

Title: **Proposed Strategic Housing Development At Ballymany
Combined Stage 1&2 Road Safety Audit**

Client: **Briargate Developments Newbridge Limited/Muir
Associates**

Date: **May 2021**

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VERSION: **FINAL**

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1.0 Introduction

This report was prepared in response to a request from Mr. Slaven Sose of Muir Associates Ltd. on behalf of Briargate Developments Newbridge Limited, for a Stage 1&2 Road Safety Audit of the Proposed Strategic Housing Development at Ballymany, Newbridge, Co. Kildare.

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 Road Safety Audit Team comprised of;

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

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

The Road Safety Audit involved the examination of drawings and other material provided by Muir Associates Ltd and a site visit by both team members, together on the 29th April 2021.

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

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**.

A feedback form for the Designer to complete 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 a strategic housing development at Ballymany, Newbridge Co. Kildare. The development is to be located between the R445 and Standhouse Road (L7037). Vehicular, pedestrian and cyclists access will be provided from both roads. At the R445 the scheme will join with the access road for an under construction development. This is a priority junction however in future years that may change to a signalised junction further west of the current junction. The signalised junction is partly constructed as part of a previous development but is not complete and not operational.

The access onto Standhouse Road will be a signalised junction.

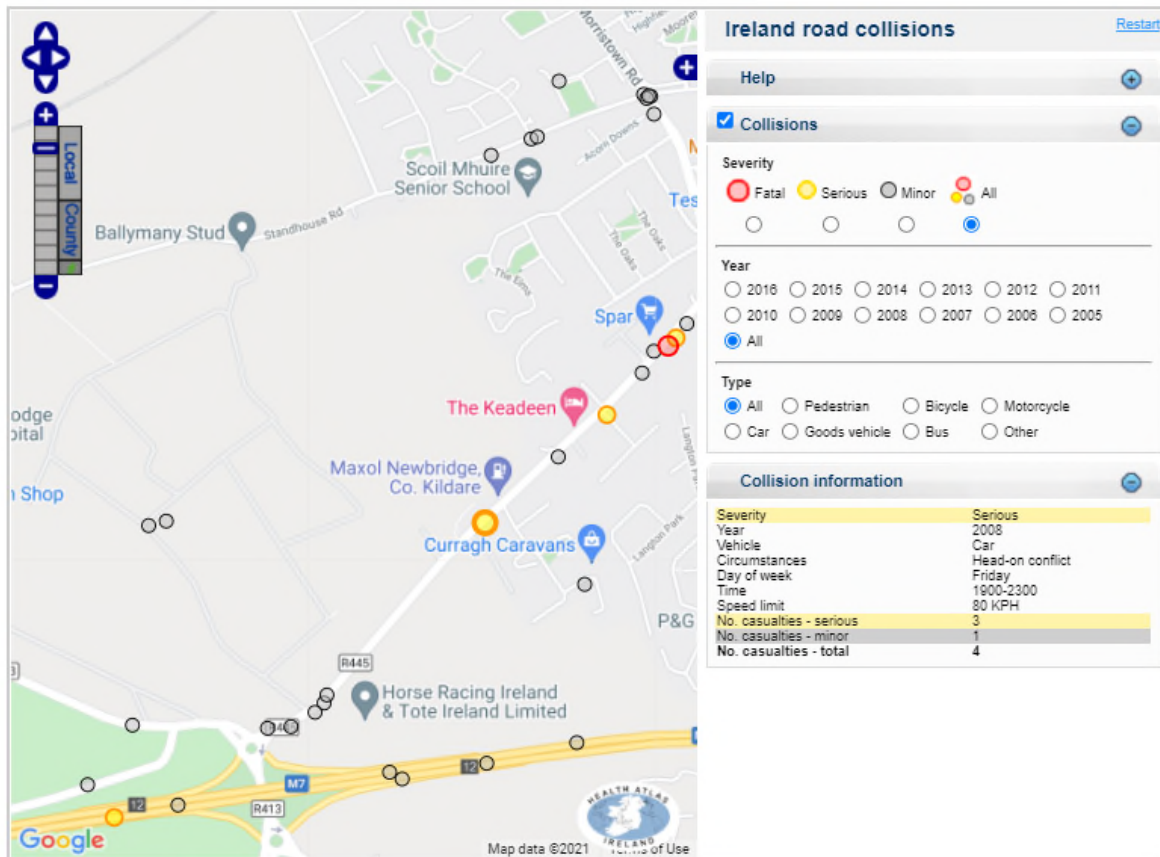
The speed limit on both external roads is 50km/hr. The speed limits will vary between 10km/hr and 50km/hr on the internal roads. A sketch showing the proposed speeds on each road was provided to the Audit Team.

