



Economy, Transport and Environment Department

Technical Guidance Note TG18 - Road Safety Audits

Revision	Date of Issue	Amendment Description	Prepared By	Approved/ owned by
0	3/12/18	Initial Publication	Steve Willoughby	Matt Cheal
1	05/05/20	Update following publication of GG119	Steve Willoughby	Matt Cheal

Amendments are indicated by a bar in the left hand margin

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1. Introduction

- 1.1. This Technical Guidance Note describes the process for the management of Road Safety Audit in Hampshire on all highway schemes for which the County Council is or is likely to become responsible for as the Highway Authority.
- 1.2. A Road Safety Audit is a formal independent assessment of the potential road safety problems associated with a new road or road improvement scheme. A Road Safety Audit is carried out at various stages during the design process and following construction. The assessment should consider the safety of all road users, particularly vulnerable users such as pedestrians and pedal cyclists.
- 1.3. A Road Safety Audit should consider **only** those matters that have an adverse effect on road safety. It is **not** a technical check on highway design standards or a check on whether the scheme has been constructed in accordance with the design. The objective is to identify where a potential collision may occur on the highway as a result of the proposed works and recommend what can be done to reduce the potential for that collision or to limit its consequences.
- 1.4. Road Safety Audits should be carried out by suitable qualified practitioners who are experienced in road safety engineering (see 4.4), with a background in understanding how collisions happen and how to reduce them.
- 1.5. The Road Safety Audit findings are contained in a formal Road Safety Audit Report that describes the road safety related problems and recommended solutions to those problems.

2. Policy / Approach

- 2.1 The Design Manual for Roads and Bridges general requirement document GG119 sets out the requirements for Road Safety Audits (RSAs) on the motorway and trunk road network. Although Road Safety Audit is not mandatory on local roads, this process has been accepted nationally as best practice and as a mechanism for local highway authorities to demonstrate they fulfil part of their statutory duty for road safety under the Road Traffic Act 1988. This act places a duty on local highway authorities to take appropriate measures to reduce the possibilities of collisions occurring when new roads come into use.
- 2.2 The RSA process is well established in Hampshire and has been tailored to meet local requirements without compromising the principles of GG119. Where HCC is the Local Highway Authority GG119 shall apply with the following variations:

GG119 Para No.	Permitted Variation from GG119
5.16	An option for a feasibility stage Road Safety Audit has been included.
5.31 & Table 5.42	During the Stage 3 Road Safety Audit daylight site visit, the Audit Team will decide whether a night-time audit is required and the decision shall be recorded within the Stage 3 Road Safety Audit Report.
5.16 & 5.32	Stage 4 Road Safety Audits will not routinely be required but may be requested if HCC is made aware of potential safety issues. For Developer led schemes, an accident report covering the period since the Stage 3 Audit shall be submitted at the end of the maintenance period. If any injury accidents have occurred during that period, a Stage 4 Safety Audit Report will be required.
4.22	Amend "5 years old" to "2 years from the date the audit was undertaken".
4.2 & 4.3	The Road Safety Audit Brief does not require formal approval by the Project Sponsor and may be issued to the Safety Audit Team directly from the Design Team, with a copy to the Project Sponsor/Scheme Promoter.
4.7	The Road Safety Audit Report may be sent directly from the Road Safety Audit Team to the Design Team, with a copy to the Project Sponsor/Scheme Promoter.
4.15 to 4.18	The RSA Response Report shall not include a decision log. It shall be completed in accordance with section 4.7 of this TG. If a problem and/or recommendation is not accepted, an exception report is required as described in section 4.8 of this TG.

