

Duchy Homes

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**Proposed Residential Development  
Located South of Darton Lane,  
Staincross, Barnsley**

**Stage I Road Safety Audit**

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May 2024

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*Registered No. 5295328*

## Duchy Homes

# Proposed Residential Development Located South of Darton Lane, Staincross, Barnsley

## Stage I Road Safety Audit

May 2024

| Client Commission |             |                    |          |
|-------------------|-------------|--------------------|----------|
| Client:           | Duchy Homes | Order No:          |          |
| Commissioned By:  | B. Mansell  | Date Commissioned: | May 2024 |

| LTP Quality Control   |             |              |            |  |            |
|-----------------------|-------------|--------------|------------|--|------------|
| Job No:               | LTP/24/5249 |              | File Ref:  | 5249 - Darton Lane, Staincross<br>Resi Dev RSA 1 - Final Issue 1 |            |
| Issue                 | Revision    | Description  | Originated | Checked  | Date       |
| 1                     | -           | Final Report | TK         | RP   | 22/05/2024 |
| Authorised for Issue: |             |              |            | RP   |            |

### LTP PROJECT TEAM

As part of our commitment to quality the following team of transport professionals was assembled specifically for the delivery of this project. Relevant qualifications are shown and CV's are available upon request to demonstrate our experience and credentials.

| Team Member | LTP Designation | Qualifications                  |
|-------------|-----------------|---------------------------------|
| Tony Kirby  | Director        | IEng MSc FIHE MCIHT RegRSA      |
| Ryan Penn   | Associate       | BA(Hons) IEng FIHE FCIHT MSoRSA |

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# PROPOSED RESIDENTIAL DEVELOPMENT LOCATED SOUTH OF DARTON LANE, STAINCROSS, BARNSELY

## STAGE I ROAD SAFETY AUDIT

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## 1.0 INTRODUCTION

- 1.1 Duchy Homes, as the Scheme Promoter, has commissioned Local Transport Projects Ltd (LTP) to carry out a Stage 1 Road Safety Audit (RSA) of the highway works associated with the provision of a 46 dwelling residential development on the southern side of Darton Lane in Staincross, Barnsley. As the Highway Authority, Barnsley Metropolitan Borough Council (BMBC) is the Overseeing Organisation. A Road Safety Audit Brief dated Friday 10<sup>th</sup> May was supplied to the Audit Team.
- 1.2 The proposed highway works that are subject to this RSA consist of:
- Provision of a simple priority T-junction on the southern side of Darton Lane (between Oaks Farm Drive and Oaks Wood Drive) and associated internal road construction which will serve 27 of the dwellings at the site; and
  - Provision of four private driveways on the southern side of Darton Lane each serving between 4-5 dwellings.
- 1.3 The Audit was carried out between Tuesday 14<sup>th</sup> and Wednesday 22<sup>nd</sup> May 2024 and was based on an examination of the drawings supplied as summarised within Table 1.

**Table 1 – Drawings Considered by the Road Safety Audit**

| Drawing N <sup>o</sup> | Rev | Drawing Title                      | Issued By   |
|------------------------|-----|------------------------------------|-------------|
| 2239.01                | AJ  | Planning Layout                    | Duchy Homes |
| LTP/5249/T1/02.01      | A   | Refuse Vehicle Swept Path Analysis | LTP         |

- 1.4 Personal Injury Collision (PIC) data for the extents of the proposed highway works was examined on 'www.crashmap.co.uk' (a website which utilises collision information provided by the Department for Transport) for the five-year period 01/01/2018 to 31/12/2022. During this period, no injury collisions have been recorded.
- 1.5 The Audit Brief indicates baseline (2022) traffic flows on Darton Lane of 677 vehicles during the AM peak hour (328 westbound and 349 eastbound) and 881 vehicles during the PM peak hour (553 westbound and 328 eastbound). The same document indicates that the proposed development is expected to generate fewer than 43 vehicle trips (12 arrivals and 31 departures) during the AM peak hour and fewer than 42 vehicle trips (27 arrivals and 15 departures) during the PM peak hour.
- 1.6 No vehicle speed information for the local highway network has been supplied to the Audit Team.
- 1.7 A site inspection was carried out on Tuesday 14<sup>th</sup> May 2024 between 10:05-11:00. Weather conditions were rainy at the time of the site visit and the road surface damp. During the site visit, consistent vehicle flows were observed on Darton Lane and pedestrian/cycle flows were low.
- 1.8 The Audit Team comprised the following people:
- Tony Kirby BA(Hons) IEng MSc FIHE MCIHT RegRSA (Audit Team Leader); and
  - Ryan Penn BA(Hons) IEng FIHE FCIHT MSORSA (Audit Team Member).

