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

**QUARTERLY REPORT
April 2018 to June 2018**

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



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Table of Contents

	1
1. Introduction	4
1.1. Quarterly Reporting	4
1.2. Scope	4
1.3. RSAs Submitted by Highways England Areas	5
2. Qualitative Review of RSA Reports	6
2.1 Common Road Safety Problems	6
2.2 Good Practice and Areas for Improvement	9
2.2.1 RSA Stages and Process	9
2.2.2 Site Visits on Foot	10
2.2.3 Illustrative Reports	10
2.2.4 Police Comments	11
2.2.5 Acronyms	11
2.2.6 Site Visit Attendance and Conditions	11
2.2.7 Previously Raised Issues	11
2.2.8 Poorly Worded Problems	12
2.2.9 Problem Numbering	12
2.2.10 Road User Behaviour	12
2.2.11 Endorsement of Design	13
2.2.12 RSA Teams and the Area of Design	13
2.2.13 RSA Team Statement	13
2.2.14 Report Appendices	13
2.2.15 Signatures in RSA Reports	14
2.2.16 Stage 4 RSA Findings	14
Appendix A	15
Quarterly Factsheet 1 st April 2018 to 30 th June 2018	15

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 April 2018 and 30th June 2018 (inclusive).

This review should be read in conjunction with the **Quarterly Factsheet - April-June 2018 (Rev. 2)** contained in Appendix A of this report; and with the Task 286 '**Quarterly Reporting and Factsheets, Guidance Notes**'.

1.2. Scope

During this quarter, a total of 79 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 9 reports of 15 submitted
- Stage 2 RSAs 5 reports of 12 submitted
- Combined Stage 1 & 2 RSAs 11 reports of 25 submitted
- Stage 3 RSAs 5 reports of 22 submitted
- Stage 4 RSAs (12 months) 3 reports of 3 submitted
- Stage 4 RSAs (36 months) 1 report of 1 submitted
- Interim RSAs 1 report of 1 submitted

The principal purpose of the quarterly review, together with explanations of the sampling process; measures of HD 19/15 compliance and of the rationale behind the charting used in the corresponding quarterly factsheets are all described in the Guidance Notes.

1.3. 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

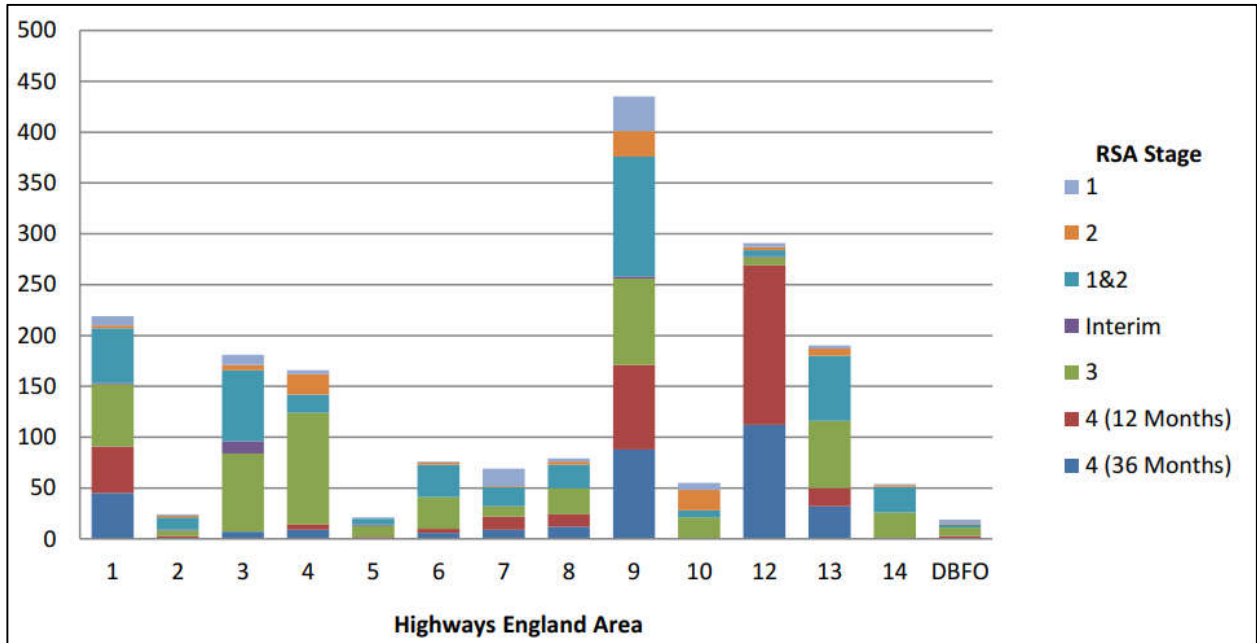
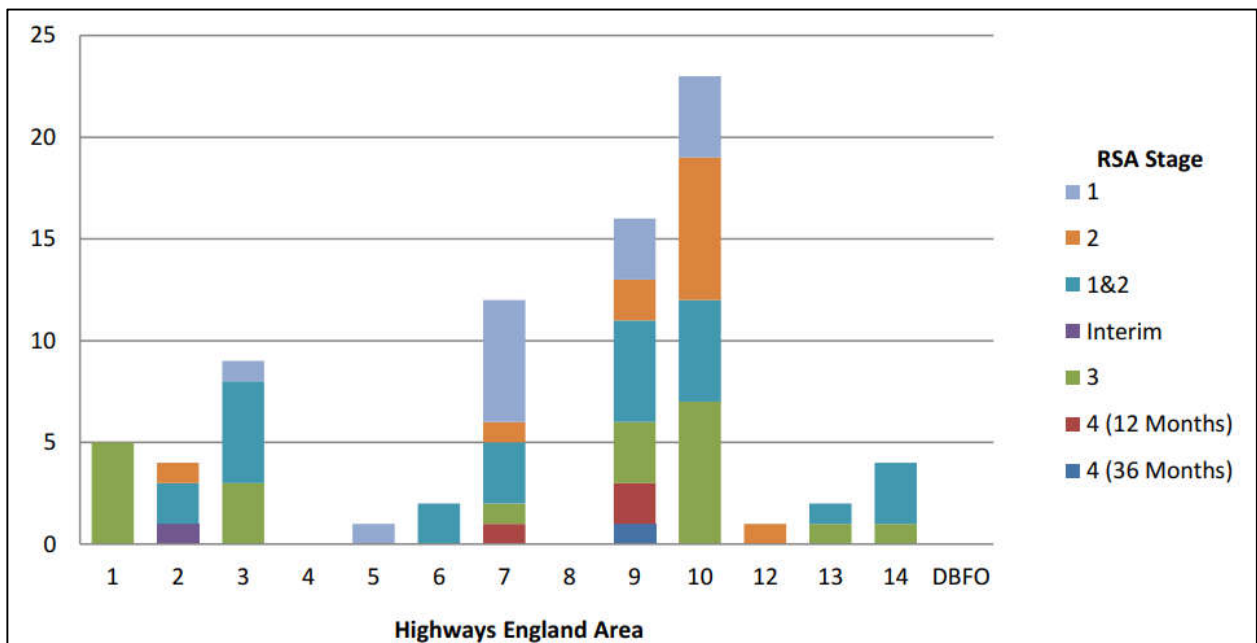


