



STAGE 2 ROAD SAFETY AUDIT

Proposed access improvements, Scammell Lodge,
Friningham, Kent on Behalf of Bellamy Roberts

Date: February 2023
Issue No. 1



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1.0 INTRODUCTION

- 1.1 This *Stage 2 Road Safety Audit* has been prepared by Cole Easdon Consultants Limited (CE) on behalf of Bellamy Roberts.

Scope of Study

- 1.2 This *Stage 2 Road Safety Audit* Report identifies safety concerns and recommendations with respect to the proposed improvements at Scammell Lodge, Friningham, Kent. The *Stage 2 Road Safety Audit* has been carried out independently by Paul Salmon (Audit Team Leader) and Caroline Shakespeare (Audit Team Member) both of Cole Easdon Consultants. The Audit Team has had no involvement in the design of the scheme being audited or discussed any safety concerns raised in the Report with members of the Design Team.

Audit Site Visit and Plan Examination

- 1.3 A site visit was undertaken by the Audit Team on Monday 6th February 2023 at 1.30pm. Weather conditions were dry and bright. The road surface was dry. Traffic flows were moderate. There was no pedestrian or cyclist movements observed. The Audit also comprised an examination of the following Bellamy Roberts drawings:

- 5362/1001 General Arrangement
- 5362/1002 Signs and AutoTRACK Profiles
- 5362/1003 Long Profiles
- 5362/1004 Design Details
- 5362/1005 Design Details
- 5362/1006 Standard Construction Details

A copy of the Bellamy Roberts *Transport Statement* was also supplied for information.

- 1.4 This Report comments only on issues raised in carrying out the *Stage 2 Road Safety Audit*. The Auditors have examined and reported only on the road safety implications of the scheme arising from the site visit and review of the drawings referred to above. The Auditors have not examined or verified the compliance of the design with any other criteria.
- 1.5 Personal injury accident data from 2017 to 2019 (three years) was supplied as part of the *Transport Statement* for consideration within this Audit. No accidents have occurred along the length of the west-bound carriageway of the A249 Sittingbourne Road that is considered within this audit report.

- 1.6 Copies of all Road Safety Audits must be retained. All comments and recommendations must be investigated, subsequent decisions/actions must be logged, and a formal record kept of all responses.
- 1.7 It is the Project Sponsor's responsibility to advise the Audit Team Leader if any Problem / Recommendation is not accepted. The Project Sponsor should then supply a copy of each signed Exception Report to the Audit Team Leader, for information.
- 1.8 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 – Road Safety Audit from the Design Manual for Roads & Bridges*.

2.0 AUDIT BRIEF

- 2.1 The Audit Team were not provided with an audit brief as approved by the overseeing local authority.
- 2.2 The project relates to the proposed access improvements to the existing access to Scammell Lodge, Friningham, Kent. The existing access forms a left in / left out junction with the southbound lane of Sittingbourne Road (A249), the access to the lodge is a single lane track, unsurfaced for most of its length.
- 2.3 The proposals include a widening of the existing junction with Sittingbourne Road, addition of a 100m on-slip lane from the access, shortening of the existing off-slip lane for the junction to the west for White Horse Wood Country Park by approximately 20m, relocation of existing highway signs, and provision of additional road markings.
- 2.4 Sittingbourne Road (A249) is a two-lane dual carriageway road and is subject to the national speed limit (70mph) along the area to be audited.
- 2.5 The scheme is to facilitate access to a development of 1,035m² of light industrial floorspace, which, according to the aforementioned *Transport Statement*, will increase the traffic generation of the site to 71 vehicles per day. It is further understood that the associated redevelopment site has permission to provide 810m² of light industrial floorspace without a requirement for any highway works and that the current proposals will generate an additional 17 vehicular movements per day.
- 2.6 A stage 1 road safety audit for this scheme was undertaken in November 2021. A number of problems were raised, a designer's response was produced with the document having been discussed with Kent County Council as the adopting highway authority.

3.0 VEHICULAR & HIGHWAY ASPECTS OF DESIGN

Safety Concern

3.1 Location: Proposed access

Summary: Risk of collision

The existing access of Scammell Lodge lies to the west of a petrol filling / service station on the A249. There would appear to be 100m or less separation distance between the exit of the petrol filling station and the entry to the existing access of Scammell Lodge. During the site visit there were no observed movements to or from Scammell Lodge, save for the Audit Team vehicle. There was, however, considerable movement from the petrol filling station. As mentioned in the *Transport Statement*, the exit slip road from the petrol filling station serves as the entry slip to the access to Scammell Lodge. The *Transport Statement* makes reference to 'consented use' not current use; therefore the Audit Team are unaware if this access is currently in use on a regular basis. This length of shared on-slip / off-slip is not of sufficient length to allow 'weaving' between the two locations. Vehicles leaving the petrol filling station using the merge taper may have difficulty entering the main carriageway should vehicles already travelling on the A249 attempt to leave the A249 to enter the proposed access arrangement. This may result in side swipe collisions or one or both vehicles coming to a complete halt with the risk of being struck from following vehicles. There is a similar arrangement opposite in the eastbound carriageway of the A249 and it is noted from a review of the Crashmap.co.uk website that there has been a fatal accident in 2018 where the on-slip from the petrol filling station meets the adjacent priority access.

Recommendation

3.1.1 Apply for a Departure from Standard for the sub-standard arrangement.



Photograph 3.1: Exit from adjacent petrol filling station

Safety Concern

- 3.2 Location: Proposed exit
Summary: Risk of vehicle collision

A merge taper has been proposed as part of the amendment to the existing access. This merge taper has little separation from the diverge taper for the slip road access off-slip lane for the junction to the west for White Horse Wood Country Park that lies to the immediate west of the Scammell Lodge access. It is also noted that this proposed merge taper is below *Design Manual for Road and Bridges* standards. Vehicles using the merge taper may have difficulty entering the main carriageway due to vehicles already travelling on the A249, particularly those who are slowing down to enter the adjacent White Horse Wood Country Park junction, causing the merging drivers to have to stop in the merging lane. These merging drivers will then find themselves having to use side mirrors or look over their shoulder to judge when it is safe to enter the main carriageway from a standing start.

Recommendation

- 3.2.1 Apply for a Departure from Standard for the sub-standard arrangement.

Safety Concern

- 3.3 Location: Proposed access
Summary: Risk of vehicle collision

Swept path analysis at the proposed access has been provided to the Audit Team. This swept path analysis does not indicate if a vehicle can enter the access road with a large vehicle turning

out. Should a vehicle have to wait an extended period of time to enter Sittingbourne Road due to high volumes of traffic (peak hours) and a vehicle that wishes to enter the access cannot do so and must wait to enter the junction, it may be struck by a vehicle passing on the A249 or a vehicle leaving the petrol filling station that is using the on-slip lane.

Recommendation

- 3.3.1 Undertake swept path analysis to determine if two vehicles can pass at the access. If it is not possible for two vehicles to pass, widen the proposed access sufficiently to allow this movement.

4.0 STREET LIGHTING

Commentary

- 4.1 No street lighting scheme has been provided to the Audit Team for consideration within this audit.

5.0 ROAD MARKINGS & SIGNAGE

Safety Concern

5.1 Location: Access

Summary: Risk of head-on collision

The access to Scammell Lodge is a priority junction with A249 Sittingbourne Road. The A249 is a two-lane dual carriageway with a central reservation along the length subject to this audit. Signage has not been proposed to inform drivers leaving Scammell Lodge that they may only turn left onto the A249 and that it is a dual carriageway. Although the driver of a vehicle that enters the existing access would be aware of the dualled carriageway nature of the A249, a visitor unfamiliar with the area or a driver wishing to access the fuel filling station, may attempt to turn right out of the access into the path of opposing traffic with the risk of a head-on collision.

Recommendation

5.1.1 Provide left turn sign with a dual carriageway plate opposite the access.

6.0 SURFACE WATER DRAINAGE

Commentary

- 6.1 No proposed amendments or additions to the existing highway drainage scheme have been provided to the Audit Team for consideration within this audit. It would appear that the existing drainage will be retained.

7.0 EMERGENCY ACCESS

Commentary

- 7.1 No swept path analysis of emergency vehicles has been provided to the Audit Team for consideration within this audit.

8.0 AUDIT STATEMENT

- 8.1 We certify that the drawings and other items listed have been examined with the objective of identifying any features of the design at the *Stage 2 Road Safety Audit* stage that could be removed or modified in order to improve the safety of the scheme. Issues identified have been noted in this Report together with any associated safety suggestions; these are recommended for consideration and implementation. Prior to the request to carry out this Audit, we have not been involved in the detailed design of this scheme.

Cole Easdon Consultants Limited
February 2023

9.0 DESIGNER'S & AUDITOR'S RESPONSE TO STAGE 2 ROAD SAFETY AUDIT

9.1 The issues categorised in this road safety audit as a 'Safety Concern' are those causing serious concern and are summarised below. The purpose of this Section is for the scheme Designer or Overseeing Organisation to respond to the 'Safety Concerns'. Responses should be returned to Cole Easdon Consultants Limited. 'Commentary' points in this Report are made for the benefit of the Designer and are not referred to below.

Stage 2 Road Safety Audit - Designer's Road Safety Audit Response:

Safety Concern Reference No	Summary of Road Safety Concern	Designer's Response
3.1	Clash of on-slip with off-slip	Agree – A Departure from Standard will be applied for as part of the details submission.
3.2	Insufficient weaving length	Agree – A Departure from Standard will be applied for as part of the details submission.
3.3	Vehicles unable to pass at access.	Tracking will be undertaken to ensure a large goods vehicle (pantehnicon) and car can pass safely at the site access. Due to the nature of the development, a pantehnicon is the largest vehicle expected to use the site access.
5.1	Missing left turn and dual carriageway signage	Agree – A left turn sign will be placed opposite the site access.

Adopting Authority Response:

Safety Concern Reference No.	Adopting Authority Response
3.1	
3.2	
3.3	
5.1	

Audit Team Response (If required):

Safety Concern Reference No.	Audit Team Response
3.1	
3.2	
3.3	
5.1	

Appendix 1

Audit Reference Plan

