

**Road Safety Audit**  
**Stage 1**  
**for**  
**ACCESS TO PROPOSED RESIDENTIAL DEVELOPMENT**  
**AT**  
**ST PATRICK'S COTTAGES, RATHFARNHAM, DUBLIN 16**

**Date:** September 2022

**Report produced for:** Magahy Broderick Associates

**Report produced by:** Road Safety Matters Ltd

**Reference:** RSM/MOB/180722/RATHFARNHAM RSA1 UPDATE

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## DOCUMENT CONTROL SHEET

<b>Client</b>	Magahy Broderick Associates
<b>Project Title</b>	Access to Residential Development, Rathfarnham, Dublin 16
<b>Document Title</b>	Stage 1 Road Safety Audit Update
<b>Document Ref.</b>	RSM/MOB/180722/RATHFARNHAM RSA1 UPDATE
<b>Status</b>	FINAL

### Record of Issue

Rev	Originator	Team Member	Date	Distribution
FINAL	M O' B	AJS	22/8/21	Ian Magahy, Magahy Broderick Associates

## BACKGROUND INFORMATION

The report which follows is the Stage 1 preliminary design Road Safety Audit for the proposed access to a residential development site off the southern side of St Patrick's Cottages in Rathfarnham, Dublin16, based on the information supplied to the RSA Team as detailed below. The development will involve construction of 3 residential dwellings and an extension to an existing residential dwelling. This Audit has been prepared for the design of the access point(s), parking and all associated ancillary works.

**Table 1: Information Supplied**

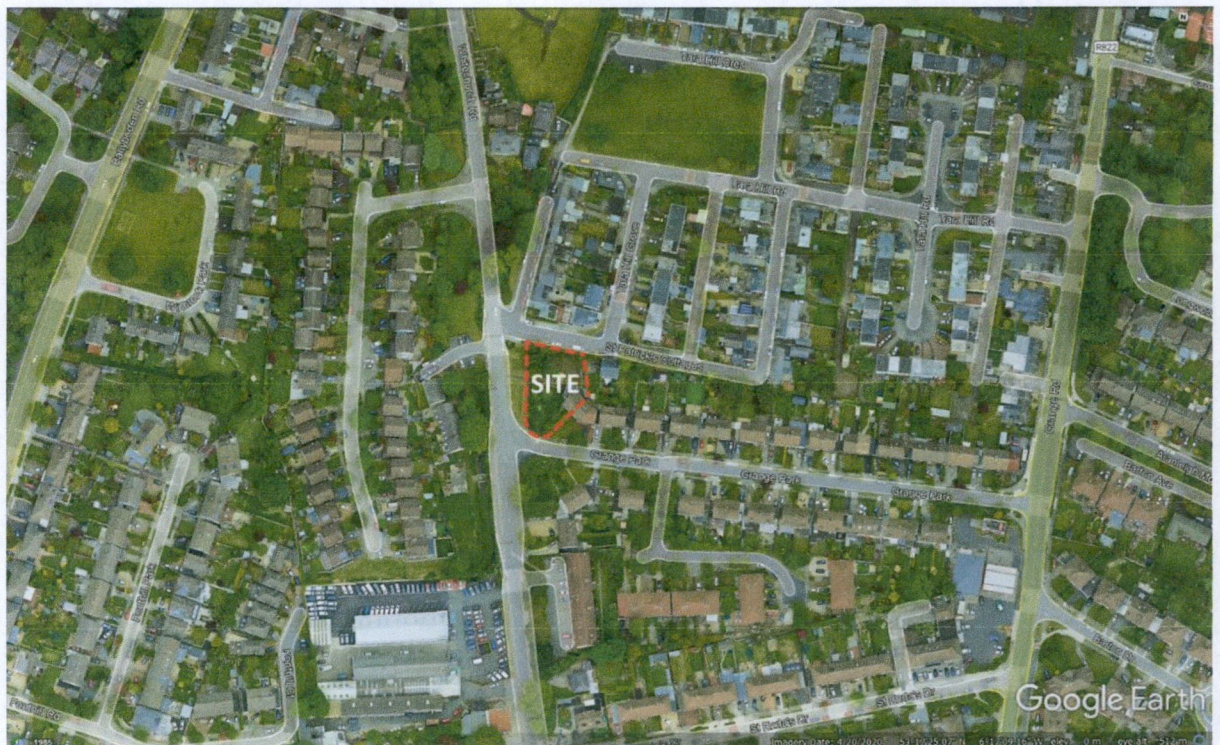
Item		Supplied	Comment
A	Plans / Drawings	Y	Drg No P03 Rev B: EXISTING PLANS AND ELEVATIONS OF NO 51 UNDERGROUND DRAINAGE & ACCESS DETAILS
B	Traffic Volume Information	N	
C	Speed Count Data	N	
D	Collision Data	N	
E	Departures from Standards	N	
F	Audit Brief	Y	RSA 1 – Preliminary Design Stage Audit
G	Other Data / Documents	N	