The location of the site is shown below.



Site Location Map (courtesy of openstreetmap.org).

A review of the Road Safety Authority’s website shows that between the years 2005 and 2016 there was one serious injury collision recorded on the R445 just west of the shared site access.



3.0 Items Raised in This Road Safety Audit.

3.1 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-002 Rev B, 003 Rev A, 004 Rev A & 005 Rev A, Overall main access road.

PROBLEM

The main access road is relatively long. This could lead to high speeds and result in high injury severity if a vulnerable road user (e.g. a cyclists accessing the segregated cycle track) is struck by an errant vehicle.

RECOMMENDATION

It is recommended that traffic calming features be provided on the main link road of the development that will lead to speeds of 50km/hr or lower.

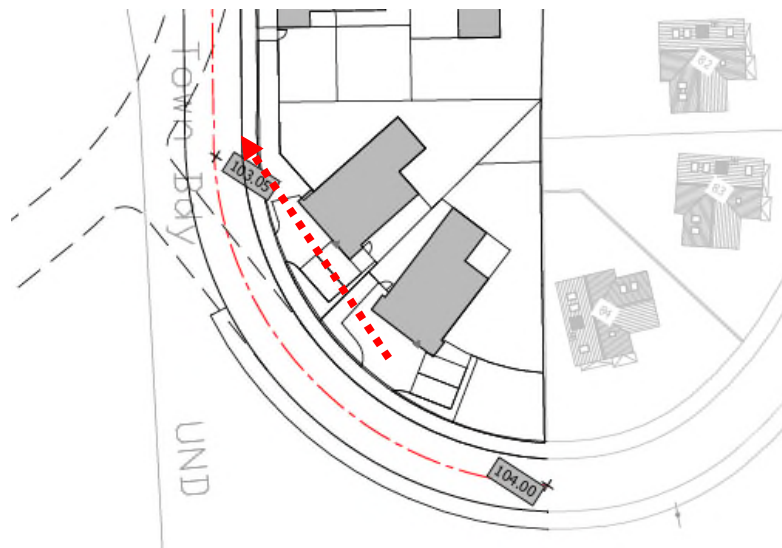
3.2 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-002 Rev B, Visibility from driveway, most southern unit.

PROBLEM

The most southerly unit is located on a sharp bend of the main access road. There is a risk that drivers exiting this premises may not have adequate visibility to approaching southbound vehicles. This could result in collisions.



RECOMMENDATION

It is recommended that suitable visibility be provided.

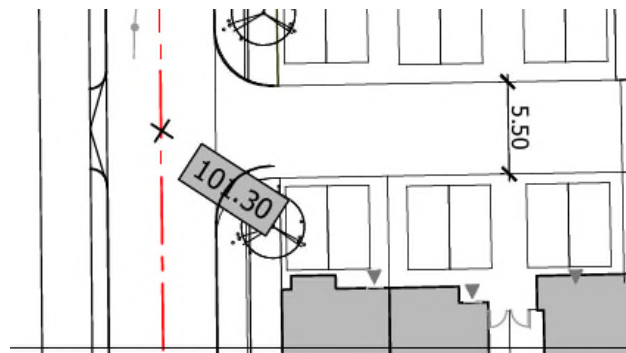
3.3 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-002 Rev B, 003 Rev A, 004 Rev A & 005 Rev A, Trees within visibility splays.

PROBLEM

Throughout the proposed development trees are shown at the internal junctions. There is a risk that these trees could obscure inter-visibility between drivers and pedestrians. This could lead to collisions.



RECOMMENDATION

Ensure trees do not block visibility splays.

