

**Specialist Professional and Technical Services
Framework
Task Ref: 1-286**

**Task Title: HD 19/15 Road Safety Audit - Maintain &
Develop Road Safety Audit Database**

**QUARTERLY REPORT
July 2018 to September 2018**

*To be read in conjunction with Task 286
'QUARTERLY REPORTING AND FACTSHEETS,
GUIDANCE NOTES'*



Document Control

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1. Introduction

1.1. Quarterly Reporting

This report comprises the quarterly review of Road Safety Audit (RSA) reports submitted to the Highways England Safer Roads - Design Team (SRDT) inbox at roadsafetyaudit@highwaysengland.co.uk between **1st July 2018 and 30th September 2018** (inclusive).

This review should be read in conjunction with the **Quarterly Factsheet - July-September 2018 (Rev. 1)** contained in Appendix A of this report; and with the Task 286 '**Quarterly Reporting and Factsheets, Guidance Notes**'.

1.2. New RSA Standard

A new RSA standard (GG 119) was published in November 2018, to be applied with immediate effect. This quarterly report pertains to a period which pre-dates the release of the new standard so all of the RSAs reviewed were carried out to HD 19/15.

The RSA process is largely unchanged by the new standards but, where appropriate, advice has been tailored towards GG 119 requirements.

1.3. Scope

During this quarter, **a total of 131 RSAs were submitted**, of which all purport to have been carried out to HD 19/15. From these HD 19/15 RSAs, **35 sample reports** were selected as suitable for review. The list below details the numbers of each stage of RSA forming the study sample together with totals submitted for the quarter.

- Stage 1 RSAs 7 reports of 22 submitted
- Stage 2 RSAs 7 reports of 15 submitted
- Combined Stage 1 & 2 RSAs 8 reports of 59 submitted
- Stage 3 RSAs 9 reports of 30 submitted
- Stage 4 RSAs (12 months) 3 reports of 3 submitted
- Stage 4 RSAs (36 months) 1 report of 1 submitted
- Interim RSAs None submitted in quarter

1.4. RSAs Submitted by Highways England Areas

Figure 1-1 below illustrates all RSAs submitted to the SRDT inbox since 1st January 2014 by each Highways England area.

Figure 1-1 RSA submitted since 1st January 2014 by Highways England Operational Area

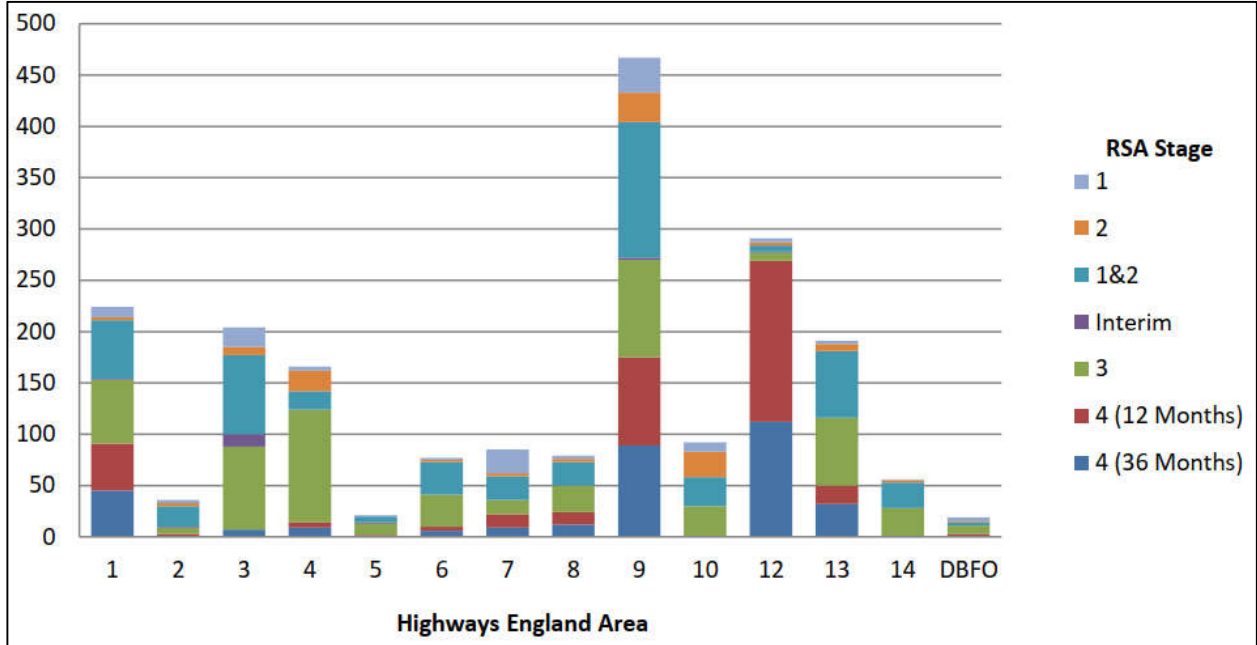
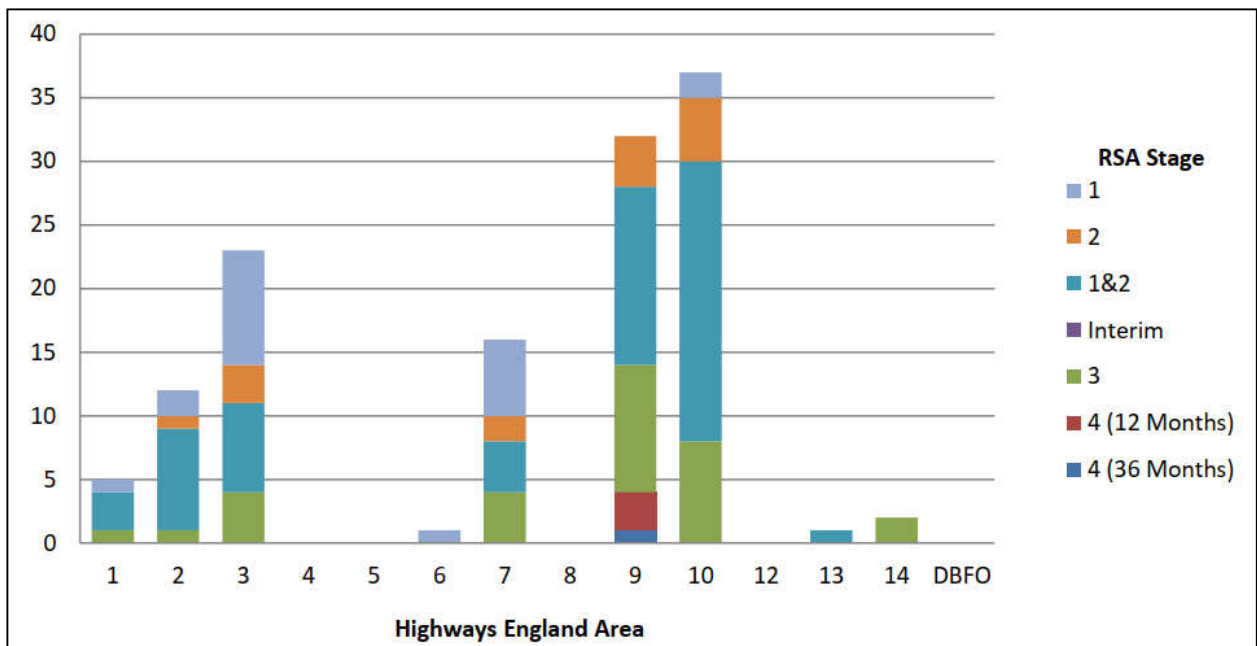


Figure 1-2 below illustrates all RSAs submitted to the SRDT inbox during this quarter, 1st July 2018 to 30th September 2018.

Figure 1-2 RSA submitted this quarter (Jul-Sep 2018) by Highways England Operational Area



2. Qualitative Review of RSA Reports

This section comprises a qualitative review of RSAs sampled from those recorded in the main database. The sample selection is described under heading 1.3 above. The sampled reports have been used as the principal source for this review but occasionally, reference is made to the database as a whole for context.

As far as is practicable, this quarterly report seeks to feed discussion on:

- Common road safety Problems raised by audit teams with a view to providing information which might be used by the SRDT and others in the industry to identify and inform potential changes to Requirements and Advice Documents (RADs). This comprises a high-level categorisation of the Problems raised;
- Inconsistencies between Problems and Recommendations raised for similar designs elements; and
- Good practice and areas for potential improvement as evident from the sampled RSA reports.

2.1 Common Road Safety Problems

This section comments on the frequency with which road safety Problem types appeared in RSAs within the sample set.

For clarity, this section uses the following terms of reference:

- Problems – indexed text (i.e. ‘Problem A’) detailing road safety concerns in the standard RSA Problem/Recommendation format;
- Issues – individual elements of distinct road safety concern contained within a Problem related to but different in nature to other Issues within that same Problem; and
- Recommendations – remedial Recommendations made by the RSA Team in relation to the Problem (and related Issues) raised.

Where appearing in quoted text, the words “*problem*”, “*issue*” and “*recommendation*” may have been used differently.

The sampled reports detailed a total of 219 road safety Problems covering 237 Issues. These include previously raised Problems not resolved at the time of each of the sample RSAs.

This gives an average of 1.08 Issues per Problem reported which is comparable to 1.06 in the preceding quarterly report (April 2018 to June 2018). The Issues per Problem ratio has remained relatively consistent around these levels in recent quarters although trends show a very slight decrease over time.

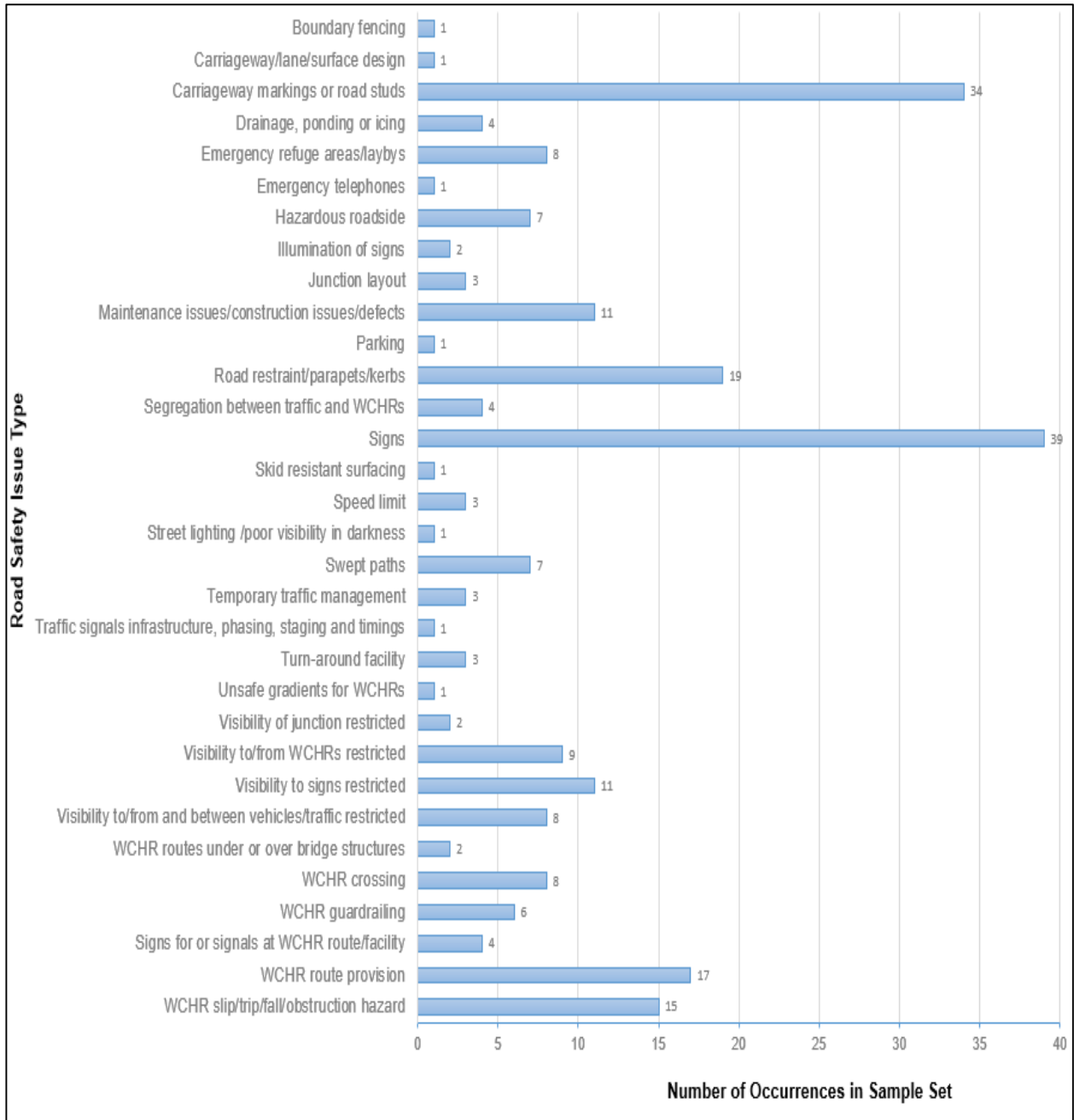
For the purpose of this quarterly report, the high-level categorisation of the Problems and Issues identified within the sample group have been expressed as follows, with Problem categorisations in **bold** type and Issues in [square brackets]:

- **Boundary fencing** [inadequate]
- **Carriageway / lane / surface design** [skid resistance]
- **Carriageway markings or road studs** [poorly located / inconspicuous / absent / incorrect / inadequate / confusing / vertical profile (thickness)]
- **Drainage and related ponding and icing** [carriageways]
- **Emergency refuge areas / laybys** [poorly located / obstruction / entry and exit / visibility to and from]

- **Emergency telephones** [accessibility]
- **Hazardous roadside** [street furniture / structures / objects not passively safe / kerbs]
- **Illumination of signs** [absence of illumination]
- **Junction layout** [design / excessive visibility]
- **Maintenance issues, construction issues or defects** [poor reinstatement / drainage / vegetation / construction method / non-removal of temporary features / incomplete works / debris]
- **Parking** [the scheme encourages illegal / injudicious parking]
- **Road restraint / parapets / containment kerbs** [inadequate / working width compromised / risk of 'launch']
- **Segregation between traffic and WCHRs** [absent / inadequate]
- **Signs** [poorly located / incorrectly mounted / inconsistent / absent / incorrect / clutter / confusing]
- **Skid resistant or high friction surfacing** [absent]
- **Speed limit** [too high / extents / environment does not encourage compliance]
- **Street lighting / poor visibility in darkness** [absence of lighting]
- **Swept paths** [overrunning footways or cycleways]
- **Temporary traffic management measures** [signing]
- **Traffic signals infrastructure, phasing, staging and timings** [inappropriate]
- **Turn-around facility** [conflicts / risks to WCHRs]
- **Unsafe gradients for WCHRs** [routes]
- **Visibility of junction restricted** [by vegetation / alignment]
- **Visibility to / from and between WCHRs restricted** [by vegetation / street furniture / alignment / infrastructure]
- **Visibility to signs restricted** [by vegetation / other signs]
- **Visibility to/from and between vehicles/traffic restricted** [by vegetation / street furniture / alignment]
- **Walking, Cycling and Horse-riding (WCHR) routes under or over bridge structures** [parapet heights]
- **WCHR crossing** [inconspicuous / inadequate / layout / confusing / tactile paving]
- **WCHR guardrailing** [absent / inadequate / clearance between]
- **WCHR route / facility signs or signals** [inconsistent / absent / incorrect / inadequate]
- **WCHR route provision** [inadequate / inappropriate / narrow / confusing / lighting / tactile warning surfaces / access / egress]
- **WCHR slip, trip, fall or obstruction hazard** [poor surface / detritus / unprotected drops / street furniture / upstands / vegetation]

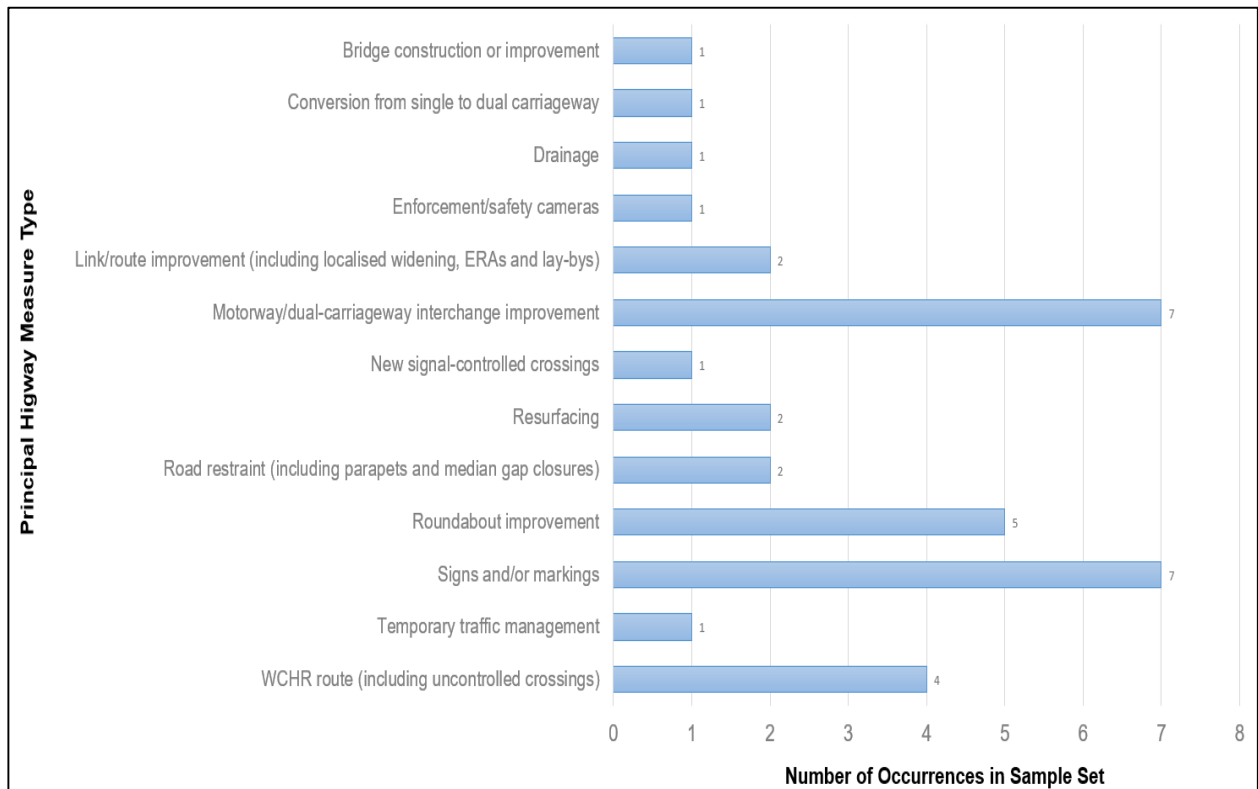
The 213 Issues covered in the sampled reports are categorised in Figure 2-1 below which indicates the frequency of occurrence. The categories of these are shortened to fit the figure dimensions and the chart should be read in conjunction with the bullet list above for a fuller description.

Figure 2-1 Road safety issues by number of occurrences



As context for the occurrences of road safety Issues given above, Figure 2-2, below, charts the principal highway measures that best describe the scheme type for each RSA report in the sample set.

Figure 2-2 Principal highway measures by number of occurrences in sample set



2.2 Good Practice and Areas for Improvement

This section identifies areas of good practice and areas with potential for improvement as evident from the RSAs sampled for the purpose of this quarterly report.

Text and other materials quoted or copied from real RSA reports have been anonymised. Accordingly, all road, scheme and location names and descriptions, together with the names of persons and organisations involved, should be taken as fictional and not associated with any actual scheme, location, organisation or person.

2.2.1 Large Number of Stage 3 Problems

In this quarter there were four Stage 3 RSAs submitted which had a high number of Problems identified. Three of the reports each identified 21 problems and one identified 14 problems. These numbers of Problems are higher than all other RSAs submitted this quarter. The high number of problems might be an indicator that preceding RSAs and post-RSA processes have not been carried out robustly.

2.2.2 Snagging Issues

One of the reports referred to under heading 2.2.1 above raises 21 problems, of which 14 appear to be snagging issues or issues pertaining to works not yet being complete. The report included references to a proceeding “*Interim Stage 3 RSA*” carried out when the scheme was “*very much a work in progress*”. This lists a further ten snagging type issues.

RSA Teams on Stage 3 RSAs should be satisfied in advance that the works are sufficiently complete for their site visit and, in addition, should not be drawn into performing a snagging exercise, even if the RSA is to be badged as ‘Interim’. If an early RSA 3 (or Interim RSA) site visit

is requested, Problems and Recommendations should assume that the scheme will be completed as shown on the construction drawings and focus on potential hazards which the finished scheme might present.

It would be advisable to ask the client or Overseeing Organisation to confirm that they have checked for snagging issues in advance of the Stage 3 RSA site visit. The findings of any such check should be requested by the RSA Team as supporting information.

2.2.3 Repetitive Problems

One Stage 3 RSA contained 14 problems which are very repetitive in their wording. On examination, it is evident that nine of those repetitive problems could have been summarised in only three problems, each with a different location. In some cases, groups of problems like these could be combined into one Problem which lists the various locations at which they occur.

One Combined Stage 1&2 RSA contained six problems that all recommended that the proposed use of an agricultural layby and a field access by speed enforcement vans would be inappropriate. All six problems referred to two locations and the recommendation was the same for all six (i.e. *"It is recommended that this field access [or agricultural layby] is not used by the [Speed Enforcement Van] and a maintenance hardstanding is provided at another suitable location."*). The Issues could have been dealt with by one single Problem covering the two locations.

Another Stage 1 RSA contained a Problem pertaining to the provision for vehicles turning because of low bridge – *"It is recommended that measures are introduced to stop oncoming traffic while an HGV is performing the U-turn."* The next Problem was almost a complete repetition of this first Problem and its Recommendation and refers to the same location. The only difference was that it added a concern about the absence of lighting.

A third Problem at the same location pertained to the risk of non-motorised users being struck by a turning HGV and recommended that a safe route should be maintained for non-motorised users. Finally, a fourth Problem is described with identical text to the third Problem and simply adds mention of the risk of HGVs parking in the turning area.

These four Problems could each have been covered by two Problems (one about adequacy of the turning facility and one about pedestrians).

There is a risk that if Problem text is repetitive throughout a report, the reader might skip the detail increasing the likelihood that mistakes or omissions will occur. RSA reports should be as clear and concise as possible.

2.2.4 Information Surplus to Requirements

One of the Stage 3 RSAs reviewed contained the covering letter for the draft issue of the RSA as an appendix. This letter listed a number of issues considered *"to be outside the scope of the audit"*. Whilst this is the correct way of notifying such issues to the Overseeing Organisation, an appendix detailing the covering letter is not necessary and should not be included.

Another Stage 3 RSA referred to a preceding *"Interim RSA 3"* carried out before scheme opening. The findings of the Interim RSA were communicated in an email which was included in the appendix. This information was superfluous to requirements and should not have been included, particularly as the issues raised were reviewed as part of the Stage 3 RSA.

2.2.5 Interim RSAs

Following on from item 2.2.4 above, the Interim RSA referred to comprised only of an email informally summarising issues identified at an early site visit. It is recognised that clients occasionally request such visits before works are complete to give an early opportunity to remedy potential Problems whilst works are on-going. If this is requested in the form of an Interim RSA, the report should follow the same procedure as for a full-stage RSA and should be in the format of a formal RSA report.

When carrying out such examinations in an informal manner, RSA Teams should be careful to avoid compromising their independence from the design process.

2.2.6 Previous RSAs

One Stage 2 RSA contained a statement saying “A stage 1 Road Safety Audit was undertaken during [XXXXX 2018]. Any outstanding issues are addressed at section 3 of this report.”

The RSA contained only one problem, but it is not clear from the text above or from the problem text in Section 3 whether this problem was carried forward from the Stage 1 RSA. It could be that the quoted text above was entered as form text with just the date needing to be changed for each report, but it is important to know which problems have been brought forward and what has changed, if anything, since their first inclusion.

2.2.7 RSA Site Visits and Timescale

One of the Combined Stage 1&2 RSA reports reviewed detailed two site visits but gave no explanation as to why a second visit, which would have been in darkness, was carried out. This might have been as a result of a specific request by the Project Manager, or it might have been because known traffic peaks necessitated two visits.

The brief for the RSA was issued in November 2017. The first site visit was carried out in December 2017 and the second in April 2018. The report was not drafted until the end of July 2018. These timescales seem unusually protracted and the report gives no explanation as to why. If the RSA Team was awaiting design detail not issued with the original brief, it might have been appropriate to delay the site visit until that detail had been received.

It would be best practice to describe the reasoning behind additional site visits and protracted timescales for carrying out the RSA to give a complete context to the findings of the report.

One of the Stage 4 (12 month) RSAs was carried out more than three years after the scheme opened. Whilst it is recognised that data validation and reporting can delay 12-month reports somewhat, this timescale is excessive.

2.2.8 Incomplete Information

One Combined Stage 1&2 RSA expressed concern about a proposed sign which might have been located within the working width of the road restraint system.

“The drawings provided do not indicate the distance between the proposed warning sign and the existing central reserve barrier.”

RSA Teams should request any further information that they feel is missing and, in this case, a simple request to the design organisation for clarification might have cleared up or confirmed this concern. If the information is requested, but not provided, a statement to this effect should be included in the report introduction.

2.2.9 Document Format

One Stage 1 RSA was submitted in Microsoft Word format and the problem location plan, referred to in the report text, was missing from the document. RSA reports should be issued as PDFs to reduce the likelihood of inadvertent or deliberate changes to text or content after the RSA is signed as final.

2.2.10 Sense-checking

Some of the Problems raised in one of the reviewed reports describe the Recommendation within the Problem text. An example of this is shown below:

*“Fencing is provided at various locations adjacent to the path, **suitable reflective panels may help identify the location of the fence post particularly in periods of poor visibility.**”*

In addition, there are a number of examples of poorly written Problems such as:

“Northbound users entering the path from [the village] have passed a sign prohibiting the use of horse traffic. Approaching the series of bends with limited forward visibility and path width to allow safe manoeuvres to avoid conflict with ridden horses.”

Before issue, RSA reports should be subjected to a robust check and review process (carried out by staff experienced in RSA) to ensure that Problems and Recommendations are clearly and separately described and that they fulfil the requirements of the standard.

2.2.11 Blank Pages

Around 34% of the RSAs submitted this quarter contain pages deliberately left blank. This increases the environmental footprint (if printed) and makes electronic copies of the report cumbersome.

There is no need to include deliberately blank pages in RSA reports, they should be issued as a complete PDF with all appendices included.

2.2.12 Walkers, Cyclists and Horse Riders

Many of the RSA reports reviewed make reference to Non-motorised Users (NMUs). It should be noted that terminology is now not used. HD 42/17 (issued in May 2017) refers to *“Walkers, Cyclists and Horse Riders”* and this, or its abbreviation *“WCHRs”*, would be the preferred term used in RSA reports.

Appendix A

Quarterly Factsheet
1st July 2018 to 30th September 2018

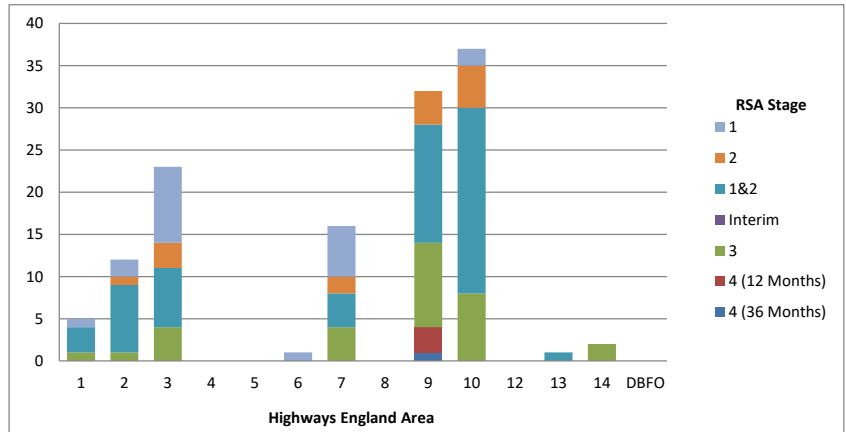
Quarterly Factsheet - 1st July 2018 - 30th September 2018 (Rev. 1)

Basic Information

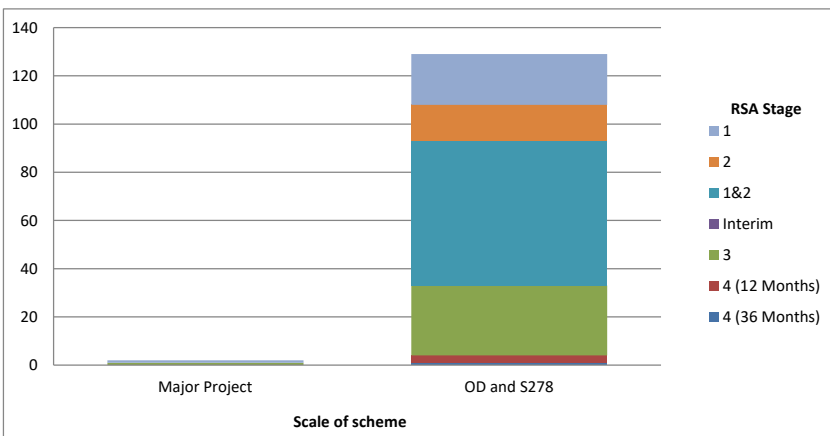
	This Quarter	Database Since Jan 2014
Number of RSAs submitted	131	2004
RSA Team Leader specifically identified	100%	95%
Project Sponsor specifically identified	88%	90%

