

Annex 4.1

Road Safety Audit Procedure

Road Safety Audit Procedure Warwickshire County Council

1.0 Background

This procedure describes the process for undertaking and managing Road Safety Audits in Warwickshire.

Road Safety Audit is the independent, systematic, assessment of highway alterations/improvements schemes (proposed and as constructed) to identify hazards, recommend mitigating actions and record subsequent responses to those recommendations and monitor road safety performance.

Warwickshire County Council will carry out or approve Road Safety Audits on all new schemes and alterations to the existing road network proposed by ourselves or others.

These procedures are based on and should be read in conjunction with current DMRB guidance on Road Safety Audit work. These procedures also reflect the Chartered Institution of Highways and Transportation (CIHT) Road Safety Audit guidelines, which suggest areas where audit standards can be relaxed to suit local circumstances.

The procedures in this document apply to all non-trunk road schemes within Warwickshire, including development schemes on non-trunk roads in the County.

1.1 Definitions

1.2 Design Organisation: The organisation(s) commissioned to undertake various phases of scheme preparation.

NOTE 1: At some stages of road safety audit, this can be a contractor

1.3 Design Team: The group within the Design Organisation undertaking the various phases of the scheme design and co-ordinating the input of the various design disciplines.

1.4 Design Team Leader: A person within the Design Team responsible for managing the scheme design and co-ordinating the input of the various design disciplines and external Developer scheme representatives.

1.5 Development Scheme: Any public or privately funded scheme where planning approval is sought.

- 1.6 Exception Report:** A report from the Project Sponsor to the Warwickshire County Council Exceptions Panel detailing each problem identified in the Road Safety Audit Response Report where an Agreed Road Safety Audit Action cannot be reached between the Design Organisation and Overseeing Organisation.
- 1.7 Highway Schemes:** All works that involve construction of new highway or permanent change to the existing highway layout of features. This includes changes to road layout, kerbs, signs and road markings, lighting, signalling, drainage, landscaping, communications cabinets and the installation of roadside equipment. Significant or lengthy Traffic Management schemes or Temporary Works schemes might also fall within the definition of 'Highway Schemes' with Road Safety Audit requirements.
- 1.8 Interim Road Safety Audit:** The application of Road Safety Audit to the whole or part of a Highway Scheme at any time during its design and construction. Interim Road Safety Audit is neither mandatory nor a substitute for the Stage 1, 2 and 3 Road Safety Audits.
- 1.9 Like-for-like Maintenance Scheme:** A scheme or highway feature replacement proposed as maintenance works, that solely involves the replacement or refurbishment of a highway feature with a corresponding feature, which as a minimum, will appear the same, be located in the same position, perform the same and be constructed of comparable materials as the feature it replaces.
- 1.10 Overseeing Organisation:** The highway authority responsible for the road Highway Scheme to be road safety audited or affected by the proposed Highway Scheme.
- 1.11 Project Sponsor/Project Manager:** A person from the Overseeing Organisation responsible for ensuring the progression of a scheme in accordance with the policy and procedures of the Overseeing Organisation and ensuring compliance with the requirements of this Road Safety Audit Procedure. It should be noted that the Project Sponsor may not always be from the same organisation as those promoting the scheme, as the scheme may be proposed by a third-party organisation.
- 1.12 Road Safety Audit:** The evaluation of Highway Schemes during design and at the end of construction. The aim is to identify potential road safety problems that may affect any users of the highway and to make recommendations as to how the Design Organisation may mitigate them. The Road Safety Audit process includes the collision monitoring of Highway Schemes (Stage 4 Road Safety Audit) to identify any road safety problems occurring after opening. The

Stage 4 Road Safety Audit will include the analysis and reporting of 12 and/or 36 months of Personal Injury Collision (PIC) data from when the scheme became operational.