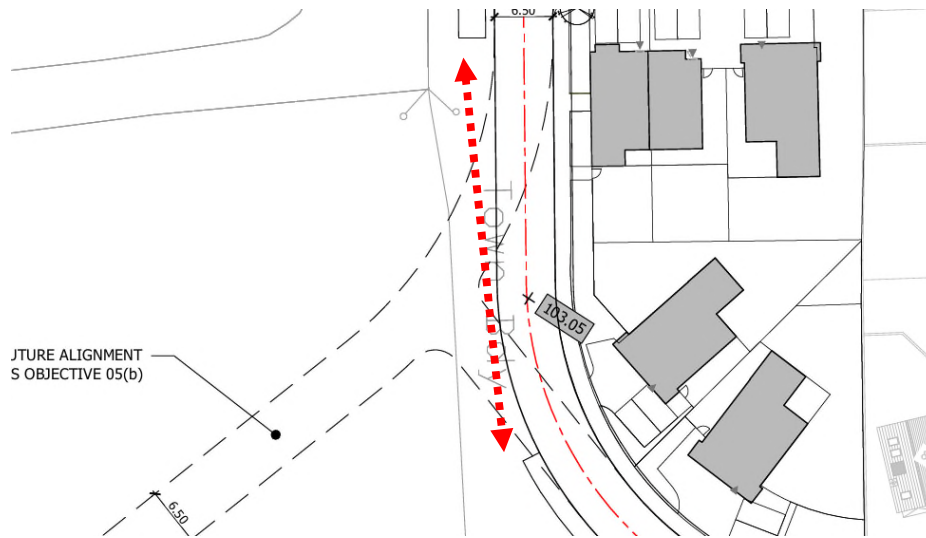
3.4 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Discontinuity in footpath provision.

PROBLEM

There is a discontinuity in the footway provision on the main access road where the future alignment of roads objective 05(b) is to be located. In the intervening period the discontinuity could lead to pedestrians crossing the carriageway at the severe bend where drivers may not have full visibility to them or a desire line along the reserved alignment junction may be formed on an unsuitable surface leading to slips, trips and falls.



RECOMMENDATION

It is recommended that a continuous footway be provided until the future alignment is constructed.

3.5 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Standhouse Road Junction.

PROBLEM

It is proposed to provide advanced stacking facilities for cyclists at both sides of the proposed Standhouse Road junction. There are no feeder lanes to those stacking facilities and as a result cyclists may try and weave through traffic to get there. This could lead to side-swipe collisions with general traffic and cyclist frustration if they cannot access the facility.

RECOMMENDATION

It is recommended that a box turn facility or similar be provided.

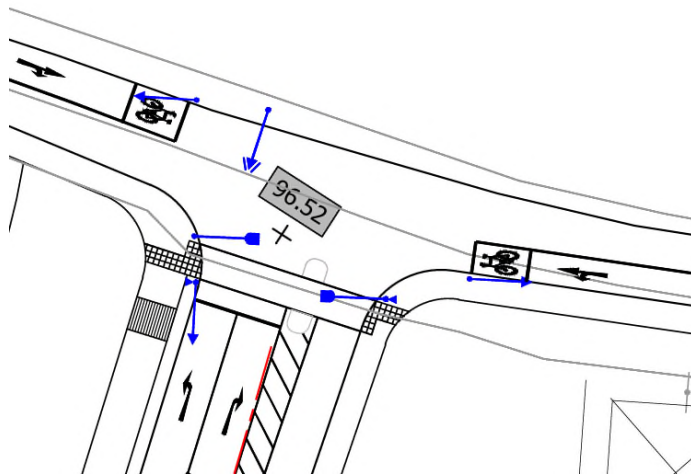
3.6 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Standhouse Road Junction.

PROBLEM

It is unclear if the proposed vulnerable user facility on the western side of the main access road is a shared use pedestrian cycle facility and if it is to be for one or two-way cycling. Without adequate width and adequate access facilities there may be collisions between cyclists and pedestrians.



RECOMMENDATION

It is recommended that if the facility is to be for two-way cycling that the proposed signalised pedestrian crossing be upgraded to a toucan crossing, if not, then a southbound cycle facility should also be provided.

