



Title: **STAGE 1 ROAD SAFETY AUDIT**

For;

**Proposed Strategic Housing Development at Great Connell,
Newbridge, Co. Kildare**

Client: **Aston Ltd**

Date: **March 2022**

Report reference: **1428R01**

VERSION: **FINAL (April 2022)**

Prepared By:

Bruton Consulting Engineers Ltd

Glaspistol

Clogherhead

Drogheda

Co. Louth.

Tel: 041 9881456

Mob: 086 8067075

E: admin@brutonceng.ie

W: www.brutonceng.ie

CONTENTS SHEET

Contents

1.0	Introduction	2
2.0	Background.....	3
3.0	Issues Raised in This Road Safety Audit.....	5
3.1	Problem	5
3.2	Problem	6
3.3	Problem	6
3.4	Problem	7
4.0	Audit Statement	8
	Appendix A – Problem Location Map	9
	Appendix B.....	11
	Appendix C.....	12

1.0 Introduction

This report was prepared in response to a request from Aston Ltd for a Stage 1 Road Safety Audit of the proposed Strategic Housing Development (SHD) at Great Connell, Newbridge, Co. Kildare.

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 comprised an examination of the drawings provided and a site visit by the Audit Team, together, on the 8th of December 2021.

The weather at the time of the daytime site visit was wet and the road surface was wet.

This Stage 1 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.

A location map showing where each problem occurs is provided in **Appendix A**.

A list of the documents provided to the Audit Team is provided in **Appendix B**.

The feedback form to be completed by the Design Team Leader is provided in **Appendix C**.

STAGE 1 RSA – SHD GREAT CONNELL, NEWBRIDGE ASTON LTD.

2.0 Background

It is proposed to construct a strategic housing development at Great Connell, Newbridge, Co. Kildare. The site is located to the east of the existing roundabout at the end of the South Orbital Relief Road (NSORR) and Great Connell Road.

It is proposed to replace the existing roundabout with a signalised junction and to extend the NSORR to the extents of the proposed development.

Part of the proposal are to provide a design for the upgrade of the existing roundabout on the R445 at Buckley's Cross to a signalised junction with Great Connell Road.

The proposed design speed on the extended NSORR will be 50km/hr and the internal road network will have a speed limit of 30km/hr.

The site location is shown below.

