

Title: **STAGE 1 ROAD SAFETY AUDIT**

For;

**Proposed Residential Development, Greenhills Road,  
Walkinstown, Dublin 12.**

Client: **Lohan & Donnelly Consulting Engineers.**

Date: **January 2022**

Report reference: **1353R01**

VERSION: **FINAL**

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## 1.0 Introduction

This report was prepared in response to a request from Mr. Gordon Poyntz, Lohan and Donnelly Consulting Engineers, for a Stage 1 Road Safety Audit of the proposed residential development at the former Chadwicks site at Greenhills Road, Walkinstown, Dublin 12.

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 11<sup>th</sup> of January 2021.

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

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**.

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## 2.0 Background

It is proposed to construct a 633 unit apartment development at the former Chadwicks site, Greenhills Road, Walkinstown, Dublin 12. The development would also consist of commercial space (1,330m<sup>2</sup>) and a creche (360m<sup>2</sup>).

It is proposed to provide 439 car parking spaces including 21 no. disabled spaces with 15 allocated to the commercial development and 5 car sharing spaces. It is proposed to provide 1352 no. cycle parking spaces. Vehicular access from the development will be onto the R819 Greenhills Road. Pedestrian and cyclist access will also be onto Greenhills Road. There are advisory cycle lanes on both sides of Greenhills Road. Emergency cyclist and pedestrian access will be provided to the road at the south of the development which provides access to a number of commercial/industrial units.

Greenhills Road is a bus route (27 and 77a)

The site location is shown below.

