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
October 2017 to December 2017

To be read in conjunction with Task 286 ‘QUARTERLY REPORTING AND FACTSHEETS, GUIDANCE NOTES’
Document Control

<table>
<thead>
<tr>
<th>Document Title</th>
<th>QUARTERLY REPORT October 2017 to December 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author</td>
<td>Neil Hutchings</td>
</tr>
<tr>
<td>Owner</td>
<td>Nicholas Bentall</td>
</tr>
<tr>
<td>Distribution</td>
<td>Task 286 - ACJV Project Team</td>
</tr>
<tr>
<td>Document Status</td>
<td>Draft for Issue</td>
</tr>
</tbody>
</table>

Revision History

<table>
<thead>
<tr>
<th>Version</th>
<th>Date</th>
<th>Description</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>12/06/18</td>
<td>Final</td>
<td>Neil Hutchings</td>
</tr>
</tbody>
</table>

Reviewer List

<table>
<thead>
<tr>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>John-Paul Doherty</td>
<td>Technical Review</td>
</tr>
<tr>
<td>Nicholas Bentall</td>
<td>Highways England Reviewer</td>
</tr>
</tbody>
</table>

Approvals

<table>
<thead>
<tr>
<th>Name</th>
<th>Signature</th>
<th>Title</th>
<th>Date of Issue</th>
<th>Version</th>
</tr>
</thead>
</table>

The original format of this document is copyright to the Highways England.
Table of Contents

1. Introduction
   1.1. Quarterly Reporting 4
   1.2. Scope 4
   1.3. Limitations in Historic Comparisons 4
   1.4. RSAs Submitted by Highways England Areas 5

2. Qualitative Review of RSA Reports
   2.1 Common Road Safety Problems 6
   2.2 Good Practice and Areas for Improvement 9
      2.2.1 RSA Reports with Large Number of Problems 9
      2.2.2 RSA Terms of Reference 12
      2.2.3 Matters Outside of Scope 12
      2.2.4 RSA Report Stage and History 13
      2.2.5 Recommending Removal of Features 13
      2.2.6 Problem Locations 14
      2.2.7 Inclusion of Appendices in Submitted RSA Reports 15
      2.2.8 RSA Process and Programming 15
      2.2.9 Entire Checklist Included as Headings 15

Appendix A
Quarterly Factsheet 1st October 2017 to 31st December 2017 16
1. Introduction

1.1. Quarterly Reporting

This report comprises the quarterly qualitative 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 October 2017 and 31st December 2017 (inclusive).

This review should be read in conjunction with the Quarterly Factsheet - October-December 2017 (Rev. 2.1) 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 56 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: 5 reports of 5 submitted in quarter
- Stage 2 RSAs: 2 reports of 2 submitted in quarter
- Combined Stage 1 & 2 RSAs: 13 reports of 21 submitted in quarter
- Stage 3 RSAs: 9 reports of 15 submitted in quarter
- Stage 4 RSAs (12 months): 3 reports of 10 submitted in quarter
- Stage 4 RSAs (36 months): 3 reports of 3 submitted in quarter
- Interim RSAs: No Interim RSAs submitted this quarter

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. Limitations in Historic Comparisons

In order to minimise anomalies arising from comparisons with historical data (which might have been recorded differently), data from between 1st January 2014 and 30th June 2016 which already existed within the database were retrospectively updated as far as practicable to provide a historical baseline for comparisons.
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 1-2 below illustrates all RSAs submitted to the SRDT inbox during this quarter, 1st October to 31st December 2017.

---

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

---

**Figure 1-2** RSA submitted this quarter (October to December 2017) 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 310 road safety Problems covering 330 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 1.03 in the preceding quarterly report (July 2017 to September 2017). 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:

- Temporary traffic management measures [inappropriate]
- Walking, Cycling and Horse-riding (WCHR) routes under or over bridge structures [parapet heights]
- Carriageways under or over bridge structures [inadequate headroom]
- Carriageway /lane / surface design [alignment / skid resistance / surface type (not incl. HFS) / service covers / width / tie-ins / obstructions / stacking]
- Junction layout [design / principle / radii / queuing / stacking / restricted movements]
- Visibility of junction restricted [by alignment / infrastructure / buildings]
• 'See-through' at signals [contradictory signals visible / green signal seen by wrong traffic streams]
• Traffic signals including phasing, staging and timings [inappropriate / conflicts / queuing / location]
• Visibility to traffic signals restricted [by vegetation / other traffic / infrastructure / buildings]
• Speed limit [extents]
• WCHR guardrailing [absence / inadequate]
• WCHR route / facility signs or signals [poorly located / absent / inadequate]
• Segregation between traffic and WCHR [inadequate]
• WCHR crossing [inconspicuous / inconsistent / absent / inadequate / confusing / tactile paving]
• Visibility to / from and between WCHRs restricted [by vegetation / street furniture / traffic / alignment]
• WCHR slip, trip, fall or obstruction hazard [unprotected drops / street furniture / service and drain covers / vegetation / material from embankment]
• WCHR route provision [inappropriate / narrow / lighting / tactile warning surfaces / access]
• Signs [poorly located / incorrectly mounted / lack of lateral clearance / inconsistent / absent / incorrect / inadequate / reflectivity / confusing]
• Visibility to signs restricted [by vegetation / other signs / signal heads / alignment / infrastructure / other vehicles]
• Vehicle activated signs [confusing]
• Carriageway markings or road studs [inconspicuous / inconsistent / absent / inadequate / confusing]
• Emergency refuge areas / laybys [spacing inadequate / visibility to and from]
• Access for maintenance / service operatives / emergency services [health and safety / absent / unsafe]
• Road restraint / terminals / parapets / containment kerbs [inadequate / inappropriate / inconspicuous / unnecessary]
• Hazardous roadside [street furniture / trees / structures / objects not passively safe / ditches]
• Skid resistant or high friction surfacing [inadequate]
• Drainage and related ponding and icing [WCHR crossings / carriageways]
• Visibility to / from and between vehicles / traffic restricted [by street furniture / alignment / other traffic]
• Swept paths [overrunning footways or cycleways / overrunning verges]
• Illumination of signs [absence of illumination]
• Public transport routes / stops and interchanges [design]
• Maintenance issues or defects [lighting]
• Parking [does not sufficiently dissuade illegal / injudicious parking]
• Structural safety [walls]
The 330 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**

<table>
<thead>
<tr>
<th>Principal Highway Measure Type</th>
<th>Number of Occurrences in Sample Set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multi-modal hub</td>
<td>1</td>
</tr>
<tr>
<td>Drainage</td>
<td>1</td>
</tr>
<tr>
<td>Road restraint (including median gap closures)</td>
<td>2</td>
</tr>
<tr>
<td>Access/egress route or control</td>
<td>1</td>
</tr>
<tr>
<td>Signign and/or markings</td>
<td>2</td>
</tr>
<tr>
<td>Resurfacing</td>
<td>3</td>
</tr>
<tr>
<td>WCHR route (including uncontrolled crossings)</td>
<td>2</td>
</tr>
<tr>
<td>Conversion to managed or smart motorway, or all-lanes-running</td>
<td>2</td>
</tr>
<tr>
<td>Link/route improvement (including localised widening)</td>
<td>1</td>
</tr>
<tr>
<td>Motorway/dual-carriageway interchange improvement</td>
<td>1</td>
</tr>
<tr>
<td>Roundabout improvement</td>
<td>3</td>
</tr>
<tr>
<td>Junction signalisation</td>
<td>1</td>
</tr>
<tr>
<td>Priority junction improvement</td>
<td>2</td>
</tr>
</tbody>
</table>

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 Reports with Large Number of Problems

Three of the RSA reports reviewed this quarter detailed 84, 60 and 46 Problems respectively.

Principally, there appear to have been a number of breakdowns in the processes leading up to and during the RSAs in question. Possibilities include, but are not necessarily restricted to:

- The designs previously audited might have been of inadequate detail;
- The previous RSAs might have been poorly executed;
- The post-RSA processes following the earlier RSAs might not have been appropriate resulting in an accumulation of unresolved problems (for example);
- The RSA Briefs and their preparation for the later RSAs might not have been adequate;
- The design submitted for the later RSAs might have been of a poor quality;
- The RSA Teams might have over-reached the prescribed extent their role.

Around 30%, 38% and 26% of the Problems in each RSA respectively were based on an absence of information. In one example of this, the recommendation read simply, “Provide complete lighting details.” RSA Teams are required to seek information they feel is missing, during the RSA process, and should not recommend its provision subsequent to the issue of the RSA report.
However, the level of missing information evident from these two reports suggests that the supporting information issued with the RSA Briefs was insufficient. Some procedural and reporting irregularities are evident in each of the three RSA reports, and whilst these might not have directly contributed to the usually large number of Problems in each case, they are described in the following paragraphs as areas for potential improvement.

**The 84 Problem report** examined two scenarios; the first being the finished scheme scenario and the second being the construction phase temporary traffic management (TTM) measures. The ratio of Problems between the two scenarios was 68:16.

The report was a Stage 1 RSA but mentions that an earlier Stage 1 RSA was carried out on the same scheme about three years previously. There was no explanation of why the second RSA was commissioned (i.e. significant design changes or change in scope, etc.). The previous Stage 1 RSA identified only 6 Problems. All but one of these were considered to be resolved and one was subject of an Exception.

The RSA Brief, included in the appendices of the RSA, detailed only four changes in design. Two of these pertained to levels and gradients and two involved declared departures. It is not clear how these four changes in design could have led to such a large increase in the number of problems.

The RSA 1 report appendices included the RSA Brief form in full together with a full set of drawings; collision data outputs; temporary traffic management plans; a “Designer’s Response” report (which itself included the original RSA 1 text and appendices in full); and the Exceptions report. Inclusion of all this material and the associated drawings from each makes the report extremely cumbersome and large (120mb) and is possibly, by interpretation, in contravention of paragraph 2.100 of HD 19/15 which states “Items such as correspondence with the Overseeing Organisation or copies of marked up checklists must not be included in the Road Safety Audit Report”.

One of the Problems was solely about queueing and delays but expressed no specific road safety concern. The RSA made no remedial recommendation but simply gave some general advice on how the designer should use the traffic model.

**The 60 Problem report** examined one scenario.

The RSA introduction recorded a number of departures from standards. Two of these departures referred to the RSA process itself. One stated:

“Stage 1 and Stage 2 Road Safety Audit must not be combined as purely a cost and/or programme saving measure. Combining a Stage 1 and Stage 2 Road Safety Audit as purely a cost and/or programme saving measure is considered a Departure as per Clause 2.28 of HD 19/15.”

The other (anonymised as necessary) stated:

“The finalised Stage 1 Road Safety Audit for the scheme carried out by [Smith and Co.] is dated [day/month] 2010. The finalised Stage 1 Road Safety Audit for the scheme carried out by [the local authority] is dated [day/month] 2011. HD 19/15 requires that a Stage 1 Road Safety Audit must be repeated if the previous finalised Road Safety is more than 5 years old. Conducting a Stage 2 Road Safety Audit when the Stage 1 Road Safety Audit is more than 5 years old is considered a Departure as per Clause 2.62 of HD 19/15.”

It seems to be that the shelf life for the previous Stage 1 RSAs had expired (the report itself was dated 2017) but, rather than repeating the Stage 1, the decision to carry out a Combined Stage 1&2 RSA was made and the first departure may be referring to this. However, notwithstanding one apparently incorrect heading in the report referring to it as a Combined Stage 1&2 RSA, this RSA clearly identifies as a Stage 2 RSA and it was submitted as such. The first departure from standard is therefore nonsensical in this context.

The second departure seems to have pertained to the fact that this was a Stage 2 RSA carried out beyond the 5-year shelf life of the two preceding Stage 1 RSAs.
The inclusion of these two departures as worded is confusing and indicates a breakdown in the appropriate processes. The report contains no information with regard whether or not the departures had received approval.

The RSA listed previously raised problems in full. Some had comments added relating to the current RSA stage but it is not at all clear which were closed out and which were brought forward to this RSA. The section title was “Items Outstanding from Previous Road Safety Audits” but it seems to include problems which were seemingly resolved. Some of the previously raised problems appear to have been brought forward to the main RSA Issues section but others were just described in added comments as “Unresolved”.

A number of the items that were defined in the Problem descriptions as “unclear”, were as a result of contradictory information shown on different drawings. Whilst the RSA Team should have sought these clarifications, Design Teams and Project Sponsors should ensure that drawings are thoroughly checked and that changes are updated through all drawing sets before they are issued to RSA Teams.

A number of the Problems appear to have been based on unsupported assumptions. Two examples follow:

“Drawings do not specify if the refuge bollards will have retroreflective material on all faces. This section of [Webber Avenue] has a history of refuge islands being struck. If refuge beacons are installed that have no retroreflective material on the rear face and one of the beacons is knocked down, the remaining beacon will provide no warning of the refuge to approaching motorists during the hours of darkness.”

Notwithstanding the facts that the specification of the proposed refuge bollards should have been requested by the RSA Team and reflective faces on the rear of bollards might have been consistent with existing bollards, the premise of the Problem appears to be unfounded because if the existing refuges were prone to being struck by vehicles, reflective faces on the rear of the proposed bollards would not necessarily resolve that existing problem.

The second example Problem queried the provision of a bifurcation arrow on the approach to a signalised right turn. The text stated:

“…bifurcation arrows should only be used to denote a deceleration lane, such as the left-turn lane on the [northbound] approach. However, on the [southbound] approach the bifurcation arrow denotes a form of junction control other than traffic signals. This may lead to motorist confusion, hesitation or failure to comply with the traffic signals and could result in sudden braking and shunts. This risks injury to vehicle occupants.”

The Problem text description contained no other text to explain how the proposed marking would confuse drivers. The assertion that the arrow marking would, in itself, cause drivers to make flawed assumptions about the junction type (which would be perfectly visible from the location described), seems illogical.

The premise of this Problem itself appears to be unfounded as the use of a bifurcation arrow in the situation shown on the location plan would have been perfectly legitimate.