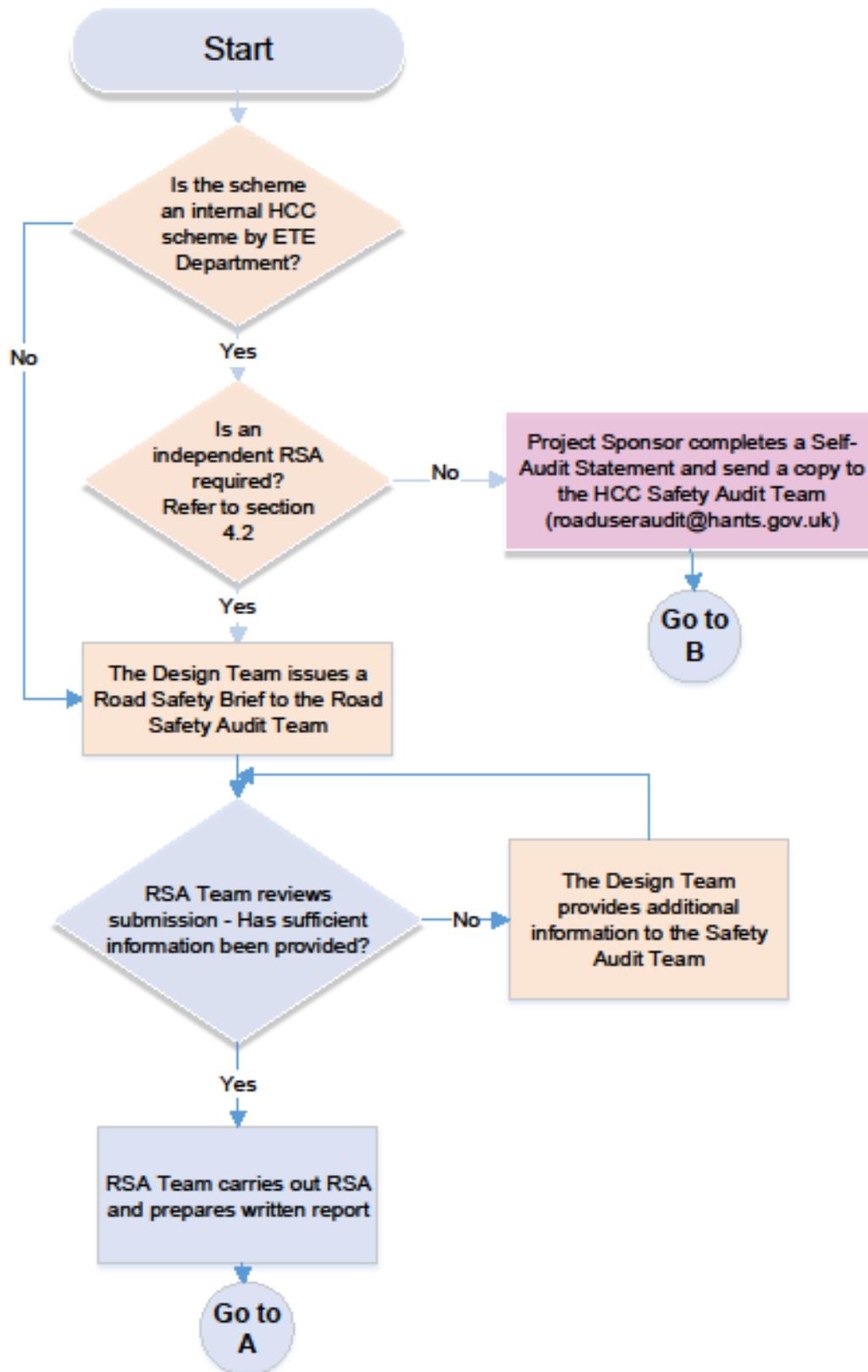
3. Definitions and Abbreviations

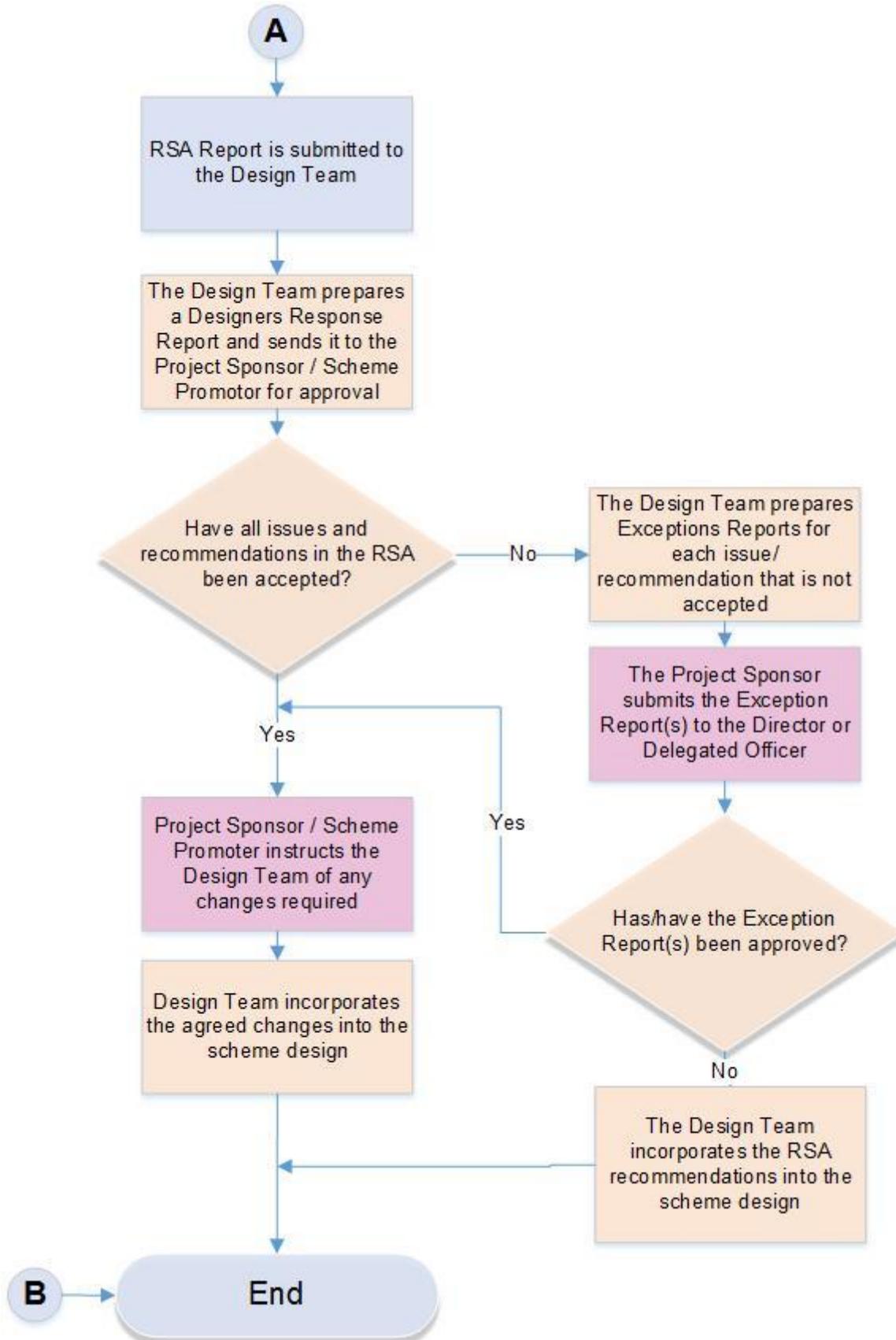
Overseeing Organisation	Hampshire County Council (HCC)
Design Organisation	The organisation commissioned to undertake the various phases of scheme preparation. This may be HCC, a term consultant, a district council or a developer's consultant.
Design Team	The group within the Design Organisation undertaking the scheme preparation.
Director	The County Council's Director of Economy, Transport and Environment.
Project Sponsor	A person within the County Council who is responsible for ensuring that the scheme progresses in accordance with the county's policies and procedures, ensuring compliance with the requirements of this guidance note. This is normally the Client. For private developer led schemes this would be the Highway Development Agreements (HDA) Client but may be delegated to the HDA Team.
RSA	Road Safety Audit
Road Safety Audit Team	A team that work together on all aspects of the Road Safety Audit. Refer to section 4.4 for required qualifications.
Safety Audit Brief	The instruction to the Road Safety Audit Team defining the scope and details of the scheme to be audited. The Brief must give details of any Relaxations or Departures included within the design proposals.
Safety Audit Report	A report produced by the Road Safety Audit Team that describes the road safety related problems identified by the Safety Audit Team and the recommended solutions to those problems.
Scheme Promoter	The Developer (for developer led schemes).
Road Safety Audit Response Report	A report produced by the Design Team that responds to the problems and recommendations made in the Safety Audit Report.