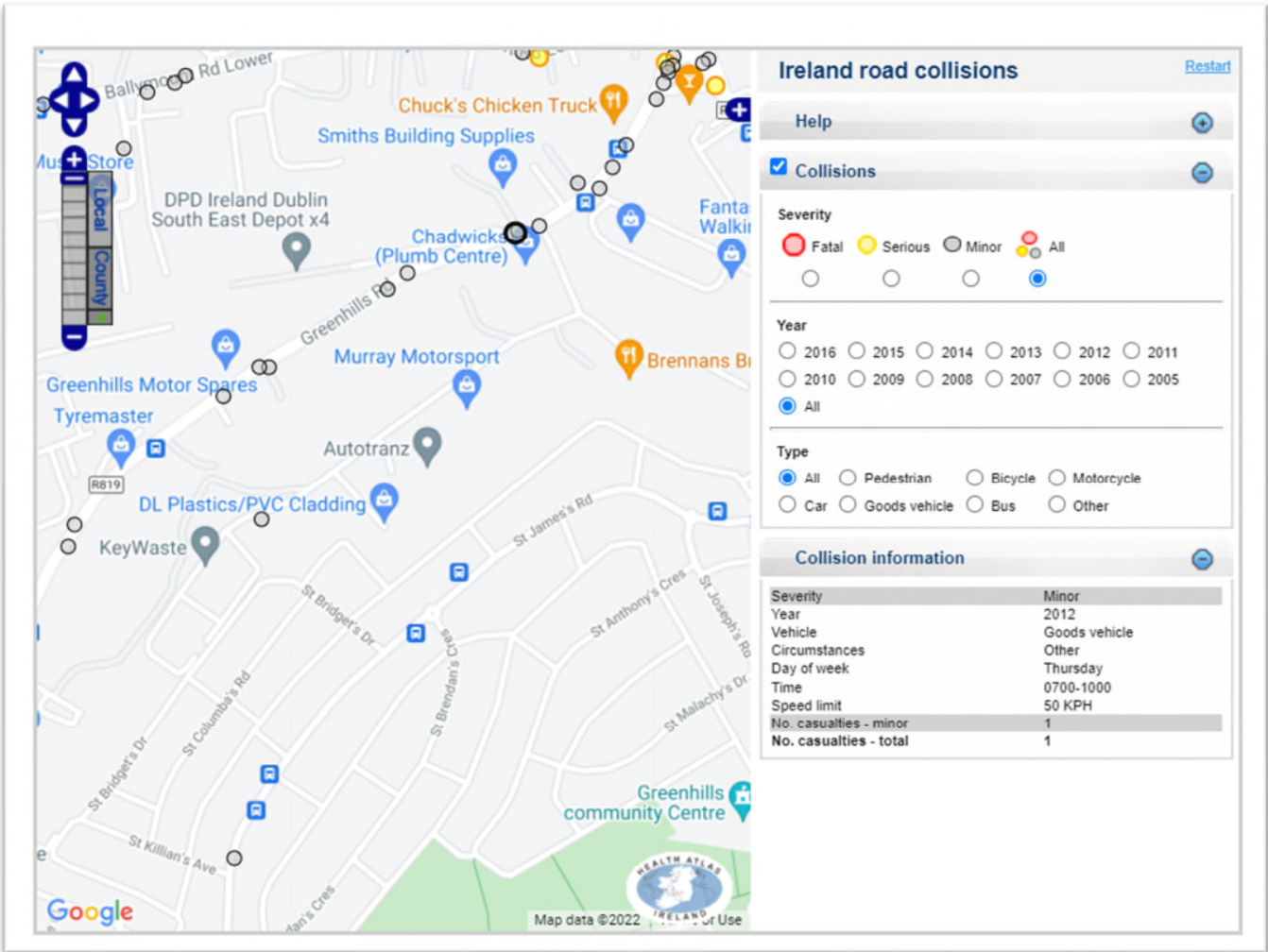


Image courtesy of openstreetmap.org

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The Road Safety Authority’s website [www.rsa.ie](http://www.rsa.ie) shows that there have been a number minor injury collisions along Greenhills Road in the 12 year period 2005 to 2016. There is no evidence of trends or clusters of collisions.





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### 3.0 Issues Raised in This Road Safety Audit.

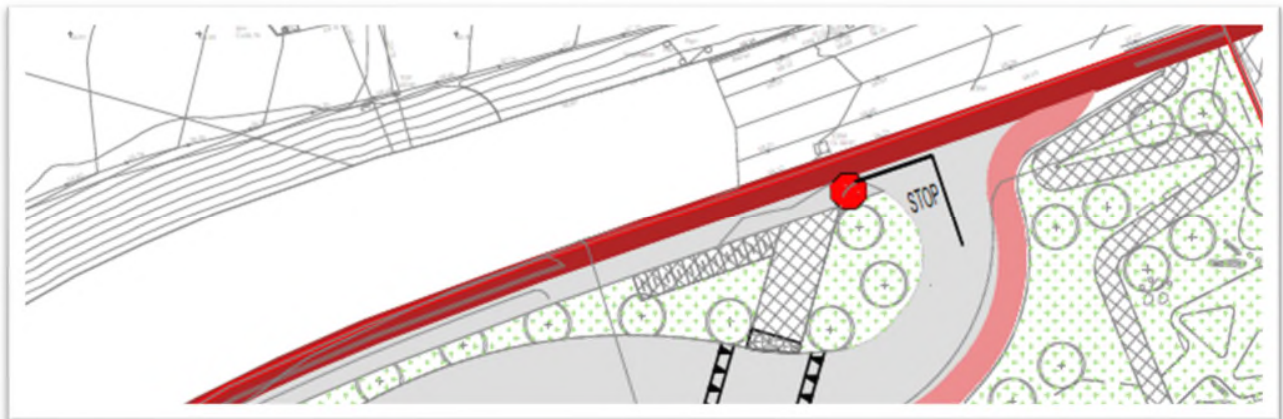
#### 3.1 Problem

*LOCATION*

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Vehicular access onto Greenhills Road.

*PROBLEM*

There is a vertical crest curve on Greenhills Road to the west of the proposed access. There is a risk that this may obscure visibility of drivers exiting the development to oncoming eastbound vehicles on Greenhills Road resulting in side-impact or rear-end collisions.



*RECOMMENDATION*

It is recommended that the visibility be checked in the vertical plane to ensure sufficient visibility is available.

### 3.2 Problem

#### *LOCATION*

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Embankment along Greenhills Road.

#### *PROBLEM*

It is unclear what retaining/containing features, if any will be provided along the southern boundary of Greenhills Road. There is a height difference between the Greenhills Road and the internal development road. There is a risk that an errant vehicle on Greenhills Road will descend the embankment resulting in high injury severity.

#### *RECOMMENDATION*

It is recommended that a risk assessment be carried out to determine if a vehicle restraint system is required and if so what level of containment.

### 3.3 Problem

#### *LOCATION*

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Vehicular Access onto Greenhills Road.

#### *PROBLEM*

It is unclear if a suitable dwell area has been provided at the vehicular access given the lower height within the development. If there is a steep uphill gradient onto Greenhills Road there is a risk that drivers may not get sufficient traction to accept gaps in traffic resulting in side-impact collisions or sudden acceleration and loss of control.

#### *RECOMMENDATION*

It is recommended that a dwell area with suitable gradients be provided.