- 1.13 Road Safety Audit Brief:** The instructions to the Road Safety Audit Team defining the scope and details of the Highway Scheme to be audited, including sufficient information for the Road Safety Audit to be undertaken. To be submitted in the format shown in Appendix B.
- 1.14 Road Safety Audit Report:** The report produced by the Road Safety Audit Team describing the road safety related problems identified by the Road Safety Audit and the recommended mitigations to those problems. To be submitted in the format shown in Appendix C.
- 1.15 Road Safety Audit Response Report:** A report produced by the Design Team following Road Safety Audit Stages 1, 2 and 3 in which the Design Team and Overseeing Organisation respond to the problems and recommendations raised in the Road Safety Audit Report and agree relevant RSA Actions. To be submitted in the format shown in Appendix D.
- 1.16 Road Safety Audit Team:** A team that works together on all aspects of the Road Safety Audit, independent of the Design Team. The Road Safety Audit Team shall comprise a minimum of two suitably qualified and experienced persons (a Team Leader and Team Member).
- 1.17 Road Safety Audit Team Leader:** A person with the appropriate training, skills and experience who is approved for a particular highway scheme and road safety audit stage by the Overseeing Organisation as defined in section 5.

NOTE 1: The road safety audit team leader is responsible for leading the road safety audit team through the process and managing the production of the road safety audit report. This officer is responsible for the overall audit content.

- 1.18 Road Safety Audit Team Member:** A member of the road safety audit team with the appropriate training, skills and experience necessary for a particular highway scheme and road safety audit stage as defined in section 5.
- 1.19 Road Safety Audit Team Observer:** A person with appropriate training, skills and experience accompanying the Road Safety Audit Team to observe and gain experience of the Road Safety Audit process.

2.0 Scope of Road Safety Audit

2.1 Purpose

Road Safety Audit problems raised in Road Safety Audit Reports shall only consider road safety matters.

Road Safety Audit is not a technical check that the design conforms to Standards and/or best practice guidance, or a check that the scheme has been constructed in accordance with the design, and it does not consider structural safety.

Design Teams are responsible for ensuring that their designs have been subjected to the appropriate design reviews and any Departures from Standards or Relaxations of Standards are documented prior to Road Safety Audit and communicated to the Road Safety Audit Team.

In carrying out Road Safety Audits, the Audit Team shall consider all users of the highway, including motorists, pedestrians, cyclists, equestrians and facilities for those working on the highway. Particular attention should be given to vulnerable roads users such as the very young, older users and the mobility and visually impaired.

2.2 Types of scheme to be road safety audited

These procedures apply to all Highway Schemes on roads for which Warwickshire County Council is the Highway Authority. This includes work carried out under agreement with Warwickshire County Council resulting from developments alongside or affecting the highway network.

Like-for-like maintenance schemes are excluded from Road Safety Audit. However, the Project Sponsors and Designers should ensure any like-for-like replacement scheme does not reinstate a feature that is known by Warwickshire County Council to adversely affect road user safety (e.g. the replacement of a non-passively safe traffic sign in the same location where it has been previously struck by errant road users on numerous occasions).

2.3 Definitions of Road Safety Audit levels

The following sets out three levels of Road Safety Audit to be adopted by Warwickshire County Council.

- Road Safety Audit, **Type A (RSA/A)**, a Road Safety Audit carried out in compliance with current DMRB guidance using the document templates set out in this policy.
- Road Safety Audit, **Type B (RSA/B)**, a Road Safety Audit carried out by qualified Road Safety Auditors in accordance with the procedures in this document.
- Road Safety Audit, **Type C (RSA/C)**, a Road Safety Audit carried out by qualified Road Safety Auditors in accordance with the procedures in this document.

Tables 1 and 2 provide guidance on the minimum level of safety audit required for works carried out by Warwickshire County Council, either generated by Warwickshire County Council or works which are funded by other sources, such as S278 highway works.

All requests for Safety Audit submitted via a planning application will be carried out to RSA/A standard.

Where the Road Safety Audit Team Leader has concerns about the complexity of the scheme being audited, they have the right to raise the level of the audit at their sole discretion.

