



Title: **STAGE 1 ROAD SAFETY AUDIT**

For;

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

Client: **DBFL Consulting Engineers.**

Date: **June 2022**

Report reference: **1061R02**

VERSION:

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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 10th of June 2021. 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 strategic housing development (350 no. dwellings) in 7 blocks (A to G) on the existing Chadwicks site off the Swords Road (R132) in Santry, Dublin 9.

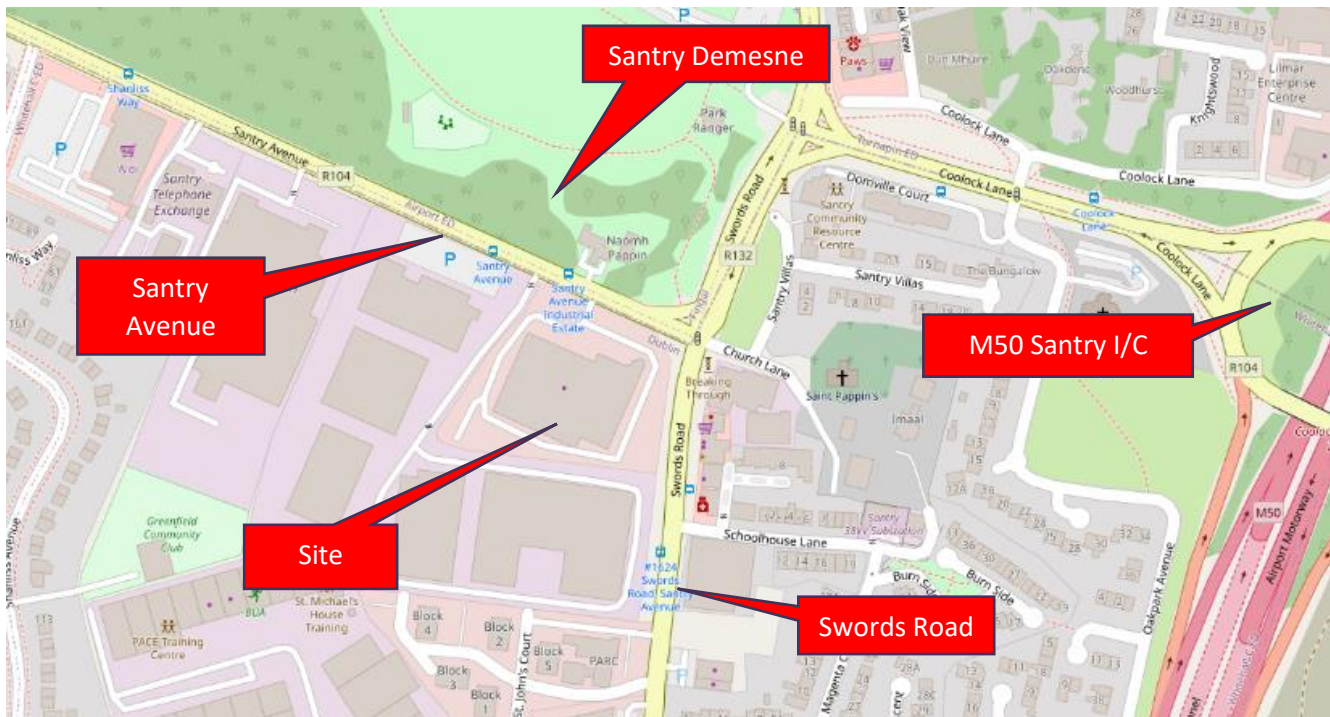
Vehicular access would be off Santry Avenue (R104) to the north and a parallel road to the south which has been recently constructed. Pedestrian linkages to Santry Avenue and Swords Road will also be provided.

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

Both Santry Avenue and Swords Road are bus routes.

