

**Title: Stage 1&2 ROAD SAFETY AUDIT**

**For;**

**Proposed Large Scale Residential Development (LRD) at  
Oldcourt LAP Lands, Oldcourt Ballycullen/Bohernabreena Co.  
Dublin.**

**Client: Pinnacle Consulting Engineers**

**Date: June 2024**

**Report reference: 2291R01**

**VERSION: FINAL (13-8-2024)**

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## 1.0 Introduction

This report was prepared in response to a request from Mr. Ronan Kearns, Pinnacle Consulting Engineers, for a Stage 1&2 Road Safety Audit of a proposed large scale residential development (LRD) and associated road works at Oldcourt, Co. Dublin.

The Road Safety Audit Team comprised of;

Team Leader: **Norman Bruton**, BE CEng FIEI, Cert Comp RSA.

TII Auditor Approval no. NB 168446

Team Member: **Owen O'Reilly**, B.SC. Eng Dip Struct. Eng NCEA Civil Dip Civil. Eng CEng MIEI

TII Auditor Approval no. OO1291756

The Road Safety Audit involved the examination of drawings and other material provided by the Design Team and a site visit on the 14<sup>th</sup> of June 2024.

The weather at the time of the site visit was dry and the road surface was also dry.

This Stage 1&2 Road Safety Audit has been carried out in accordance with the requirements of TII Publication Number GE-STY-01024, dated December 2017.

The scheme has been examined and this report compiled in respect of the consideration of those matters that have an adverse effect on road safety. It has not been examined or verified for compliance with any other standards or criteria.

The problems identified in this report are considered to require action in order to improve the safety of the scheme for road users.

If any of the recommendations within this safety audit report are not accepted, a written response is required, stating reasons for non-acceptance. Comments made within the report under the heading of Observation are intended to be for information only. Written responses to Observations are not required.

The information supplied to the Audit Team is listed in **Appendix A**.

The feedback form is contained in **Appendix B**.

A plan drawing showing the problem locations is contained in **Appendix C**.

## 2.0 Background

It is proposed to construct an LRD between Oldcourt Road and Bohernabreena Road in Co. Dublin.

To provide access a signalised junction is proposed on the Bohernabreena Road south of St. Anne's GAA Club. The speed limit at this section of Bohernabreena Road is 60km/hr. A secondary access (simple priority junction) would be provided off Bohernabreena Road just north of Bohernabreena Cemetery.

At the eastern side, access will be provided via an extension of the under construction Ballycullen Gate development off the Oldcourt Road. The signalised junction was constructed but not operational at the time of the site visit and the main access road was under construction. That development was subject to a Stage 1-2 Road Safety Audit by the same Audit Team in April 2023.

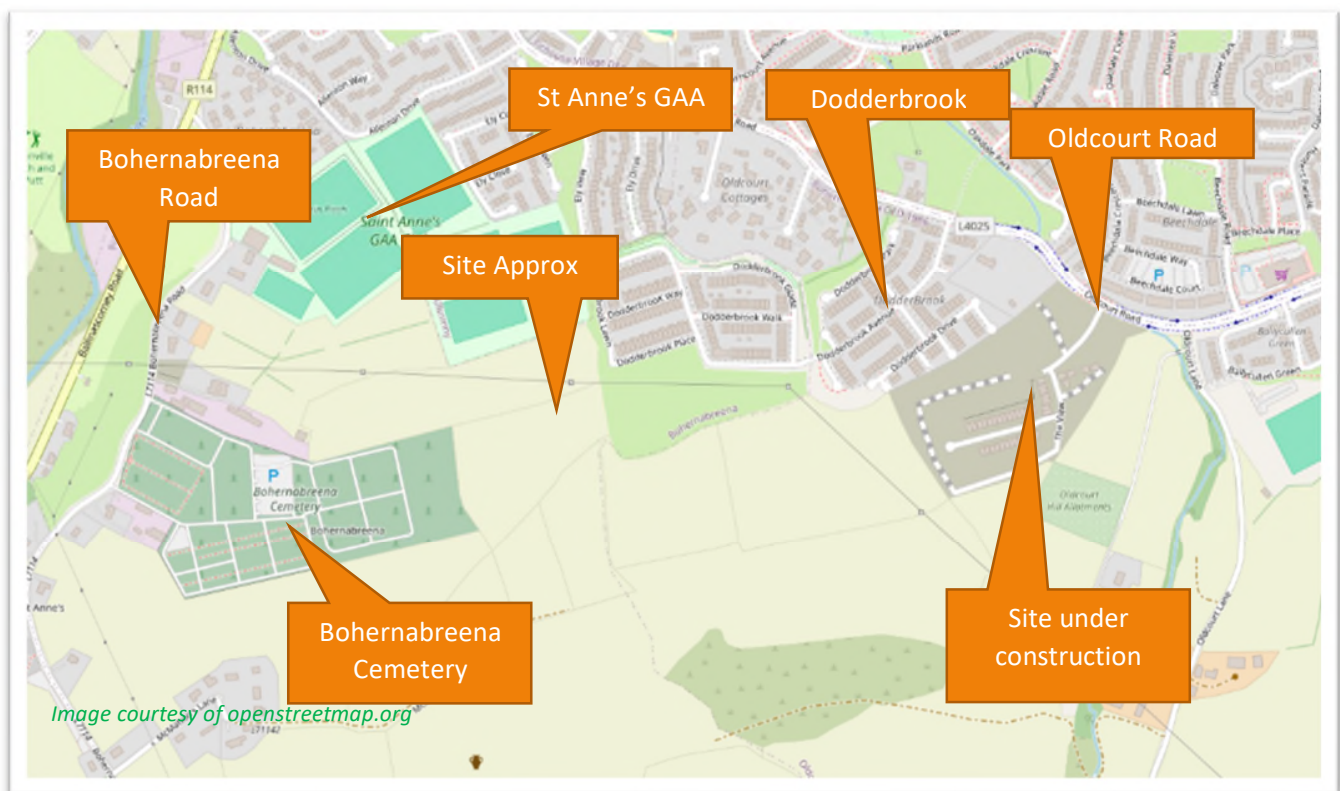
Internal links to the existing Dodderbrook development are also proposed.