Table 1: Audit Level by Scheme Type (Warwickshire County Council)

Warwickshire County Council Schemes for Audit			
Scheme Type	<£25,000	£25,000 - £200,000	>£200,000
Major Highway Improvement Schemes	n/a	RSA/A	RSA/A
Traffic Management Schemes	RSA/B	RSA/B	RSA/A
Shared Space Schemes	RSA/B	RSA/B	RSA/A
Carriageway/Footway Improvement Schemes (including maintenance)	RSA/C	RSA/B	
Cycleway Schemes	RSA/B	RSA/B	RSA/A
Pedestrian Crossing (all types)	RSA/B	RSA/B	RSA/A
Pedestrian Refuges	RSA/B	RSA/B	
Pedestrian Guardrail	RSA/C	RSA/B	
Safety Barrier	RSA/B	RSA/B	RSA/B
Bollards	RSA/C	RSA/B	
Signing and Lining	RSA/C	RSA/B	
Gateway Features	RSA/C	RSA/C	
Changes in Speed Limit	RSA/C	RSA/B	
Mini Roundabouts	RSA/B	RSA/B	RSA/A
Traffic Signals	RSA/B	RSA/B	RSA/A
Parking Bays	RSA/C	RSA/B	
Change of priorities	RSA/B	RSA/B	
Street Lighting	RSA/B	RSA/B	
Section 278 Highway Works	RSA/B	RSA/B	RSA/A
Section 38 New Estate Roads	RSA/B	RSA/B	RSA/A
Significant Traffic Management or Temp. Works	According to Road Safety discussion re. effect		

Note: Road Safety Audits carried out by external organisations must be submitted prior to grant of planning consent for review by Warwickshire County Council's Road Safety Audit personnel

3.0 Road Safety Audit stages

Highway Schemes shall be road safety audited at the following stages:

Stage 1 – Preliminary design

Stage 2 – Detailed design

Stage 3 – Upon scheme completion (ideally prior to the scheme being opened to public traffic), in both daytime and darkness conditions

Stage 4 – When personal injury collision data is available for 12 months and/or 36 months following scheme completion.

Where a scheme is of such a limited scale that no preliminary design has been necessary, Road Safety Audits shall be combined to form a combined Stages 1 & 2 Audit.

It is the responsibility of the Project Sponsor or Design Team Leader to provide enough detail for the Road Safety Audit Team to undertake the audit.

Interim Road Safety Audits can be commissioned by the Project Sponsor. An Interim Road Safety Audit allows the Road Safety Audit Team to give safety advice during the scheme design process and development at times between the formal audit stages.

4.0 Methodology for undertaking Road Safety Audits

4.1 Road Safety Audit – Type A (RSA/A)

Type A schemes involve major highway works and other largescale improvements costing greater than £200,000. These schemes are likely to be complex and could include innovative measures; therefore, a Road Safety Audit should be carried out in accordance with current DMRB guidance on Road Safety Audit work.

RSA/A teams will consist of a team leader and one team member as a minimum. All team members will demonstrate the required competencies set out in section 5.

RSA/A teams will conduct a joint site visit and all team members will review the scheme documentation. Team members will draft the report and team leaders will review and make any necessary amendments in discussion with the audit team before signing of and submitting the report to the Design Organisation.

4.2 Road Safety Audit – Type B (RSA/B)

All schemes costing between £25,000 and £200,000 are categorised as Type B. In addition, some lower cost schemes such as pedestrian crossings are categorised as Type B, these schemes despite being low cost have the potential to create hazards for road users once operational.

The process for undertaking RSA/B should be the same as RSA/A; however, some relevant competencies for team members are relaxed. These are detailed in section 5.

4.2.1 Stage 1, Stage 2 and Stage 1/2 Road Safety Audits

- The Audit Team comprises of two Road Safety Auditors.
- All members of the audit team will attend a site visit together for RSA/A and RSA/B audits. For RSA/C Audits site visits are carried out at the discretion of the team leader.

4.2.2 Stage 3 Road Safety Audits

- The Audit Team comprises of two Road Safety Auditors,

- For RSA/B daytime visits, all members of the audit team must visit the site together. The Police will also be invited to send a representative.
- For visits in the hours of darkness, one of the Audit Team can visit the site alone,
- Both Audit Team Members need to review all plans and documents.

A representative from the Police shall be invited to all Stage 3 Road Safety Audits by the Audit Team Leader. The Police representatives are present as an additional expert and do not formally constitute part of the Road Safety Audit Team. The responsibility for producing the Road Safety Audit Report in these cases remains with the Road Safety Audit Team.