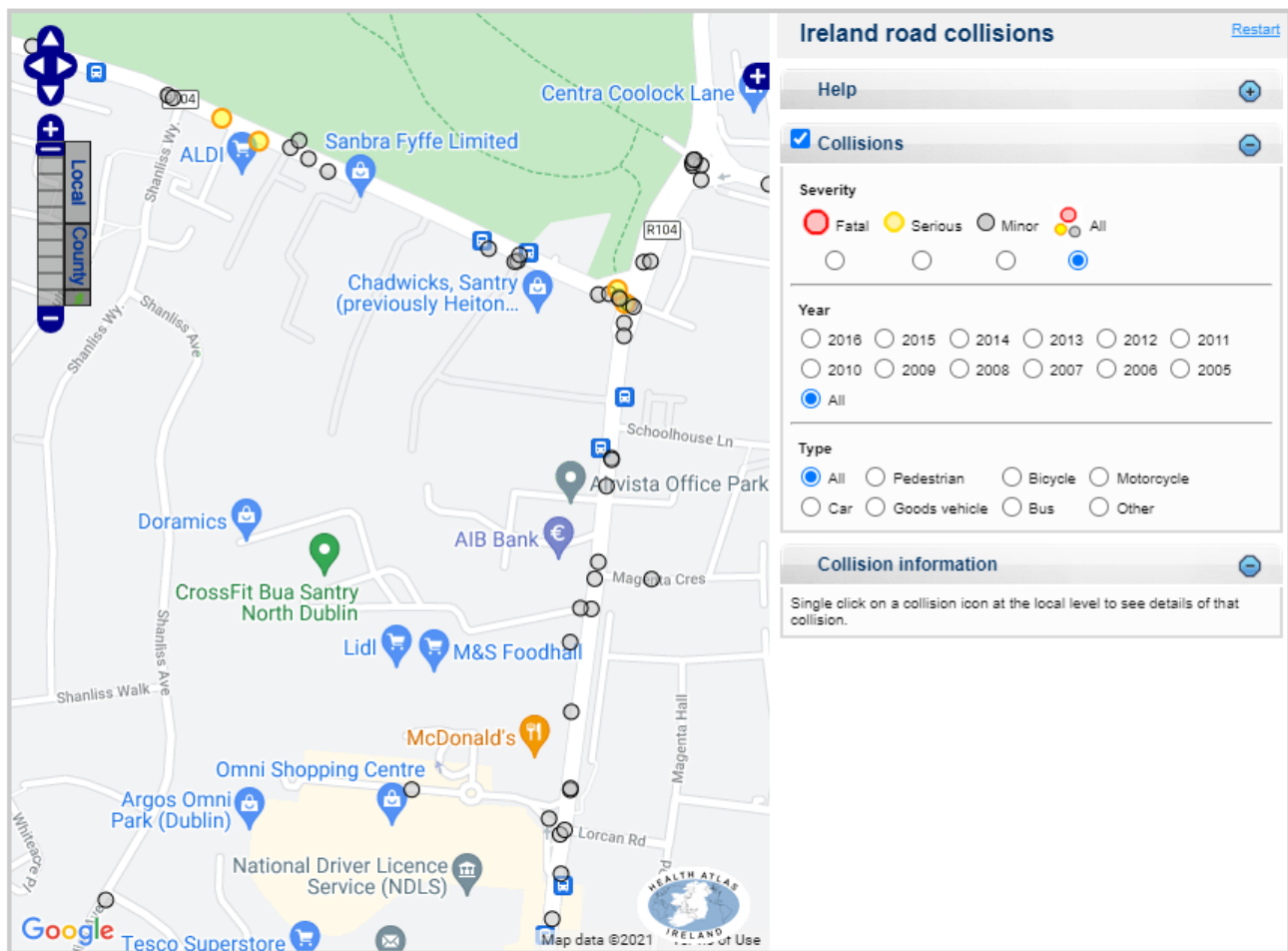
A layout has been provided showing how the development will fit in with the National Transport Authority's Core Bus Corridor, Corridor No. 2 along Santry Avenue. That proposal shows a more compact fully signalised junction on The R132 with bus lanes and cycle lanes in both directions.

