



Title: **STAGE 1 ROAD SAFETY AUDIT**

For;

**Proposed Mixed Use Development, Swords Road, Santry,
Dublin 9.**

Client: **DBFL Consulting Engineers.**

Date: **March 2024**

Report reference: **2173R01**

VERSION: **FINAL (8-3-2024)**

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

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1.0 Introduction

This report was prepared in response to a request from Mr. Thomas Jennings, DBFL Consulting Engineers for a Stage 1 Road Safety Audit of the proposed mixed use development at Swords Road, Santry, Dublin 9, on the existing Chadwicks site.

The Road Safety Audit Team comprised of;

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

TII approval number: NB 168446

Team Member: **Mark Kelly**, BAI MA MSc PGradDip CEng MIEI

TII approval number: MK279758

The Road Safety Audit comprised an examination of the information provided and a site visit by the Audit team on the 27th of February 2024. The weather at the time of the site visit was dry and the road surface was also dry.

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.

The information supplied is listed in **Appendix A**.

A problem location map is contained in **Appendix B**.

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

2.0 Background

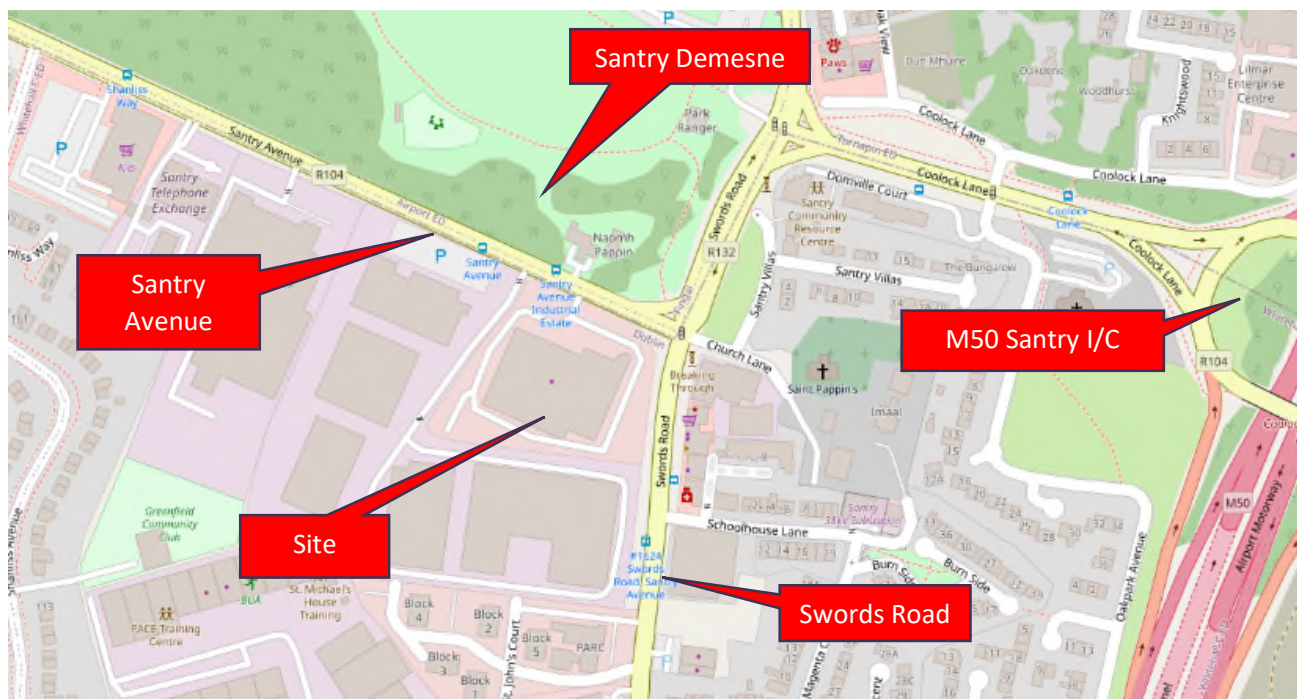
It is proposed to construct a large housing development in 7 blocks (A to G) on the existing Chadwicks site off the Swords Road (R132) in Santry, Dublin 9.

