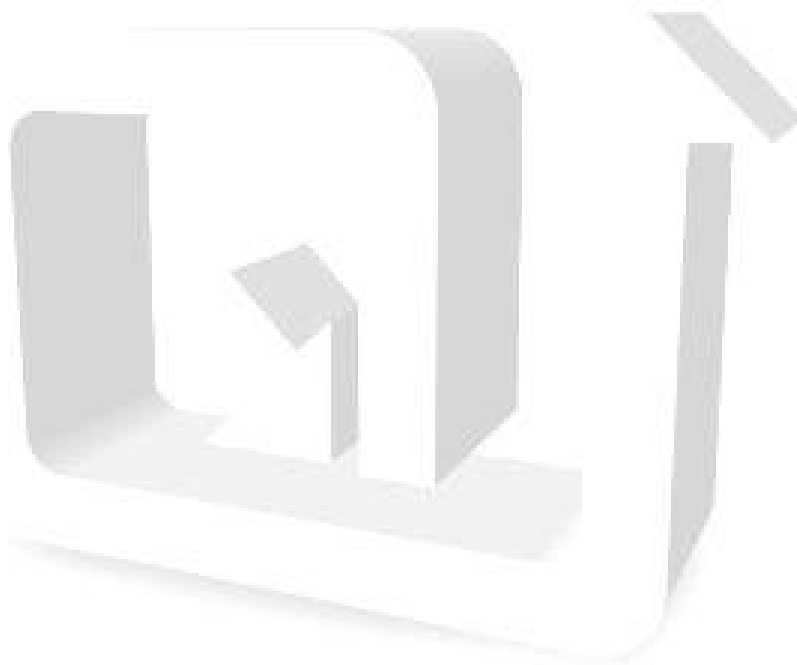
The drawings and other documents provided to carry out the Audit are listed in Appendix A.

This Audit has been carried out in the context of the procedures provided in the relevant sections of the TII Road Safety Audit GE-STY-01024 December 2017 and TII Road Safety Audit Guidelines GE-STY-01027 December 2017; and in accordance with the DoTTS Design Manual for Urban Roads and Streets (DMURS).

The Auditors have examined and reported only on those features of the design considered to have road safety implications and have not examined or verified the compliance of the scheme to any other criteria.

Section 2 of this report presents the findings of a Stage 1/2 Road Safety Audit carried out on the proposed large residential development at Castlepark, Castlelands, Mallow, Co Cork, on behalf of Reside (Castlepark) Ltd.

The Designer's Feedback is provided in Appendix B.



## 2 Findings of the Stage 1/2 Road Safety Audit

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### Internal Site Layout & Access Arrangement

#### 2.1 Comment – Compliance with DMURS

This audit is required in the context of DMURS. It is considered that the proposed layout is generally compliant with DMURS' philosophy, by virtue of the reduced speeds likely to result from the alignment of the access road and internal roads, short internal cul-de-sac roads and raised table treatments.

#### 2.2 Comment – Possible Inappropriate Dwell Areas at the Access Junctions

The tie-in details and gradients at the approaches to access points, including at junction raised tables and at internal access roads with gradients in excess of 2% (gradients of up to 1/15 and 1/16 are indicated on the drawing provided for audit), may not provide appropriate vehicle dwell areas. These could result in a risk of vehicles rolling into other users, potential material damage, collisions and injuries. It is recommended that appropriate dwell areas on approach to junctions are provided, with suitable gradients, cross-falls and drainage.

#### 2.3 Problem – Unclear Detail for Pedestrians Facility

It is proposed to provide dwellings with individual driveways crossing the footpaths along the internal access road. The access details are unclear. Providing priority for vehicles accessing these dwellings, in preference to pedestrians walking along the proposed footway, could result in pedestrians walking on the carriageway, either in front or to the rear of waiting vehicles. This could put them at risk of vehicle impact and injury.

##### **Recommendation:**

**It is recommended that pedestrian priority should be provided along footways with appropriate inter-visibility between pedestrians travelling along the footway and accessing vehicle drivers.**

## Vulnerable Users

### 2.4 Problem – Details of Treatments

No crossing and access interface details have been provided at some of the uncontrolled pedestrian and cycle crossing points, and at the footway and shared footway/cycleway access interfaces with street carriageways, including at open space areas at the north of the site. Inadequate facilities for pedestrians and cyclists could result in potential trips, falls and injuries; and pedestrians/cyclists on the road carriageway at risk of vehicle impacts and injuries.