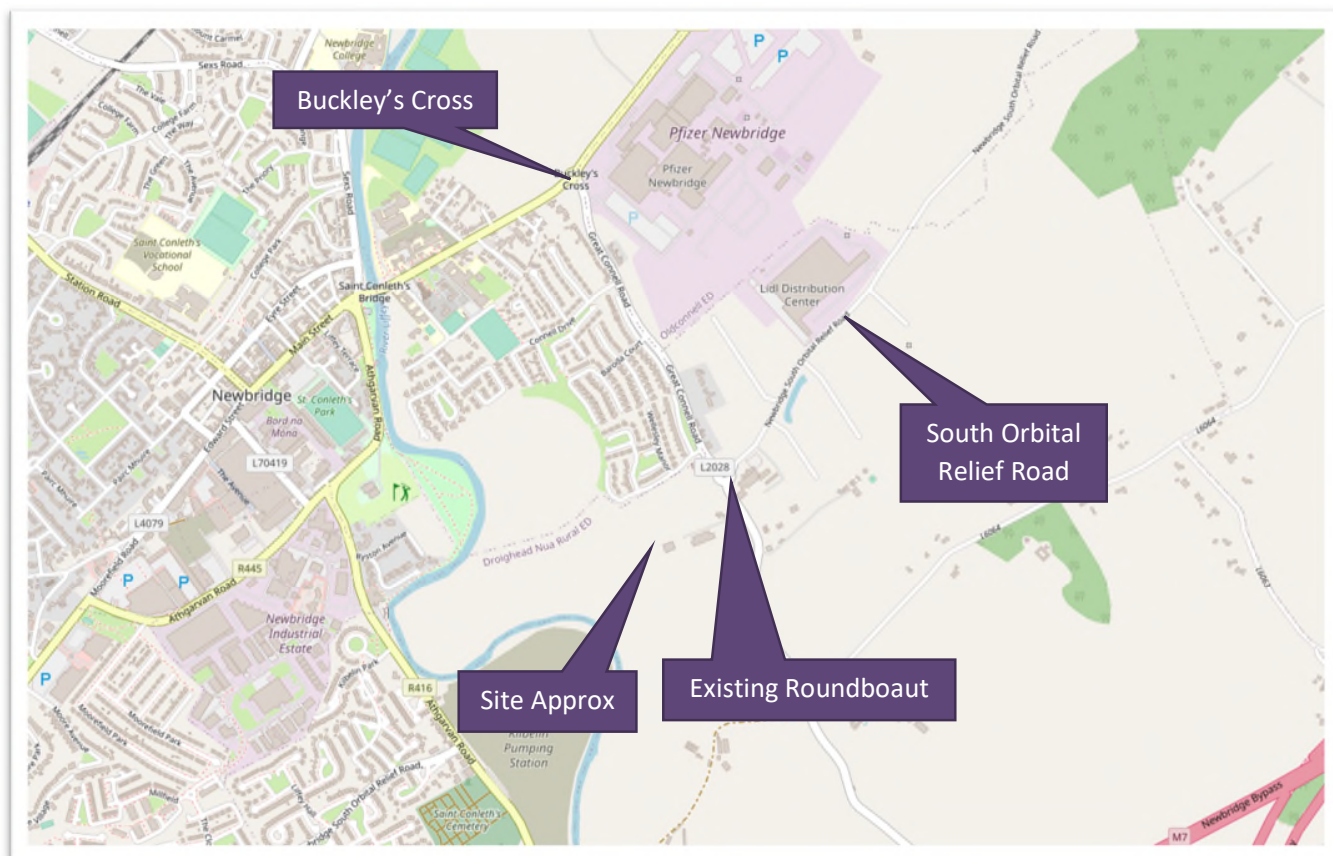
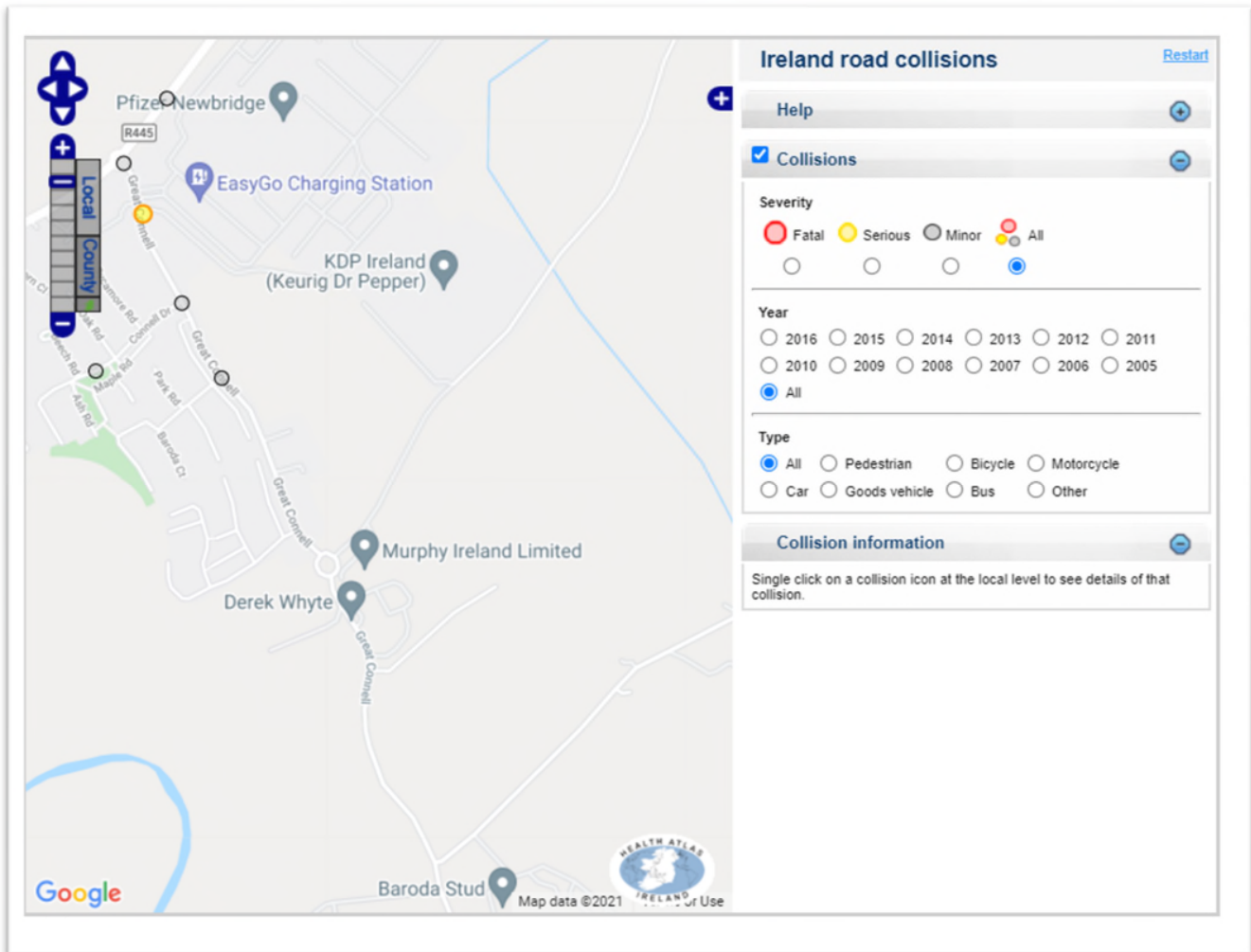