Exceptions Report	A report containing clear reasons why a problem and/or recommendation identified in the audit report is not accepted.
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4. Management of Road Safety Audits

4.1. Road Safety Audit Process Flowchart





4.2. Determining if a Road Safety Audit is required

- 4.2.1. Where the scheme involves physical changes to the highway that may have an impact on road user behaviour or change the outcome of a collision, RSAs at the appropriate stages of the project are required.
- 4.2.2. If the Project Sponsor considers that the proposed scheme is only a minor change to the existing highway layout and will not have an impact on road user behaviour or change the outcome of a collision, they may choose to exclude it from the Road Safety Audit process. In this case the Project Sponsor shall complete the Self-Audit Statement (Appendix A), including countersigning by the Team Leader, and send a copy to the HCC Safety Audit Team.
- 4.2.3. Self-Audits shall **not** be permitted on developer led schemes. For these schemes, RSAs must be undertaken as indicated in the appropriate S38 or S278 design stage check lists.
- 4.2.4. If the proposed scheme is for maintenance purposes only and is replacing like-for-like, RSAs are not required.

4.3. Stages of Road Safety Audit

- 4.3.1. Road Safety Audits shall be carried out at the following stages:

Feasibility Stage F - This stage of audit is not compulsory but may be carried out prior to any preliminary design work to consider the various options available to satisfy the scheme brief.

Stage 1 – This stage should be initiated on completion of the preliminary design.

For developer led schemes a Stage 1 RSA should be undertaken before planning consent is applied for (refer to GG119 5.46.1).

Stage 2 - This stage should be initiated on completion of the detailed design and prior to issuing the contract and tender documents such that any recommendations can be incorporated into the scheme design.

Combined Stage 1/2 – For small scale schemes that progress directly to detailed design, a Combined Stage 1/2 RSA should be initiated.

Stage 3 - This stage should be initiated either prior to opening of new lengths of road or when an improvement scheme has been substantially completed. It should involve a representative from the site supervision team (where appropriate) and the Police.

For developer led schemes a representative from the HCC Design Audit Team must also attend the Stage 3 Safety Audit.

For new traffic signal junctions an interim Stage 3 Audit should be completed prior to the signals being switched on. Should the highway works be opened to public use prior to the completion of all the signs, road markings and street lighting, then an Interim Stage 3 Audit will also be required.

A final Stage 3 Audit must still be undertaken once all works (including signs, road markings and street lighting) have been completed. At new traffic signal junctions, a final Stage 3 Audit should be undertaken around 2 weeks after the signals have been switched on.

Stage 4 – This Stage will not routinely be required but may be requested if HCC is made aware of potential safety issues.

For Developer led schemes, an accident report covering the period since the Stage 3 Audit shall be submitted at the end of the maintenance period. If any injury accidents have occurred during that period, a Stage 4 Safety Audit Report will be required.

4.4. Road Safety Audit Team

- 4.4.1. The RSA Team shall comprise a minimum of two persons (a Team Leader and Team Member) and must be independent from the highway scheme conception, design, construction and operation. They shall comply with the training, skills and experience requirements of GG119 table 3.8.2 as shown below:

	RSA Team Member	RSA Team Leader
Training	10 Days of formal collision data analysis or road safety engineering /road design training.	10 Days of formal collision data analysis or road safety engineering /road design training.
CPD	A minimum of 2 days CPD in the field of RSA, Collision data analysis or road safety engineering in the last 12 months.	A minimum of 2 days CPD in the field of RSA, Collision data analysis or road safety engineering in the last 12 months.
Experience	2 years of collision data analysis or road safety engineering/road design experience.	4 years of collision data analysis or road safety engineering/road design experience.
	5 RSAs completed within the last 24 months as a member or observer.	5 RSAs completed within the last 12 months as a member or observer.