Vehicular access would be off Santry Avenue (R104) to the north and a parallel road to the south which has been recently constructed. Pedestrian linkages to Santry Avenue and Swords Road will also be provided.

The speed limit of the roads surrounding the site is 50km/hr.

Both Santry Avenue and Swords Road are bus routes.

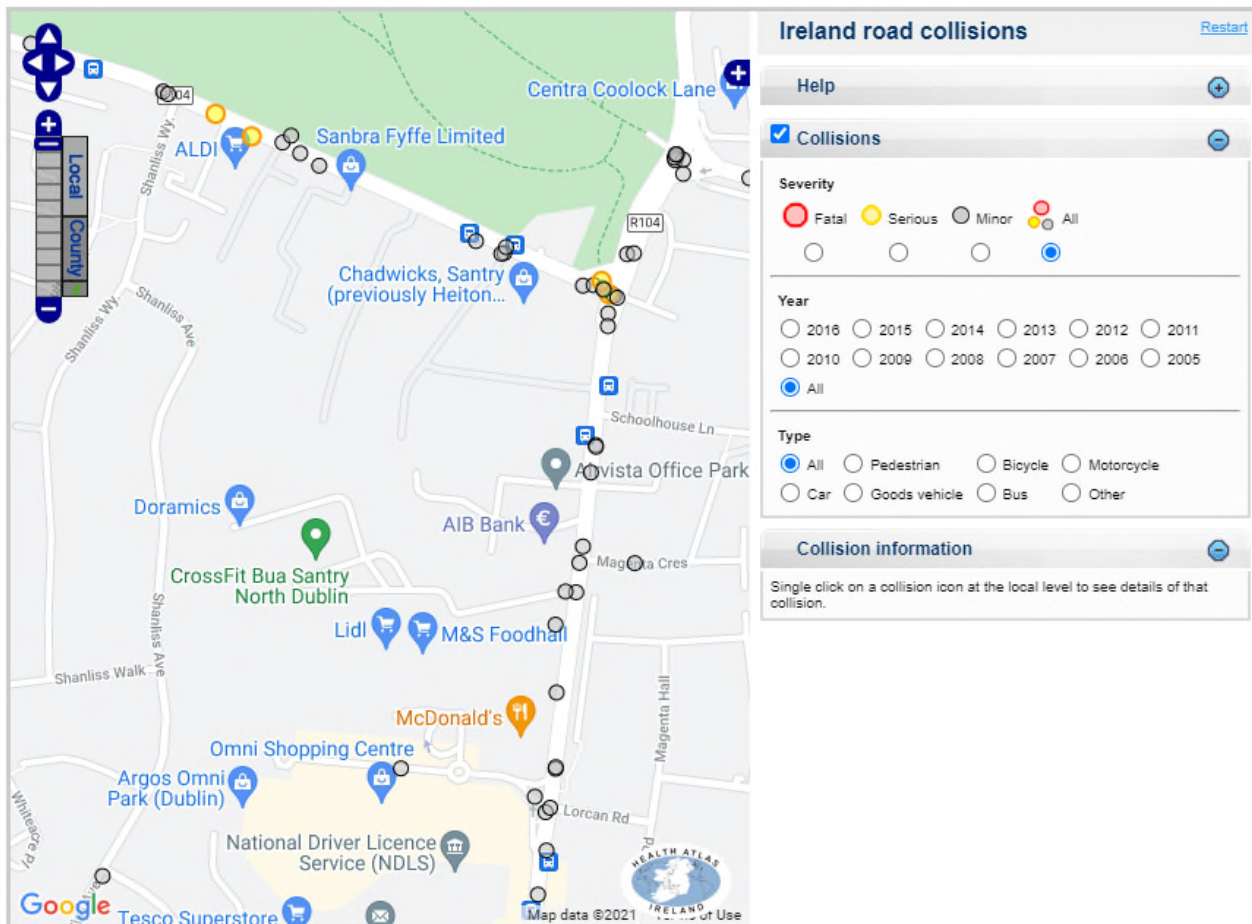
A site location map is provided below.