### 3.4 Problem

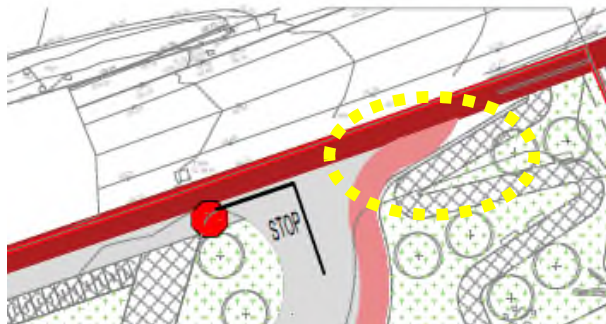
#### *LOCATION*

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Cycle Lane at Greenhills Road.

#### *PROBLEM*

Cyclists exiting the development and wishing to travel towards the Walkinstown Roundabout may have difficulty crossing Greenhills Road to access the advisory cycle lane given the high traffic volumes. This may result in cyclists travelling on the footpath or contra-flow on the outbound cycle lane where there would be an increased risk of collisions with pedestrians or other cyclists.

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*RECOMMENDATION*

It is recommended that crossing facilities for cyclists (and pedestrians) be provided on Greenhills Road.

3.5 Problem

*LOCATION*

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Road to the south of the site.

*PROBLEM*

The industrial road at the south of the site is relatively narrow and has a high usage by heavy goods vehicles. There is a risk that vehicles will not be able to pass especially when cars are parked in the parallel parking spaces. This could lead to side-swipe collisions.



*RECOMMENDATION*

It is recommended that a swept path analysis be carried out to ensure that heavy goods vehicles can pass each other and turn at industrial accesses along the back lane.



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### 3.6 Problem

#### LOCATION

Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P, Road to the south of the site.

#### PROBLEM

It is proposed to provide a cycle track parallel to the back lane. This cycle route terminates at the site boundary without connectivity to the internal cycle network. There is a sharp 90 degree bend on the back lane that has limited visibility to/from cyclists. There is a risk that the proposed parallel cycle track may lead to greater cyclist numbers at this severe bend and therefore greater risk of collisions with commercial/industrial turning traffic.



#### RECOMMENDATION

It is recommended that the cycle track be omitted or connected to the internal cycle network.

## 4.0 Audit Statement

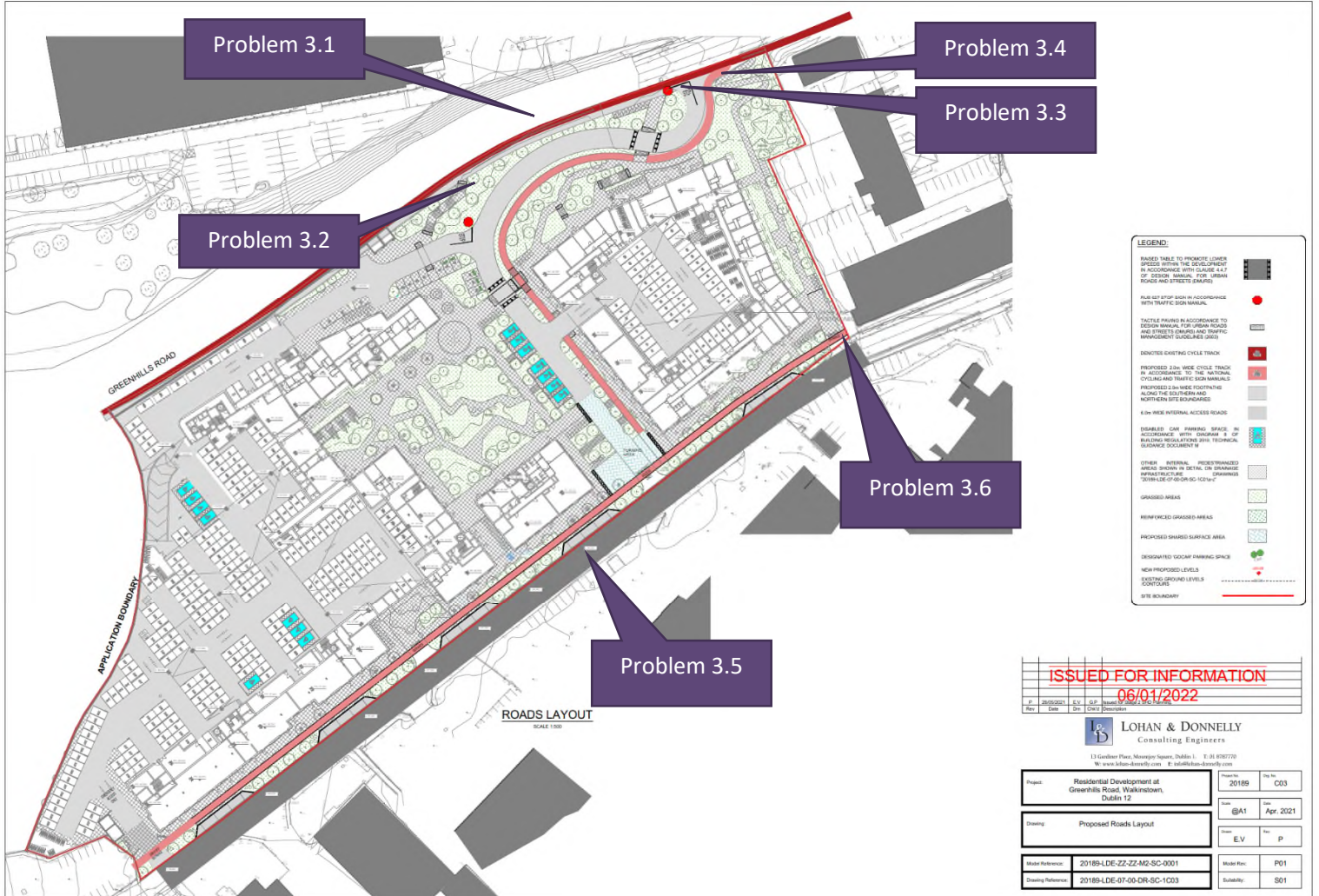
We certify that we have examined the site on the 11<sup>th</sup> of January 2022. The examination has been carried out with the sole purpose of identifying any aspects of the design which could be added, removed or modified in order to improve the safety of the scheme.