4.2.3 Interim Road Safety Audits

The Project Sponsor or Design Team Leader may consider it useful to gain advice on road safety issues as the scheme design proceeds. If this is the case the Road Safety Audit Team can be approached to give interim advice before the formal Audit stages are reached, the advice should be detailed in a Road Safety Audit Report and a copy sent to the Design Team Leader or Project Sponsor. It should be noted that Interim Road Safety Audits are not a replacement for other Audit stages.

4.2.4 Stage 4 Road Safety Audits

Stage 4 Road Safety Audits should be carried out when 12 months and/or 36 months collision data is available following completion of the scheme. For Warwickshire County Council designed schemes, this will be included as part of the routine collision monitoring process to identify any collision sites on Warwickshire's highway network. Therefore, a separate Stage 4 Road Safety Report will not always be required, unless a collision problem associated with a scheme is identified. Under these circumstances, for a Development Scheme promoted by an 'external' developer, a collision report shall be prepared to assess whether remedial measures are required to address the collision problem. The findings should be presented to the Project Sponsor for action.

4.2.5 The Road Safety Audit Report

Reports for Stages 1, 1&2, 2 and 3 Road Safety Audits should be written in a consistent format, as described in Appendix B.

Non-safety comments can be included in the report under a separate title, such as 'Notes' or 'Observations'. A copy of the report should be sent to the Project Sponsor and Design Team Leader.

For audits carried out by Warwickshire C.C., once the Road Safety Audit Team has completed the Road Safety Audit, a copy of the report, together with all the documentation, plans, site notes and photographs should be archived by the Road Safety Audit Team.

4.3 Road Safety Audit – Type C (RSA/C)

Type C schemes are small scale projects designed by Warwickshire County Council costing less than £25,000, such as footway improvements, signing and the installation of bollards. For RSA/C Audits a single auditor will usually be appointed as Team Leader.

The Auditor/Assessor should evaluate the scheme with reference to the Safety Assessment Checklist in Appendix A. The auditor will then complete a Road Safety Audit Report accordingly and submit it to a checker for review prior to submission to the Design Team. The relevant competencies for the Checker are set out in section 5.

4.4 Road Safety Audit Response Report

All Road Safety Audits must go through the process shown in section 6. This includes the production of a Road Safety Audit Response Report following the template shown in Appendix D.

For internal schemes Traffic and Road Safety Group officers are likely to fulfil the roles of Road Safety Auditor and Overseeing Organisation. Where a 3rd party scheme has appointed an external Road Safety Auditor Traffic and Road Safety Group officers will still operate as the Overseeing Organisation. The required competencies to fulfil this role are set out in section 5.

For a scheme to proceed to the next stage of audit or construction the Design Organisation, Road Safety Auditor and Overseeing Organisation must agree an RSA action for each problem raised in the Road Safety Audit Report and record these in the Road Safety Audit Response Report.

If RSA Actions cannot be agreed by all parties the scheme must enter Warwickshire County Council's Exception Process as described in section 6.

Responses submitted in a format that differs from that shown in Appendix D Will not be accepted. In the case of Audits linked to planning applications this will result in WCC objecting to the application in its role as Highway Authority.

4.5 Traffic Management or Temporary Works

Generally, temporary Traffic Management arrangement schemes will not be audited as the design of such schemes should be considered within CDM processes and DfT publications “Safety at Street Works: A Code of Practice” and Chapter 8 of “The Traffic Signs Manual” which contain guidance on such works. However, for schemes with complex arrangements or that will significantly affect the highway network for a considerable period, particularly on high-speed roads, a Road Safety Audit may be required at the discretion of Warwickshire County Council.

4.6 The Audit Brief

The Audit Brief template is set out in Appendix B.

The Design Organisation must submit the completed Brief to Traffic and Road Safety Group before appointing the Road Safety Audit Team.

5.0 Road Safety Audit Team requirements

Warwickshire County Council Safety Auditors will demonstrate the competencies set out below.

Auditors not directly employed by Warwickshire C.C. shall submit CVs to Warwickshire C.C's. Traffic & Road Safety Group for scheme-specific prior approval. CVs must demonstrate compliance with the requirements set out below for RSA/A Audits.

5.1 Road Safety Audit team competencies

The following sets out the required competencies of RSA team members in accordance with the type of audit being undertaken.

