



Sevenairs Consulting Ltd

Former Tollgate Hotel, Gravesend, Kent

Road Safety Audit Stage 1

August 2025



Document Control

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Former Tollgate Hotel, Gravesend, Kent – Road Safety Audit Stage 1

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Report Prepared By:

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On behalf of

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Highway Authority / Overseeing Organisation

National Highways

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Document History:

Revision	Date	Description	By
0	12.08.2025	For Issue	HV
1	26.08.2025	Updated statement	HV

Introduction

Commissioning and Scope

This report results from a Stage 1 Road Safety Audit carried out at the site of a commercial development off the A2 trunk road known as the Former Tollgate Hotel in Gravesend, Kent. The audit was carried out at the request of Jenny Baker, Director, Markides Associates on behalf of the developer of the site.

The Road Safety Audit team membership was as follows:

The Audit Team	Haydn Vernals FCIHT FIHE CMILT MSoRSA Directive 2008/96/EC (Certificate of Competency), Road Safety Team Leader in accordance with GG119
	Sarah Vernals BAHonsQTS NPQH, Road Safety Team Member in accordance with GG119
Audit Observers	None

The main project comprises of a commercial development providing a new 12-bay petrol filling station and 24-space EV charging facility on the former Tollgate hotel site. Highway works include an interim capacity improvement scheme for the westbound off slip of the A2. Specifically, changes to lane markings on the approach and around the roundabout circulatory and provision of new lane use direction signs to facilitate traffic turning right in two lanes. The scope of this Road Safety Audit is to review the proposed highway works.

The audit has been carried out in accordance with the principles of the National Highways document GG 119 Road Safety Audit. A formal Road Safety Audit Brief was provided to the Audit Team by Jenny Baker, Director, Markides Associates. This provided information regarding the site relevant scheme documents, drawings and contained details of the Road Safety Audit team. The brief was approved by Nigel De Wit, National Highways. This was considered by the Audit Team to provide sufficient detail to undertake the appropriate stage of audit. The audit team formally accept the brief.

The audit also comprised of a desk-top study where all documents and plans provided by the Design Team were reviewed. No departures from standard have been brought to the attention of the RSA team with regard to the scheme as designed.

Site Visit Attendance

A site visit took place comprising of the RSA team on Thursday 31st July 2025 between 11:30 and 12:00 hours during which the weather was overcast and the road surface generally dry with damp patches on lesser trafficked areas. Traffic conditions were moderate but free flowing with a no pedestrians or cyclists observed.

Documents Supplied

- Email proposal background
- 22052-MA-XX-DR-C-0102 P06 – Roundabout sign and road markings proposal
- Site Location and Mitigation Location

- A2 Highway Boundary
- EV005-PS-LAY-000-GB00015044-0005-002_B01 Proposed Site Layout 1-500 Rev G
- Transport Assessment and Addendum
- Response to KCC and NH
- Agreed Capacity Modelling Assessment (Mitigation)
- 22052-MA-RP-WCHAR01 Former Tollgate Hotel WHCAR Assessment Rev B

Terms of Reference

The terms of reference of this Road Safety Audit are as described in the National Highways document GG119 Revision 2 Road Safety Audit. 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 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 for information only. No member of the Audit Team has been directly linked to the scheme design.

Each of the auditors' responses is classified as a 'Problem' that is likely to result in a significant road safety hazard. All comments and recommendations are referenced to the detailed design drawings and the locations have been indicated on the plan at the end of the report.

Where recommendations are made, these do not comprise design decisions, and it remains the responsibility of the Design Team to incorporate any changes into the scheme and consider any interactions between design elements.

Previous Road Safety Audits

The audit team have not been made aware of any previous Road Safety Audits.

Problems Raised at this Stage 1 RSA

PROBLEM – A-01

Location: A227 Wrotham Road – Southern Roundabout.

Summary: Roundabouts – Lack of lane use clarity in the carriageway markings may increase the risk of collisions on the circulatory carriageway.