Scheme Location Map (Image courtesy of Openstreetmap.org)

The Road Safety Authority's website www.rsa.ie shows the recorded injury collisions between 2005 and 2016.

There were two serious injury collisions recorded at the junction of Santry Avenue and Swords Road plus seven minor injury collisions. There were three minor injury collisions at Santry Avenue adjacent to the proposed vehicular access to the development all three of which involved pedestrians.



3.0 Issues Identified in This Road Safety Audit

3.1 Problem

LOCATION

Drawing DFLA Dw.03-DR-2001 Rev A, Swords Road/Santry Avenue Junction.

PROBLEM

The corner radius of the R132/Santry Avenue junction is very large. This leads to high turning speeds and higher injury severities if pedestrians or cyclists are struck. There will be an increase in pedestrian activity at this junction as a result of the proposed development and there will be a corresponding reduction in heavy goods vehicles due to the replacement of the hardware premises. There is an existing issue with pedestrian collisions in that area as observed from the RSA data.



RECOMMENDATION

It is recommended that the corner radius be reduced at the junction.

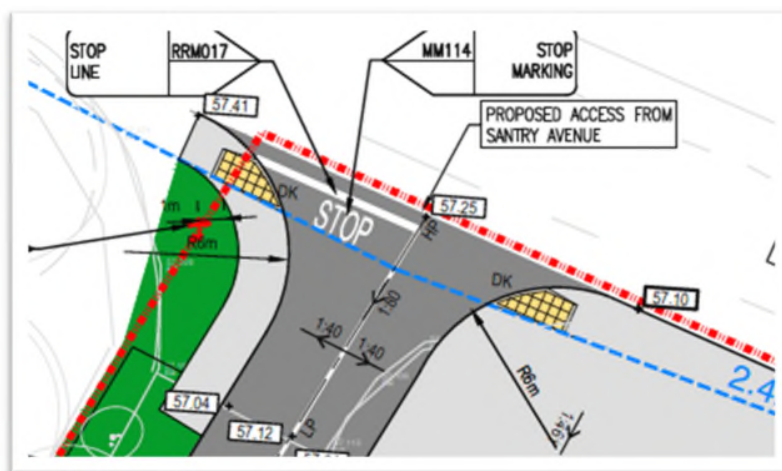
3.2 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

The proposed vehicular access off Santry Avenue is opposite an on-road bus stop (Route 17A) which is currently slightly built-out from the through kerb line. Drivers may exit from the proposed development when other drivers are overtaking parked buses which could lead to head on-or side swipe collisions.





RECOMMENDATION

Ensure that the proposed access does not compromise the safety of road users when buses are stopped on Santry Avenue. This may require the relocation of the bus stop.

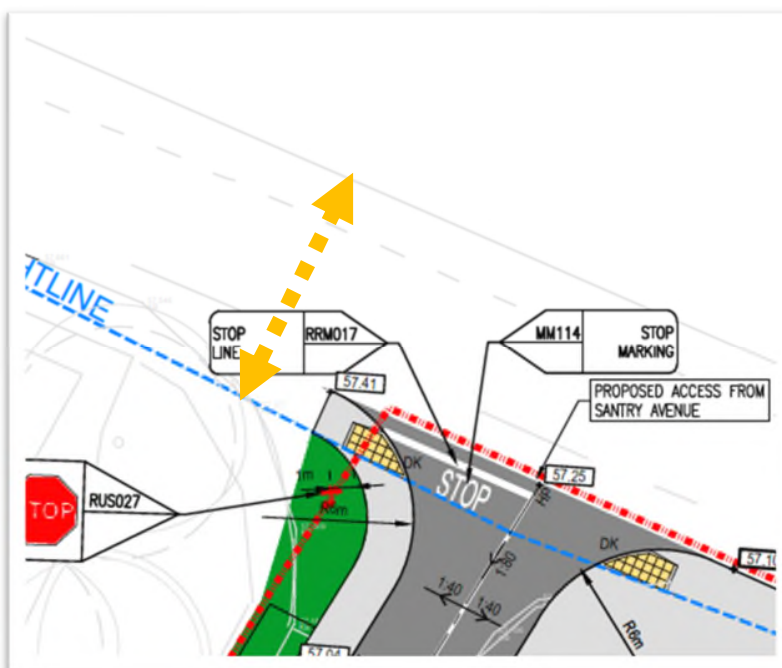
3.3 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