Image courtesy of openstreetmap.org

STAGE 1 RSA – SHD GREAT CONNELL, NEWBRIDGE ASTON LTD.

The Road Safety Authority's website www.rsa.ie shows that there have been no recorded collisions adjacent to the main development in the 12-year period 2005 to 2016. There has been one serious injury collision and three minor injury collisions recorded on Great Connell Road in that period.



3.0 Issues Raised in This Road Safety Audit.

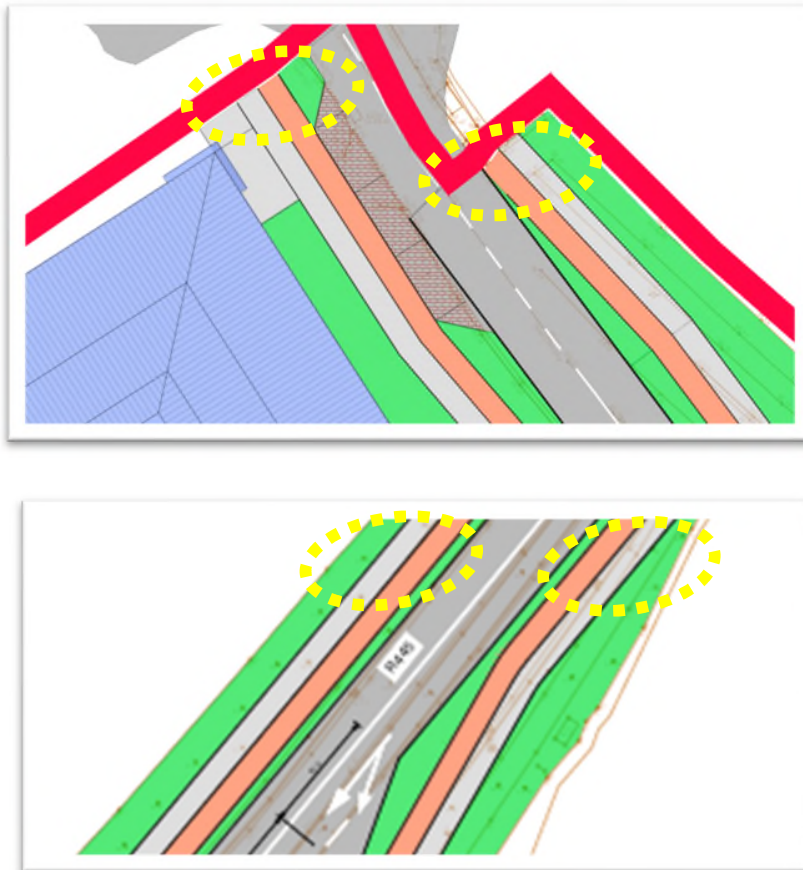
3.1 Problem

LOCATION

Drawing 192229-PUNCH-XX-XX-DR-C-0431 Rev P01.05, Tie-in of cycle tracks on Great Connell Road.