- 4.4.2. In addition to these requirements, at least one individual within the RSA team must hold a Certificate of competency in Road Safety Audit (GG119 3.9).
- 4.4.3. The RSA Team must demonstrate their competency by means of a road safety specific curriculum vitae. For developer led schemes, approval of the RSA Team shall be given by the HCC Highway Development Agreements Team.

4.5. Road Safety Audit Brief

- 4.5.1. The Design Team shall be responsible for ensuring that a Safety Audit Brief is prepared and issued to the RSA Team. The Brief must include sufficient information for an effective road safety audit to be carried out (Refer to GG119 Appendix C). This shall include accident data and information regarding any associated Departures and Relaxations.
- 4.5.2. For HCC internally audited schemes use the RSA Brief proforma in Appendix B.
- 4.5.3. For HCC internally audited schemes the RSA Brief and associated documents/drawings should be emailed to roaduseraudit@hants.gov.uk.
- 4.5.4. If the RSA team considers that the brief is insufficient for their purpose, they shall request further information. Any information requested but not supplied to the RSA team will be identified in the introduction to the RSA report.

4.6. Road Safety Audit Report

- 4.6.1. The RSA Team shall prepare an RSA Report in accordance with the requirements and standard format given in GG119 Appendix D.
- 4.6.2. It is the responsibility of the Project Sponsor to ensure the appropriate Road Safety Audit is repeated if the scheme design materially changes, or if there are a number of minor changes which could together impact on road user safety.

4.7. Road Safety Audit Response Report

- 4.7.1. It is the Project Sponsor's (Internal schemes) / Scheme Promoter's (developer led schemes) responsibility to ensure that all problems raised by the RSA Team are given due consideration. To assist with this the Design Team must prepare an RSA Response Report for the problems and recommendations contained in the RSA Report.
- 4.7.2. For each item raised in the RSA Report, the Design Team must indicate if they agree or disagree with the problem that has been raised and/or the recommendation that has been given. If the Design Team chooses to disagree with a problem and /or recommendation they must give appropriate reasoning for their decision.

- 4.7.3. For HCC internally audited schemes a blank RSA Response Report is attached to the RSA Report. For externally audited schemes a Response Report template is provided in Appendix C.
- 4.7.4. For internal schemes, the RSA Response Report shall be signed by both the Design Team and the Project Sponsor. For developer led schemes, it shall be signed by the Design Team and the Scheme Promoter. See section 3.
- 4.7.5. All recommendations that have been accepted shall be incorporated into the scheme design. The RSA Response Report will initiate the requirement for an Exception Report where a problem and/or recommendation has not been accepted.

4.8. Exception Report

- 4.8.1. Where the Project Sponsor/Scheme Promoter doesn't accept a problem raised in the Road Safety Audit Report or where they propose not to incorporate a recommendation made by the Road Safety Audit Team, an Exception Report shall be prepared detailing the reasons why it has not been accepted.
- 4.8.2. The Exception Report proforma is provided in Appendix D. For HCC promoted schemes it may be prepared by either the Design Team or the Project Sponsor, and for developer led schemes it may be prepared by the Design Team or the Scheme Promoter. The Exception Report should give clear and concise reasons why the problem and/or recommendation will not be accepted.
- 4.8.3. If an RSA has more than one exception, then each Exception must be considered and approved separately.
- 4.8.4. The Project Sponsor shall submit the Exception Report to The Director, or a delegated officer, with whom the final decision rests. If the Exception Report is rejected, the Project Sponsor/Scheme Promoter shall implement the Audit recommendation.
- 4.8.5. A copy of the approved Exception Report should be provided to the Safety Audit Team for their records.