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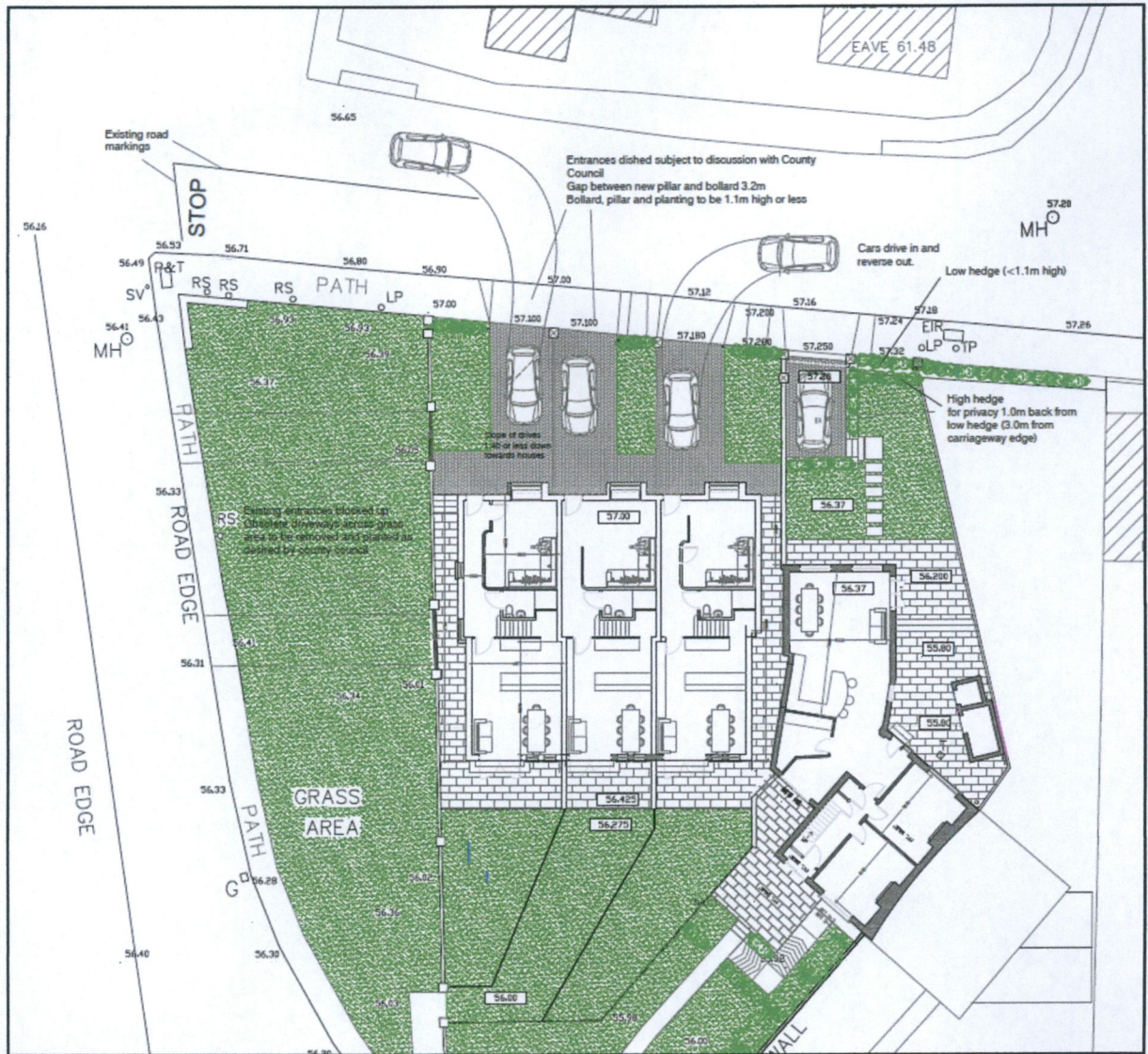
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## 1. INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit (RSA) of the proposed access to a small residential development in Rathfarnham, Dublin 16, carried out at the request of Magahy Broderick Associates. The development comprises three new two and a half storey houses with vehicular access to each off St. Patricks Cottages along the northern boundary, and for a single storey extension and alterations to No 51 Grange Park including a new vehicular entrance off St. Patricks Cottages, and all associated ancillary works, inclusive of closure of two existing vehicular entrances off Whitechurch road, landscaping and fencing, all at the site bounded by St. Patricks Cottages, Whitechurch Road and Grange Park Rathfarnham, Dublin 14 at the location shown in figure 1, with the 4 proposed access points and internal site layout shown in figure 2. This Audit examines the road safety implications associated with the proposed access to the development site and any potential safety issues arising. There are no other works proposed on the external road network to accommodate the proposed development, and the Audit is confined to the direct access onto the development site only, off St Patrick's Cottages.