A two-way cycle track will be provided along the main access road with a link to the Dodderbrook Development. Indicative bus stop locations have been shown on the drawings. The locations have been agreed with South Dublin County Council (SDCC) and the National Transport Authority (NTA). The design of the two-way cycle track has taken the future bus stops into account.

The development of the link/spine road allows for future development on lands both north and south of it.

The speed limit on the link/spine road is proposed to be 50km/hr and the residential areas will have a speed limit of 30km/hr.

The site location is shown below.



### 3.0 Items Raised in This Stage 1&2 Road Safety Audit.

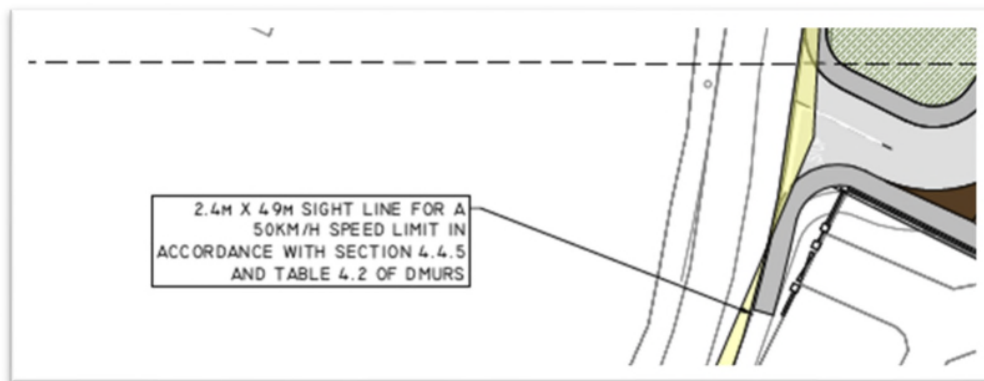
#### 3.1 Problem

##### LOCATION

Bohernabreena Road.

##### PROBLEM

The sightlines shown on the drawings assume a speed limit of 50km/hr on Bohernabreena Road. The existing speed limit is 60km/hr. A lack of suitable visibility could lead to side-impact or rear-end collisions.



Minimum Visibility Distance to Signal Heads	
85% Approach Speed KM/H	Minimum Visibility Distance
40 KM/H	40m
50 KM/H	70m
60 KM/H	90m
80 KM/H	145m
Separation Distance to Junction:	
	20m

##### RECOMMENDATION

It is recommended that sightlines be provided in accordance with the speed limit on Bohernabreena Road.

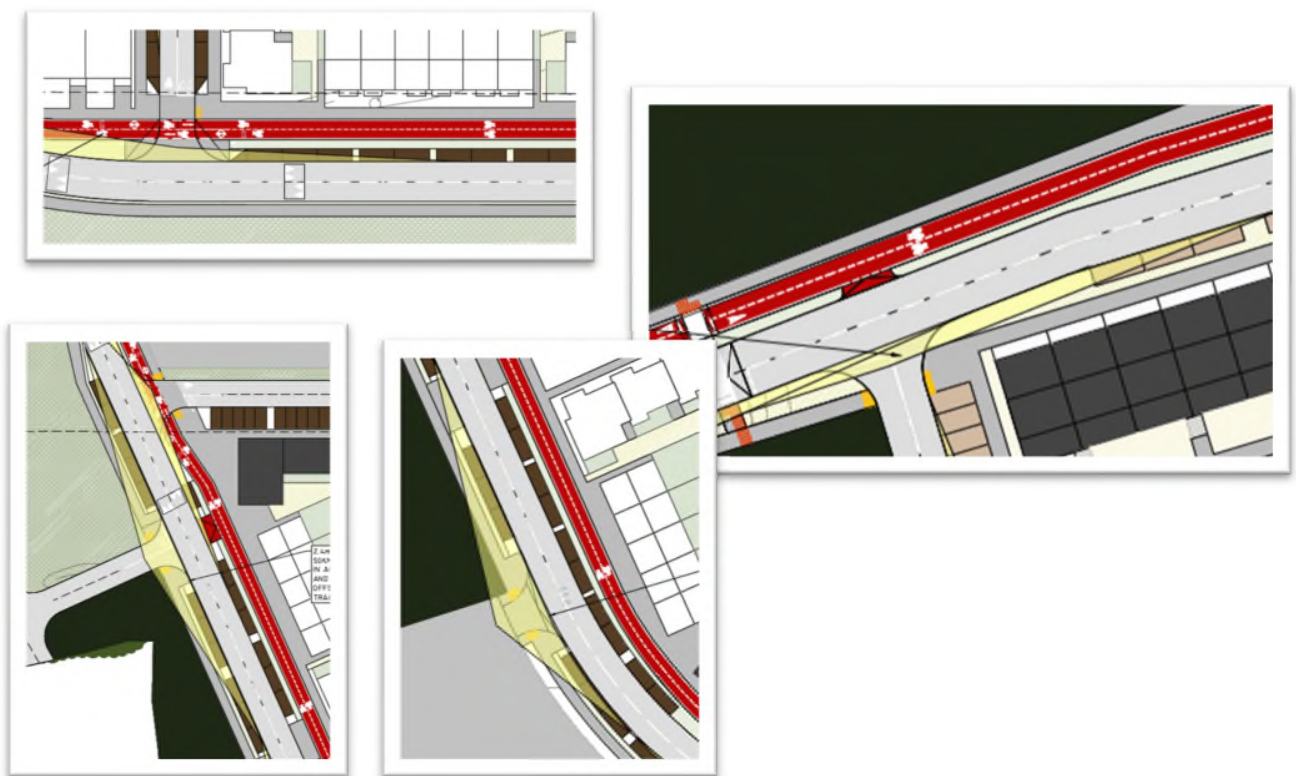
## 3.2 Problem

### LOCATION

Drawings P211102-PIN-XX-DR-D-110 & 111-SI P02, Sightlines at priority junctions onto Spine Road.

### PROBLEM

The visibility to the left and/or right for drivers entering onto the Link Road from some internal roads cut through a number (up to 5 no. spaces) of parallel car parking spaces. If these spaces are occupied, especially by a van or similar vehicle then the visibility will not be achieved. This could lead to side-impact or rear-end collisions.



*Examples only*

### RECOMMENDATION

It is recommended that the layout of the parallel parking be modified to achieve the required sightlines.