PROBLEM

The drawings show proposed cycle tracks on the Great Connell Arms of the signalised junction in lieu of the existing roundabout. There are no existing cycle facilities for cyclists to join with. A lack of continuity of provision for cyclists could lead to cyclists opting to travel on the carriageway where they would be at greater risk of being involved in a collision with a passing vehicle or of losing control as they attempt to merge on-road by crossing the verge and high kerbs.



RECOMMENDATION

It is recommended that suitable interim and permanent tie-in arrangements be provided for cyclists both at the NSORR junction and the Buckley's cross junction.

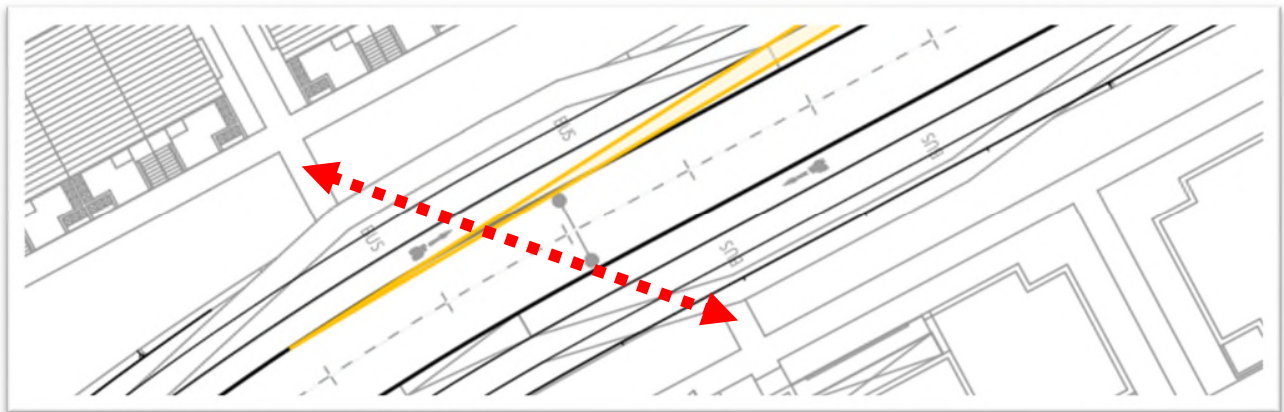
3.2 Problem

LOCATION

Drawing 192229-PUNCH-XX-XX-DR-C-0628 Rev C01

PROBLEM

It is proposed to provide bus layby-s on the extension of the NSORR west of the signalised junction. There is a risk that there will be pedestrian desire lines to cross the NSORR closer to the bus stops and that pedestrians will not use the proposed crossings at the signalised junction or the toucan crossing west of the bus stops. Crossing without priority on an arterial route with a 60km/hr speed limit could lead to collisions with passing vehicles.



RECOMMENDATION

It is recommended that the Design Team assess the potential desire lines from the residential areas and provide an additional controlled crossing if required.

3.3 Problem

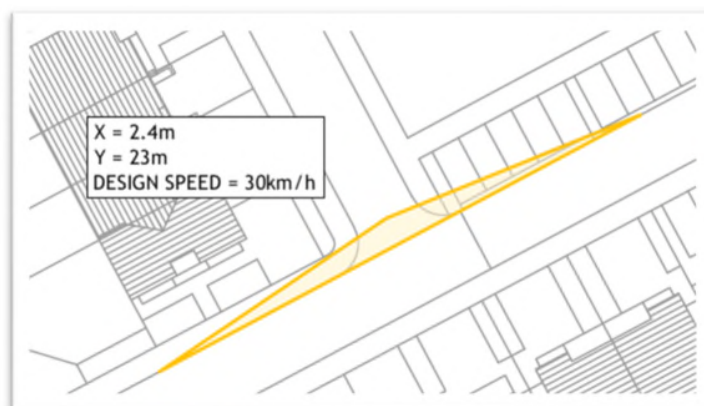
LOCATION

Drawing 192229-PUNCH-XX-XX-DR-C-0628 Rev C01, Sightlines through parking spaces

PROBLEM

Some sightlines on the internal road network cut through the perpendicular car parking spaces. This may lead to a lack of visibility for drivers who may enter the carriageway at an inappropriate time resulting in side-impact or rear-end collisions.