**Figure 1: Site Location Plan**



**Figure 2: Proposed Internal Site Layout**

- 1.2 The RSA was carried out during August and September 2022 and included a site visit by the Audit Team on 18<sup>th</sup> August 2022 during daylight hours. The weather at the time of the site visit was fine and dry, and the surface of the road was dry. Traffic conditions were light, and Vulnerable Road User (VRU – including pedestrians and cyclists) was low. The posted speed limits on the roads adjacent to the site were the urban speed limit of 50 km/hr and the reduced slow zone speed limit of 30 km/hr.

1.3 The Audit Team Membership was as follows;

Team Leader: Miriam O'Brien – BE (Civil) FIHE MIEI MCIHT SoRSA CoC

Team Member: Anthony Sumner – HNC Civil Eng, AEng, MIEI, MCIHT

1.4 The Audit took place at the offices of Road Safety Matters Ltd following the site visit by the Audit Team. The Audit was undertaken in accordance with the Design Team's Audit Brief, and comprised an examination of the plans provided by the Design Team, as listed in Background Information, Table 1.

1.5 The terms of reference of the Audit are as described in TII GE-STY-01024 Dec 2017. The team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria. The site was subject to a previous Stage 1 RSA Audit undertaken in August 2022 (Report ref RSM/MOB/180722/RATHFARNHAM RSA1), however the site design has been updated as a result of a number of issues raised and observations made, with further clarification provided by the Design Team regarding the proposed site design, and this has been taken into account in production of this updated Stage 1 RSA report and associated design amendments.

1.6 Section 2 of this report contains issues raised by the Updated Stage 1 RSA together with recommendations to be considered. Section 3 contains the Auditor Team Statement. Most issues raised in Section 2 can be cross-referenced with the scheme drawing (**Appendix C**) and photographs taken on the site visit which are included in **Appendix B** & within the body of the Report where necessary.

