Transport Planning Associates

Client

NEWLAND HOMES

In respect of

COLLIN LANE, WILLERSEY

Stage 1 Road Safety and Mobility Audit

November 2015

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QUALITY MANAGEMENT SYSTEM REPORT APPROVAL SHEET

Project Details

Project Title:	Collin Lane, Willersey		
Report Title:	Stage 1 Road Safety Audit		
Project No:	1511-04	**Report No:**	RSA1
Client:	Newland Homes		

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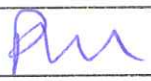
Signature			
Date	November 2015	November 2015	November 2015

Document Review

Revision	Date	Description	Checked By

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COLLIN LANE, WILLERSEY

1 INTRODUCTION

1.1 This report results from a combined Stage 1/2 Road Safety and Mobility Audit carried out at the request of Newland Homes for their proposed 50 Unit Residential Development off Collin Lane, Willersey, Gloucestershire. The development includes a priority junction bellmouth junction with Collin Lane to provide access, with a new footway along Collin Lane to provide a pedestrian link to Willersey village. The proposed junction is approximately 40m from the start of the 30 mph limit. The footway includes a new double build-out at the junction with Collin Close. The proposed on-site highways works comprise a 5.5m wide carriageway with segregated 2m wide kerbed footways. This leads to two culs-de-sac as a continuation both formed as a segregated kerbed footway/carriageway street and with one 120m long, 6.8m wide shared surface cul-de-sac accessed via an over-rideable footway.

1.2 The Audit Team membership was as follows:

P.C. Parker	BSc (Hons), CEng, MICE, MCIHT, FRSA, MSoRSA, HE CoC Consultant, Transport Planning Associates, Bristol
M. Prosser	MCIHT, MSoRSA, HE CoC. Associate Director, Transport Planning Associates, Cardiff

1.3 This Stage 2 Audit comprised an examination of the following drawings:

Newland Homes:	
715-141-1	External Works (1 of 3)
715-141-2	External Works (2 of 3)
715-141-3	External Works (3 of 3)
Carl Tonks Consulting:	
2014-F-005-001 - A	Swept Path Analysis
2014-F-005-001 - G	Proposed access arrangement

The Carl Tonks Consulting drawings only include a footway into the site on the East side only and the proposed bellmouth layout does not align with the on-site layout. The Carl Tonks Drawings have therefore been considered in relation to the works in Collin Lane only.

In addition the following information to assist the Audit was provided:

- The recorded 85% traffic speeds in Collin Lane in both directions is 45mph.
- The average 7-day vehicle flow is 1200 vpd in each direction. The vehicle class distribution is OGV1 = 15%, and the OGV2 = 1%.
- 5 year accident data for the period 1 January 2009 – 31 December 2013 was provided. No injury accidents were recorded in Collin Lane in the vicinity of the site. The nearest recorded accidents occurred at the junction with Lower Green.

1.4 A visit to the site was made by the Audit Team together at 12pm-12.30pm on 3rd November 2015. During the site visit it was cloudy but dry, and the road surface was dry.

1.5 No Departures from Standards were advised.

1.6 The terms of reference of the Audit are as described in Design Manual for Roads and Bridges HD 19/15 and Manual for Gloucestershire Streets.

1.7 The Audit team has examined and reported only on the road safety implications of the scheme as presented and has not examined or verified the compliance of the design to any other criteria.

1.8 Gloucestershire County Council procedures presently also require a quantified assessment of risk associated with any safety issues detailed within an Audit Report which is included as **Appendix A.**

2 ITEMS RAISED AT THIS STAGE 1 AUDIT

2.1 PROBLEM

Location: Collin Lane Eastbound approach to the proposed junction.

Summary: There is a 30 mph speed limit approximately 40m from the proposed junction. This limit is at the end of a derestricted speed section. The recorded 85% speeds of 45 mph are considerably in excess of the posted speed limit. Although the visibility splays noted on the drawings are satisfactory for the recorded speeds there remains the risk that vehicles emerging from the site will underestimate these approach speeds with the risk of accidents with turning vehicles.