Table 3: RSA/A competencies

	RSA team observer	RSA team member	RSA team leader
Training	In accordance with current DMRB requirements	In accordance with current DMRB requirements	In accordance with current DMRB requirements
CPD	N/A	In accordance with current DMRB requirements	In accordance with current DMRB requirements
Experience	N/A	In accordance with current DMRB requirements	In accordance with current DMRB requirements

Table 3: RSA/B competencies

	RSA team observer	RSA team member	RSA team leader
Training	N/A	10 days of formal collision data analysis or road safety engineering/road design	10 days of formal collision data analysis or road safety engineering/road design
CPD	N/A	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	N/A	1 years of collision data analysis or road safety engineering/road design experience	2 years of collision data analysis or road safety engineering/road design experience
	N/A	5 RSAs completed within the last 24 months as team leader, member or observer	5 RSAs completed within the last 12 months as team leader, member or observer

Table 3: RSA/C competencies

	RSA team observer	RSA team leader	RSA checker
Training	10 days of formal collision data analysis or road safety engineering/road design	10 days of formal collision data analysis or road safety engineering/road design	10 days of formal collision data analysis or road safety engineering/road design
CPD	N/A	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	N/A	5 RSAs completed within the last 24 months as team leader, member or observer	5 RSAs completed within the last 24 months as team leader, member or observer
	N/A		

Table 3: Overseeing Organisation competencies

	Traffic and Road Safety Officers have conducted the RSA	A 3rd Party has conducted the RSA	
Training	N/A	In accordance with RSA/A competencies	
CPD	N/A	In accordance with RSA/A competencies	
Experience	Occupy a relevant Tier 4 post in Traffic and Road Safety Group	In accordance with RSA/A competencies	

Where Auditor CVs do not demonstrate compliance with Audit Team position requirements Warwickshire C.C. will be at liberty to reject the Audit Team in part or in whole and reject the Road Safety Audit Brief or Response Report.

It is recommended that, where possible, the same Road Safety Audit Team is used throughout the scheme delivery.

All Road Safety Auditors employed by or on behalf of Warwickshire County Council are responsible for ensuring that they keep up to date with the CPD and experience requirements listed above.

6.0 Road Safety Audit Process

All works affecting the public highway in Warwickshire will be subject to a Road Safety Audit at stages 1, 2 and 3.

For internal schemes officers from Warwickshire County Council's Road Safety Audit team will determine the relevant audit type.

All external audits will be carried out as Type A audits as this most closely aligns with the standards used by Safety Auditors in the private sector.

For internal schemes the Road Safety Audit Team should be derived from Warwickshire County Council's internal Auditors' complement. The audit team must be comprised of officers independent from the design process. If resources are not available to undertake a Road Safety Audit within the required timescale, the Project Sponsor may consider appointing a suitably qualified Road Safety Audit Team from independent consultants.

Third party developers may appoint Road Safety Auditors from external auditors. Any such audit must be commissioned with the RSA Brief in Appendix B The Brief must be approved by Warwickshire County Council's Safety Audit team prior to the appointment of the Road Safety Audit Team.

When the developer has appointed a Road Safety Audit team CV's for all team members must be submitted to WCC for approval.

Only when all of the above steps have been completed and approved can the Safety Audit take place.

When the audit has been completed the design organisation must complete a Road Safety Audit Response Report in accordance with the template in Appendix D and submit this to Warwickshire County Council's Road Safety Audit team. Warwickshire County Council will then consider the problems raised, the design team responses and add an overseeing organisation response. Warwickshire County Council will also add any additional issues considered relevant to the scheme.

Warwickshire County Council's Road Safety Audit team will then contact the Design Organisation to agree RSA actions before finalising the Road Safety Audit Response Report and sending it to all relevant parties for sign off.

Where RSA actions are agreed between the Overseeing Organisation and the Design Organisation the scheme can progress to the next stage of Road Safety Audit or implementation as appropriate.

Where RSA actions cannot be agreed the Road Safety Audit will enter Warwickshire County Council's Exception Process.

For 3rd party schemes the Design Organisation must pay for all stages of Road Safety Audit and Road Safety Audit Response Reports.