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.

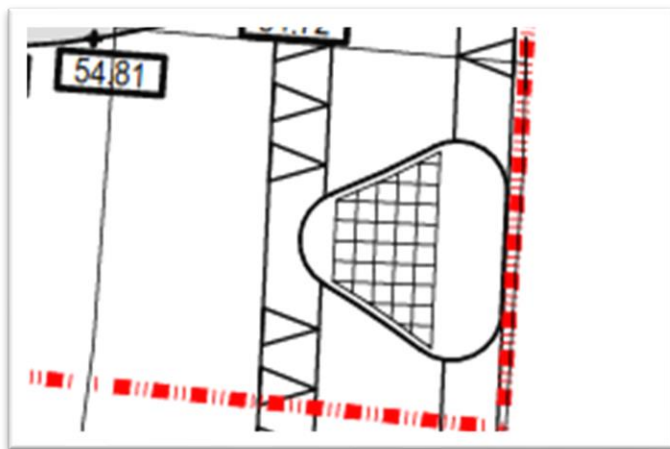
3.1 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0

PROBLEM

The junction of the access road to the South of the site appears to be a left in-left out junction (confirmed in the Traffic & transport Assessment provided by way of background information). It was observed during the site visit that the junction is not signed as such and drivers are turning right into it. The shape of the splitter island could lead to drivers entering the access road on the wrong side of the splitter island resulting in head-on collisions.



RECOMMENDATION

It is recommended that the signage and road markings relating to the left-in left-out only junction be provided or that the splitter island be reconfigured to allow all movements at the junction.

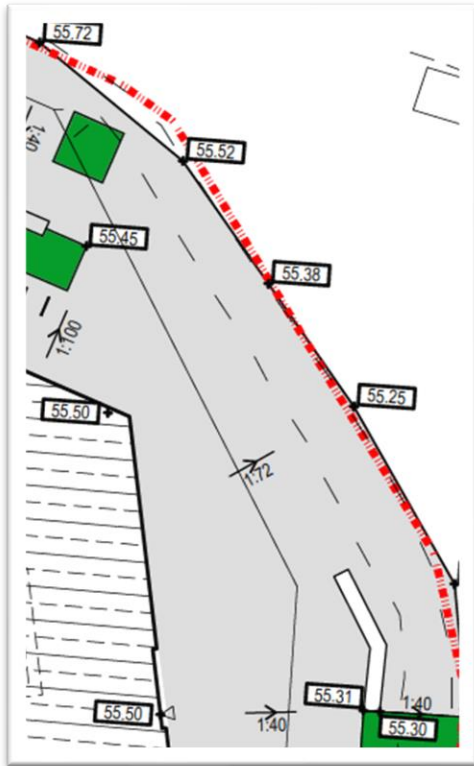
3.2 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, R132/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 is reduced at the junction.

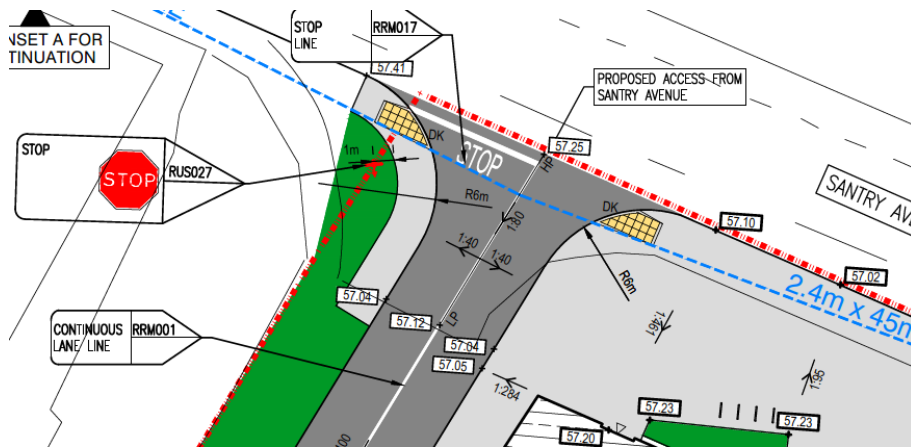
3.3 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, Santry Avenue.