Figure 1-2 below illustrates all RSAs submitted to the SRDT inbox during this quarter, 1st April 2018 to 30th June 2018.

Figure 1-2 RSA submitted this quarter (Apr-Jun 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 1.2 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 201 road safety Problems covering 213 Issues. These include previously raised Problems not resolved at the time of each of the sample RSAs.

This gives an average of 1.06 Issues per Problem reported which is comparable to 1.12 in the preceding quarterly report (January 2018 to March 2018). The Issues per Problem ratio has remained consistent around these levels in recent quarters.

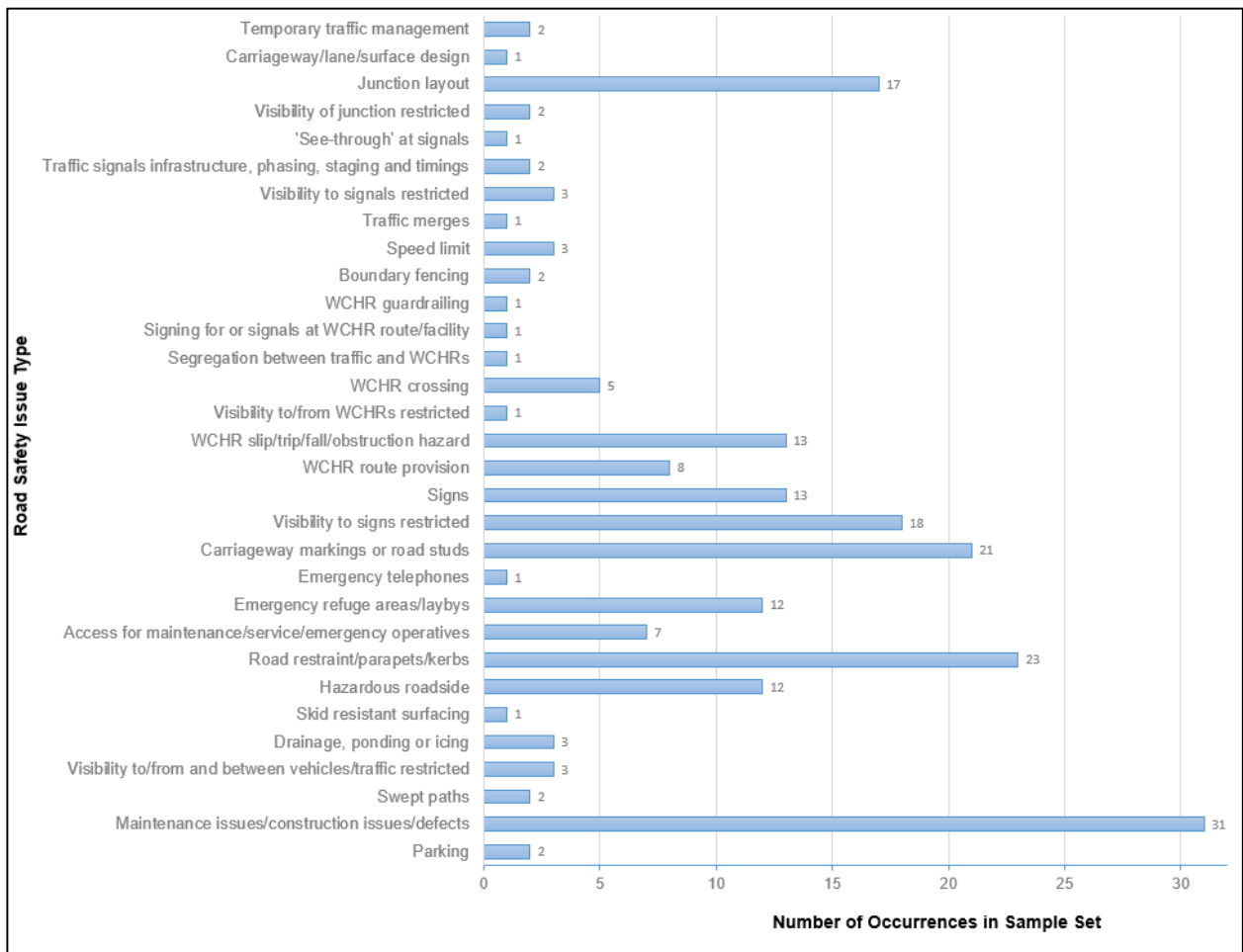
For the purpose of this quarterly report, the high-level categorisation of the Problems and Issues identified within the sample group have been expressed as follows, with Problem categorisations in **bold** type and Issues in [square brackets]:

- **Temporary traffic management measures** [signing]
- **Carriageway /lane / surface design** [width]
- **Junction layout** [design / principle / tie-ins / radii / lane arrangement / approach speeds /turning flows / queuing / restricted movements]
- **Visibility of junction restricted** [by vegetation / alignment]
- **'See-through' at signals** [contradictory signals visible]
- **Traffic signals infrastructure, phasing, staging and timings** [gap opportunities / queuing]

- **Visibility to traffic signals restricted** [by other traffic / alignment]
- **Traffic merges** [merge lengths]
- **Speed limit** [environment does not encourage compliance]
- **Boundary fencing** [inadequate]
- **Walkers, Cyclist and Horse Riders (WCHR) guardrailling** [absent]
- **WCHR route / facility signs or signals** [absent]
- **Segregation between traffic and WCHRs** [inadequate]
- **WCHR crossing** [inconspicuous / absent / tactile paving]
- **Visibility to / from and between WCHRs restricted** [by alignment]
- **WCHR slip, trip, fall or obstruction hazard** [poor surface / unprotected drops / street furniture / upstands / vegetation / cables]
- **WCHR route provision** [inconsistent / inadequate / narrow / access]
- **Signs** [poorly located / incorrectly mounted / lack of lateral clearance / inconsistent / absent / incorrect / inadequate / clutter / confusing]
- **Visibility to signs restricted** [by vegetation / other signs / signal heads / other vehicles]
- **Carriageway markings or road studs** [poorly located / inconspicuous / absent / incorrect / inadequate / confusing]
- **Emergency telephones** [likelihood of persons crossing the carriageway]
- **Emergency refuge areas / laybys** [design inappropriate / visibility to and from]
- **Access for maintenance / service operatives / emergency services** [health and safety / edge warning / fall protection / absent / inadequate]
- **Road restraint / parapets / containment kerbs** [inadequate / inconspicuous / working width compromised / risk of 'launch' / mounting height]
- **Hazardous roadside** [cabinets / structures / objects not passively safe / embankments]
- **Skid resistant or high friction surfacing** [inconsistent]
- **Drainage and related ponding and icing** [carriageways]
- **Visibility to/from and between vehicles/traffic restricted** [by vegetation / other traffic]
- **Swept paths** [overrunning footways or cycleways / collision with infrastructure or furniture]
- **Maintenance issues, construction issues or defects** [surfaces / signs / poor reinstatement / drainage / vegetation / construction method / non-removal of temporary features / incomplete works / debris]
- **Parking** [the scheme does not sufficiently dissuade, illegal / injudicious parking]

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 RSA Stages and Process

One of the Stage 2 RSA reports submitted this quarter contained a statement saying, “*No previous Road Safety Audits have been undertaken in relation to these works*”. The scheme in question appears to be of such a scale where a Stage 1 RSA should have been carried out. If a Stage 1 is considered as unnecessary by the Project Sponsor or Project Manager, this decision should be documented on file with reasons given. It is not known whether or not this was done in this case.

One of the Stage 3 RSAs submitted detailed a particularly large number of new Problems (70). The report cites that four, previous RSAs were carried out and that all were Combined Stage 1&2 RSAs. For a scheme of this scale, this approach is considered unsuitable and might account for the volume of Stage 3 Problems. 30 of the 75 Issues identified in that report pertained to matters of poor or incomplete construction; the structural construction methods employed; and, in one case, debris gathering in a drainage ditch.