STAGE 1 RSA – SHD GREAT CONNELL, NEWBRIDGE ASTON LTD.



RECOMMENDATION

It is recommended that visibility splays be kept clear of obstacles that affect visibility.

3.4 Problem

LOCATION

Drawing 192229-PUNCH-XX-XX-DR-C-0432 RevP01.05

PROBLEM

It is proposed to have cycle tracks on the R445 however no cycle tracks are proposed on Great Connell Road on approach to the junction. The lack of continuous facilities for cyclists may lead to cyclists entering the carriageway where drivers do not expect it, or, cyclists losing control as they dismount the high kerbs. Some cyclists may choose not to use the new facilities because they cannot turn right onto Great Connell Road.



RECOMMENDATION

It is recommended that provision be made for turning cyclists.

4.0 Audit Statement

We certify that we have examined the site on the 8th of December 2021. The examination has been carried out with the sole purpose of identifying any aspects of the design which could be added, 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: 8/4/2022

Owen O'Reilly

Signed:

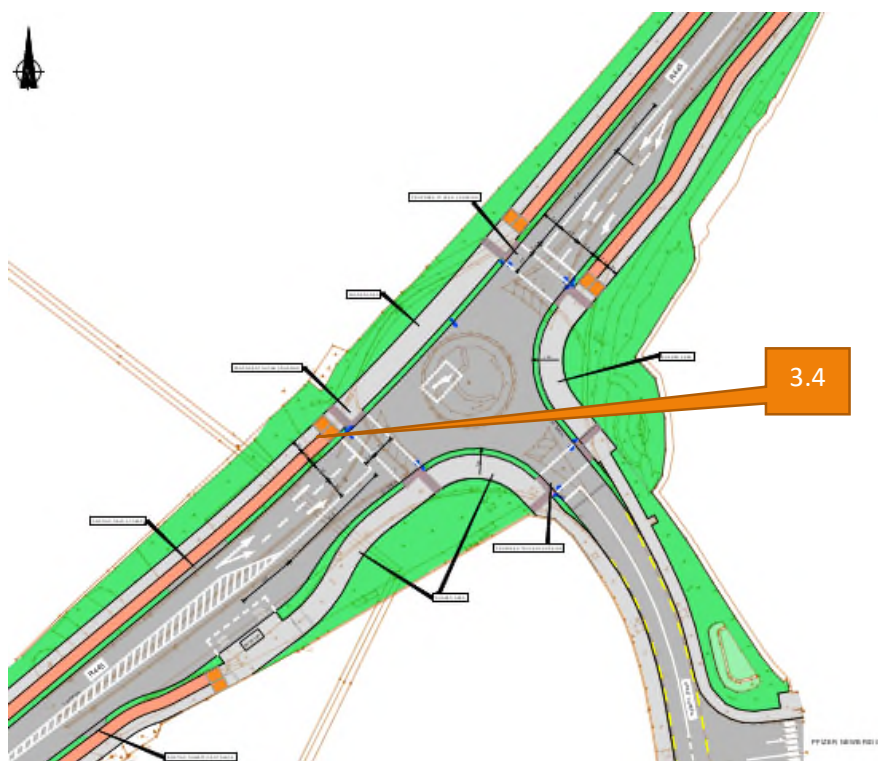


(Audit Team Member)

Dated: 8/4/2022

Appendix A – Problem Location Map





Appendix B

Information Supplied to the Audit Team

Drawing 192229-PUNCH-XX-XX-DR-C-0629
Drawing 192229-PUNCH-XX-XX-DR-C-0101
Drawing 192229-PUNCH-XX-XX-DR-C-0102
Drawing 192229-PUNCH-XX-XX-DR-C-0103
Drawing 192229-PUNCH-XX-XX-DR-C-0104
Drawing 192229-PUNCH-XX-XX-DR-C-0411
Drawing 192229-PUNCH-XX-XX-DR-C-0412
Drawing 192229-PUNCH-XX-XX-DR-C-0413
Drawing 192229-PUNCH-XX-XX-DR-C-0414
Drawing 192229-PUNCH-XX-XX-DR-C-0431 S0 P01.05
Drawing 192229-PUNCH-XX-XX-DR-C-0432 S0 P01.05
Drawing 192229-PUNCH-XX-XX-DR-C-0600
Drawing 192229-PUNCH-XX-XX-DR-C-0601
Drawing 192229-PUNCH-XX-XX-DR-C-0602
Drawing 192229-PUNCH-XX-XX-DR-C-0603
Drawing 192229-PUNCH-XX-XX-DR-C-0610
Drawing 192229-PUNCH-XX-XX-DR-C-0611
Drawing 192229-PUNCH-XX-XX-DR-C-0612
Drawing 192229-PUNCH-XX-XX-DR-C-0613
Drawing 192229-PUNCH-XX-XX-DR-C-0625
Drawing 192229-PUNCH-XX-XX-DR-C-0626
Drawing 192229-PUNCH-XX-XX-DR-C-0627
Drawing 192229-PUNCH-XX-XX-DR-C-0628

