

Redford Park Protected Signalised Junction  
Stage 1 Road Safety Audit

Wicklow County Council

January 2022

# Redford Park Protected Signalised Junction

## Stage 1 Road Safety Audit

January 2022

### Notice

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### Document History

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# 1. Introduction

## 1.1 Report Context

This report describes the findings of a Stage 1 Road Safety Audit associated with Redford Park Protected Signalised Junction.

The Audit has been completed by Traffico Ltd. on behalf of Wicklow County Council.

## 1.2 Details of Site Inspection

Date	Daylight / Darkness	Weather & Road Conditions
Thursday 16 <sup>th</sup> December 2021	Daylight	Overcast with damp roads.

Table 1.1 – Site Inspection Details

## 1.3 The Road Safety Audit Team

The members of the Road Safety Audit Team have been listed following:

Status	Name / Qualifications	TII Auditor Reference No:
Audit Team Leader (ATL)	<b>Martin Deegan</b> BEng(Hons) MSc CEng MIEI	MD101312
Audit Team Member (ATM)	<b>Colin Prendeville</b> BEng(Hons) CEng MIEI CIHT	CP3369500
Audit Trainee (AT)	-	-

Table 1.2 – Audit Team Details

## 1.4 Design Drawings Examined as Part of the Audit Process

The following drawing(s) were examined as part of the Road Safety Audit (RSA) process:

Drawing No.	Drawing Title	Revision
190092-DBFL-RD-SP-DR-C-1901	Redford Park Redford Park Protected Signalised Junction OPTION A	P01

Table 1.3 – Designers Drawing List

## 1.5 Road Safety Audit Compliance

### Procedure and Scope

This Road Safety Audit has been carried out in accordance with the procedures and scope set out in TII publication number GE-STY-01024 - Road Safety Audit.

As part of the road safety audit process, the Audit Team have examined only those issues within the design which relate directly to road safety.

**Compliance with Design Standards**

The road safety audit process is not a design check, therefore verification or compliance with design standards has not formed part of the audit process.

**Minimizing Risk of Collision Occurrence**

All problems described in this report are considered by the Audit Team to require action in order to improve the safety of the scheme and minimise the risk of collision occurrence.

## 2. Road Safety Issues Identified

### 2.1 Problem: Existing Footpath Serving Pedestrian Desire Line

**Location:** South-East Section of Junction

Failing to incorporate the existing section of footpath could result in slips and trips for pedestrians who will (habitually) continue to walk along the established pedestrian desire line.

Figure 2.1 – Existing Section of Footpath in Southeast Section of Junction



#### Recommendation

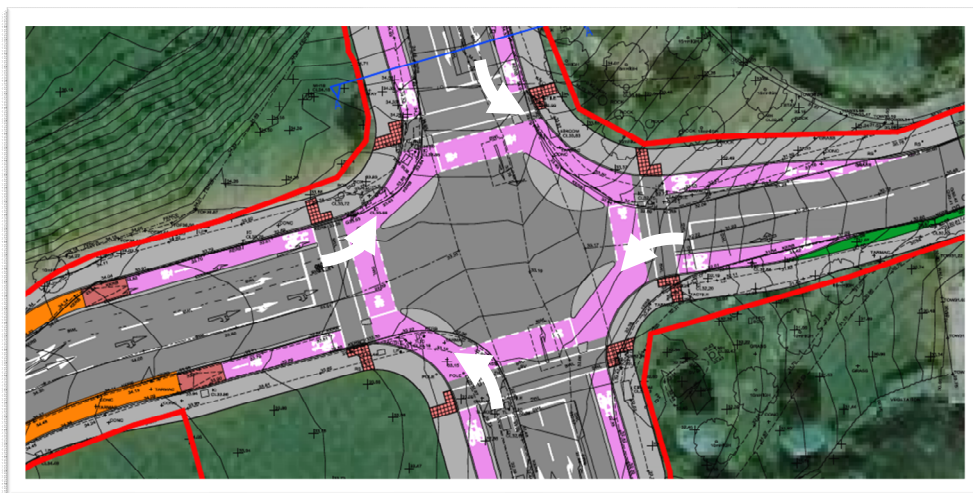
The existing section of footpath should be incorporated into the junction improvement proposals.

### 2.2 Problem: Errant Vehicles Accessing 'Cycle' Only Areas

**Location:** Behind Protective Islands

Errant drivers may enter 'cycle only' areas, placing cyclists at risk of conflict with general traffic.

Figure 2.2 – Possible Vehicle Trajectory through 'Cycle Only' Areas



#### Recommendation

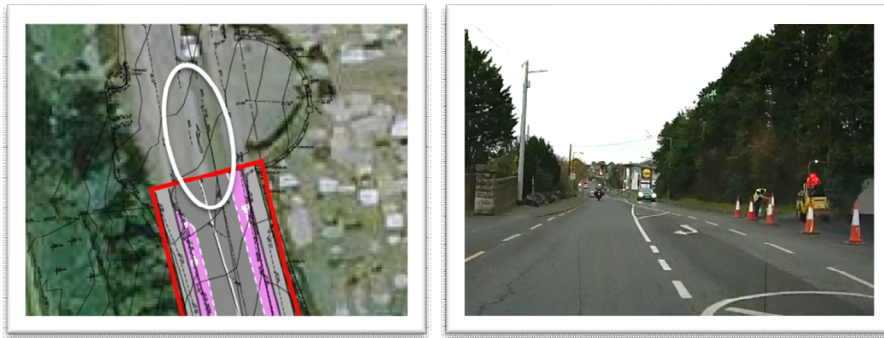
The potential for vehicle entry to these locations should be physically restricted.