## **2. ISSUES RAISED BY THE STAGE 1 ROAD SAFETY AUDIT**

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### **2.1 GENERAL**

- 2.1.1 The designers have not advised of any departures from standard.
- 2.1.2 Cross sections have been provided which demonstrate that the redeveloped site will be relatively level, as at present, and there were no issues noted in respect of gradients.
- 2.1.3 There was no information provided on any existing collision statistics in the vicinity of the site, or 85<sup>th</sup> percentile speeds, however it was considered that the relatively small scale of the proposed development is highly unlikely to exacerbate any existing collision risks in the locality, and there are no proposed design changes on the external road network.
- 2.1.4 There was no information provided on anticipated pedestrian and cyclist demands and desire lines to and from the site, however the size of the site is highly unlikely to generate any significant demand for access on foot or bicycle, which cannot be satisfied by the current infrastructure, with little or no increase in overall level of risk anticipated for a site of this size in this environment. A number of observations were made in respect of proposed and existing pedestrian accessibility to and from the site, which have been communicated to the Design Team and taken into account in the updated design for this Stage 1 RSA update, and will be addressed where feasible in advance of construction.
- 2.1.5 There were no details provided for proposed lighting, road markings or signage, which should be considered as appropriate in advance of construction.

#### **2.1.6 Problem – Parking Generally**

There was no information provided on anticipated traffic volumes and turning movement proportions to and from the development site to determine any issues arising, however the size of the development is highly unlikely to generate a significant quantum of traffic, and it is considered that the addition of four new single vehicle driveway access points on St Patrick's Cottages is highly unlikely to satisfy the threshold requirements for a Traffic and Transportation Assessment



in accordance with TII 'Traffic and Transport Assessment Guidelines' (PE-PDV-02045, May 2014), and the resultant risks arising are also likely to be negligible.

The design proposals include provision for one off street parking space per dwelling. There was no information provided on anticipated parking demands and parking accumulation for the site, however significant on street parking was noted on both sides of the carriageway at present, some of it partially blocking footways and pedestrian movements, as shown in photos in figures 3-8. The continuation of on street parking at this location would restrict visibility to and from vehicles wishing to turn out of the 4 proposed driveway access points, and is also likely to restrict safe unobstructed two-way movement on the link, and obstruct the swept paths and turning movements of vehicles wishing to turn, hence the Design team have confirmed that parking along the site frontage will be discouraged through provision of suitable parking restrictions in consultation with the Local Authority.



**Figure 3: Visibility to left from proposed site access**



**Figure 4: Visibility to Right from proposed site access**



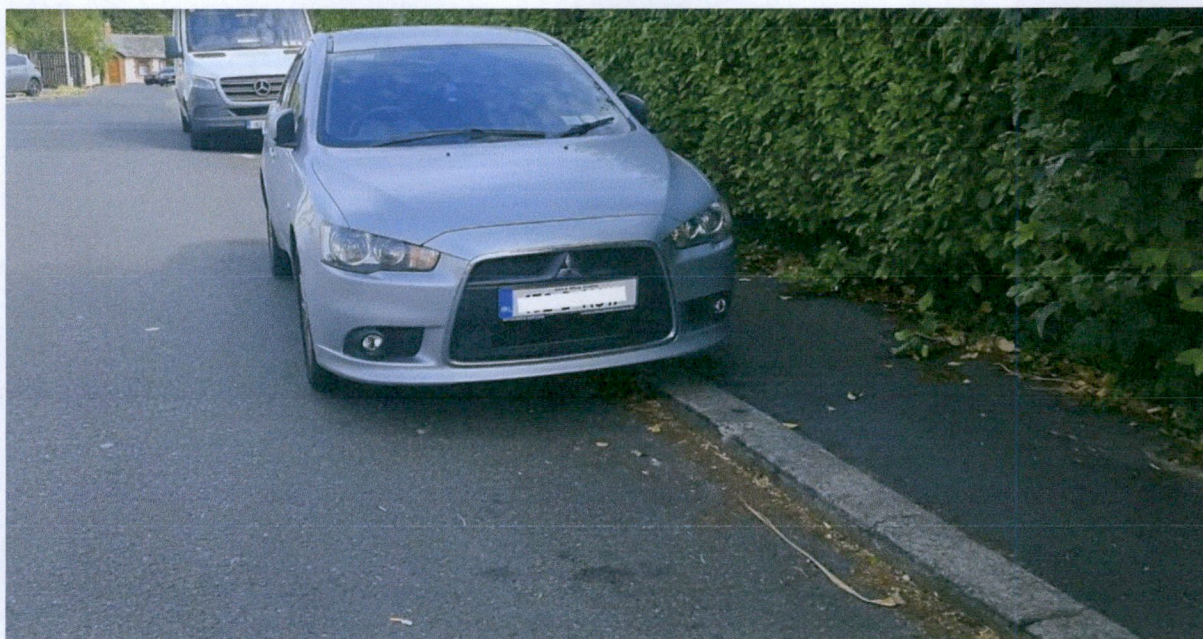
**Figure 5: Visibility to Right from adjacent jnc with Tara Hill Grove**