Appendix C

Feedback Form

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: SHD Great Connell

Stage: 1 Road Safety Audit

Date Audit (Site Visit) Completed: 21/3/2021

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	Y	N	<p>Great Connell Signalised Junction</p> <p>As an interim measure ‘Cyclist Dismount’ markings and dropped kerbs at the end of the cycle lanes will be included at the end of each leg of the footpath/cycle paths on the Great Connell Road signalized Junction as part of the Stage 2 Detailed Design of the Project.</p> <p>Any permanent measure to introduce cycling lanes on Great Connell Road are outside the blue line (land ownership) and red line (planning application) boundaries of this SHD application and should be considered by Kildare County Council as part of any future upgrade works on the Great Connell Road</p> <p>Buckley’s Cross Signalised Junction</p> <p>Buckleys Cross signalized junction does not form part of this planning application. The junction layout has been prepared to demonstrate to Kildare County Council that a Signalised Junction compliant with the requirements of “TII document DN-GEO-03044-02 Signal Controlled Junctions and Roundabouts” can be delivered by Kildare County Council within publicly available lands.</p>	Yes

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)
			<p>Kildare County Council should consider an interim measure of including 'Cyclist Dismount' markings and dropped kerbs at the end of the cycle lanes on each leg of the footpath/cycle paths on the Buckleys Cross Junction as part of any future upgrade.</p> <p>Any permanent measure to introduce cycling lanes should be considered by Kildare County Council as part of any future upgrade works on the R445 Dublin Road</p>	
3.2	N	N	<p>Approximately 350m length of the NSORR is being provided within this Great Connell SHD application. Toucan Crossings are provided at the Great Connell Signalized Junction and at a point some 250m to the southwest. The Toucan Crossings are thus approximately 100m to the northeast and southwest of the proposed bus stop locations. It is considered that there is a sufficient level of crossing points to provide safe overall access for pedestrians/cyclist considering the low-speed environment along this section of the NSORR. The crossing points were agreed previously with Kildare County Council Roads Department. At Stage 2 Detailed Design Stage the final positions of bus stops and Toucan crossings will</p>	Yes

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)
			be signed off by Kildare County Council and the NTA	
3.3	N	N	The perpendicular carparking bays impacted by the visibility splays are limited and occur on low-speed roads i.e. 30kph and it is considered that a relation is warranted. DMURS Section 4.4.5 allows for flexibility in relation to visibility splays cutting through carparking spaces on low-speed roads.	Yes
3.4	Y	N	<p>Buckley's Cross Signalised Junction</p> <p>Buckleys Cross signalized junction does not form part of this planning application. The junction layout has been prepared to demonstrate to Kildare County Council that a Signalised Junction compliant with the requirements of "TII document DN-GEO-03044-02 Signal Controlled Junctions and Roundabouts" can be delivered by Kildare County Council within publicly available lands.</p> <p>Kildare County Council should consider an interim measure of including 'Cyclist Dismount' markings and dropped kerbs at the end of the cycle lanes on each leg of the footpath/cycle paths on the Buckleys Cross Junction as part of any future upgrade.</p> <p>Any permanent measure to introduce cycling lanes should be considered by Kildare County Council</p>	Yes

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)
			as part of any future upgrade works on the R445 Dublin Road	

Leonard Boeman
Signed.....
Design Team Leader

Date...8/4/2022.....

Norman Bruton
Signed.....
Audit Team Leader

Date...8/4/2022.....

Seamus Lator
Signed.....
Employer

Date.....8/4/2022.....