There is an existing controlled pedestrian crossing on Santry Avenue immediately west of the proposed vehicular access to the development. There is a risk that drivers exiting the development and turning left might not see the red signals and may turn at the same time as a pedestrian starts to cross the carriageway leading to a possible collision.



It is recommended that the existing crossing and signals be assessed for visibility by exiting drivers. If insufficient visibility is provided then the crossing or the access should be relocated.

3.4 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

Occupants of the perpendicular parking spaces do not have an area of footpath to enter when they leave their vehicle. Those road users would have to enter the carriageway of the access road where they would have a greater likelihood of being struck by passing vehicles. It could also lead to slips and falls on the grassed areas in poor weather conditions,



RECOMMENDATION

It is recommended that a footpath be provided along the parking spaces.

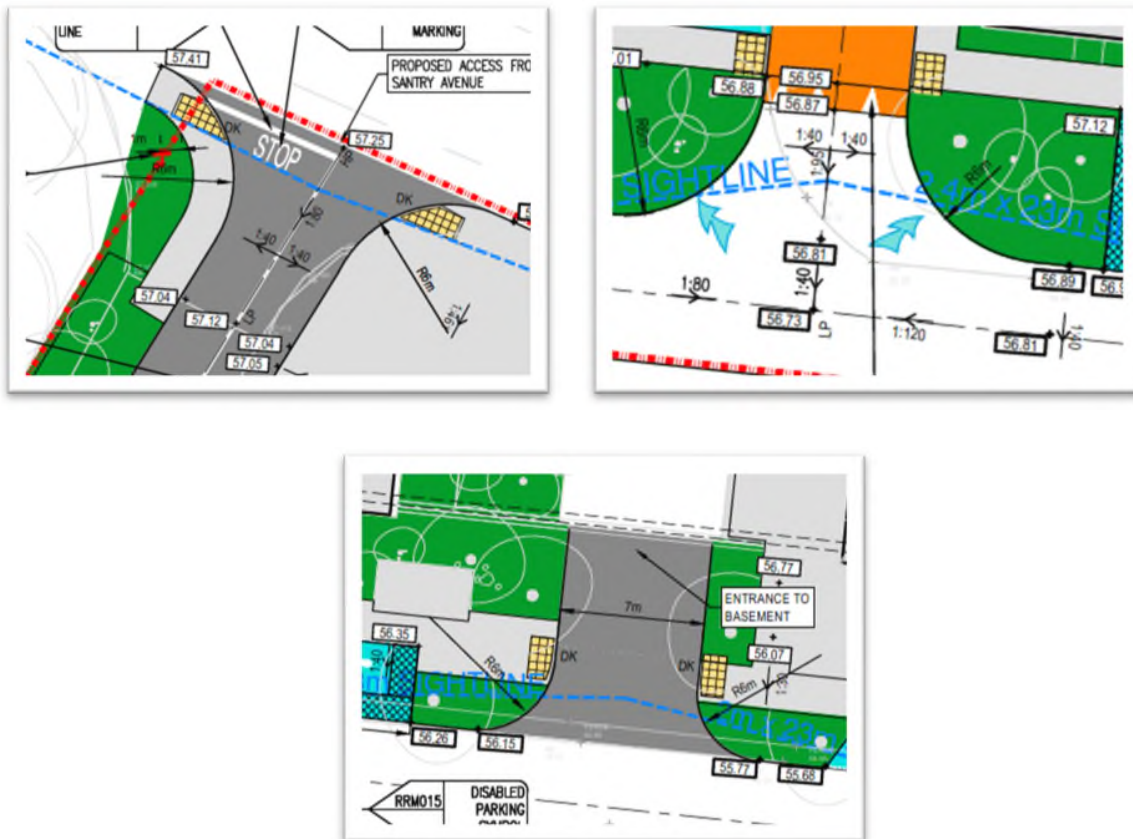
3.5 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