12 of the Problems raised pertain to roadside objects not being adequately protected by vehicle restraint systems (VRS). In five (42%) of these the recommendation involves carrying out a Road Restraint Risk Assessment Process (RRRAP). It is generally the designer’s responsibility to ensure that RRRAP and other design risk assessments have been carried out during the design (or construction) process. RSA Teams should not feel the need to recommend such assessments but, rather, should focus their recommendations on measures which might be introduced.

In this and other Stage 3 RSA reports, other Problems which would normally be expected to have been identified by the preceding RSA stage included one which pertained to vehicle occupants crossing the dual carriageway to reach emergency telephones on the opposite side where no phone was provided on their side.

It is not known why any of these Problems were not identified by earlier RSAs but could be symptomatic of failures in the RSA or design processes as a whole.

Another Stage 3 RSA contained a Problem related to the absence of provision of refuge or protection for vehicle occupants having left a broken-down vehicle. In that case, the Recommendation stated:

“Given the extreme limitations available to resolve the problem due to site constraints and the fact that the designer has already incorporated the maximum allowable relaxations available to try and resolve the situation, the Audit Team believe that if no further additional measures are implemented to fully monitor stranded vehicles within this section, then an exception report will need to be produced.”

It would appear from Section 2 of the Stage 3 RSA in question, that this Problem might have been raised by a previous RSA, although it is not clear in that regard. As the previously raised Problem seems not to have been subject of an Exception, the RSA Team should have repeated the recommendation rather than seeking to guide the Project Sponsor towards Exception.

One of the Stage 1 RSAs reviewed was on a scheme which was not going to add or change any highway features but was just reinstating existing features like for like. It is unclear as to why this scheme warranted a Stage 1 RSA and the single Problem raised pertained only to the fact that the drawings did not show the replacement of edge lines and studs. Checking that

infrastructure and markings are reinstated following maintenance works is not within the scope of an RSA.

Care should also be taken to ensure that RSA Report text and headings clearly and consistently describe the correct stage number. One of the reports reviewed this quarter refers to itself variously as an “*Interim Stage 1&2 [sic]*”, a “*Stage 1&2 [sic]*” and a “*Stage 3 RSA*”. From the text therein, it seems clear that this was a Stage 3 RSA, but these anomalies could certainly cause confusion in the audit trail.

Finally, it is evident in some RSA reports that the RSA Teams have sought to guide the Project Sponsor or others with regard to the RSA process by the inclusion of headings such as, “*Audit Management*” or similar. This should be unnecessary and might be an indication of previous negative incidents experienced by the RSA Team or their organisation.

2.2.2 Site Visits on Foot

One of the Stage 3 RSAs contained a statement:

“The Audit Team wishes to draw to your attention that at the time of the audit the [dual carriageway] was under temporary traffic management with a Lane 1 closure in place, and as such the Audit Team was only able to view the constructed scheme from the safety of the Hard Shoulder. Therefore, areas of the proposed Motorway including the hardened central reserves, slip road embankments could not be traversed on foot.”

This statement, and similar statements given in a number of other reports, are largely in line with clause 2.37 of HD 19/15 which states that the introduction should inform the Project Sponsor if, “*there is an accessibility issue that restricts the Road Safety Audit Team from fully traversing areas of the site*”. However, accessibility of areas of the site should not preclude the RSA Team from giving full consideration to the safety issues in any location.

RSAs do not require any kind of technical check in close detail. For most motorway and dual carriageway improvement schemes, walking the site would be impractical and unsafe. Whilst it is recognised that users might occasionally need to leave their vehicle in emergencies or breakdowns on such roads, these are extraordinary circumstances which can be considered by an RSA Team by means of multiple drive-throughs of the scheme and desktop study. Videos of the drive-throughs should be taken to aid close examination. In some cases, sections of the scheme might also be viewed from safe vantage points on overbridges for example. For motorway and dual carriageway schemes, where possible, RSA Teams should ask to be driven through the works area before removal of the temporary traffic management (TTM) so that verge detail which might present a hazard to ex-vehicle pedestrians can be observed at slow speed.

2.2.3 Illustrative Reports

In the sampled set of RSA reports reviewed, a number contain additional paragraphs and caveats not included in HD 19/15’s illustrative reports. For example:

“The project is at concept stage and no formal review of departures required has been undertaken. Within the work to-date no departures relating to the geometric layout have been noted.”

“Any recommendations included within this report should not be regarded as being prescriptive design solutions to the problems identified. They are intended only to indicate a proportionate and viable means of eliminating or mitigating the identified problem, in accordance with HD 19/15, and in no way imply that a formal design process has been undertaken. There may be alternative methods of addressing a problem which would be equally acceptable in achieving the desired elimination or mitigation and these should be considered when responding to this report.”

It is recognised that the text given in HD 19/15's illustrative reports (Annexes F, G and H) is not necessarily intended to suit all situations, but there should only rarely be circumstances where RSA reports could not follow the suggested text and format very closely.

The RSA Process (see 2.2.1 RSA Stages and Process) is clearly defined by HD 19/15 and additional text to caveat deviations should not usually be necessary.

The illustrative reports should be treated as best practice and RSA Teams should ensure that they are not, by the inclusion of additional caveats, departing from the prescribed processes.