	This Quarter	Database Since Jan 2014
Average number of problems recorded	2.2	1.7
Response Report issued	5%	2%
Exception Report issued	0%	0%

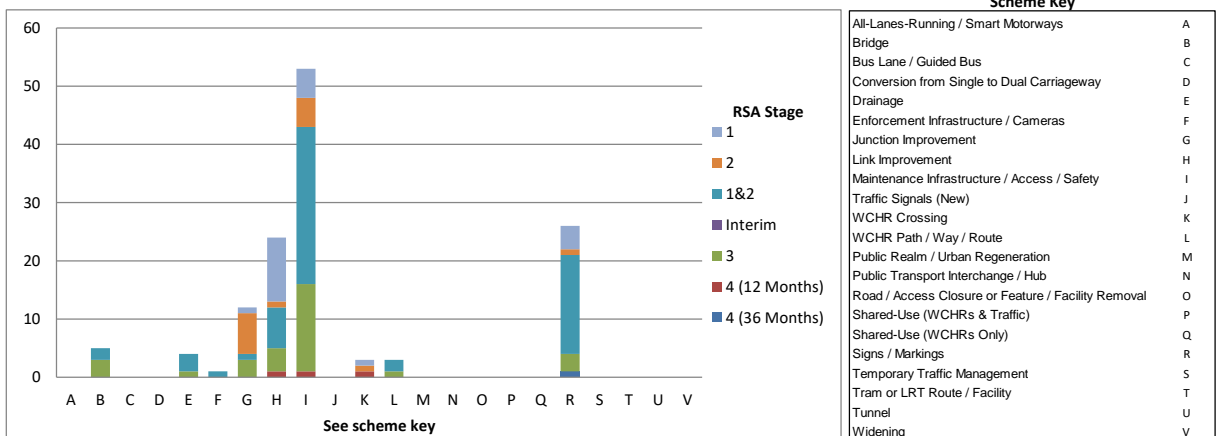
RSAs By Highways England Area - This Quarter



RSAs By Scale of Scheme - This Quarter



RSAs By Scheme Type - This Quarter

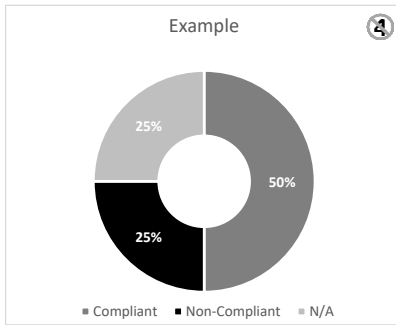


Scheme Key

All-Lanes-Running / Smart Motorways	A
Bridge	B
Bus Lane / Guided Bus	C
Conversion from Single to Dual Carriageway	D
Drainage	E
Enforcement Infrastructure / Cameras	F
Junction Improvement	G
Link Improvement	H
Maintenance Infrastructure / Access / Safety	I
Traffic Signals (New)	J
WCHR Crossing	K
WCHR Path / Way / Route	L
Public Realm / Urban Regeneration	M
Public Transport Interchange / Hub	N
Road / Access Closure or Feature / Facility Removal	O
Shared-Use (WCHRs & Traffic)	P
Shared-Use (WCHRs Only)	Q
Signs / Markings	R
Temporary Traffic Management	S
Tram or LRT Route / Facility	T
Tunnel	U
Widening	V

