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Road Safety Audit Stage 1

Darland Farm

Proposed Access and Traffic Calming

Date: 22nd July 2016

Report produced for: C & A Consulting Engineers

Report produced by: Medway Council Road Safety

Council's Representative:

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DOCUMENT CONTROL SHEET

Project Title Darland Farm, Chatham – Proposed Access and Traffic Calming

Report Title Road Safety Audit Stage 1

Revision

Status Final

Reference 267

Record of Issue

Issue	Status	Author	Date	Check	Date	Authorised	Date
1	Final	BS	22/7/16	MM	22/7/16	BS	22/7/16

Distribution

Organisation	Contact	Copies
Medway Council	Leanne Adams, Road Safety Team	1
C & A Consulting Engineers	Faye Murray	1

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1 INTRODUCTION

- 1.1 This report describes a Stage 1 Road Safety Audit carried out on a proposed access of Pear Tree Lane, Chatham to a residential development. The audit was requested by faye Murray, Highway Design, Medway Council for Bryan Shawyer.
- 1.2 The Audit Team membership was as follows:

Bryan Shawyer, Road Safety Manager, Medway Council: Audit Team Leader

Martin Morris, Traffic Manger, Medway Council: Audit Team Member
- 1.3 The audit was undertaken following the principles of HD 19/15, The Design Manual for Roads and Bridges.
- 1.4 The documents available at the time this report was compiled are detailed in Appendix A.
- 1.5 The locations of each Problem have been indicated on plans at Appendix B.
- 1.6 A site visit and inspection was undertaken on the afternoon of 15th July 2016. Weather conditions at the time of the site visit were fine and the road surface was dry. Vehicle flows on Pear Tree Road were low and free flow speeds were moderate. Vehicle flows on the Pear Tree Lane spur road were low and free flow speeds were low. Pedestrian flows were low and there were no observed cyclist movements during the site visit.
- 1.7 This report has been compiled only with regard to the safety implications for road users of the layout presented in the supplied drawings. It has not been examined or verified for compliance with any other standards or criteria. This safety audit does not perform any "Technical Check" function on these proposals nor verify any justification for the scheme. It is assumed that the Project Sponsor is satisfied that such a "Technical Check" has been successfully completed prior to requesting this safety audit.
- 1.8 The auditors have not been informed of any Departures from Standards in this scheme design.

2 THE SCHEME

2.1 The proposed layout is shown on drawing numbers 16-007-007 (B) and 008, and consists of:

- A 5.5m site access road at the existing junction to Pear Tree Lane.
- Three pinch points on the northwestern section of the Pear Tree Lane spur road with localised buff coloured surfacing.
- An uncontrolled crossing from the northwestern section of the Pear Tree Lane spur road to Capstone Road.
- A short section of footway on Capstone Road from proposed uncontrolled crossing that ties into the existing footway on the western side of the carriageway.

3 TRAFFIC CONDITIONS

- 3.1 Pear Tree Lane is an unclassified distributor route, linking Hempstead to Chatham and the section visited is rural in nature. To the northwest, there is a three-armed roundabout leading to Capstone Park and Chatham. The Pear Tree Lane spur road is used for access to the Wagon at Hale Public House and local residential properties.
- 3.2 Pear Tree Lane is subject to a 50mph speed limit and is partially street lit to the northwest. The road is rural in nature with verges to both sides, there are no footways on this section of Pear Tree Road.
- 3.3 The Pear Tree Lane spur road is subject to a 50mph speed limit though there are no repeaters and the northern end of the route leads to a public house. The road is rural in nature with vegetation both sides, there are no footways on this section of Pear Tree Road.
- 3.4 On site observations indicated that flows were moderate throughout the area with low flows on the spur road and individual accesses. Traffic free flow speeds were moderate, again with low speeds on the spur road.
- 3.5 Pedestrian activity was low at the time of the site visit with few pedestrians walking in the area. No cyclists were observed during the site visit.
- 3.6 No traffic or pedestrian data was supplied at the time of the audit.

4 ITEMS RAISED AT THE STAGE 1 ROAD SAFETY AUDIT

4.1 PROBLEM

Location: Proposed pedestrian crossing on Capstone Road.

Summary: Lack of visibility may lead to pedestrian accidents.

Visibility to the northwest, at the proposed crossing on Capstone Road is restricted by signage and vegetation, see figure 1 below. Restricted visibility could lead to pedestrian accidents.