2.2.4 Police Comments

One Stage 3 RSA submitted contained a list of comments from a Police representative. The Police representative did not attend the site visit. HD 19/15 does not require the inclusion of third-party comments and RSA Teams should be careful that they do not suggest endorsement or adoption of the comments by including them.

Should third-parties submit comments for consideration by the RSA Team, these should only be referred to if they contribute to specific Problems and Recommendations identified by the RSA Team and if they agree that the comments should be included.

2.2.5 Acronyms

RSA Teams should be careful to clearly explain acronyms, particularly on technology schemes where the acronyms might not be commonly used elsewhere. Acronyms should be fully explained at the point at which they are first used within the audit report or listed in an appended glossary for example.

2.2.6 Site Visit Attendance and Conditions

There was a marked increase in the number of Stage 1, 2 and 3 reports (including Combined Stage 1&2 and Interim RSAs) which did not sufficiently detail who attended the site visit and what conditions were prevailing during the visit. Last quarter, January 2018 to March 2018, non-compliance with this requirement was at 3% whereas, this quarter, it has risen to 29%. Of the 22 reports which were non-compliant in this regard, 19 were by the same RSA Team.

In accordance with the requirements of HD 19/15 clauses 2.31, 2.35 and 2.39 *"all Road Safety Audit Team members must visit together the sites of Highway Improvement Schemes"*.

Clause 2.97(e) states that RSA reports shall include *"Details of who was present at the site visit, the date and time period(s) when it was undertaken and what the site conditions were on the day of the visit (weather, traffic congestion, etc.)"*.

As best practice, RSA reports should describe the site visit in the terms used in the illustrative report in Annex F of HD 19/15, which contains the following wording:

"The Audit Team visited together the site of the proposed bypass on the morning of 8 January 2016 between 8am and 12pm. During the site visit the weather was fine and sunny and the existing road surface was dry. Traffic conditions were free flowing."

2.2.7 Previously Raised Issues

In one of the reports reviewed, Section 2 regarding previous RSAs stated simply, *"Any outstanding issues are addressed at Section 3 of this report."* but gave no specific cross-reference. If set out like the illustrative report in Annex F of HD 19/15, readers could see where in the main Problem/Recommendation section the unresolved Issues are currently documented. This would allow the RSA Team to amend their findings in line with designers' responses or design developments rather than just repeat the Problem verbatim. Section 3 of the report contained only two Problems, but it was not made clear whether or not these were previously raised Problems.

2.2.8 Poorly Worded Problems

Care should be taken by RSA Teams to ensure that Problems and Recommendations are concise, clear and grammatically sound.

One of the reports contained a Problem which stated:

“An access gate is proposed at this location for maintenance purposes. There are no facilities proposed to aid access or restraint system protection which has the potential for injury, including trips and falls in front of potentially moving traffic.”

This wording is non-sensical and does not clearly describe a road safety concern or how the access route or VRS might even present a risk of falls or other injuries.

Another Problem in the same report was, likewise, poorly worded and stated:

“Traffic sign located within the working width of the proposed vehicle restraint system with reduced set back from the hard shoulder. This has the potential to reduce the effectiveness of the system with larger vehicles being ‘guided’ into the sign face should they leave the carriageway.”

The Problem appears to confuse the Issues of compromising the working width of VRS and that of lateral clearance from the edge of the carriageway. In addition, it does not explain how the VRS might “guide” a vehicle into the sign.

The Recommendation stated:

“It is recommended that the sign assembly be mounted on the proposed noise fence to remove the need for a sign post and achieve a minimum 450mm setback from the carriageway.”

The location in question was the nearside verge of a motorway and the Problem location plan showed the sign as being a ‘Driver Location’ sign located between the VRS and the “noise fence”. Whilst mounting the sign on the environmental barrier would remove the post from the working width of the VRS, the Recommendation seems not to recognise that the wooden fence described might not be structurally suitable for sign mounting.

Furthermore, the mention of 450mm lateral clearance is inappropriate in relation to this sign in the motorway verge. The sign is located behind the existing VRS which, being on a motorway, should be set further back from the carriageway edge than 450mm (by standard requirements).

Finally, the report contained a Section 3 sub-heading of “Protective Aids”. The text of the one Problem under this heading simply cross-referenced to a previous Problem in the same report. The vast range of road safety issues which might be encountered by an RSA Team means that the HD 19/15 Annex A, B or C checklist headings are not necessarily appropriate for every RSA. However, the purpose of including this confusing heading, which is not a recognised term in the context of highway design, and the simple cross-reference to an earlier Problem, is unclear.

2.2.9 Problem Numbering

The scope of one of the RSAs submitted this quarter was to consider three options of the scheme design. The report used paragraph numbers to identify Problems; so, the first problem for the first option is referenced only as “3.1 Problem”. However, subsequent Problems listed under headings for each of the other two options also start with the same “3.1 Problem” reference. For the ‘audit trail’, it is important that future reports and related correspondence can clearly back-reference to RSA Problems clearly identified by a consistent indexing method.

2.2.10 Road User Behaviour

Problems are occasionally worded solely in relation to road user behaviour as in the example below:

“It is reasonable to assume that all drivers who intend to use the right turn facilities will enter the right turn lane at the diverge point. Vehicles intending to access the [car park] could then be stuck behind vehicles intending to access the [public house]. These vehicles may then attempt to circumvent the stationary vehicles by entering lane two of the dual carriageway at low speed to access the supermarket right turn facility. These slow-moving vehicles will be in conflict with vehicles already in lane two travelling at a potentially higher speed. Collisions could occur between these vehicles causing injuries to vehicle occupants.”

Whilst road user behaviour must be a consideration in RSA deliberations, Problems should be clearly worded to highlight specific areas of the design which might increase the likelihood of driver error or bad behaviour, or which might exacerbate the consequences.

In the example above, the author has based their findings, at least in part, on an assumption. This is best avoided.

2.2.11 Endorsement of Design

One of the RSAs reviewed contained the following statement within the Problem text:

“The proposed layout shows a banned right turn out onto the [A-road] from the [station] and the [library] which is welcomed by the audit team.”

RSA Teams should be careful not to suggest endorsement of any design proposals.

2.2.12 RSA Teams and the Area of Design

One of the RSAs contained the following text in the introduction:

“The comments and suggestions for road safety improvements made in this report are aimed to address matters that might have an adverse effect on road safety in the context of the chosen design. To clearly explain a safety problem or a recommendation to resolve a problem, the Audit Team may, on occasion, refer to a Design Standard. In addition, the Audit Team may provide an illustrative sketch to clarify a recommendation particularly in the event of a complex recommendation. Such sketch illustrations do not represent any design solution.”

The report in question does not appear to include any sketched Recommendations itself but there is concern that a stated intention to sometimes provide a sketch of suggested measures would blur the lines between recommendation and design.

One other Stage 1 RSA report stated that the design was at ‘concept’ stage which suggests that this RSA might have been commissioned too early in the design process. Notwithstanding that, the RSA Team’s comments appear to go beyond the scope of a Stage 1 RSA and the Recommendations focus on offering design advice.

This confusion between the RSA Team and design functions should be avoided.

2.2.13 RSA Team Statement

The RSA Team Statement in one of the RSA reports submitted this quarter contains no signatures. With the exception Stage 4 RSAs, RSA reports issued as final must be signed by both the RSA Team Leader and Member(s).

22 (28%) of the submitted reports, all by the same RSA Team, contain an amended RSA Team Statement saying, *“We confirm that this audit has been carried out in accordance with the guidelines in HD 19/15”*. The appropriate wording for the RSA Team Statement is given in Annex D of HD 19/15 and should be used as it appears that annex.

2.2.14 Report Appendices

One of the submitted RSA reports had appendices for the *“Problem Location Plans”* and *“Road Safety Audit Brief and Team Members Approvals”* but neither of these appendices had any

contents. Final submissions of RSA reports should be complete, and appendices bound into the document regardless of whether it is a hard copy or electronic document.

2.2.15 Signatures in RSA Reports

Most RSA organisations will have internal quality assurance (QA) processes and will often name a reviewer or authoriser who does not form part of the RSA Team. Occasionally the RSA reviewer's details, and sometimes a signature, feature quite prominently. Best practice would be to take care to ensure that there is no suggestion that the reviewer would have influenced the findings or taken ownership of the RSA text in any way. One method might be to include a 'cover sheet', separate from the report, to detail the internal QA processes or just to have a very discreet QA box separated from the main body of the report text.

2.2.16 Stage 4 RSA Findings

One of the Stage 4 (12 months) RSAs submitted was carried out 2.5 years after opening.

This RSA demonstrated good practice by using three years of pre-opening data rather than just 12 months. However, it only examined exactly 12 months of post-opening collision data even though it seems likely that more data would have been available by the time that the Stage 4 RSA was carried out.

The report contained a well detailed analysis of collisions, but the authors did not highlight or comment on an increase in the proportion of KSI collisions which was evident from the tabular data. Whilst the increase was due to a reduction in the number of slight injury collisions rather than an increase in the number of serious injury collisions, it is possible that the scheme was not meeting its objectives and further investigation into why KSIs had not decreased in line with the slight injury collisions might have been warranted.

A site visit in both daylight and darkness was undertaken which might have been justified by the statistical increase in KSI percentage and a slight increase in dark collisions. However, the report includes a statement saying:

"There were no collision problems identified during collision analysis that required review as part of a site inspection. The site visit undertaken involved the review of outstanding items from the previous stage of RSA and to provide a general overview of the scheme."

The said review looked at previously raised Problems but focussed largely on whether or not Problems had been resolved as Recommended without linking those findings to the occurrence of collisions. Such a review lies outside the scope of Stage 4 (12 months) RSAs and, in this case, resulted in a 45-page report (as opposed to the HD 19/15 example which is very concise and only 2 sides long).

The report conclusions consisted largely of statistics but made little comment about whether or not changes in collision population, circumstances or types might be related to the scheme measures or might have contributed to the KSIs recorded. The report closes with a conclusion saying, *"Based on the findings of this report there is no definitive evidence to indicate any significant road safety issue associated with the [A1234] Improvement Scheme"* but this conclusion it is not clearly supported by findings.