4.9. Incorporating Safety Audit Recommendations

- 4.9.1. The Project Sponsor shall be responsible for ensuring that both the RSA Report recommendations and any subsequent decisions made through the exceptions process are incorporated into the scheme design.

5. Further Support

- 5.1. Should you have a specific query or feedback about any of the content of this Technical Guidance Note, please send an email to Technical.Guidance@hants.gov.uk with the start of the email title as "TG18 – " .
- 5.2. Should you have a query about applying this to your particular project, please contact:
- the Design Audit Engineer dealing with your S278 or S38 application (if you are a Developer or Developer's Consultant)
 - the Technical Guidance Note Specialist(s) (if you are a working within Hampshire County Council)

Checklist – Feasibility Stage Safety Audit

General

- Consistency of standards with adjacent road network, especially at tie-ins.
- Secondary effects on surrounding road network.
- Where a preferred scheme is being chosen, relative safety performance of options.

Routes

- Impact of standard of route, related to design flows and speed, on safety.
- Overtaking opportunities.
- Consistency of junction arrangements, access control.
- Frequency of junctions (public and private) related to safe access.
- Horizontal and vertical alignments consistent with visibility requirements, both along the road and at junctions.
- Facilities for pedestrians, cyclists and equestrians.
- Provision for unusual aspects of traffic composition (heavy concentrations of particular types of road users), or environment (e.g. sunrise/sunset glare, fog or wind).

Area Schemes

- Designations of functions for different elements of the road hierarchy.
- Scheme consistent with overall urban safety plan

Checklist - Preliminary Design Stage Safety Audit

General

- Review any previous audit in order to allow for subsequent design changes.
- For major schemes, determine need for land take for safety requirements.

Alignments and Sight lines

- Any elements of horizontal and vertical alignments which may produce hazards due to reduced sight lines, especially where these are combined and/or there are departures from standards.
- Sight lines obstructed bridge abutments, parapets, landscaping, structures or street furniture.

Junctions

- Minimising potential conflict points at junctions (including number of private accesses).
- Conspicuity of junctions on approach, and sight lines from minor road approaches and private accesses.
- Control of approach speed, and layout of approach roads.
- Provision of turning traffic.
- Location and access of lay-bys.

Other

- Impact of landscaping on visibility and road user perception.
- Concept of road marking/signing for road user perception.
- arrangements Serving access and maintenance.
- Provision for safety aids on steep hills.
- Facilities for pedestrians, cyclists and equestrians.
- Potential for flooding due to inadequate drainage.
- Compatibility with adjacent network at tie-ins.

Checklist - Detailed Design stage Safety Audit

General

- Review any previous audit in order to allow for subsequent design changes.
- Note: scope for altering alignments or junction design is less extensive at this stage, so the audit will focus mainly on details of signing, marking, lighting, etc, and issues which affect visibility and drivers' perception of the road scene, and provide aids to safety.

Junction

- Appropriateness of corner radii or curvature in relation to approach speed.
- Road users' perception of road layout.

Road Signs and Markings

- Locations of signs and markings to aid, inform, and warn of hazards, without obscuring visibility or misleading drivers.
- Consistency of signing and marking information.
- Positioning of signs, and marking at junctions: need for hazard perception warnings (e.g. chevrons, bar markings).

Lighting and Signals

- Consistency of lighting within the scheme and with the adjacent network.
- Safe positioning of lighting columns, signals and operational equipment.
- Confusion or conflict between lighting and traffic signals.
- Positioning of heads for traffic and pedestrian signals to ensure clarity to appropriate road user, and avoid confusion to others to whom they do not apply.
- Safe access and serving arrangements.

Facilities for Vulnerable Road Users

- Location and type of crossing facilities, visibility.
- Dedicated cycle or pedestrian facilities.
- Provision of facilities for people with mobility impairments.