RECOMMENDATION

It is recommended that the site of the 30 mph limit is visually reinforced within the existing verge to provide a village entry point, with appropriate 'Willersey' village signage and gateway features to assist reduction of speeds to within the posted limit.

2.2 PROBLEM

Location: Proposed Collin Road build-outs.

Summary: The build-outs proposed will further help reinforce appropriate vehicle speeds in Collin Lane but the fast approach from the West will have the give way markings on the nearside with the build-out located on the offside. Vehicles entering the village at speed may not recognise or concede priority at the give way markings with the risk of head-on collisions with vehicles leaving the village who will have assumed they have priority.

RECOMMENDATION

Relocate each of the proposed build-outs to the opposite side so that each build-out is located on the nearside at the give way mark locations to be consistent and reinforce the requirement to give way.

2.3 PROBLEM

Location: Collin Lane footway from the development to provide pedestrian link to Willersey Village East of Collin Close.

Summary: The proposed footway appears to be constrained by the existing hedge at the East end. It appears that the proposed width of 1.5m might not be accommodated within the existing verge. If the footway is too narrow pedestrians might be forced into the carriageway, with the risk of being struck by passing vehicles.

RECOMMENDATION

Engineer the proposals onto a topographic survey to confirm the detailed realignment of the existing kerbline that will be required to deliver the required footway width. This can be considered further at Stage 2 detailed design.

2.4 PROBLEM

Location: Proposed footway in Collin Lane along the 'Hopefield' frontage.

Summary: There is an existing ditch in the vicinity of the proposed back edge of the footway that may require the proposed footway width to be reduced to 1.5m. Pedestrians may step off the edge of the footway with the risk of injury.

RECOMMENDATION

Consider proposed levels, the width of the proposed footway, and the back edge in more detail to confirm that the proposed construction does not introduce a step-off hazard. This can be considered further at Stage 2 detailed design.

3. MOBILITY ISSUES

3.1 Location: Visibility between back of footway and driveways, generally through the site.

Summary: Intervisibilty between pedestrians walking closely to the rear edge and vehicles emerging from driveways may be constrained by plot boundary treatments with the risk that pedestrians may be struck by emerging vehicles eg units 34,35.

RECOMMENDATION

Check throughout the site during detailed design to ensure plot boundary treatments allow a minimum 2m x 2m splay with no greater than 600mm high walls within the splay, or an open see-through fence is specified.

4. OTHER ISSUES

4.1 It is noted that the existing footway in Collin Lane between the end of the proposed footway and the village centre is in places less than 1m wide.

Existing Collin Road footway East of Collin Close

4.2 It is recommended that the tracking of vehicles between existing entrances in Collin Lane and the proposed build-outs are checked during detailed design to ensure the required manoeuvres can be achieved.

4.3 It is recommended that the existing Hopefield boundary hedge at the corner of the development exit bellmouth radius is considered in more detail to ensure that it can be constructed within the space available.

APPENDIX A – RISK ASSESSMENT

The assessment below has been determined using the following Risk Assessment Matrix

		Frequency of Collision			
		More than one per year	One every 1-4 years	One every 5-10 years	Less than one per 10 years
Severity	Fatal	Very High	High	High	Medium
	Serious	High	High	Medium	Medium
	Slight	High	Medium	Medium	Low
	Damage	Medium	Medium	Low	Low

Problem 2.1 This is assessed as MEDIUM Risk based on one Slight accident every 5-10 years.

Problem 2.2 This is assessed as MEDIUM Risk based on one Serious accident every 5-10 years.

Problem 2.3 This is assessed as LOW Risk based on one Slight accident >10 years.

Problem 2.4 This is assessed as LOW Risk based on one Slight accident >10 years.

AUDIT TEAM STATEMENT

I certify that this audit has been carried out with reference to HD 19/15.

AUDIT TEAM LEADER

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Signed.....

Date.....10 NOVEMBER 2015

AUDIT TEAM MEMBER

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