- 1.9 The Audit Team was not made aware of any specific departures or relaxations from standard.
- 1.10 It is understood that no previous Road Safety Audits of the proposals have been undertaken.
- 1.11 The Audit was carried out with reference to '*GG 119 Road Safety Audit*' (Highways England, 2020).
- 1.12 The Audit Team has examined and reported only on the road safety implications of the scheme using the information provided and has not examined or verified the compliance of the design to any other criteria.
- 1.13 The problems identified in this report are considered by the audit team to require action in order to improve safety and reduce the risk of collisions occurring.

## 2.0 ITEMS RAISED BY THIS STAGE I ROAD SAFETY AUDIT

### 2.1 Problem

**Location:** Side road junctions and pedestrian desire lines throughout the site and on Darton Lane

**Summary:** Risk of pedestrians tripping/falling over full height kerbs and sustaining injury due to absence of crossing facilities at side road junctions and main desire lines

No crossing facilities for pedestrians (e.g. dropped kerbs and tactile paving) are shown across side road junctions or across Darton Lane to serve key desire lines. The absence of these facilities may increase the risk of pedestrians tripping/falling over full height kerbs as they attempt to cross, and sustaining injury as a result. The absence of such facilities is also likely to make it difficult for elderly pedestrians and those with mobility/visual impairments to navigate the site and nearby services such as shops, schools and public transport.



### Recommendation

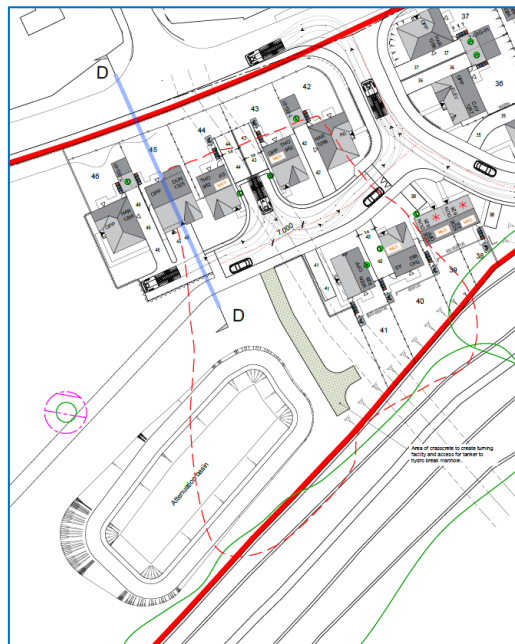
It is recommended that on-desire line pedestrian crossing points consisting of dropped kerbs and tactile paving are provided across relevant junctions and at pedestrian desire lines.

## 2.2 Problem

**Location:** Surface water attenuation pond west of access road (near plot 46)

**Summary:** Risk of errant vehicles/pedestrians entering the watercourse area and sustaining injury (including possible drowning) due to lack of edge restraint

A surface water attenuation pond appears to be proposed reasonably close to an internal road. The Audit Team are unaware of the likely depth of the pond and how much water is likely to be routinely in the pond. However, the pond is close to a footway and it is reasonable to expect people to be regularly within close proximity of the pond. As an assumed open feature with no obvious edge restraint features, errant motorists/pedestrians may not be adequately protected from entering the watercourse. Anyone entering the watercourse would be at risk of drowning and related injuries.



## Recommendation

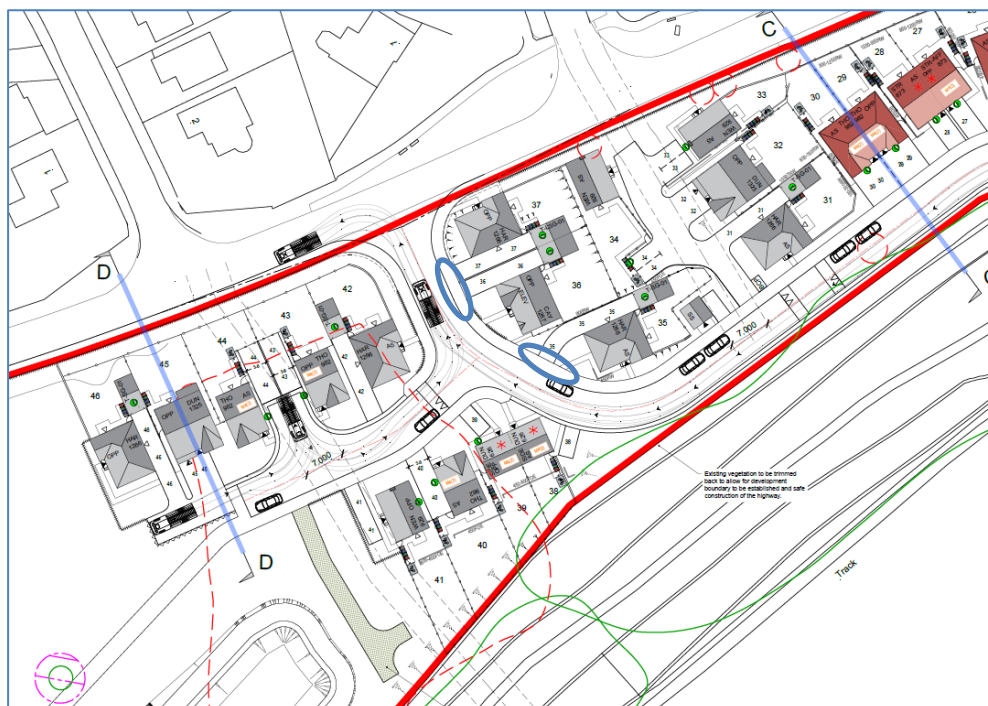
It is recommended that a risk assessment is undertaken in relation to the watercourse and, if deemed necessary, appropriate barrier treatments proportionate to the level of risk provided. If required, this could be as simple as a fence or hedgerow or, if established as appropriate, a road restraint system.