**Figure 6: Visibility to Left from adjacent jnc with Tara Hill Grove**



**Figure 7: Parking on Both Sides of Street Including Footway**



**Figure 8: Vehicles Parking on Narrow footways on northern Site Boundary**

### **Recommendations**

1. Suitable forward visibility and Stopping Sight Distance (SSD) should be provided towards the rear of any potential queues arising for right turners into each of the proposed site access points.
2. Visibility throughout and on approaches to the site should be clear and unobstructed at all times in accordance with approaching traffic speeds.
3. The cumulative parking demand should be assessed to demonstrate that the proposed number of parking spaces will cater for all anticipated demands, with provision for parking restrictions where necessary on approaches to each access point to ensure vehicles do not park on-street where they may restrict visibility, turning movements or safe two-way movements for other vehicles, as well as potentially restrict the movement of pedestrians.

## 2.2 ROAD SIGNS AND MARKINGS

### 2.2.1 Problem – Signing and Lining generally

There was no signing and lining schedule provided for the site, however the design layout does not appear to include provision for any new signing and lining. It was noted that there is no provision for parking restrictions on approaches to the site or adjacent junctions, and existing road markings including the solid centreline marking on the approach to the stop-controlled T-junction intersection of Whitechurch Rd and St Patrick's Cottages is well worn and virtually illegible at some locations. Markings are absent from other minor road intersections in the locality.



**Figure 9: Existing Rd Markings on St Patrick's Cottages**

### Recommendations

1. A signing and lining schedule should be produced for any proposed signs and lines at detailed design stage, to take into account all issues raised in the Stage 1 RSA, to include provision for standardised road markings and signage in accordance with the Traffic Signs Manual.

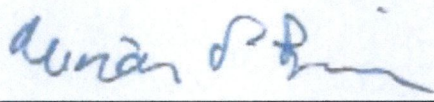
2. Any new or relocated signs should be posted in full view of motorists in a safe location with a minimum offset of 450mm from the edge of the sign face to the carriageway edge. The lowest edge of all signs should be set at a height of 2.1m or higher over footway and at 2.4m or higher over a surface which may be used by cyclists.
3. All road markings and signage to be highly reflective material to ensure visibility during the hours of darkness, including refreshed road markings to replace worn or illegible markings.

### 3. AUDIT TEAM STATEMENT

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We certify that we have visited the site and examined the drawings and information supplied. This examination has been carried out with the sole purpose of identifying any features of the design that could be removed or modified to improve the safety of the scheme. The problems identified have been noted within the report, together with suggestions for improvements which are recommended to be studied for implementation. No one on the Audit Team has been otherwise involved with the design of the measures audited. This audit has been carried out in accordance with TII GE-STY-01024 December 2017.

Signed:

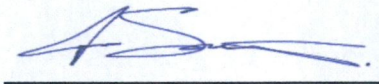


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Date: 15/9/22

MIRIAM O'BRIEN

Signed:



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Date: 15/9/22

ANTHONY SUMNER

## APPENDIX A – ROAD SAFETY AUDIT BRIEF CHECKLIST

Have the following been included in the audit brief?: (if 'No', reasons should be given below)

	Yes	No
1. The Design Brief	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Departures from Standard	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Scheme Drawings	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Scheme Details (e.g. signs schedules, traffic signal staging)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Collision data for existing roads affected by scheme	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6. Traffic surveys	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7. Previous Road Safety Audit Reports and Designer Responses/Feedback Form	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Previous Exception Reports	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9. Start date for construction and expected opening date	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10. Any elements to be excluded from audit	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Any other information?</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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**APPENDIX B – SITE PHOTOGRAPHS**

















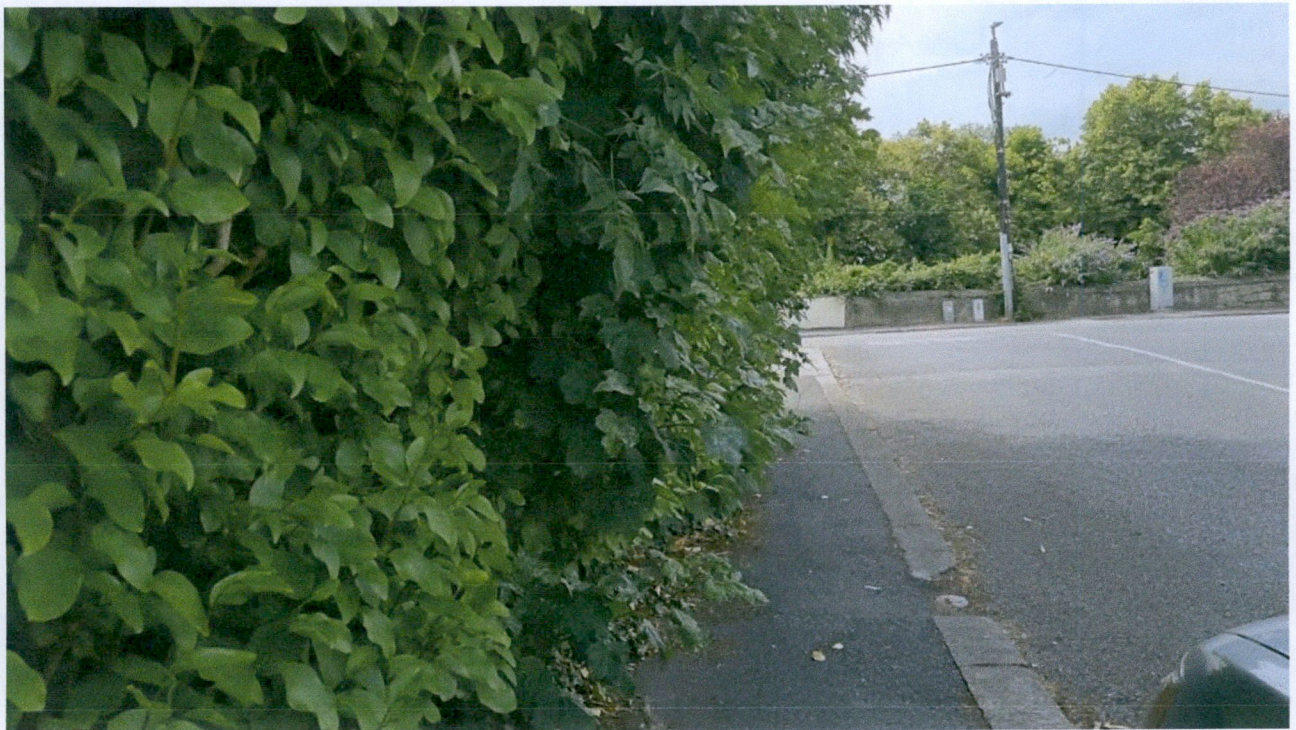


















**Road Safety Matters**

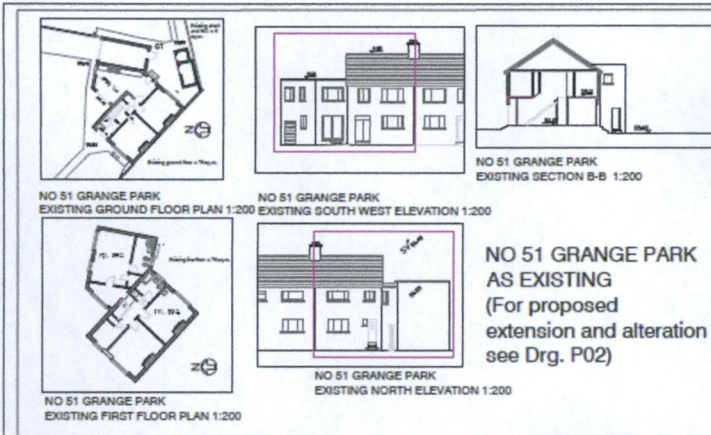
**APPENDIX C – SCHEME DRAWINGS**

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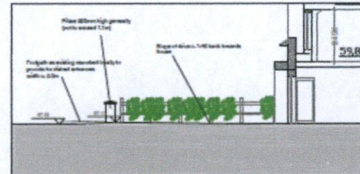
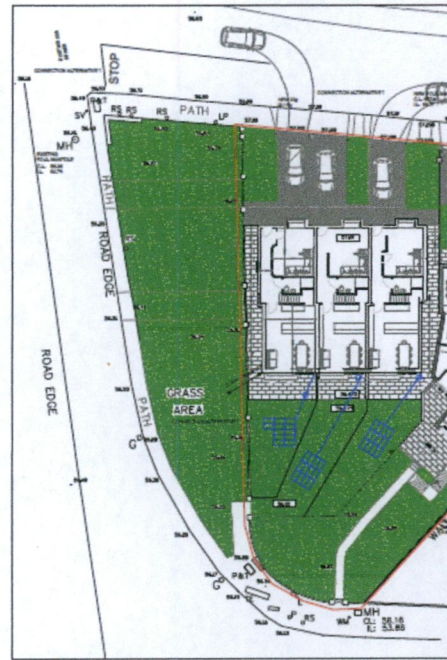


**FOUL WATER DISPOSAL**

Foul water from the development will be connected to the existing system in accordance with Irish Water requirement. Structure is kept > 3.0m away from existing 225 sewer. A way leave agreement will be entered into as part of the connection agreement and removable fencing with posts either side of the drain will be agreed locally

**SURFACE WATER DISPOSAL**

The surface water from the new and revised roofs is to be taken to a new infiltration blanket designed to the CIRIA guide. An infiltration test will be carried out to confirm the site value - the value for a poorly draining clay soil has been assumed for the initial sizing



**AquaCell Eco**



**Product description**

AquaCell Eco is a high strength, lightweight, permeable geotextile made from polypropylene. It is designed to be used as an infiltration blanket for surface water management. The product is available in a range of thicknesses and is suitable for use in a variety of applications.