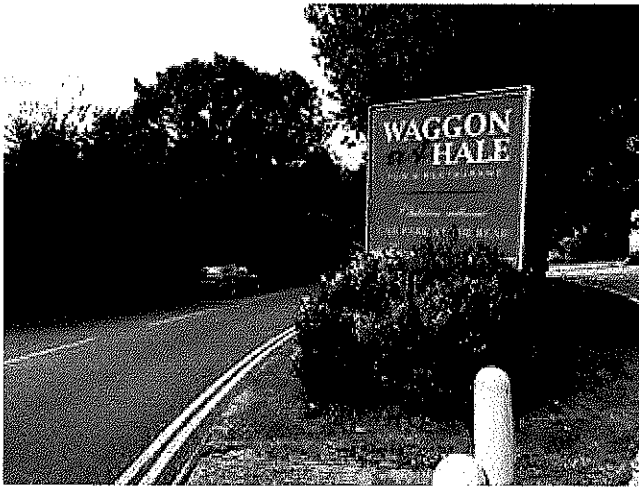


Figure 1: Restricted visibility could compromise road safety.

RECOMMENDATION

That suitable intervisibility should be provided or that the crossing should be relocated.

4.2 PROBLEM

Location: Spur road from Wagon at Hale Public House to proposed junction.

Summary: Insufficient width may lead to user conflicts.

The spur road is to be calmed through horizontal deflection, where pedestrians are expected to walk on this lightly trafficked rural road. However, excessive vegetation is overhanging the carriageway, see figure 2 overleaf, where the width is restricted. Lack of carriageway width may be detrimental to pedestrian safety.



Figure 2: Overgrown vegetation could compromise pedestrian safety.

RECOMMENDATION

That the vegetation should be cut back to provide greater width and that a regular maintenance programme should be employed.

4.3 PROBLEM

Location: Spur road, proposed pedestrian crossing point.

Summary: Gully location could compromise pedestrian safety.

At the proposed crossing on Capstone Road, there is a blocked gully sited in the spur road on the western side of the carriageway, see figure 3 below. A blocked gully could lead to ponding and possible pedestrian accidents, particularly in icy conditions. Further, the gully could be on the pedestrian desire line, which may lead to pedestrian trips, particularly for the visually and mobility impaired.



Figure 3: Blocked gully could compromise pedestrian safety.

RECOMMENDATION

That the gully should be unblocked and relocated away from the pedestrian desire line.

4.4 PROBLEM

Location: Proposed buildouts on spur road.

Summary: Insufficient road width could lead to loss of control accidents.

The swept paths of large vehicles appear to overrun the buildouts, where kerb strikes could lead to loss of control accidents.

RECOMMENDATION

That the swept paths should be checked to ensure that safe passing movements can be undertaken, or that the width of the buildouts should be reduced.

4.5 PROBLEM

Location: Proposed Access junction with spur road.

Summary: Junction layout could compromise road safety.

The junction layout and the give markings give the impression that the spur road are one-way systems. Further, the layout does not cater for traffic entering the access from the nearby public house, which is a likely movement. Some drivers may try to undertake the left turn in manoeuvre, which could lead to kerb strikes and possible loss of control accidents.

Additionally, the layout does not cater for cyclist movements entering the spur road and joining Capstone Road in a 30mph restriction. Rather, cyclists heading towards Chatham are directed to the junction with Pear Tree Lane, which has a 50mph restriction and then have to negotiate the roundabout junction, where research has shown that cyclists are more vulnerable.

RECOMMENDATION

That the junction should be squared off to a conventional junction format.

4.6 PROBLEM

Location: Spur road junctions with Pear Tree Lane.

Summary: Inappropriate speed limit could compromise road safety.

The speed limit on this section of Pear Tree Lane 50mph, where there is no change when entering the two spur road junctions off the lane. Inappropriate speeds on the spur road could lead to loss of control accidents or collisions with vulnerable road users.

RECOMMENDATION


That the junctions off Pear Tree Lane should be signed as a 30mph restriction.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out as reasonably practicable in accordance with HD 19/15.

Audit Team Leader

Bryan Shawyer, BEng (Hons), MSc, MCIHT
HA RSA Cert of Competence
Road Safety Manager
Medway Council

Signed: 

Date: 22/7/16

Audit Team Member

Martin Morris, PGDip, MCIHT
HA RSA Cert of Competence
Traffic Manager
Medway Council

Signed: 

Date: 22/7/16

APPENDIX A

List of relevant Drawings and Documentation submitted for auditing:

- 16-007-007 (B): Site Access - Proposed.
- 16-007-008: Proposed Footway Connection & Traffic Calming.
- 16-007-009 (A): Proposed Access Longitudinal Section.
- Transport Statement, C & A Consulting Engineers, June 2016.

APPENDIX B

Problem location drawings.