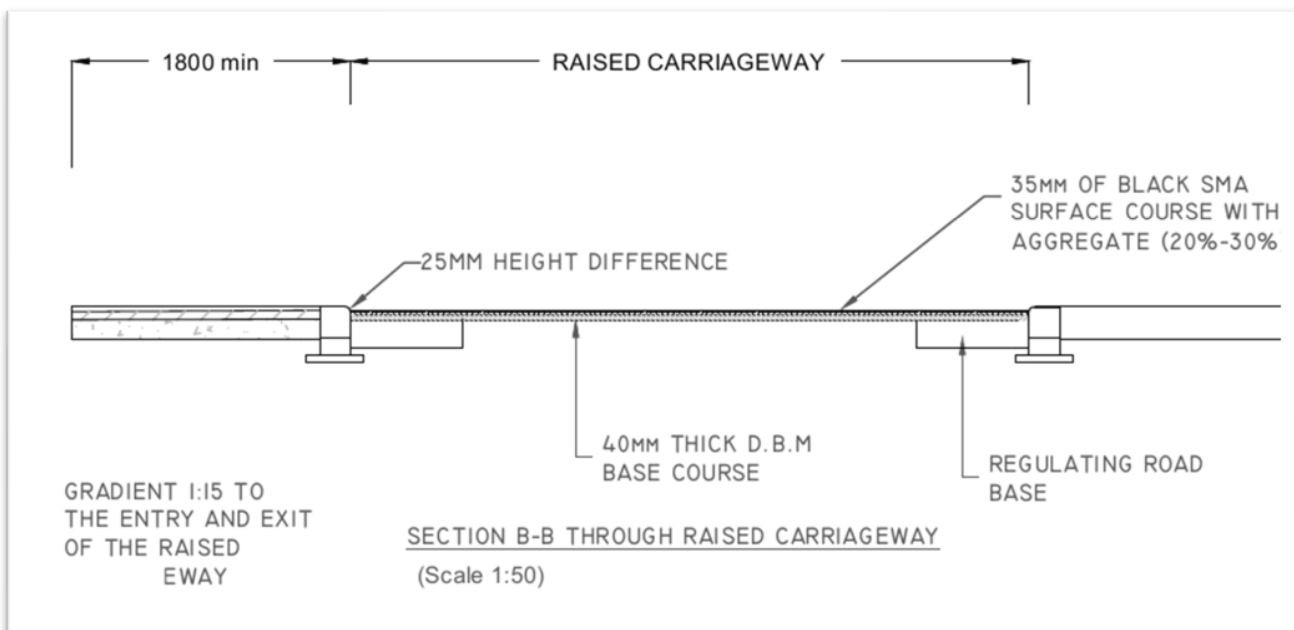
### 3.3 Problem

#### LOCATION

Drawing PIN-ZZ-XX-DR-D-142-SI P01, At Grade Crossing layout.

#### PROBLEM

Section B-B of the at grade crossing layout shows a 25mm kerb upstand. This may lead to trips and falls or inaccessibility for some mobility impaired users.



#### RECOMMENDATION

It is recommended that a flush kerb be provided at the crossing points.

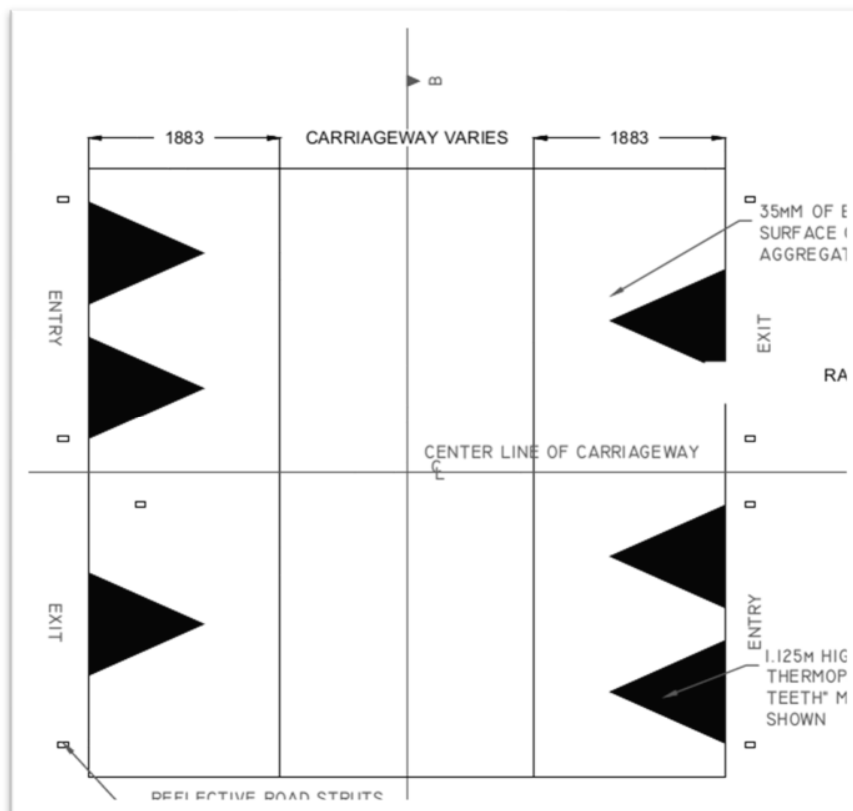
### 3.4 Problem

#### LOCATION

Drawing PIN-ZZ-XX-DR-D-142-SI P01, At Grade Crossing layout.

#### PROBLEM

The at grade crossings extend from kerb to kerb. There is a risk of surface water ponding at the start of the upstream ramp which could lead to loss of traction and loss of control.



#### RECOMMENDATION

It is recommended that gullies be provided upstream of such crossings/raised tables.



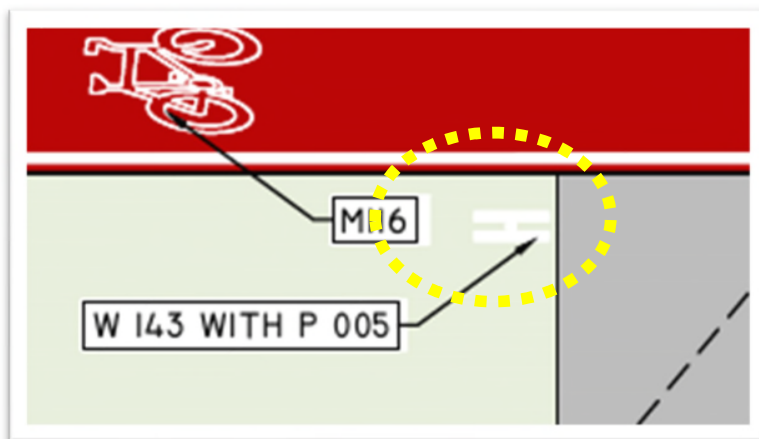
### 3.5 Problem

#### LOCATION

Drawing PIN-ZZ-XX-DR-D-142-SI P01, W143 Sign with P005 supplementary plates.