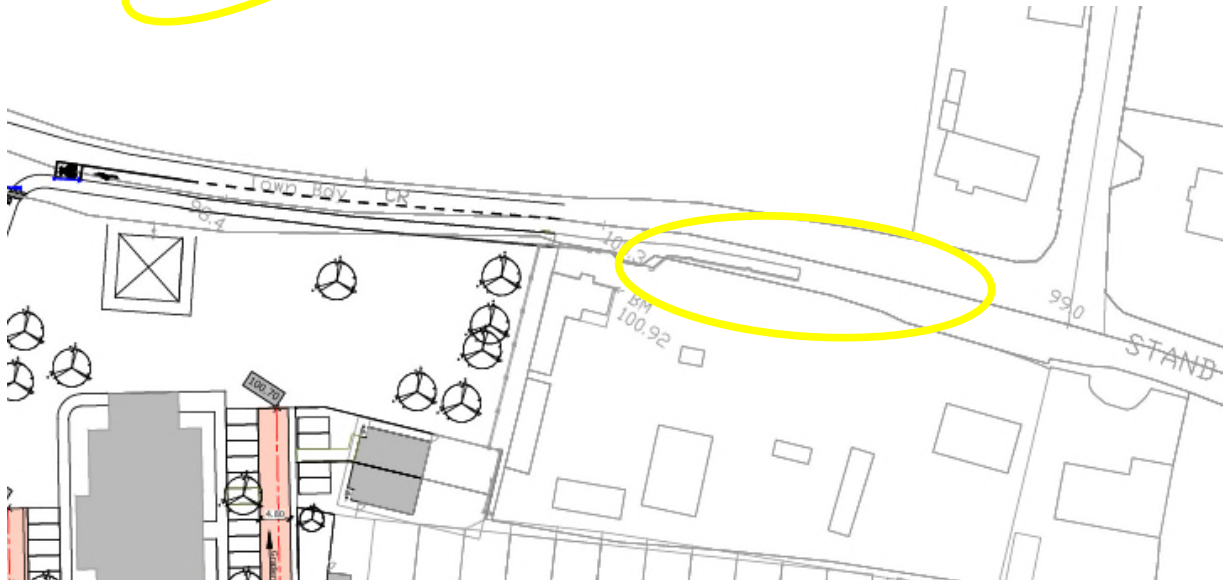
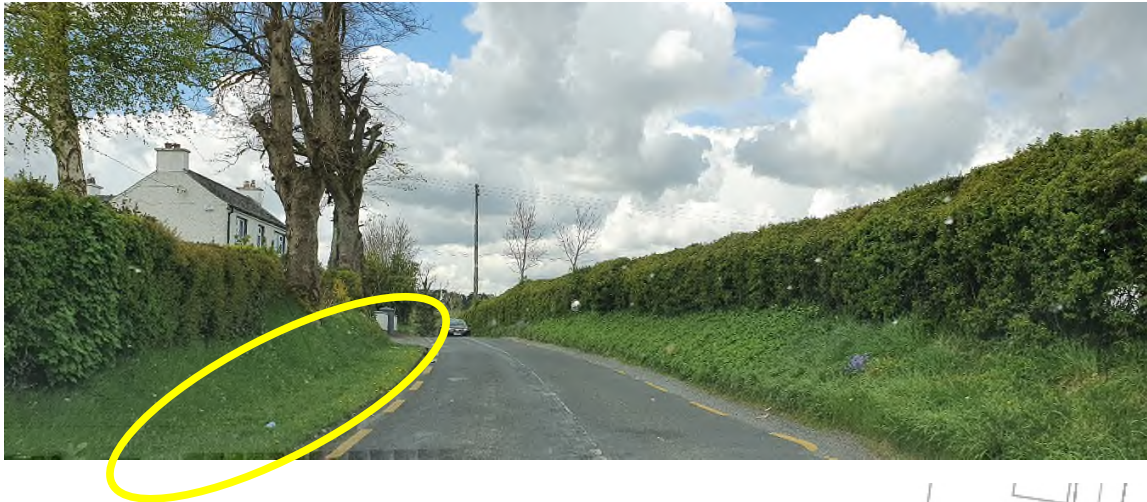
3.7 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Standhouse Road Footpath.

PROBLEM

There is a discontinuity in the footway provision along Strandhouse Road between the development and Scoil Mhuire junior school. This could result in school children not being able to safely get to school on foot from the proposed development.



RECOMMENDATION

It is recommended that the footpath be made continuous through this section.

3.8 Problem

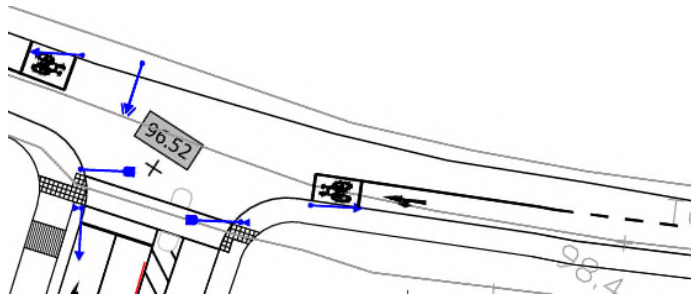
LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Standhouse Road Carriageway Width.