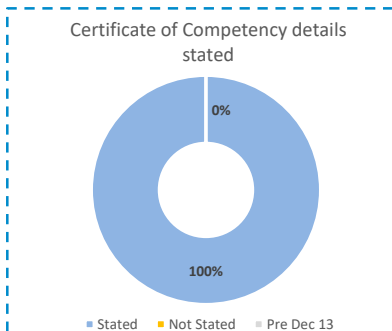
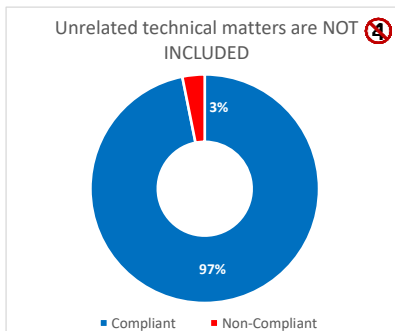
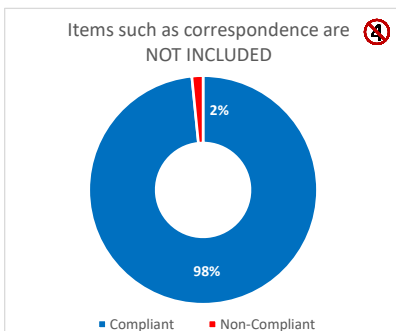
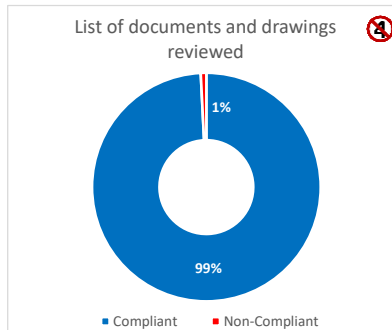
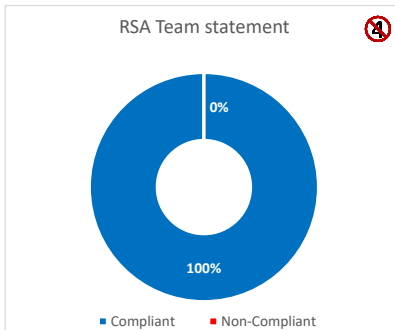
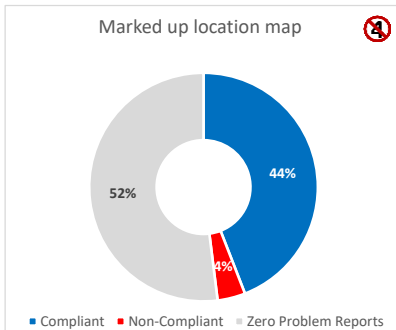
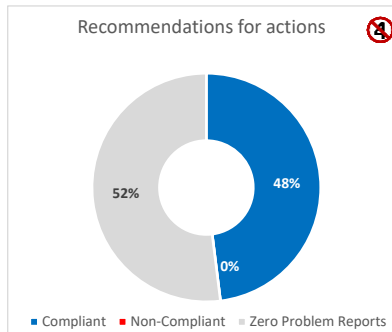
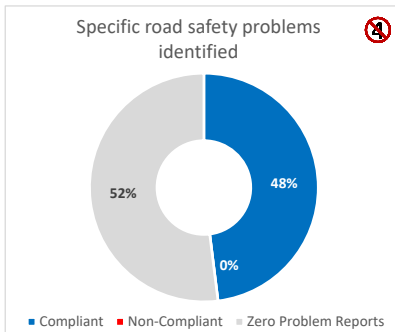
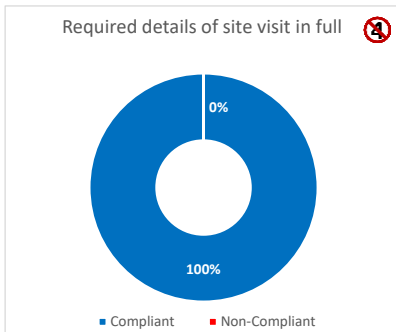
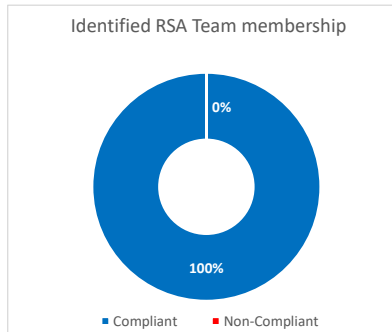
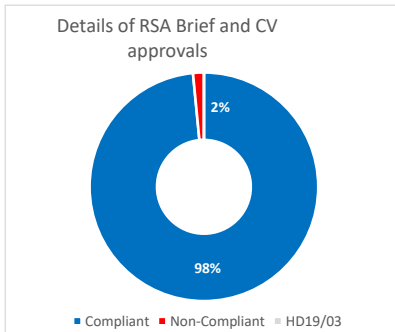
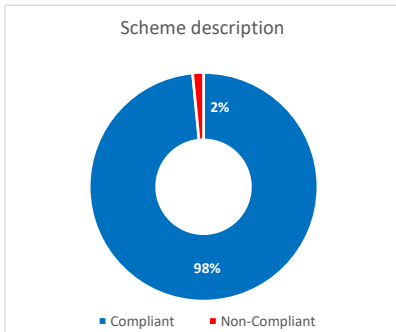
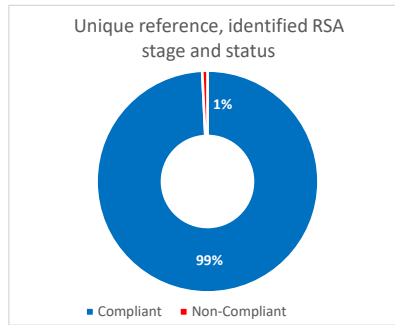
Quarterly Factsheet - 1st July 2018 - 30th September 2018 (Rev. 1)

RSAs by Compliances - This Quarter - Refers to all RSA Stages unless indicated (see key)



4

Charts marked by this symbol exclude data for Stage 4 RSAs as those compliances are not directly comparable



Inclusion of Certificate of Competency details is not mandatory