## 2.3 Problem: Insufficient Width for Right Turn Lane

**Location:** Existing Right Turn Lane Serving Redford Cemetery

The proximity of the northern scheme tie-in could result in there being insufficient cross section to incorporate the existing lane configuration which includes a northbound lane, right turning lane and southbound lane. This could result in side swipe and opposition type conflicts.

Figure 2.3 – Existing Right Turn Lane Serving Cemetery



### Recommendation

The following options are proposed to mitigate the risk described:

1. Remove the right turn lane and utilise the space it occupied to maintain two opposing traffic lanes, improved footpath widths and continuous cycle lanes on approach to the junction.
2. Maintain the right turn lane and move the northern scheme tie-in south to the commencement of the central hatched area serving the existing cemetery right turn lane.

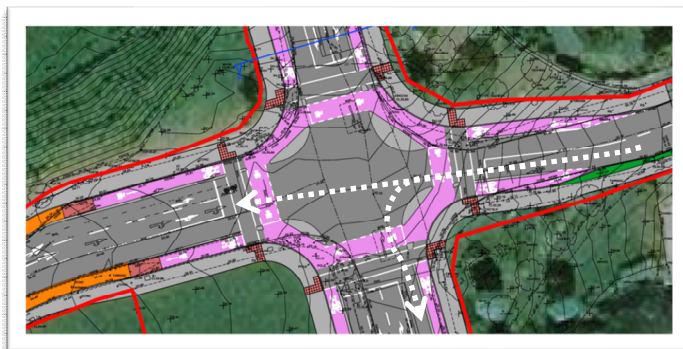
## 2.4 Problem: Side Road Approach Alignment

**Location:** Redford Park – Westbound Approach

The right hand horizontal curve on the immediate westbound approach to the junction:

1. Directs drivers into the opposing traffic lane on the eastbound approach arm.
2. Makes the left turn onto the R761 more challenging for drivers to negotiate.

Figure 2.4 – Alignment of Westbound Approach for Straight Ahead & Left Turn Movements



### Recommendation

A swept path analysis should be undertaken on the movements described, with a view to improving the approach alignment of the Redford Park westbound approach if required.

## 3. Audit Team Statement

### 3.1 Certification & Purpose

We certify that we have examined the drawing(s) listed in Chapter 1 of this Report.

#### **Sole Purpose of the Road Safety Audit**

The Road Safety Audit has been carried out with the sole purpose of identifying any features of the design which could be removed or modified to improve the road safety aspects of the scheme.

### 3.2 Implementation of RSA Recommendations

The problems identified herein have been noted in the Report together with their associated recommendations for road safety improvements.

We (the Audit Team) propose that these recommendations should be studied with a view to implementation.

#### **Audit Team's Independence to the Design Process**

No member of the Audit Team has been otherwise involved with the design of the measures audited.

### 3.3 Road Safety Audit Team Sign-Off

**Martin Deegan**

Audit Team Leader  
Road Safety Engineering Team

traffico

Signed:



Date:

22<sup>nd</sup> December 2021

**Colin Prendiville**

Audit Team Member  
Road Safety Engineering Team

traffico

Signed:



Date:

22<sup>nd</sup> December 2021



## 4. Designers Response

### 4.1 How the Designer Should Respond to the Road Safety Audit

The Designer should prepare an Audit Response for each of the recommendations using the Road Safety Audit Feedback Form attached in Appendix A.

When completed, this form should be signed by the Designer and returned to the Audit Team for consideration. See flow-chart following for further description.



Figure 4.1 – Road Safety Audit Sign-Off and Completion Process

### 4.2 Returning the Completed Feedback Form

The Designer should return the completed Road Safety Audit Feedback Form attached in Appendix A of this report to the following email address:

- Email address: [martin@traffico.ie](mailto:martin@traffico.ie)

The Audit Team will consider the Designer’s response and reply indicating acceptance or otherwise of the Designers response to each recommendation.

#### Triggering the Need for an Exception Report

Where the Designer and the Audit Team cannot agree on an appropriate means of addressing an underlying safety issue identified as part of the audit process, an Exception Report must be prepared by the Designer on each disputed item listed in the audit report.

## Appendix A

### A.1 Road Safety Audit Feedback Form

# Road Safety Audit Feedback Form

**Scheme:** Redford Park Protected Signalised Junction

**Audit Stage:** Stage 1 Road Safety Audit

**Audit Date:** 22<sup>nd</sup> December 2021

Problem Reference (Section 2)	Designer Response Section			Audit Team Response Section
	Problem Accepted ( yes / no )	Recommended Measure Accepted ( yes / no )	Alternative Measures or Comments	Alternative Measures Accepted ( yes / no )
2.1	Yes	Yes		
2.2	Yes	Yes	In order to prevent vehicles from entering the cycle lane in these locations, the location of the protected islands will ensure that vehicles cannot physically undertake this movement. A swept path analysis will be undertaken to ensure this.	<i>Noted with thanks.</i>
2.3	Yes	Yes		
2.4	Yes	Yes	This is the existing alignment within the junction, a swept path analysis will be undertaken to ensure vehicles can still undertake these movements within the junction.	<i>Noted with thanks.</i>

*\*The Designer should complete the Designer Response Section above, then fill out the designer details below and return the completed form to the Road Safety Audit Team for consideration and signing.*

Designer's Name:

DBFL Consulting Engineers

Designer's Signature:



Date: 14<sup>th</sup> Jan. 2022

Employer's Name:

Wicklow Co Co

Employer's Signature:



Date: 14<sup>th</sup> Jan. 2022

Audit Team's Name:

Martin Deegan

Audit Team's Signature:



Date: 18<sup>th</sup> Jan 2022



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