**Recommendation:**

**It is recommended that appropriate facilities for vulnerable users should be provided. Provide appropriate dropped kerbs and tactile paving where necessary, with reference to DMURS and the Traffic Management Guidelines.**

### 2.5 Comment – Visibility within the Proposed Development

Adequate visibility splays are to be always maintained and kept clear of any physical obstructions. Obstruction to the visibility splays at the internal junctions (e.g. overgrown landscaping, etc) could result in other road users being put at risk of conflicts, collisions and injuries.

### 2.6 Comment – No Swept Analysis of Vehicle Manoeuvres within the Proposed Development

The swept path analysis for vehicles within the proposed development has not been provided. A lack of appropriate turning provisions and/or suitable facilities, to manoeuvre vehicles within the proposed development could result in an increased risk of impact collisions and consequent injuries for vehicle occupants.

## Road Markings & Signage

### 2.7 Problem – No Details of Line Road Markings or Signage

No details of road marking lines are provided on the road carriageways within the proposed development. The lack of stop / yield lines and direction arrows could increase the risk of driver confusion putting them at risk of impact collisions and consequent injuries for vehicle occupants.

The lack of road signage could increase the risk of driver confusion and inappropriate vehicle speeds, putting them, and other users, at



risk of impact collisions and consequent injuries for vehicle occupants.

**Recommendation:**

**It is recommended that appropriate road markings and associated signage should be provided and positioned, with reference to the DoT Traffic Signs Manual, including appropriate 30 km/h Slow Zone speed limit signage.**

## 2.8 Problem – Potential Inappropriate Vehicle Speeds

The proposed development is located within a 50 km/hour urban speed limit zone. There is no signed or proposed speed limit on the internal access road, for vehicles accessing off the public roads. In practice the access road will operate as a shared surface.

Inappropriate vehicle speeds could increase the risk of conflicts, collisions and potential injuries, including for pedestrians, cyclists and other vulnerable users generated by the proposed development.

**Recommendation:**

**It is recommended that a reduced appropriate posted speed limit should be provided on the access road, with reference to DMURS and the DoT Traffic Signs Manual.**

## Lighting

### 2.9 Comment – No Lighting Details Provided for Audit

No lighting details have been provided for this Audit. Potential issues include lack of coverage that could result in dark spots, which could put pedestrians at risk of vehicle impact and injury, or potential personal security issues. Appropriate lux levels should be generated as the design progresses, with appropriately located lamp standards.

## Drainage

### 2.10 Comment – No Drainage Details Provided for Audit

No drainage details have been provided for this Audit. Appropriate drainage should be provided, with appropriately located gullies, manhole covers and associated details.



### 3 Audit Team Statement

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We certify that we have examined the drawings and other information listed in Appendix A of this report. The examination has been carried out for the sole purpose of identifying any features of the design that could be removed or modified in order to improve the safety of the scheme. The problems we have identified are noted in the report, together with suggestions for improvement, which we recommend should be studied for implementation.