Before Warwickshire County Council will agree to not raise an objection to a planning application on Road Safety grounds a stage 2 road safety audit (Type A) must be undertaken where the planning application requires works within the highway, in accordance with Local Transport Plan Policy. The design organisation must then submit a Road Safety Audit Response Report to Warwickshire County Council for comment and approval.

It should be noted that Planning Authorities may decide not to register a planning application if a Road Safety Audit required according to this Procedure is not provided. For large developments it may be appropriate for the Developer to discuss road safety issues at the pre-planning application stage so that any potential problems can be considered early in the process.

If Road Safety Audit issues are not satisfactorily addressed or if a required Road Safety Audit Response Report is not submitted in accordance with this Procedure then Warwickshire County Council is likely to recommend that the planning application be refused.

It should be noted that Warwickshire County Council will be at liberty to decline to register applications for Highway Agreements where a Stage 2 Road Safety Audit Response Report required according to this Procedure is not provided.

FIGURE 1: ROAD SAFETY AUDIT PROCESS FLOW CHART—STAGE 1-3

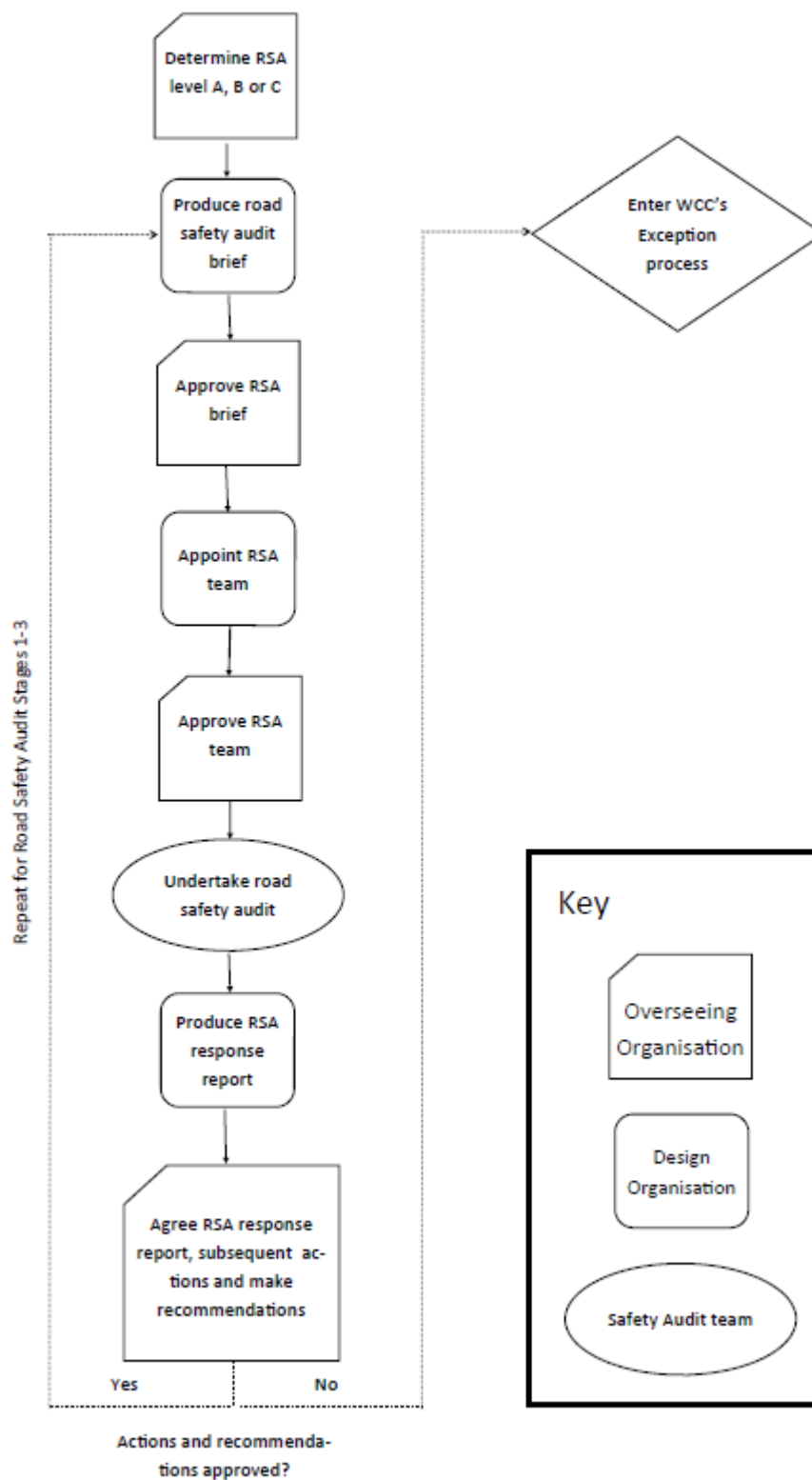
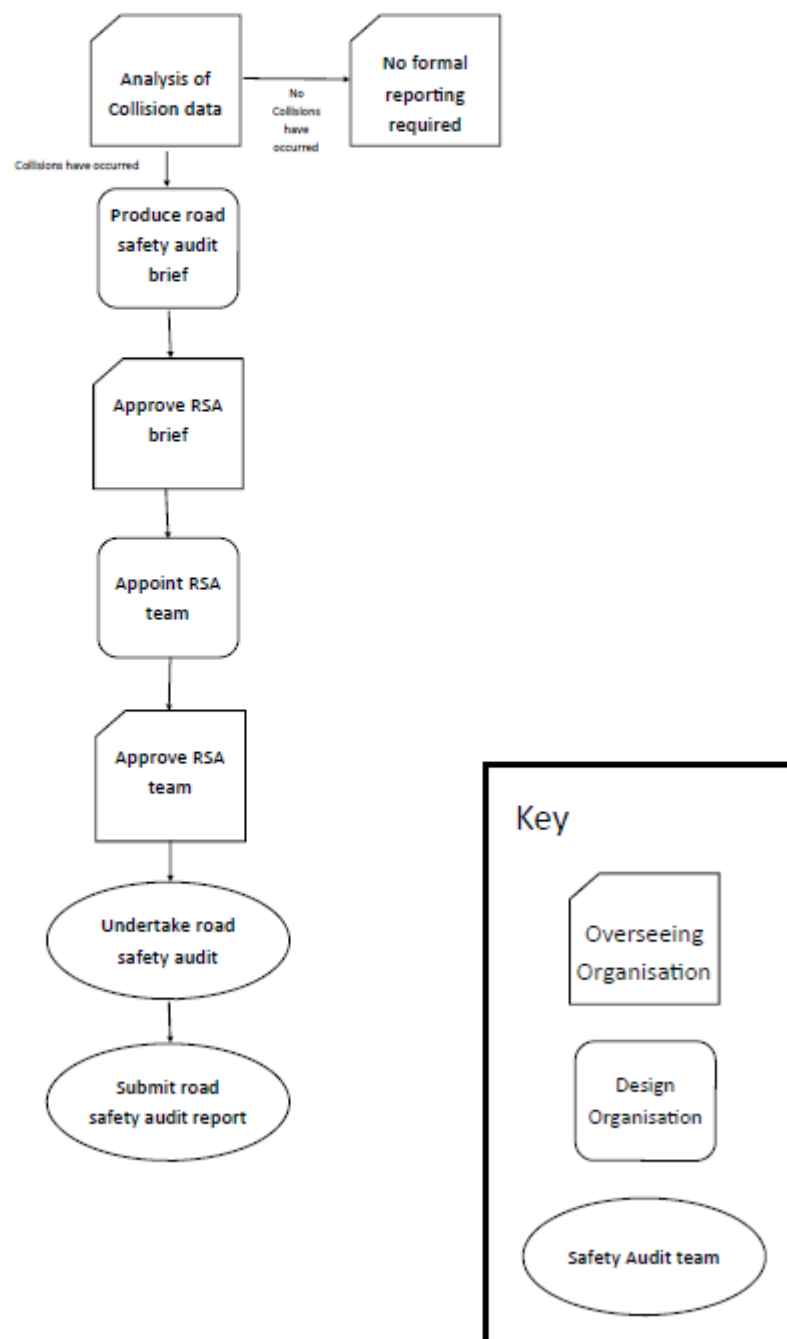
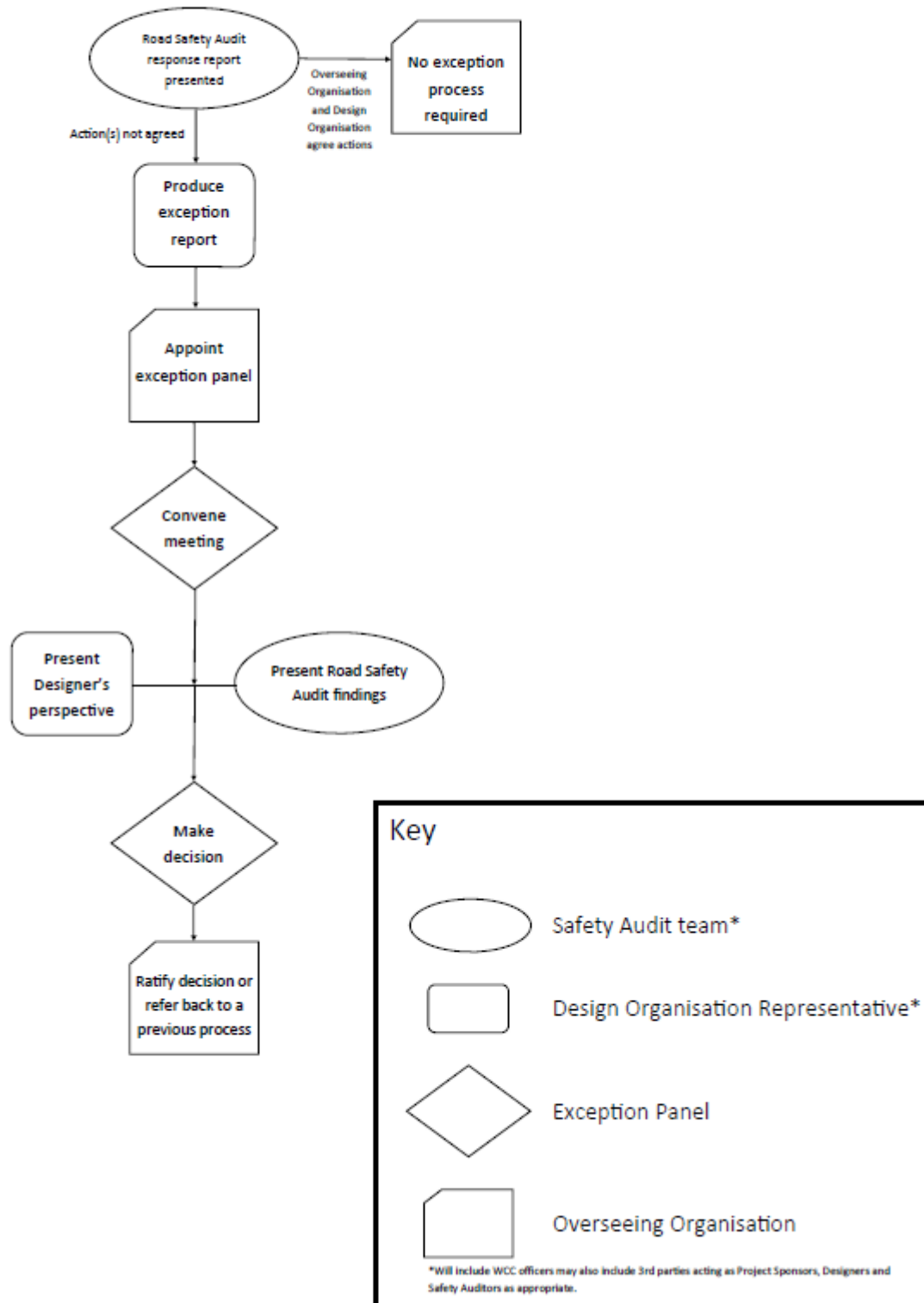


FIGURE 2: ROAD SAFETY AUDIT PROCESS FLOW CHART—STAGE 4



7.0 Exception Process

FIGURE 3: ROAD SAFETY AUDIT EXCEPTION PROCESS FLOW CHART



8.0 References

- 1) Current DMRB guidance on Road Safety Audit work
- 2) Current Road Safety Audit guidelines - Institution of Highways and Transportation (now Chartered Institution of Highways & Transportation).

APPENDICES