**Technical specification**

Property	Value	Unit	Test Method
Material (GSM)	1000	gsm	EN ISO 9891
Color	Black	-	-
Width	2.5	m	-
Weight	2.5	kg	-
Material	100%	polypropylene	-
Manufacturer	100%	polypropylene	-

**DETAILS OF AQUACELL TO BE USED FOR INFILTRATION BLANKET**

# Road Safety Audit Feedback Form

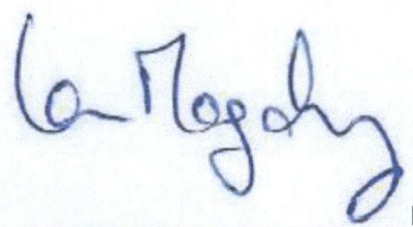
Scheme: Access to Residential Development, Rathfarnham, Co Kilkenny

Route No. N/A

Audit Stage: 1

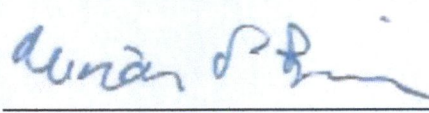
Date Audit Completed: September 2022

To Be Completed By Designer				To Be Completed by Audit Team Leader
Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Describe Alternative Measure(s). Give Reasons for not accepting Recommended Measure. Only Complete if recommended measure is not accepted	Alternative measures or reasons accepted by auditors (yes/no)
2.1.6	Y	Y		
2.2.1	Y	Y		



Signed: \_\_\_\_\_ Designer

Date 15/9/22



Signed: \_\_\_\_\_ Audit Team Leader

Date 15/9/22