Appendix A

Quarterly Factsheet
1st April 2018 to 30th June 2018

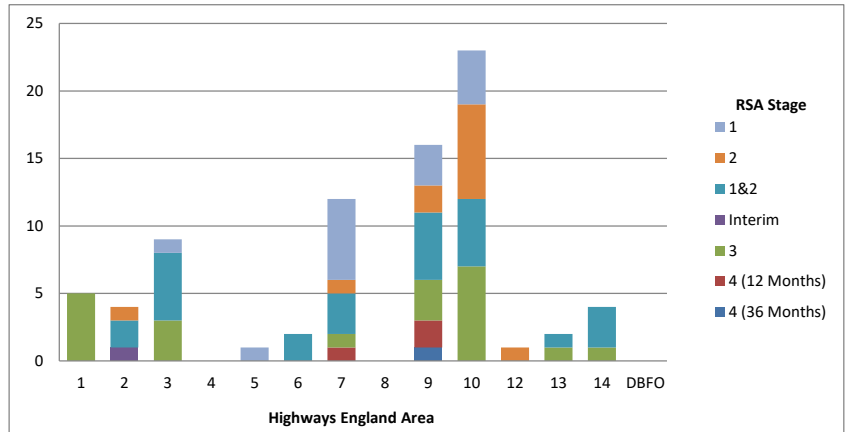
Quarterly Factsheet - 1st April 2018 - 30th June 2018 (Rev. 1)

Basic Information

	This Quarter	Database Since Jan 2014
Number of RSAs submitted	79	1873
RSA Team Leader specifically identified	100%	94%
Project Sponsor specifically identified	87%	90%

	This Quarter	Database Since Jan 2014
Average number of problems recorded	2.7	1.7
Response Report issued	5%	2%
Exception Report issued	0%	0%

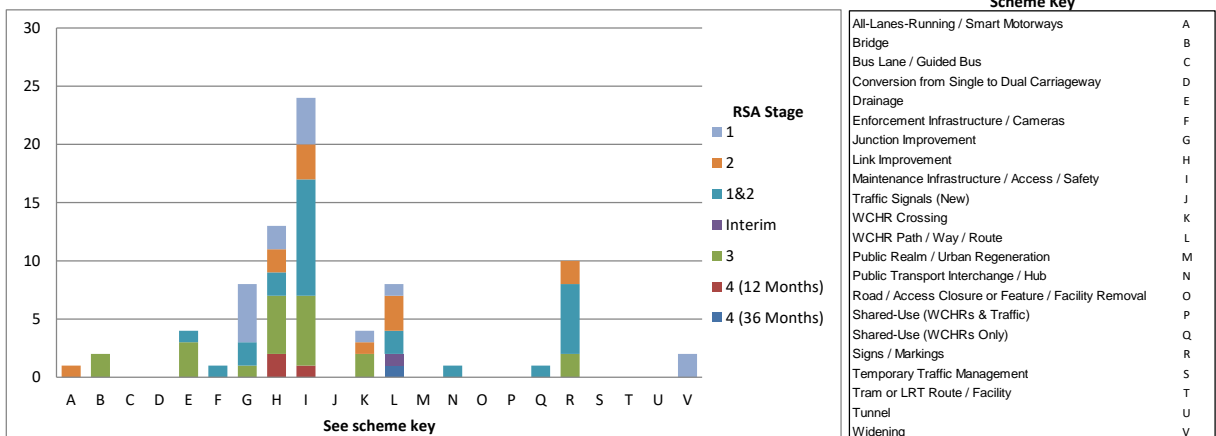
RSAs By Highways England Area - This Quarter



RSAs By Scale of Scheme - This Quarter



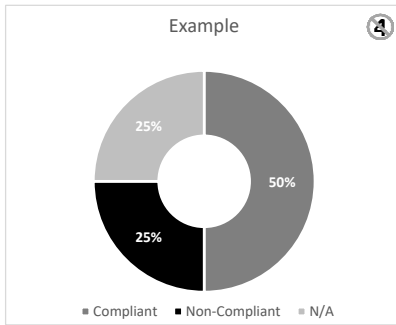
RSAs By Scheme Type - This Quarter



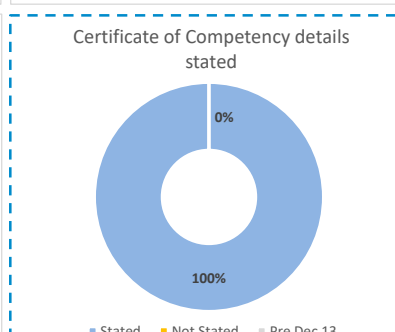
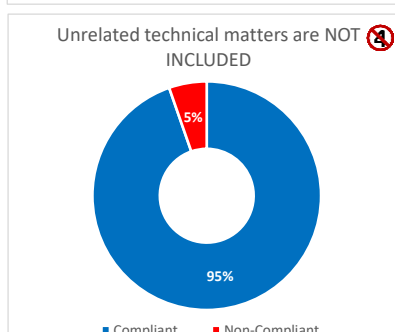
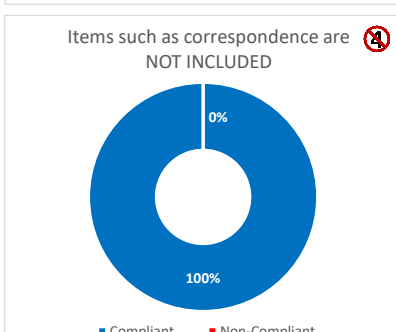
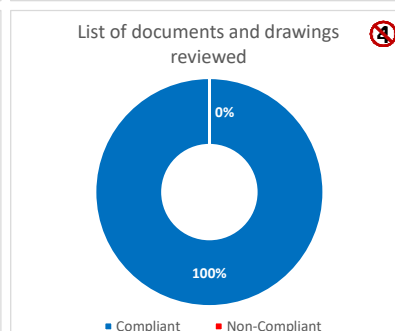
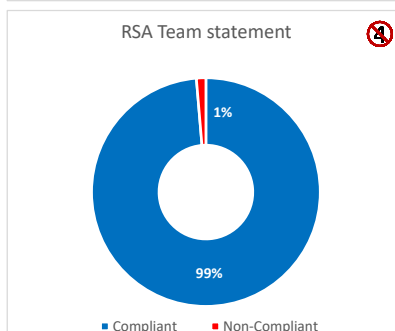
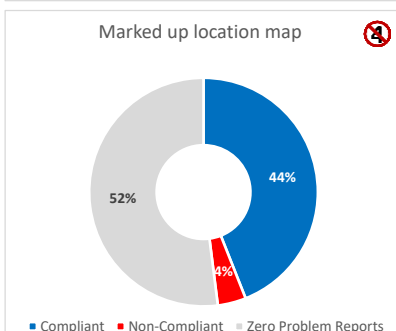
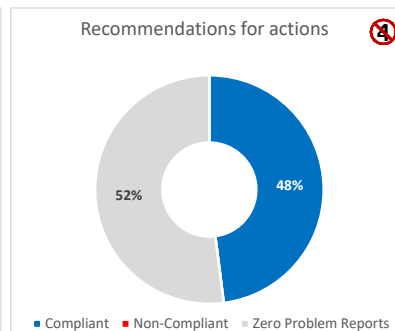
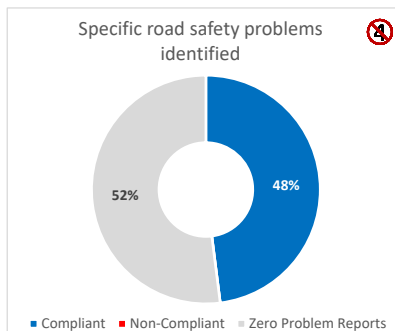
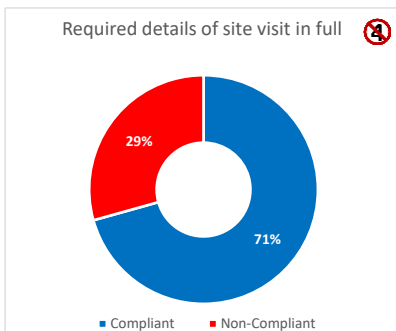
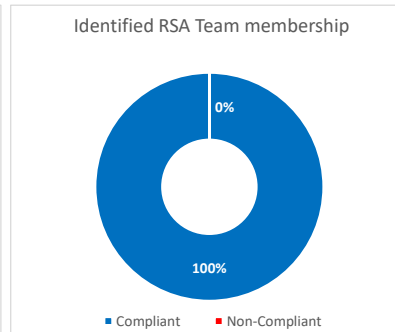
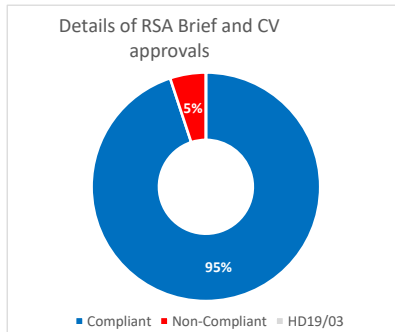
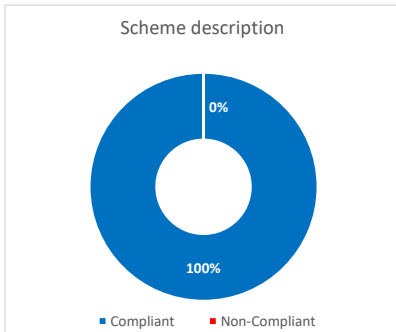
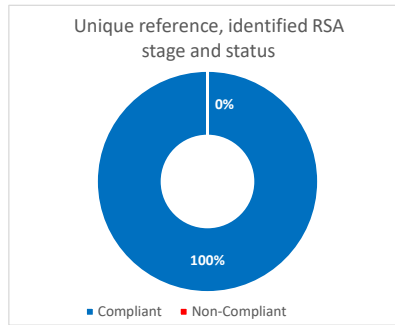
Scheme Key	
All-Lanes-Running / Smart Motorways	A
Bridge	B
Bus Lane / Guided Bus	C
Conversion from Single to Dual Carriageway	D
Drainage	E
Enforcement Infrastructure / Cameras	F
Junction Improvement	G
Link Improvement	H
Maintenance Infrastructure / Access / Safety	I
Traffic Signals (New)	J
WCHR Crossing	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 April 2018 - 30th June 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