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MUIR

PROBLEM

The existing carriageway width at Strandhouse Road is narrow and passing vehicles use the narrow verge to gain extra space when passing. With the introduction of the footpath in the southern verge the effective width of the carriageway will be reduced and this could result in side-swipe collisions.



RECOMMENDATION

It is recommended that the Strandhouse road carriageway width be sufficient to allow queuing and passing of vehicles.

3.9 Problem

LOCATION

Drawing D1920-MAL-00-XX-C-005 Rev B, Strandhouse Road Vertical Alignment.

PROBLEM

There is a steep decline in the vertical alignment of Strandhouse Road on the westbound approach to the proposed signalised junction. In wet or icy conditions drivers may not be able to stop if there is queue at the lights which could lead to rear-end collisions.



RECOMMENDATION

It is recommended that the vertical alignment be checked for stopping sight distance compliance with design standards and that high friction surfacing or a surface course with aggregate of high polished stone value and aggregate abrasion value be provided on approach to the signals.

4.0 Observations

4.1 Observation

There appears to be a lack of disabled parking bays and electric vehicle charging bays proposed within the development.

4.2 Observation

The swept path analysis of emergency vehicles and refuse vehicles have not been provided to the Audit Team.

5.0 Audit Statement

We certify that we have examined the information provided and the site on the 29th April 2021. 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
(Audit Team Leader)
Signed: 
Dated: 11/5/2021

Owen O'Reilly
(Audit Team Member)
Signed: 
Dated: 11/5/2021

Appendix A

List of Material Supplied for this Audit;

- Drawing D1920-MAL-00-XX-C-002 Rev B,
- Drawing D1920-MAL-00-XX-C-003 Rev A,
- Drawing D1920-MAL-00-XX-C-004 Rev A,
- Drawing D1920-MAL-00-XX-C-005 Rev A

List of Material supplied as Background for the Audit

- Drawing P20-071K-RAU-XX-ZZ-DR-A-31003
- Sketch - Hierarchy roads and speed limits.

Appendix B

Feedback Form

STAGE 1 AND STAGE 2 ROAD SAFETY AUDIT FORM – FEEDBACK ON STAGE 1 AND STAGE 2 ROAD SAFETY AUDIT REPORT

Scheme: Proposed Strategic Housing Development, Ballymany, Newbridge Co. Kildare.
 Stage 1 and Stage 2 Road Safety Audit Stage - Planning
 Date Audit (site visit) Completed: 29th April 2021.

Paragraph No. in Road Safety Audit Report	Problem accepted (yes/no)	Recommended measure accepted (yes/no)	Alternative measures (describe)	Alternative measures accepted by Auditors (Yes/No)
3.1	NO	NO	The Link Road is part of a previously permitted development on the site and forms part of the Newbridge LAP Roads Objective 05(b). The design of the horizontal and vertical alignments of the Link Road together with the frequency of junction spacing at designated intervals provides for a traffic calming effect. It is also worth noting that the part of the southern section of the Link Road is limited to 30 km/h and incorporates a raised pedestrian crossing in order to reinforce the traffic calming effect.	Yes
3.2	YES	YES	Note: An appropriate visibility splay for the Plots in question will be demonstrated as a part of the planning application drawings.	Yes
3.3	YES	YES		
3.4	YES	NO	A raised pedestrian crossing will be provided at the end of the highlighted footpath area in order to provided for a safe pedestrian crossing location.	Yes
3.5	YES	NO	Given the existing constraints associated with Standhouse Road it is not feasible to provide cyclist box turning at this time. Advanced stacking facilities will be excluded from the junction design in order to eliminate the highlighted potential	Yes

			conflicts between cyclists and other road users.	
3.6	YES	YES	Note: The facility on the western side of the Link Road is a two-way cycle track and a toucan crossing will be provided as a part of the Stanhouse Road junction design in line with the audit recommendations.	Yes
3.7	YES	YES		
3.8	YES	YES		
3.9	YES	YES		

Signed..... *Slaven Šoš*
Design Team Leader

Date *11.05.2021.*

Signed..... *Norman Bruton*
Audit Team Leader

Date 11-5-2021

Appendix C

Problem Location Plan.