Signed:  Date: 15<sup>th</sup> October 2024

Ken Hegarty, BE, MEngSc, CEng MIEI, MCIHT  
Audit Team Member

Signed:  Date: 15<sup>th</sup> October 2024

Seamus Quigley, BE, CEng MIEI, MCIHT  
Audit Team Leader

## Appendix A : List of Documents Provided for Audit

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**Drawings:-**

*Deady Gahan Architect*

*Date: October 2024*

*23107\_P\_003 LRD Site Plan*

*23107\_P\_003A*

*23107\_P\_003B*

*23107\_P\_003C*

*23107\_P\_003D*

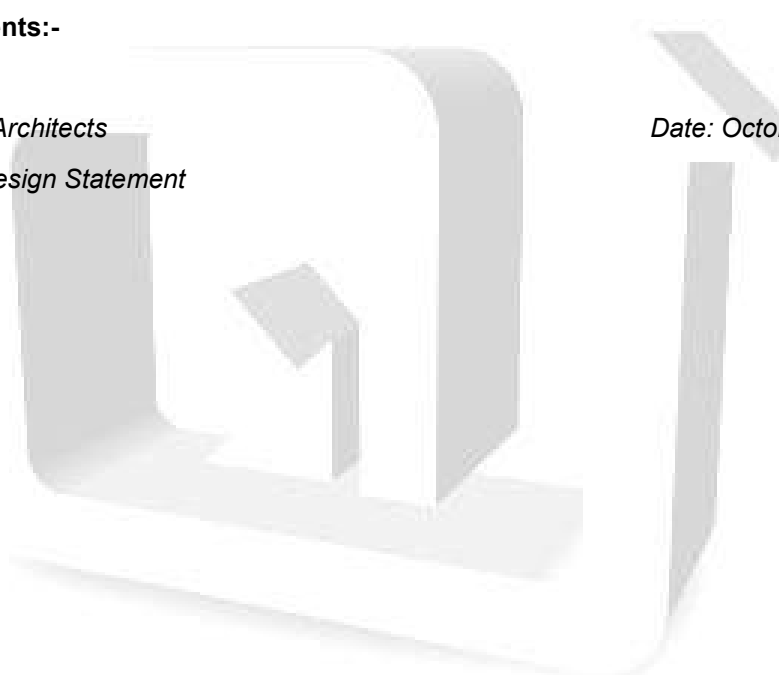
*23107\_P\_003E*

**Other Documents:-**

*Deady Gahan Architects*

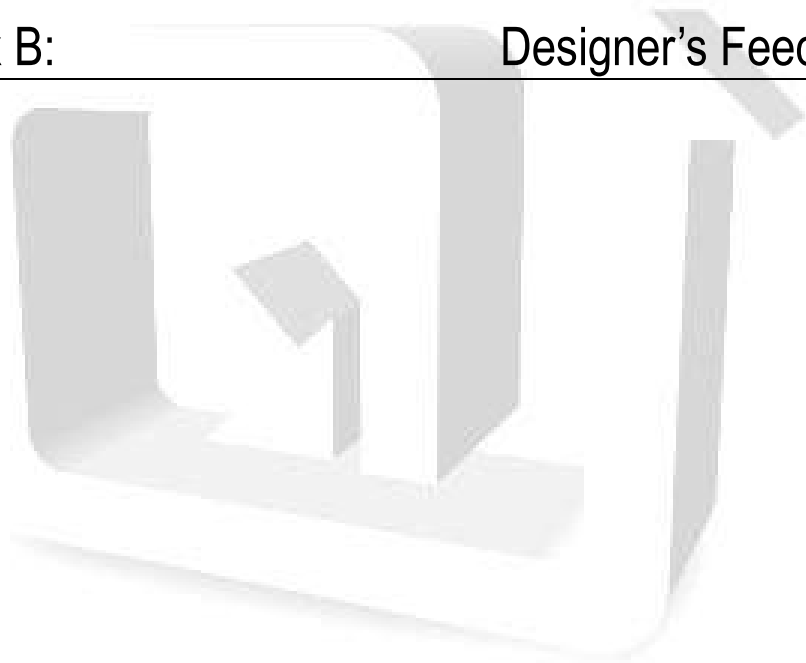
*Date: October 2024*

*Architectural Design Statement*



## Appendix B: Designer's Feedback

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# ROAD SAFETY AUDIT FEEDBACK FORM

PROPOSED LARGE RESIDENTIAL DEVELOPMENT, CASTLELANDS, MALLOW, CO CORK

**SCHEME:** .....

**ROUTE(S):** CASTLELEANDS, MALLOW , CO CORK .....

**AUDIT STAGE:** STAGE 1 / 2 ..... **DATE AUDIT COMPLETED:** 16<sup>TH</sup> OCTOBER 2024 .....

	To Be Completed By Designer			To Be Completed by Audit Team
Paragraph No. in Safety Audit	Problem Accepted (Yes/ No)	Recommended Measure Accepted (Yes/ No)	Describe Alternative Measure(s). Give Reasons for Not Accepting Recommended Measure	Alternative Measures Accepted by Auditors (Yes/ No)
2.1	Yes	Yes		
2.2	Yes	Yes		
2.3	Yes	Yes		
2.4	Yes	Yes		
2.5	Yes	Yes		
2.6	Yes	Yes		
2.7	Yes	Yes		
2.8	Yes	Yes		
2.9	Yes	Yes		
2.10	Yes	Yes		

**SIGNED:** Stephen O'Grady ..... **DESIGNER** ..... **DATE:** 17/10/2024 .....

**SIGNED:** Kenneth Hearty ..... **AUDIT TEAM** ..... **DATE:** 17/10/2024 .....

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