#### PROBLEM

It is unclear if back to back W143 signs with P005 supplementary plates are proposed. For drivers exiting the side roads the warning signs may be ineffective when located after the hazard which could result in inappropriate approach speeds to the hazard.



#### RECOMMENDATION

It is recommended that advance warning signs be provided a suitable distance in advance of the hazard.

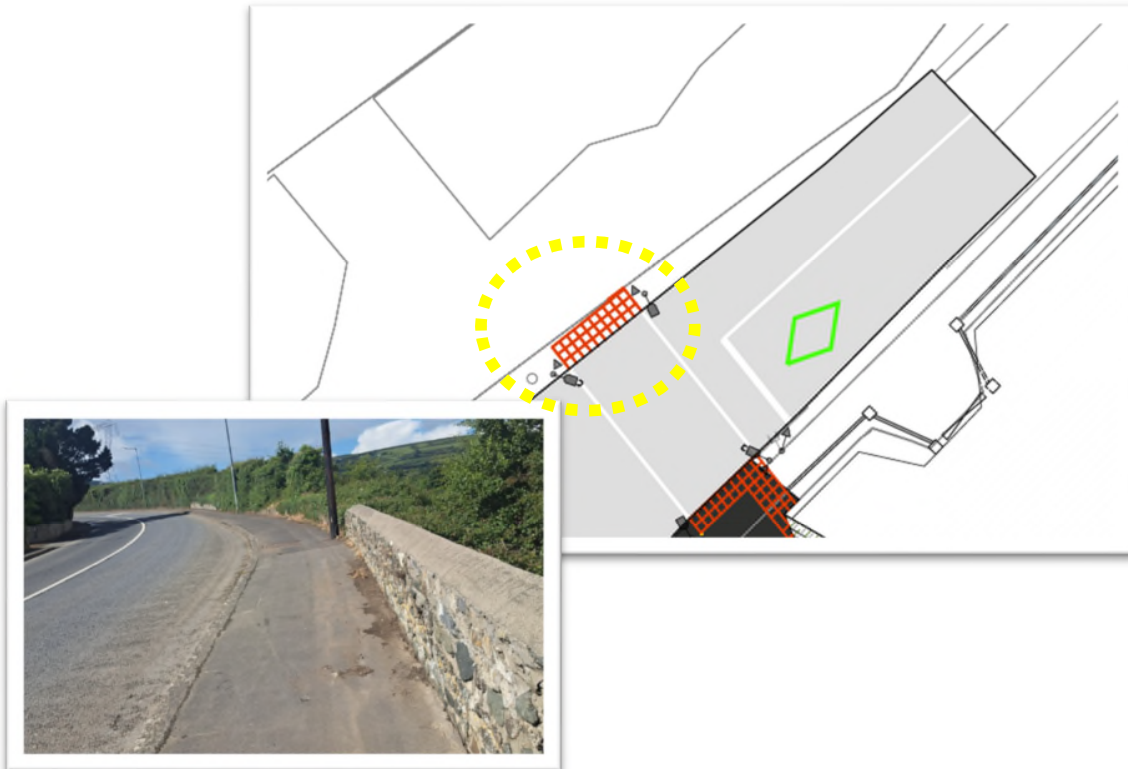
### 3.6 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-150 SI P02, Bohernabreena Road Footpath.

#### PROBLEM

The existing footpath on the western side of Bohernabreena Road is narrow. It is unclear if it is being narrowed further as part of the design. When the traffic signal poles are provided for the signalised junction the footpath may be unpassable for some mobility impaired users (e.g. those travelling to and from the local cemetery). This could lead to pedestrians having to travel on the carriageway where they would be at risk of being struck by passing vehicles. In addition, the crossing will be used by cyclists and bicycles may protrude into the carriageway leading to collisions with passing vehicles.



#### RECOMMENDATION

It is recommended that a suitable effective width of footpath be provided taking into account the set back required for the signal head poles and its use by cyclists waiting to cross.

### 3.7 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-150 SI P02, Bohernabreena Road Toucan crossings.

#### PROBLEM

There are two toucan crossings proposed on Bohernabreena Road however there are no areas for cyclists to transition from on-road to off-road except at the crossing. This could lead to cyclists travelling for longer distances on the footpath thereby putting pedestrians at risk or to cyclists mounting/dismounting the high kerbs resulting in loss of control.



#### RECOMMENDATION

It is recommended that a suitable dropped kerb be provided to allow cyclists access to the toucan crossing areas.