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**  
**(Audit Team Leader)**  
Signed:   
Dated: 14/1/2022

**Owen O'Reilly**  
**(Audit Team Member)**  
Signed:   
Dated: 14/1/2022

Appendix A – Problem Location Map



## Appendix B

### **Information Supplied to the Audit Team**

- Drawing 20189-LDE-07-00-DR-SC-1C03 Rev P

### **Information Supplied for Background Information**

- Transport Assessment Report, Draft, Martin Rogers.

## Appendix C

### Feedback Form



**SAFETY AUDIT FORM – FEEDBACK ON AUDIT  
REPORT**

Scheme: Greenhills Road, Residential Development

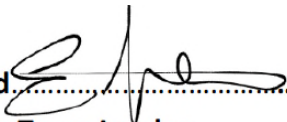
Stage: 1 Road Safety Audit

Date Audit (Site Visit) Completed: 11/1/2022

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 - We have checked (in accordance with the requirements outlined in DMURS) and provided visibility splays drawing for the entrance/exit junction into the development. It was determined that drivers have sufficient visibility when exiting the development. Furthermore, the existing high fence along the northern frontage of the development obscuring the view of upcoming traffic travelling southbound will be demolished and replaced with a lower, more user friendly from a visibility point of view vehicle restraint system.		Yes
3.2	Yes	Yes. – A vehicle restraint system will be provided along the entire extent of the northern frontage. Type of vehicle restrain system used to be determined at detailed design stage.		Yes
3.3	Yes.	Yes. – A vehicle dwell area of 2.4m in length has been provided with a fall of 1/25 (i.e. 2.29 degrees).		Yes
3.4	Yes.	Yes. – An uncontrolled 4.0m wide pedestrian/cyclist crossing		Yes

		has been introduced west off the main entrance/exit access point to the development.		
3.5	No.	No.	Existing southern access road will have an average width of 6.5m across the full extent of our site upon completion of the development. In accordance to DMURS a 6.5m road width is suitable and has sufficient space for heavy goods vehicles to simultaneously use the road. It's important to note that the existing footpath (on side facing our site in question) of the existing southern access road will be omitted and instead used as road space upon completion of the development.	Yes
3.6	No.	No.	It has been specifically requested by SDCC that we have both a footpath and a cycle lane along the northern & southern frontages of the development. Cyclists traveling on the southern cycle track can exit the development via the internal cycle track traversing the site and out the primary exit/entrance point located north-east of the development.	Yes



Signed   
.....  
Design Team Leader

Date: 14/01/2022

  
Signed.....  
Audit Team Leader

Date: 14/1/2022

Signed   
.....  
Employer

Date: 14/01/2022