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 busses are stopped on Santry Avenue. This may require the relocation of the bus stop.

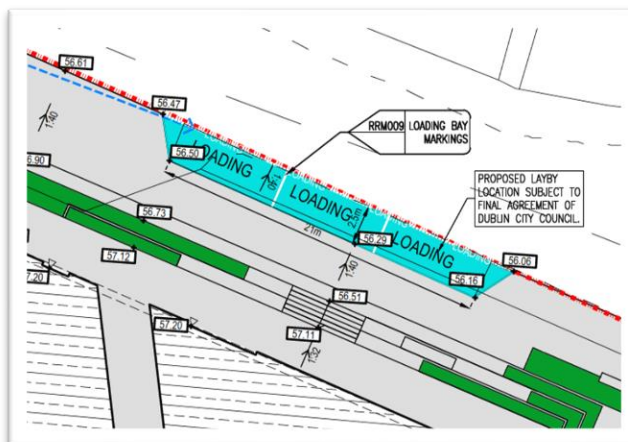
3.4 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, Santry Avenue.

PROBLEM

It is proposed to provide 3no. loading bays on Santry Avenue. It is unclear if there are routes for deliveries to the development that do not include steps or excessively long journeys. If the loading bays are not conveniently located there is a risk that delivery drivers may park on the footpaths and be hazards for pedestrians.



RECOMMENDATION

It is recommended that the loading bays be placed at convenient at grade locations for deliveries to/from the proposed development.

3.5 Problem

LOCATION

Site Observation, Santry Avenue.

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.



RECOMMENDATION

It is recommended that the existing crossing and signals be assessed for visibility by exiting drivers. If insufficient visibility is not provided then the crossing or the access should be relocated.

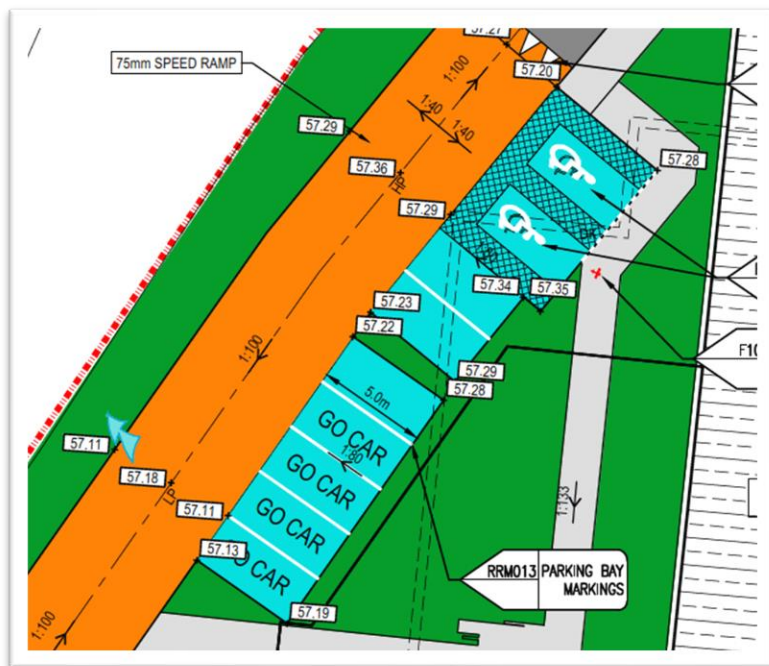
3.6 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, main Access Road.

PROBLEM

Occupants of the Go-Car parking spaces and one of the disabled 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 a passing vehicles.



RECOMMENDATION

It is recommended that a footpath be provided along the parking spaces and that dropped kerbs be provided at the disabled parking spaces to facilitate universal access. Although only indicative at this stage, signs should not be placed in the footways.