Observations at the roundabout noted that drivers turning right from the southbound approach towards the A2 westbound on-slip had a tendency to follow the kerb line of the central roundabout island. The proposals seek to encourage drivers turning right from the A2 westbound off-slip to form two lanes. This arrangement may increase the risk of a collision on the circulatory carriageway at the exit for the A2 westbound on-slip. In this scenario, a slower moving vehicle turning towards the A2 westbound on-slip could be overtaken by a faster moving vehicle turning right from the A2 westbound off-slip. A lack of lane use clarity in the carriageway markings may increase the risk of collisions on the circulatory carriageway.

RECOMMENDATION

It is recommended that a spiral arrangement is provided for vehicles turning right onto the A2 westbound on-slip to direct drivers from the offside (lane 2) on entry to the roundabout to the nearside (lane 1) as they exit onto the A2 westbound on-slip.

PROBLEM – A-02

Location: A2 Westbound off-slip.

Summary: Direction Signs – Location of the lane use sign may increase the risk of a collision with a stationary vehicle on the hard shoulder.

A lane use direction sign is proposed on the slip road verge. This indicates two lanes and is located about 120m in advance of the development of two lanes on the carriageway. Drivers approaching this sign may observe this sign potentially over 200m from the development of two lanes and mistake the hard shoulder for a live lane. This could be a problem, especially for tired drivers or drivers unfamiliar with UK carriageway markings, i.e. those travelling from mainland Europe. The location of the lane use sign may increase the risk of a collision with a stationary or broken-down vehicle on the hard shoulder.

RECOMMENDATION

It is recommended that the lane use sign is located closer to the point where the slip road widens into two lanes without compromising visibility to the give way line.

PROBLEM – A-03

Location: A2 Westbound off-slip.

Summary: Direction Signs – Lane use sign information may increase the risk of lane change collisions under the bridge structure and on the northern roundabout.

A lane use direction sign is proposed on the slip road verge. This indicates two lanes for Gravesend, the A227(N) and the services. However, drivers seeking the services would be required to change lanes under the bridge or on the northern roundabout to make a right turn into the services. This may increase the risk of collisions involving lane changes under the bridge or on the northern roundabout.

RECOMMENDATION

It is recommended that the word “Services” is used for the right lane only and that the text is relocated above the right lane arrow on the sign.

PROBLEM – A-04

Location: A2 Westbound off-slip.

Summary: Poles / Columns – Insufficient provision for secondary collisions involving errant vehicles may increase the injury severity.

Should the recommendation in Problem A-02 be taken up, the proposed sign location is likely to be placed where no road restraint system is provided. Should the recommendation in Problem A-02 be rejected, then the proposed sign location would be behind a road restraint system that is provided specifically for the existing roadside cabinet and not a sign support structure. Insufficient provision for secondary collisions involving errant vehicles may increase the injury severity for the errant vehicle occupants and/or other road users in the path of an errant vehicle.

RECOMMENDATION

It is recommended that a passively safe sign support structure is provided.

PROBLEM – A-05

Location: A2 Westbound off-slip and A227 Wrotham Road Roundabout

Summary: Carriageway Markings – Use of text rather than arrows

Whilst the provision of carriageway arrows or text is often useful for drivers, there is the risk here that the proposed inclusion of the ahead arrows may be confusing for drivers. This is especially a problem when used on a circulatory carriageway such as proposed, where the ahead arrows could direct drivers from both lanes into the single lane A2 westbound on-slip. An alternative arrangement of worded destinations is likely to be easily confused with such as A227(S) and A227(N) also unlikely to fit in the available carriageway width and potentially increasing the risk of a loss of control type collision for a powered two wheeler on the worded markings that would be placed at a point where these users may be banked over whilst negotiating the entry curve to the roundabout.

RECOMMENDATION

It is recommended that the carriageway arrow markings or any alternative worded markings are omitted from the proposals.

Audit Team Statement

We certify that this Road Safety Audit has been carried out in accordance with GG119.

Road Safety Audit Team Leader

Haydn Vernals FCIHT FIHE CMILT MSoRSA
Directive 2008/96/EC (Certificate of Competency)

Director – Sevenairs Consulting Ltd.
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South Yorkshire, S36 9QH

Signed:



Date: 26th August 2025

Road Safety Audit Team Member

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Signed:



Date: 26th August 2025

Problem Location Plan