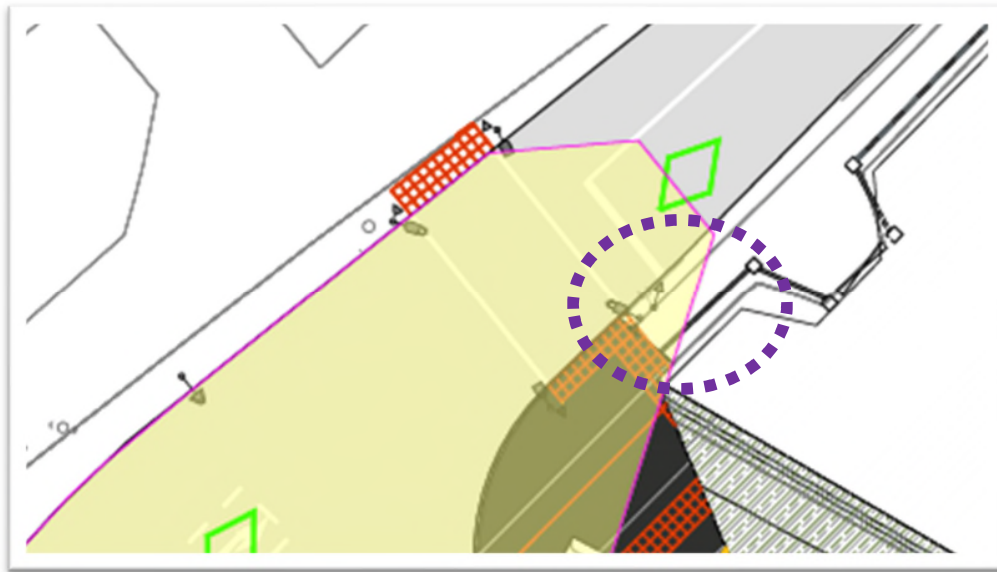
### 3.8 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-150 SI P02, Bohernabreena Road, Junction intervisibility.

#### PROBLEM

The intervisibility line cuts through the boundary wall of the neighbouring property on the northern side of the Bohernabreena Road junction. This wall may be too high to allow visibility which could result in collisions.



#### RECOMMENDATION

It is recommended that suitable intervisibility be provided in both the horizontal and vertical planes.

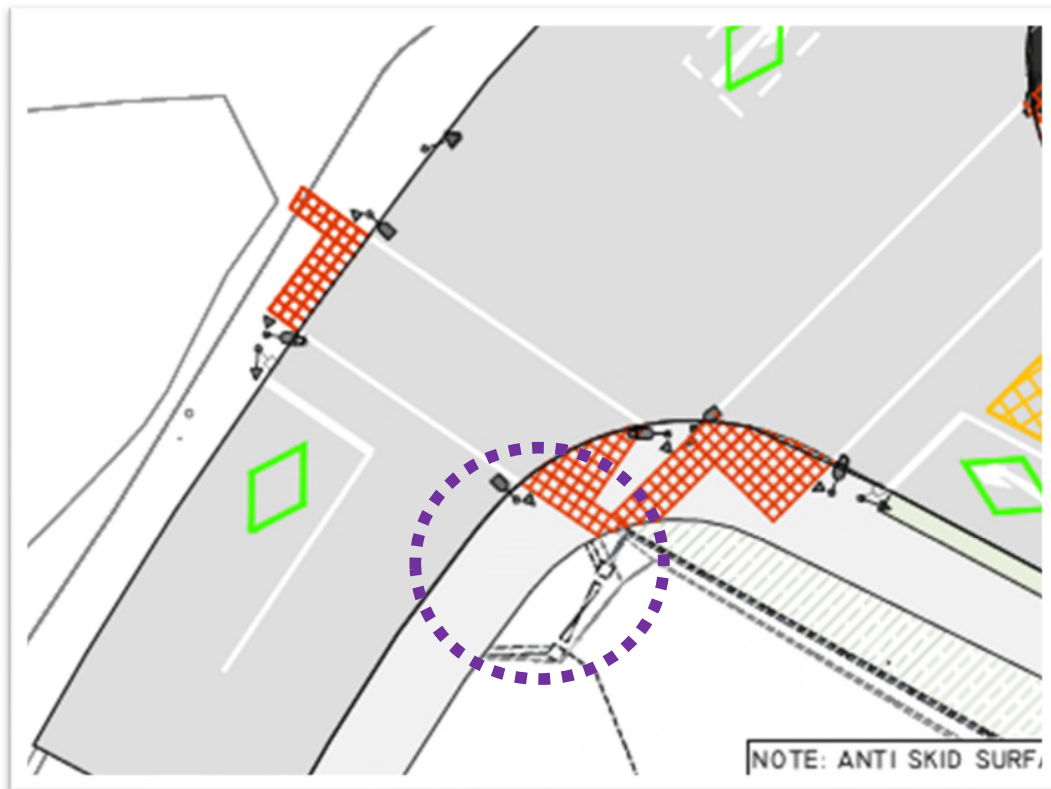
### 3.9 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-150 SI P02, Bohernabreena Road, Windermere Access.