3.7 Problem

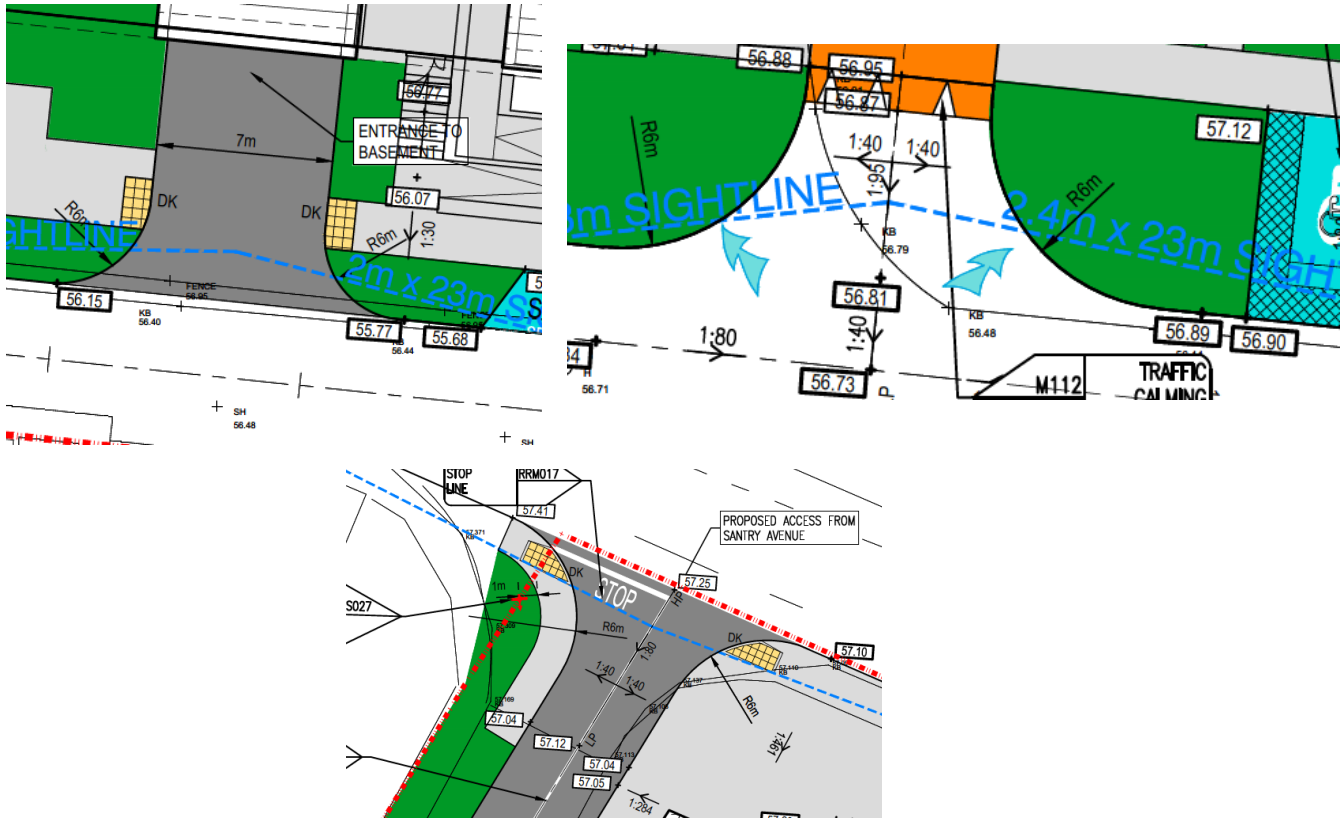
LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, various locations.

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.

**STAGE 1 RSA—SWORDS ROAD SANTRY
DBFL**



RECOMMENDATION

It is recommended that suitable corner radii be provided.