## 2.3 Problem

**Location:** Various dropped kerb locations

**Summary:** Risk of pedestrian slips / falls due to steep gradient

The site topography means that the proposed carriageway / footway gradients within the site are significant. At the proposed informal dropped crossings/vehicle access locations, uphill sides could be greater than 10%, creating slip hazards and difficulties for pedestrians and people with reduced mobility. The potential gradients could be a particular problem for people in wheelchairs or mobility scooters when making the 90 degree turn to use the crossing.



## Recommendation

It is recommended that double transition kerbs are installed on uphill sides where necessary to assist footway gradients.



## 2.4 Problem

**Location:** Proposed shared drive accesses from Darton Lane

**Summary:** Risk of Failure to Give Way (FTGW) collisions and vehicle / pedestrian conflicts

The site topography means that the proposed shared drive accesses abut the Darton Lane footway at a significant gradient. It is also unclear as to whether the existing brick retaining wall alongside Darton Lane will be retained. These arrangements could result in a number of road safety related issues:

- The proposed falls into the site if excessive, would increase the risk of pedestrian slips,
- An excessive approach gradient could increase potential for FTGW type collisions for vehicles exiting shared drives; and
- The existing wall at the rear of footway may impair visibility splays for vehicles exiting shared drives increasing the risk of FTGW type collisions and vehicle / pedestrian conflict.



## Recommendation

It is recommended that the proposed shared drive accesses are designed with appropriate gradients and visibility splays.

## 2.5 Problem

**Location:** Proposed shared drive accesses from Darton Lane ed s38 Street

**Summary:** Risk of vehicle/vehicle collisions due to vehicles waiting at the gates protruding into Darton Lane

At the four shared drive accesses from Darton Lane, drawing annotations state that 'no joint gates to be installed on joint entrance to private drive'. It is unclear what 'no joint gates' are and how they would operate, but they appear to be located at the back of the Darton Lane footway. As such, a driver waiting to enter the site at the gates is likely to protrude into the westbound traffic lane whilst waiting for the gates to open, thereby increasing the risk of collision with westbound vehicles on Darton Lane.



## Recommendation

It is recommended that either gates are not provided at the shared drives, or if they are provided that they are set sufficiently far back from Darton Lane so that a waiting vehicle does not protrude into the Darton Lane carriageway.

### 3.0 AUDIT TEAM STATEMENT

- 3.1 The Audit was carried out with reference to ‘GG 119 Road Safety Audit’ (Highways England, 2020). We certify that we have examined the site taking into account the documents provided by the Project Manager (set out in Table 1) and carried out a Road Safety Audit with the sole purpose of identifying any feature of the design which could be removed or modified to improve the safety of the highway environment within the extents of the scheme. The problems that we have identified have been noted in this report together with suggestions for improvement, which we recommend should be studied for implementation.
- 3.2 No-one on the audit team has been involved with the design of the proposals.

**AUDIT TEAM LEADER:**

|        |                 |  |
|--------|-----------------|--|
| Signed | <b>T. Kirby</b> | <b>Tony Kirby IEng MSc FIHE MCIHT RegRSA</b><br>Director<br>Local Transport Projects<br>The Flemingate Centre, Armstrong House<br>Armstrong Way, Beverley<br>HU17 0NW.<br>Tony.Kirby@ltp.co.uk<br>01482 679911 |
|        | Dated           |  |

**AUDIT TEAM MEMBER:**

|        |                |   |
|--------|----------------|---|
| Signed | <b>R. Penn</b> | <b>Ryan Penn BA(Hons) IEng FIHE FCIHT MSoRSA</b><br>Associate<br>Local Transport Projects<br>Armstrong House, The Flemingate Centre,<br>Beverley, East Riding of Yorkshire.<br>HU17 0NW.<br>Ryan.Penn@Ltp.co.uk<br>01482 679911 |
|        | Dated          |   |