Landscaping

- Potential obstruction to visibility from landscaping, taking account of future growth.
- Potential for trees to become collision objects: choice of appropriate species.
- Ability to maintain planted areas safely.

Protective Aids

- Positioning of safety fences, and guard rails to protect against vehicle conflicts or roadside objects (poles, columns, statutory undertakers' apparatus), without obscuring visibility.
- Use of arrester beds.

Surface Characteristics

- Appropriate surfacing for high speed roads, or locations (e.g. bends) which are potentially hazardous when wet.
- Appropriate surfacing for approach to junctions, and thresholds to villages or residential areas in town to encourage lower vehicle speeds.

Appendix B – Road Safety Audit Brief

Road Safety Audit Brief

Document Reference: (For audit team use only)	
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Scheme Name:	
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Job Number:	C.J/R.J
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Road Safety Audit Stage: <i>(X as appropriate)</i>	<i>Feasibility (F)</i>	<i>Preliminary (1)</i>	<i>Detailed (2)</i>	<i>Combined (1/2)</i>	<i>As Built (3)</i>

<p>Site & Scheme Description</p> <p><i>Provide a brief description of the site and details of the proposed scheme including its objectives and design standards. Include details of the following, if available:</i></p> <p><i>Design speed - Speed limits - Existing traffic flows/queues - Non Motorised Users (NMU) desire lines – Environmental Constrains - Nearby Schools, colleges or care homes– Bus stops – Railway Stations – Traffic signals</i></p> <p><i>Should the RSA site visit take place at a particular time of the day? (e.g. peak traffic periods or beginning or end of the school day)</i></p>
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<p>Departures & Relaxations</p> <p><i>Has the proposal been fully designed in accordance with the HCC's Technical Guidance Notes, Design Manual for Roads and Bridges (where appropriate).</i></p> <p><i>List all Departures and/or Relaxations.</i></p>

<p>List of included documents and drawings</p> <p><i>Provide details of drawings and documents (include references, drawing numbers with Revisions etc.) including:</i></p> <p><i>Site location plan – NMU Context & Audit Report -Scheme Layout – Road Markings – Traffic Signs – Site Clearance – Vertical Alignment – Cross Sections – Street Lighting – Personal Injury Collision Data – Traffic Counts - Speed Data.....</i></p>
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Name:

Position:

Signed:

Date:

Email address:

Appendix C – Road Safety Audit Response Report

Road Safety Audit Response Report

Road Safety Audit Report Reference:	
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Scheme Name:	
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Job Number:	C.J/ R.J
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Road Safety Audit Stage: <i>(X as appropriate)</i>	<i>Feasibility (F)</i>	<i>Preliminary (1)</i>	<i>Detailed (2)</i>	<i>Combined (1/2)</i>	<i>As Built (3)</i>
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All the problems raised by the Road Safety Audit Team should be given due consideration.

Item No.	Problem Accepted (yes/no)	Recommendation Accepted (yes/no)	Designers Response
4.1			

In accordance with Technical Guidance Note 18, should any of the problems and/or recommendations not be accepted, an Exception Report will be required. If there is more than one exception, then each must be considered and approved separately.

Prepared by:

Signed:..... (Design Team Leader)

Date:.....

Approved by:

Signed:.....(Project Sponsor – Internal schemes) / (Scheme Promoter – Developer led schemes)

Date:.....

Appendix D – Road Safety Audit Exception Report

Road Safety Audit Exception Report

Document Reference:	
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Scheme Name:	
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Job Number:	C.J/ R.J
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Road Safety Audit Stage: <i>(X as appropriate)</i>	<i>Feasibility (F)</i>	<i>Preliminary (1)</i>	<i>Detailed (2)</i>	<i>Combined (1/2)</i>	<i>As Built (3)</i>

Problem
Item No:
Description:
Recommendation:

Design Team Response
<i>Add Design Team response</i>

Project Sponsors Statement
<i>Add Client Managers / HDA Engineers comments</i>

This Exception Report is/is not accepted by (delete as required):

Name:

Signature:

Role/Title:

Date: