

Stage 1 Road Safety Audit Report (Feasibility)

**Littlehampton S38 highway Works
(Phase 5)
Proposed new residential
development**

**Produced for:
Persimmon Homes**

Date: 14th March 2021



DOCUMENT REGISTER

Project Name: Littlehampton (Phase 5) S38

Report Title: Stage 1 (Feasibility) Road Safety Audit

Date: 14th March 2021

Client: Persimmon Homes

Audit Team	Name	Position	Date
Audit Team Leader:	Peter Ronald	Director	14/03/2021
Audit Team Member:	Paul Salmon	Road Safety Auditor	14/03/2021
Approved By:	Peter Ronald	Director	14/03/2021

Revision History					
Revision	Date	Description	Audit Team Leader	Audit Team Member	Approved
-	14/03/2021	Draft	PR	PS	PR
A	14/03/2021	Final	PR	PS	PR

Prepared By: **Traffic Management Consultants Ltd**

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1. Executive Summary

- 1.1 This scheme is promoted by Persimmon Homes. This Road Safety Audit is supplied under the provisions of the Safety Audit request dated 8th March 2021.

2. Introduction

- 2.1 This report results from a Stage 1 (Feasibility) Road Safety Audit request for a new residential development that is currently under construction on the northern side of Tiddington Lane in Wick

2.2 Audit Team Membership

The Audit Team comprised the following individuals:

Peter Ronald I.Eng, AMICE, MCIHT, MSoRSA, (HE - RSA Cert of Comp)
(Audit Team Leader)

Paul Salmon, MCIHT, MSoRSA
(Audit Team Member)

The Audit also comprised an examination of the drawings provided by Persimmon and any additional support documents completed by the Audit Team as listed in the Appendices. All safety issues are with reference to the scheme as implemented.

2.3 Audit Site Visit

A site visit was carried out on Tuesday 25th August 2020 between 2.30pm and 3.30pm by the Audit Team. The weather conditions were cloudy and dry.

2.2 Strategic Decisions

The Audit Team has not been advised of any Strategic Decisions made by the local Highway Authority or by the local Planning Authority.

2.3 Audit Brief

The Audit Team were not provided with an Audit Brief

2.4 Terms of Reference

The terms of reference of the audit are based on "Guidelines For the Safety Audit of Highway Schemes" published by the Institution of Highways and Transportation, other guidance references are the Traffic Signs Regulations and General Directions 2016, and GG 119 Design Manual for Roads and Bridges.

The Audit Team has examined and reported only on the road safety implications of the scheme and has not verified the compliance of the designs to any other criteria. However, to clearly explain a safety problem or the recommendation to resolve a

problem the Audit Team may, on occasion, have referred to a design standard or other guidance documents.

2.5 **Audit Recommendations**

Recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified. They are only to indicate a proportionate and viable means of eliminating or mitigating the identified road safety audit matters, and in no way imply that a formal design process has been undertaken.

There may be alternative measures of addressing a problem which would be equally acceptable or superior in achieving the desired degree of mitigation and these should be considered by the designer when responding to this report.

2.6 **Scope of Road Safety Audits**

Road Safety Audit shall only be concerned with Road Safety Matters, i.e. *an element of the existing road environment or proposed road environment that could potentially contribute to a road traffic collision or features that could present a risk of injuries to road users.*

Road Safety Audit is not a technical check that the design conforms to standards and/or best practice guidance.

Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.

Road Safety Audit does not consider structural safety.

Road Safety Audit does not cover health and safety issues concerning road workers during the construction phase but may cover the future maintenance and operation of the road.

Road safety matters resulting from the operation of facilities for highway maintenance that affect road users shall be included in the scope of Road Safety Audit.

The needs of all road users shall be assessed when undertaking Road Safety Audits.

3. **Risk Assessment**

- 3.1 Each of the Auditors' responses is classified as either a 'Problem' or a 'Nil Response/Comment'. Items classified as a 'Problem' denote matters likely to result in significant road safety hazards. Items marked as 'Nil Response/Comment' are less serious but worthy of consideration by the Designer and/or by the Overseeing Organisation.

- 3.2 Although all of the problems identified are considered to be of sufficient importance to require action, the table below shows their relative urgency based on the risk perceived by the Safety Auditors. The level of risk assigned to each problem is largely subjective and is only intended as a guide to assist the client in determining the priority of the road safety matters raised.

Severity / Risk Level	Probability				
	Frequent	Probable	Occasional	Remote	Improbable
Catastrophic	****Problem**** (Urgent)				
Critical		***Problem*** (High Risk)			
Major			**Problem** (Medium Risk)		
Minor				*Problem* (Low Risk)	
Negligible					Comment

4. Historical Summary

- 4.1 Unknown.

5. Existing Environment

- 5.1 The site is currently under construction

6. Collision Data

- 6.1 The Audit Team have not been provided with any recorded injury collision data as part of this road safety audit.

7. Survey Information

- 7.1 None provided.

8. Audit Assessment

- 8.1 The table below summarises the findings from this audit which are described in detail within the following pages.

Identified locations of Road Safety Audit Matters are indicated on drawings within **Appendix A** to the rear of this report.

Item	Comments	Notes
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A1	General		
A1.1	Departures from Standards		None reported
A1.2	Cross-sections		
A1.3	Cross-sectional Variation		
A1.4	Drainage		Not detailed
A1.5	Landscaping	Problems Comment	(8.1) Trees detailed adjacent to numerous private parking area accesses (8.2) Trees detailed within visibility splays at junction (9.1) Trees may obstruct new street lighting
A1.6	Public Utilities/ Services Apparatus		
A1.7	Lay-bys	Problems	(8.3) No hardstanding area adjacent to laybys (8.4) Layby detailed adjacent to boundary fence
A1.8	Access	Problem	(8.5) Road narrowing opposite off-road parking space access
A1.9	Emergency Vehicles		
A1.10	Future Widening		
A1.11	Adjacent Development		
A1.12	Basic Design Principles	Comments	(9.2) No vehicle tracking analysis produced on layout (9.3) Ensure raised table ramp gradients are acceptable to bus operators
A2	Local Alignment		
A2.1	Visibility		
A2.2	New/Existing Road Interface		
A2.3	Vertical Alignment		
A3	Junctions		
A3.1	Layout		
A3.2	Visibility		
A4	Non-Motorised User Provision		
A4.1	Adjacent land		
A4.2	Pedestrian/cycle routes provided	Problem	(8.6) There are several footways that will be used by cyclists as well as pedestrians, these need to be widened to accommodate shared use
A4.3	Facilities adequate	Problems	(8.7) No pedestrian crossing point detailed across main spine road between footways at junctions (8.8) No pedestrian crossing point provided across Spine Road near bus stop (8.9) No paved staging area at bus stops for passengers (8.10) Footway ends abruptly in middle of carriageway near junction (8.11) No pedestrian crossing points detailed

			at junctions between footways on roads within estate off spine road (8.12) No facility to enable cyclists to access/exit the shared use cycle paths to access side roads at T junctions
A4.4	Separation from carriageway		
A4.5	Special requirements elderly/young infirm		
A4.6	Tactile paving/guardrails		
A4.7	Junctions		
A4.8	Routes clear of obstruction		
A4.9	Equestrians		
A5	Road Signs, Carriageway Markings And Lighting		
A5.1	Signs		
A5.2	Lighting		
A5.3	Poles and Columns		
A5.4	Road Markings		

8.1 *Problem* (Item A1.5)	
Location:	Various locations
Summary:	Trees detailed adjacent to private parking area accesses within visibility splays
There are numerous private parking area vehicle crossover accesses with trees detailed adjacent to the accesses within the visibility splays. These trees need to be removed from within visibility splays.	
TYPE OF CONFLICT/COLLISION	
Collisions due to obstructed visibility.	
RECOMMENDATION	
Remove trees adjacent to vehicle accesses.	

8.2 *Problem* (Item A1.5)	
Location:	Spine Road, junction south of plot 151
Summary:	Trees detailed within side road visibility splay
There are trees detailed adjacent to the junction where they will obstruct the visibility for vehicles exiting the side road. Remove trees from junction visibility splays.	
TYPE OF CONFLICT/COLLISION	
Collisions due to obstructed visibility.	
RECOMMENDATION	
Remove trees from within side road junction visibility splays.	

8.3 *Problem* (Item A1.7)	
Location:	Various locations
Summary:	No hardstanding adjacent to laybys
There are laybys detailed with verges adjacent. Car occupants will have to negotiate over grass verges to access /exit from parked vehicles. Provide 1.2m wide hardstanding adjacent to laybys.	
TYPE OF CONFLICT/COLLISION	
Car occupants having to negotiate over grass verges to access exit from parked vehicles.	
RECOMMENDATION	
Provide 1.2m wide hardstanding adjacent to laybys.	

8.4 *Problem* (Item A1.7)	
Location:	Layby adjacent to plot 237
Summary:	Boundary fence /wall adjacent to layby
There is a layby with a boundary wall /fence directly adjacent. Car occupants will not be able to get out of parked vehicles. Amend design to provide 1.2m wide hardstanding adjacent to layby to enable car occupants to get out of the vehicles.	
TYPE OF CONFLICT/COLLISION	
Car occupants unable to get out of vehicles.	
RECOMMENDATION	
Provide 1.2m wide hardstanding adjacent to layby.	

8.5 *Problem* (Item A1.8)	
Location:	Road narrowing opposite plots 133 & 174
Summary:	Road narrowing opposite access to off road parking spaces
There are road narrowings opposite dropped kerb vehicle accesses to off-road parking spaces. Carry out vehicle swept path analysis to ensure vehicles can access the off-road parking spaces	
TYPE OF CONFLICT/COLLISION	
Vehicles unable to access off road parking spaces.	
RECOMMENDATION	
Carry out vehicle swept path analysis on driveways.	

8.6 *Problem* (Item A4.2)	
Location:	Various locations
Summary:	There are several footways that will be used by cyclists to access the proposed shared use paths throughout the estate
There are footways that will be used by cyclists to access the shared use paths being provided throughout the estate. Review the proposed shared use paths to ensure all interlocking paths that will be used by cyclists are widened and made shared use to ensure permeability of the estate by cyclists.	
TYPE OF CONFLICT/COLLISION	
Cyclists using reduced width paths throughout the estate illegally and in conflict with pedestrians.	
RECOMMENDATION	
Review paths throughout the estate to provide cycle paths where necessary.	

8.7 *Problem* (Item A4.3)	
Location:	Numerous side road junction on spine road
Summary:	No pedestrian crossing points detailed across spine road between footways at junctions.
There are no dropped kerb /tactile paved pedestrian crossing points detailed across the spine road between footways near the side road junctions. Provide pedestrian crossing point across spine road near junctions.	
TYPE OF CONFLICT/COLLISION	
Pedestrians unable to cross over spine road safely without having to negotiate over full height kerbs.	
RECOMMENDATION	
It is recommended that dropped kerb/tactile paved pedestrian crossing point be installed across the spine road.	

8.8 *Problem* (Item A4.3)	
Location:	Spine Road Bus Stop south of plot 151
Summary:	No pedestrian crossing point provided across spine road near bus stop
There is no dropped kerb /tactile paved pedestrian crossing point detailed across the spine road near the bus stop to enable pedestrians to cross over the road. Provide pedestrian crossing point across spine road near bus stop.	
TYPE OF CONFLICT/COLLISION	
Pedestrians having to negotiate over full height kerbs to cross road near bus stop.	
RECOMMENDATION	
It is recommended that dropped kerb/tactile paved pedestrian crossing point be installed across Spine Road near bus stop.	

8.9 *Problem* (Item A4.3)	
Location:	Spine Road Bus Stops
Summary:	No staging area at bus stops
There are bus stops detailed with grass verges adjacent and no surfaced staging areas. Bus passengers will have to negotiate over verges at bus stops. Provide surfaced staging areas as bus stops.	
TYPE OF CONFLICT/COLLISION	
Pedestrians having to negotiate over verges at bus stops.	
RECOMMENDATION	
Provide surfaced staging areas at bus stops.	

8.10 *Problem* (Item A4.3)	
Location:	Raised table at crossroads in front of plot 139
Summary:	Footway ends abruptly on northern corner of junction
There is a footway that appears to end abruptly on the northern corner of the cross road junction. This will cause a problem for pedestrians with vehicles overrunning the end of the footway. Extend footway around northern corner of cross road junction.	
TYPE OF CONFLICT/COLLISION	
Vehicles overrunning end of footway.	
RECOMMENDATION	
Extend footway around northern corner of junction.	

8.11 *Problem* (Item A4.3)	
Location:	Various locations at junctions and cross roads within estate
Summary:	No dropped kerb /tactile paved pedestrian crossing points provided at junctions within estate off spine road
There are no dropped kerb/tactile paved pedestrian crossing points provided at junctions between footways within the estate roads off the spine road. Provide pedestrian crossing points where necessary.	
TYPE OF CONFLICT/COLLISION	
Pedestrians having to negotiate over full height kerbs to cross over roads.	
RECOMMENDATION	
Provide dropped kerb /tactile paved pedestrian crossing points where necessary within estate.	

8.12 *Problem* (Item A4.3)	
Location:	Spine Road T junctions near plots 51 & south of plot 151
Summary:	No facility to enable cyclists to access/exit the shared use path along the spine road from side roads on opposite side of road
There are no dropped kerb access points to allow cyclists to join/exit the shared use path opposite side road T junctions. Provide dropped kerb access points to allow cyclists to access/exit from cycle path at side road T junctions.	
TYPE OF CONFLICT/COLLISION	
Cyclists unable to access/exit from cycle path to join side road at T junctions.	
RECOMMENDATION	
Provide dropped kerb to allow cycle access to and from cycle path at T junctions on spine road.	

9. Nil Response/Comments

- 9.1 Tres may obstruct lamp columns
- 9.2 No vehicle tracking produced on estate roads
- 9.3 There are raised table ramps detailed along the spine road that will be used by buses, ensure bus operators will accept the proposed gradient on raised table ramps

10. Non-Motorised User Report (NMU's)

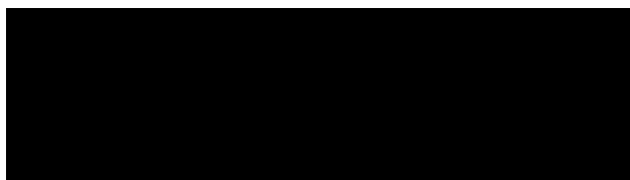
- 10.1 This report has identified road safety matters affecting NMU's that should be resolved.

11. Audit Team Statement

I certify that we have examined the drawings listed within **Appendix A** and that the site has been inspected. The examination has been carried out with the sole purpose of identifying road safety matters that can be addressed in order to improve the safety of the scheme.

The problems identified have been noted in the report together with associated safety improvement suggestions that we recommend should be studied for implementation.

I can confirm that we have not been involved with the scheme design.



Peter Ronald
(Audit Team Leader)

14th March 2021

Paul Salmon
(Audit Team Member)

14th March 2021

12. Appendix A – List of Documents

Drawings

Title	Drg No	Revision
Adopted roads master plan Architect drawing	1018-00-07-055	P02

Other Documents

13. Identified Road Safety Audit Matters location plan



14. Designer's Response to Stage 1 Road Safety Audit

Stage 1 (Feasibility) Road Safety Audit DESIGNER'S ROAD SAFETY AUDIT RESPONSE Scheme Name: Littlehampton Phase 5 S38		
The issues categorised in this road safety audit as 'Problem' matters are those causing serious concern and are summarised below. The purpose of this form is for the scheme Designer or Overseeing Organisation to respond to the 'Problem' matters. Responses should be returned to Traffic Management Consultants. 'Comments' in this report are made for the benefit of the Designer and are not referred to below.		
RSA Matter	Summary of RSA Problem	Designer's Response
8.1	Trees detailed adjacent to private parking area accesses within visibility splays	
8.2	Trees detailed within side road visibility splay	
8.3	No hardstanding adjacent to laybys	
8.4	Boundary fence /wall adjacent to layby	
8.5	Road narrowing opposite access to off road parking spaces	
8.6	There are several footways that will be used by cyclists to access the proposed shared use paths throughout the estate	
8.7	No pedestrian crossing points detailed across spine road between footways at junctions	
8.8	No pedestrian crossing point provided across spine road near bus stop	

8.9	No staging area at bus stops	
8.10	Footway ends abruptly on northern corner of junction	
8.11	No dropped kerb /tactile paved pedestrian crossing points provided at junctions within estate off spine road	
8.12	No facility to enable cyclists to access/exit the shared use path along the spine road from side roads on opposite side of road	

AUDIT TEAM RESPONSE

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