#### PROBLEM

The access to the private residence 'Windermere' to the south of the proposed signalised junction may lead to collisions with the signal pole or to users of the residence not being able to cross to turn right due to the presence of the stop line and lack of visibility to the primary traffic signal relative to the entrance. A lack of access to the new road layout may lead to access/egress movements in conflict with other movements that drivers do not expect at a signalised junction, when they get a green signal, resulting in side impact or rear-end collisions.



#### RECOMMENDATION

Ensure that access and egress can be provided to 'Windermere' without having to disrupt traffic flows. This may require a traffic signal within the property.

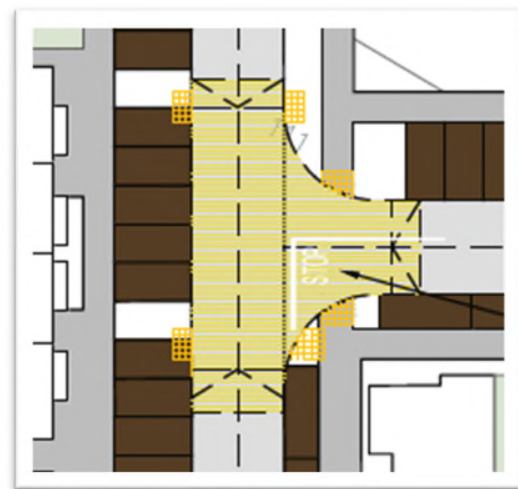
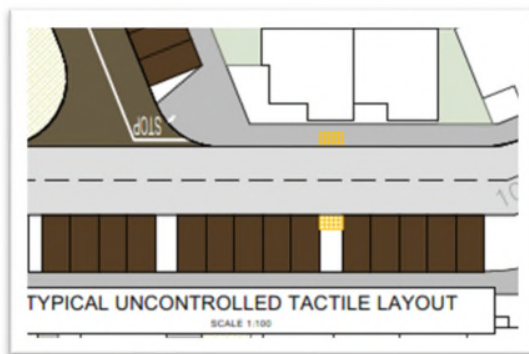
### 3.10 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-161 SI P02, Typical uncontrolled tactile paving.

#### PROBLEM

The drawing shows an uncontrolled pedestrian crossing between two perpendicular car parking spaces. A child could run out between two parked vehicles and a driver would not have time to react given the limited intervisibility.



*Examples only*

#### RECOMMENDATION

It is recommended that suitable visibility be provided at uncontrolled pedestrian crossings throughout the scheme.

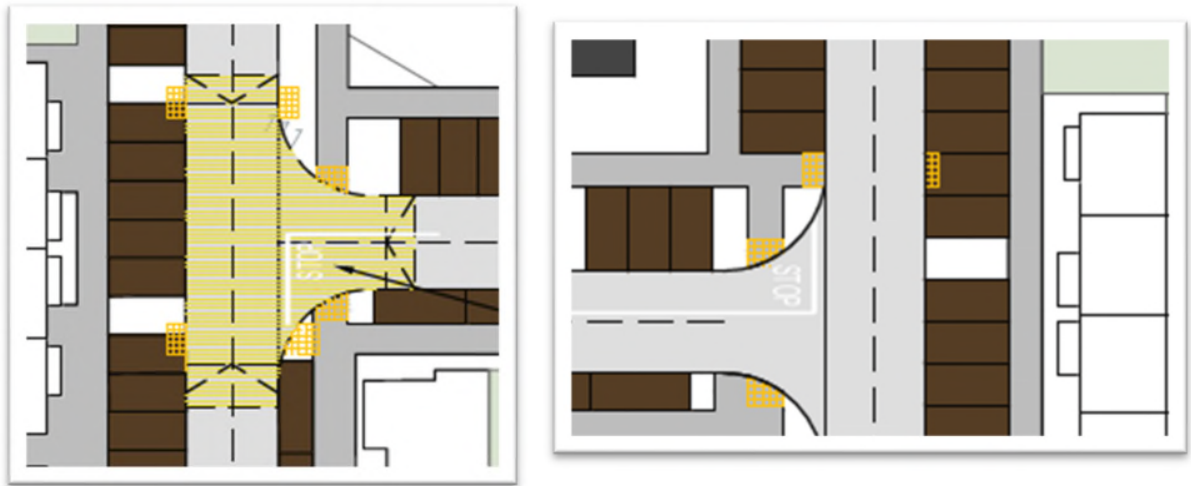
### 3.11 Problem

#### LOCATION

Drawing P211102-PIN-XX-DR-D-101-104 SI P02, Uncontrolled pedestrian crossing locations.

#### PROBLEM

Some uncontrolled crossings are shown to coincide with parking spaces. This could lead to collisions between reversing vehicles and pedestrians.



*Examples only*

#### RECOMMENDATION

It is recommended that uncontrolled crossings lead to footpaths only.

## 4.0 Observations

### 4.1 Observation

The vertical alignment of the road network, drainage proposals, public lighting and corner radii proposals have not been provided to the Audit Team.

## 5.0 Audit Statement

We certify that we have examined the information provided and the site. The examination has been carried out with the sole purpose of identifying any features of the design which could be removed or modified in order to improve the safety of the scheme.

The problems identified have been noted in this report together with associated safety improvement suggestions which we would recommend should be studied for implementation. The audit has been carried out by the persons named below who have not been involved in any design work on this scheme as a member of the Design Team.

Norman Bruton

Signed: 

(Audit Team Leader)

Dated: 13-8-2024

Owen O'Reilly

Signed: 

(Audit Team Member)

Dated: 13-8-2024



## Appendix A

### List of Material Supplied for this Road Safety Audit;

- Drawing P211102-PIN-XX-DR-D-140-S1-P01
- Drawing P211102-PIN-XX-DR-D-141-S1-P01
- Drawing P211102-PIN-XX-DR-D-142-S1-P01
- Drawing P211102-PIN-XX-DR-D-143-S1-P01
- Drawing P211102-PIN-XX-DR-D-144-S1-P02
- Drawing P211102-PIN-XX-DR-D-150-S1-P02
- Drawing P211102-PIN-XX-DR-D-151-S1-P01
- Drawing P211102-PIN-XX-DR-D-152-S1-P01
- Drawing P211102-PIN-XX-DR-D-153-S1-P01
- Drawing P211102-PIN-XX-DR-D-155-S1-P01
- Drawing P211102-PIN-XX-DR-D-156-S1-P01
- Drawing P211102-PIN-XX-DR-D-157-S1-P01
- Drawing P211102-PIN-XX-DR-D-160-S1-P01
- Drawing P211102-PIN-XX-DR-D-161-S1-P01
- Drawing P211102-PIN-XX-DR-D-100-S1-P02
- Drawing P211102-PIN-XX-DR-D-101-S1-P01
- Drawing P211102-PIN-XX-DR-D-102-S1-P01
- Drawing P211102-PIN-XX-DR-D-103-S1-P01
- Drawing P211102-PIN-XX-DR-D-104-S1-P01
- Drawing P211102-PIN-XX-DR-D-110-S1-P01
- Drawing P211102-PIN-XX-DR-D-111-S1-P01
- Drawing P211102-PIN-XX-DR-D-112-S1-P01
- Drawing P211102-PIN-XX-DR-D-113-S1-P01
- Drawing P211102-PIN-XX-DR-D-120-S1-P01
- Drawing P211102-PIN-XX-DR-D-121-S1-P01
- Drawing P211102-PIN-XX-DR-D-122-S1-P01
- Drawing P211102-PIN-XX-DR-D-123-S1-P01
- Drawing P211102-PIN-XX-DR-D-130-S1-P01
- Drawing P211102-PIN-XX-DR-D-131-S1-P01
- Drawing P211102-PIN-XX-DR-D-132-S1-P01
- Drawing P211102-PIN-XX-DR-D-133-S1-P01
- Drawing P211102-PIN-XX-DR-D-134-S1-P01
- Drawing P211102-PIN-XX-DR-D-135-S1-P01
- Drawing P211102-PIN-XX-DR-D-136-S1-P01
- Drawing P211102-PIN-XX-DR-D-137-S1-P01

## Appendix B

### Feedback Form

## SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Oldcourt LAP, LRD

Stage: 1&2 Road Safety Audit

Date Audit (Site Visit) Completed: 14-6-2024

Paragraph No. in Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	Yes	Yes		
3.2	Yes	Yes		
3.3	Yes	Yes		
3.4	Yes	Yes		
3.5	Yes	Yes		
3.6	Yes	Yes		
3.7	Yes	Yes		
3.8	Yes	Yes		
3.9	No	No	Layout based on Reg. Ref. SD17A/004 which was permitted by SDCC.	Yes
3.10	Yes	Yes		
3.11	Yes	Yes		

Signed..... Ronan Kearns  
Design Team Leader


25-6-2024  
Date.....

Signed..... Norman Branton  
Audit Team Leader

13-8-2024  
Date.....

PP Signed..... Ronan Kearns.....  
Employer/Developer

Date..... 25/06/24

H&S	<input type="checkbox"/>
Checked	<input checked="" type="checkbox"/>
Approved	<input checked="" type="checkbox"/>
26 JUN 2024	
Ronan Kearns BA BAI MSc MBA CEng MIEI	
Chartered Engineer - Membership No. 050252	
Signature: 	

## Appendix C

### Problem Location Plan.