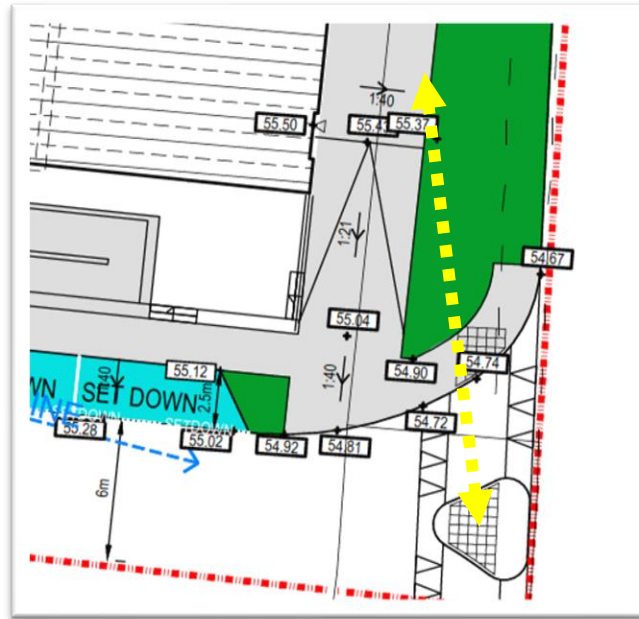
3.8 Problem

LOCATION

Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301 Rev 0, R132.

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.

4.0 Observations

4.1 Observation

Drainage 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.

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
(Audit Team Leader)

Signed: 
Dated: 29/06/22

Mark Kelly
(Audit Team Member)

Signed: 
Dated: 29/06/22

Appendix A

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

- Drawing 200060-X-10-Z-L00-DR-DBFL-SE-1002_GroundFloorPlan
- Drawing 200060-X-90-X-DTM-DR-DBFL-CE-1401_TrafficLayout-NTA's CBC Corridor No. 2
- Drawing D1809.P03 Site Layout
- Drawing D1809.P05 Basement Level
- Drawing D1809.P06 Ground Floor Plan
- Drawing 200060-X-04-X-DTM-DR-DBFL-CE-1301_RoadLayout
- Drawing 200060-X-04-X-XXX-DR-DBFL-CE-5007_StandardRoadDetailsSheet1
- Drawing 200060-X-10-Z-B01-DR-DBFL-SE-1001_BasementPlan
-

For Information Purposes.

Draft Traffic & Transport Assessment, DBFL.

Appendix B – Problem Location Map.



Appendix C

Feedback Form

SAFETY AUDIT FORM – FEEDBACK ON AUDIT REPORT

Scheme: Santry-Chadwicks

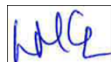
Stage: 1 Road Safety Audit

Date Audit (Site visit) Completed:

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	No	This junction has already received planning permission under Planning Ref.:2713/17 and is under construction. 'No Right Turn' signs can be facilitated within site boundary. The turn from Swords Road is under the control of the Local Authority and they will be made aware of the potential issue.	Yes
3.2	Yes	No	This area is outside the site boundary and under the control of the Local Authority. The current footpath layout and radius is under review as part of the "BusConnects" scheme. The "BusConnects" DRAFT plans show a reduction of the radius and a more pedestrian friendly junction.	Yes
3.3	Yes	No	Relocation of the bus stop is outside the site boundary and under the control of the Local Authority.	Yes
3.4	Yes	Yes	The recommendation will be incorporated during detailed design stage.	
3.5	Yes	Yes		
3.6	Yes	Yes	The recommendation will be incorporated during detailed design stage.	
3.7	Yes	No	These radii are to accommodate larger vehicle (refuse/Fire Tender)	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)
			maneuverability and in line with DMURS.	
3.8	Yes	Yes	The recommendation will be incorporated during detailed design stage.	

Signed: Laura McLoughlin



Design Team Leader

Date

1/7/2022

Signed: 

Audit Team Leader

Date:1/7/2022.....

Signed.....

Developer/Employer

Date: