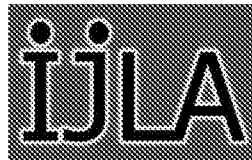
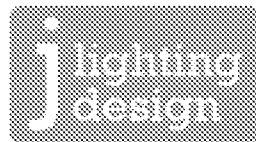
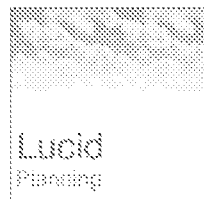


Road Safety Audit

DREW SMITH GROUP



Land at Summer Lane Pagham Reserved Matters Application Planning Update

July 2019 Rev. A



Road Safety Audit Stage 1

Summer Lane

Pagham

West Sussex

Date: 9th July 2019

Report produced for: Rogers Cory Partnership

Report produced by: M & S Traffic Ltd

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DOCUMENT CONTROL SHEET

M&S Traffic has prepared this report in accordance with the instructions from Rogers Cory Partnership. M&S Traffic shall not be liable for the use of any information contained herein for any purpose other than the sole and specific use for which it was prepared.

Project Title Summer Lane, Pagham

Report Title Road Safety Audit Stage 1

Revision

Status Final

Reference RCP/19/E4761/1/BS

Record of Issue

Issue	Status	Author	Date	Check	Date	Authorised	Date
1	Final	BS	09/07/19	MM	09/07/19	BS	09/07/19

Distribution

Organisation	Contact	Copies
Rogers Cory Partnership	Leon Darrell	-

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Appendix A..... List of drawings

Appendix B..... Comment location drawing

1 INTRODUCTION

- 1.1 This report describes a Stage 1 Road Safety Audit carried out on a proposed residential development of 90 units off Summer Lane, Pagham, West Sussex.

The Audit was requested by the design organisation, Rogers Cory Partnership, The Old School, Old School Road, Hook, Hampshire RG27 9NJ on behalf of West Sussex County Council as the Highway Authority.

- 1.2 The Audit Team membership were as follows:

Bryan Shawyer BEng (Hons), MSc, MCIHT, MSoRSA, HE RSA Cert Comp, Team Leader

Martin Morris, PGD, MCIHT, MSoRSA, HE RSA Cert Comp, Audit Team Member

- 1.3 The audit was undertaken following the principles of GG119, The Design Manual for Roads and Bridges.

The documents available at the time the report was compiled are detailed in Appendix A.

- 1.4 The Audit took place at the Gillingham offices of M&S Traffic during July 2019 and comprised an examination of the documents provided as listed in Appendix A. A joint site visit and inspection was undertaken during the afternoon of the 5th July 2019 between 14:15 and 14:45 hours. Weather conditions at the time were fine and the road surfaces were dry, where the site was closed to traffic.

- 1.5 The report has been compiled, only with regards 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. It is assumed that the Project Sponsor is satisfied that such a "Technical Check" has been successfully completed prior to requesting this safety audit.

- 1.6 The auditors have not been informed of any Departures from Standards in this scheme construction.

- 1.7 All comments and recommendations are referenced to the detailed drawings and the locations have been detailed relating to the plans supplied with the audit brief, Appendix B.

2 ITEMS RAISED BY PREVIOUS AUDITS

2.1 No previous Audits were supplied for assessment.

3 ITEMS RAISED AT THE STAGE 1 AUDIT

3.1 General

3.1.1 PROBLEM

Location: Proposed development.

Summary: Insufficient construction details could lead to overshoot collisions.

No construction details were provided for assessment, in particular, details of carriageway construction. Inappropriate Polished Stone Values (PSV) or Polished Paver Test Value (PPTV) could lead to overshoot accidents or differential braking, particularly under severe braking condition.

RECOMMENDATION

That PSV and PPTV details should be checked to ensure they provide adequate grip resistance for the speed of roads. Further, that construction details should be supplied for assessment at Stage 2 Safety Audit.

3.1.2 PROBLEM

Location: Proposed development.

Summary: Ponding of surface water could lead to loss of control collisions.

No details of carriageway drainage have been provided for assessment; ponding on the carriageway or water moving across the carriageway at the junctions could lead to loss of control collisions.

RECOMMENDATION

That drainage and vertical profile details should be provided at Safety Audit Stage 2.

3.1.3 PROBLEM

Location: Road 2.

Summary: Presence of attenuation basins and a swale may increase severity of loss of control collision.

There are proposed attenuation basins and a swale adjacent to Road 2, where fencing is proposed; however, no specification details on the fencing have been provided. Vehicles that lose control and exit the carriageway may enter the basin / swale, which could cause rapid deceleration, where injuries may be severe in nature, or where the occupants risk drowning.

RECOMMENDATION

That a road restraints risk assessment for local roads should be undertaken to determine whether protection is needed.

3.2 Local Alignment

3.2.1 PROBLEM

Location: Proposed development.

Summary: Vehicles entering the opposing carriageway at junctions and bends may lead to collisions with parked vehicles, side swipe collisions or vehicle to pedestrian collisions.

Swept paths have been provided for a refuse vehicles and fire tenders; however, at the junctions and bends these show vehicles entering and occupying the opposing carriageway, where two-way vehicle movements would not be possible. Insufficient carriageway space could cause conflict with vehicles travelling in the opposing direction leading to collisions with parked vehicles, sideswipe collisions, or footway overrun, which could lead to vehicle to pedestrian collisions.

RECOMMENDATION

That the junction radii and carriageway width should be sufficient to ensure that all expected movements can be safely accommodated. Further, that 'At any time' restrictions should be introduced at the junctions and bends.

3.2.2 PROBLEM

Location: Forward visibility splay outside Plots 2 & 3, Road 3.

Summary: Lack of visibility could compromise road safety.

A forward visibility splay has been provided; however, this splay appears to pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where insufficient visibility could lead to vehicle to pedestrian collisions or rear end shunts.

RECOMMENDATION

That the splay should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.

3.2.3 PROBLEM

Location: Forward visibility splay opposite Plots 69 to 71, Road 2.

Summary: Lack of visibility could compromise road safety.

A forward visibility splay has been provided; however, this splay appears to pass over non-highway land. Vegetation or landscaping features in this splay could restrict visibility, where insufficient visibility could lead to vehicle to pedestrian collisions or rear end shunts.

RECOMMENDATION

That the splay should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.

3.2.4 PROBLEM

Location: Forward visibility splay outside Plot 24, Road 4.

Summary: Lack of visibility could compromise road safety.

No forward visibility splay has been provided, where there is concern that the splay could pass over non-highway land, though it is recognised that vehicle speeds would likely be low. Vegetation or landscaping features in this splay could restrict visibility, where insufficient visibility could lead to vehicle to pedestrian collisions or rear end shunts.

RECOMMENDATION

That the splay should be within the adoptable highway, or that a suitable covenant should be arranged to ensure that the splay is not affected by planting or landscaping features.

3.3 Junctions

3.3.1 No comment.

3.4 Non-Motorised User (NMU) Provision

3.4.1 PROBLEM

Location: Proposed development.

Summary: Lack of pedestrian facilities could compromise pedestrian safety.

There are no pedestrian crossing points across the junction mouths, where it is likely that these will be pedestrian desire lines. This may present difficulties particularly for the blind, and the visually and mobility impaired pedestrians and may lead to pedestrian trips and falls.

RECOMMENDATION

That pedestrian crossing points including drop kerbs and tactile paving should be provided at likely crossing points.

3.5 Road Signs, Carriageway Markings and Lighting

3.5.1 No comment.

4 ISSUES IDENTIFIED DURING THE ROAD SAFETY AUDIT THAT ARE OUTSIDE THE TERMS OF REFERENCE

4.1 Any issues that the Audit Team wish to bring to the attention of the Client Officer which are not covered by the road safety implications of this audit have been included in the following section. These issues could include maintenance items, operational issues or poor existing provision. It should be understood however, that in raising these issues, the Audit Team do not warrant that a full review of the existing highway environment has been undertaken beyond the scope of the audit.

4.2 The Audit Team has no issues to raise within this section.

5 AUDITOR TEAM STATEMENT

5.1 We certify that this audit has been carried out following the principles of GG 119.

Audit Team Leader

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APPENDIX A

List of drawings and documentation submitted for auditing:

Drawing Number	Title
DSM/E4761/001B	Drainage Strategy Layout
DSM/E4761/002B	Refuse Vehicle Swept Path Analysis
DSM/E4761/003B	Fire Tender Swept Path Analysis
DSM/E4761/004B	Highway Layout Review

Supporting documentation:

- Email from Rogers Cory Partnership, clarifying surfacing; fencing and road numbers, 08/07/2019.

APPENDIX B

Plan attached showing the locations of the problems identified as part of this audit (location numbers refer to paragraph numbers in the report).



NOTES

- All dimensions are in metres unless stated otherwise.
- Do not scale from this drawing. Only written dimensions are to be used.
- Site layout based on Kenn Scaddan Associates Ltd site plan rev. J issued to RCP in DWG format on 03.07.2019.
- Topographic Survey as per Siteline Level Survey, drawing number 657PG01 dated July 2012.
- Additional topographic Survey as per ADA Solutions Ltd Topographical Survey, drawing number 0614-HP2-T1 dated June 2014.
- Ditch survey based on Siteline Ditch Level Survey drawing number 657PG05 dated 30.01.19.
- Layout review is subject to receipt of finalised layout proposal and the final highway layout design will be subject to the outcome of consultation with West Sussex County Council.
- Although this highway layout review is based on the assumption that all roads are to remain private, the layout is subject to RSA review and comments.**

CONSIDERATIONS FOR INTERNAL LAYOUTS

(ALL ROADS ARE TO REMAIN PRIVATE)

- Assumed speed limits:
 - Roads Within Development = 20mph
 - Speed Control Bends within Shared Surface Areas = 12mph
 - Raised tables = 12mph
- Junction visibility requirements:
 - For 20mph road = 2.4m x 25m (Manual for Streets).
 - For 12mph road = 2.4m x 14m (Manual for Streets).
- Forward visibility requirements:
 - 25m for 20mph (Manual for Streets).
 - 14m for 12mph (Manual for Streets).
- Landscaping & any External Works Fencing (i.e. Picket Fencing within property curtilage) should be avoided wherever possible within visibility splays. However if necessary due to planning requirements, such features should be kept below 600mm in height where located within visibility splays.
- Minimum road widths to be 3.7m to allow for Fire Tender access.
- A 1.2m - 2.0m footway will be required on the inside corner of speed control bends where used in shared surface areas.

KEY

Site Boundary	-----
25m Forward Visibility Splay	-----
14m Forward Visibility Splay	-----
25m Junction Visibility Splay	-----
14m Junction Visibility Splay	-----

SCALE BAR 1:500 at A1

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B	03.07.19	Update to latest site layout	TRS	TRS	TRS
A	02.07.19	Update to latest site layout	TRS	TRS	TRS
Rev.	Date	Details	By	Chkd	Appd

Client:-

DREW SMITH LIMITED

Site:-

SUMMER LANE PAGHAM

Drawing Title:-

HIGHWAY LAYOUT REVIEW

Date:	February 2019	Scales:	1:500 at A1
Drawn:	VPI	Checked:	SRV
		Approved:	TRS

Drawing No. **DSM/E4761/004B**

FOR INFORMATION ONLY

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