It is proposed to have 6m corner radii at all the vehicular accesses including the basement access. Larger corner radii can lead to higher turning speeds, greater distances for pedestrians to cross and greater likelihood of turning drivers not being able to see cyclists. Larger radii therefore lead to higher likelihoods and severity of collisions with vulnerable road users.



RECOMMENDATION

It is recommended that suitable corner radii be provided.

3.6 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

The proposed footpath along the R132 is set back from the kerb line due to the widened grassed verge. The proposed footpath does not align with the crossing at the southern access and is not along the desire line. This could lead to pedestrians not associated with the development travelling on the grassed verge which could lead to slips and falls.



RECOMMENDATION

It is recommended that a footpath be provided that caters for the desire line and crossing of the access.

3.7 Problem

LOCATION

Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

There is a risk that the new road will be used as a rat-run to avoid the signals at Santry Avenue/Swords Road. This could lead to higher speed non-resident traffic using the route which would increase the likelihood of a collision with vulnerable road users.



RECOMMENDATION

It is recommended that sufficient traffic calming features be provided to ensure that this not is not attractive as a 'rat-run'

4.0 Observations

4.1 Observation

Basement details have not been provided to the Audit Team.

4.2 Observation

The swept path analysis for refuse or emergency vehicles has not been provided to the Audit Team.

4.3 Observation

It is assumed that the tactile paving will be reinstated on the northern side of the left-in left-out junction at Swords Road

5.0 Audit Statement

We certify that we have examined the information provided. 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: Norman Bruton

(Audit Team Leader)

Dated: 8-3-2024

Mark Kelly

Signed: Mark Kelly

(Audit Team Member)

Dated: 8-3-2024

Appendix A

List of Material Supplied for this Stage 1 Road Safety Audit;

- Drawing 230146-X-93-X-DTM-DR-DBFL-CE-1201_WatermainLayout
- Drawing D1809.P06 Ground Floor Plan
- Drawing Dw.03_2001 Landscape Plan Rev A DRAFT 2024 02 26
- Drawing 230146-X-04-X-DTM-DR-DBFL-CE-1301_RoadLayout
- Drawing 230146-X-91-X-DTM-DR-DBFL-CE-1001_SurfaceWaterLayout
- Drawing 230146-X-92-X-DTM-DR-DBFL-CE-1101_FoulSewerLayout

Appendix B – Problem Location Map.



Appendix C

Feedback Form

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Santry-Chadwicks

Stage: 1 Road Safety Audit

Date Audit (Site visit) Completed: 27-2-2024

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	Item addressed by NTA's CBC scheme proposals which are currently with ABP (www.swordsscheme.ie).	
3.2	Yes	Yes		
3.3	Yes	Yes		
3.4	Yes	Yes	A combination of extended footpaths and a narrow hard standing area adjoining the perpendicular bays will be provided.	
3.5	Yes	Yes	A 4.5m radii can be provided with DCC approval. A smaller kerb radius has been found to present conflicts for the larger rigid service vehicles.	
3.6	Yes	Yes		
3.7	Yes	Yes		
3.8	Yes	Yes	The extent of footpath will be shortened to tie into the position of a new raised footpath path crossing (on the minor arm of the site access) as being introduced as one of the additional design initiatives introduced to address Item 3.7	

Signed.....
Design Team Leader

Date 8th March 2024

Signed.....
Audit Team Leader

Date: 8-3-2024

Signed.....
Developer/Employer

Date: 08/03/24