The 46 Problem report examined one scenario.

A number of the previously raised RSA report Problems described as being referred to again this report, are cross referenced to new Problem numbers which do not appear in the main body of this Combined Stage 1&2 RSA.

30% of the Problems described in this report appear to be the result of simple design errors (including one which focusses on what appears to be a typographical error on a sign face). Design checking protocols should identify such errors, thereby allowing correction before the drawings are issued for RSA.

In some cases, the RSA Team made declarations such as “The RSA team accept that the end of Motorway regulations signs is sufficient to inform drivers that the variable speed limit no longer
applies.” This suggests that the Design Team had challenged a previously raised Problem in a response of some kind (not cited) and that the RSA Team took responsibility for closing the issue out.

What has possibly contributed to the confusion in relation to the aforementioned Problem is that the Recommendation given was seemingly unrelated to the Problem described. The Problem stated:

“There are no ‘End of Variable Speed Limit’ signs at any of the exits from the mainline. Drivers unaware of the change in speed control may travel at inappropriate speeds that may lead to shunt type collisions.”

The Recommendation stated, “Ensure that all AMI installations are erected and working.”

The Problem text did not mention AMIs so either the RSA Team had used the wrong terminology to describe the signs in question or they had perhaps copied the recommendation from elsewhere without checking its applicability to the problem raised. Whatever the reasons behind the anomaly, it seems that the Design Team might have asserted that the sign design was adequate in this regard and the RSA Team declared the issue closed based on that assertion.

In this case, it is clear that the prescribed post-RSA procedure described in HD 19/15 had not been followed efficiently. There was a total of 14 unresolved problems to which exceptions had not apparently been issued. Only one exception was mentioned in the review of previous problems but the RSA Team reported that it applied to only one of a number of locations at which that particular problem was evident.

When RSA reports are issued in draft, Project Sponsors should ask the RSA Team to clarify anomalies, if any, and to consider re-wording the Recommendation if appropriate (see paragraphs 2.102 and 2.103 of HD 19/15). This might remove the need for an exception or, alternatively, the RSA Team might decide to withdraw the Problem as a whole if it becomes clear that they have misunderstood or misrepresented an element of the design.

2.2.2 RSA Terms of Reference

The illustrative RSA report given in Annex E of HD 19/15 includes a statement saying, “The terms of reference of the Road Safety Audit are as described in HD 19/15.” A number of RSA report providers amend this and it is acknowledged that sometimes this is necessary. For instance, if certain contractual arrangements (agreed by the Highways England Project Sponsor) effectively change the terms of reference of HD 19/15, then a statement to that effect might be included.

Those issuing RSA Briefs should take care to ensure that any instructions changing the terms of reference do not result in a non-compliance with HD 19/15. If they do, then a Departure from Standard will be required.

One of the submitted reports contained only a statement saying, “This report is presented based upon the checklist contained in Annex B of HD 19/15.” RSA Teams should be sure to comply with the broader terms of reference set out in HD 19/15 and not focus primarily on the annexed checklists.

2.2.3 Matters Outside of Scope

One Combined Stage 1&2 RSA described a Problem which pertained to the proximity of power lines to a gantry and the potential hazard to maintenance operatives.

It is recognised that this could be a serious safety concern and it should have been reported to the Project Sponsor by telephone and followed up by email. However, the Problem should not have been included in the RSA report itself as Paragraph 2.17 of HD 19/15 states:

“Issues relating to the health & safety of operatives constructing, operating or maintaining the highway are not covered by Road Safety Audit. Only issues relating to the design and construction
of facilities for highway maintenance that may potentially contribute to a Road Safety Matter (see Paragraph 1.37) should be considered by the Road Safety Audit process.”

Paragraph 1.37 defines Road Safety Matters as:

“Any element of the road environment that could potentially contribute to a Road Traffic Collision or incident. The definition of Road Safety Matters also includes features that could present an unacceptable risk of trips, slips or falls to road users.”

One Stage 2 RSA report described a Problem which was summarised in the report as, “Footway widening may destabilise wall foundations, which may lead to collapse of perimeter walls and may lead to injury.” This pertains entirely to structural safety contrary to paragraph 2.20 of HD 19/15.

Six of the reports reviewed each contained a section entitled “Audit Team Observations/Matters Outside the Scope” or similar. The observations made tended to relate purely to maintenance or operational issues which should not be included in RSA reports. At least one of the “observations” in a Stage 3 RSA pertained to a design feature which had not been installed and so possibly should have been included in the main Problem/Recommendation section.

### 2.2.4 RSA Report Stage and History

One of the reports was a Combined Stage 1&2 RSA but mentioned that a Stage 1 RSA was carried out previously. Whilst it possible that the scheme was audited at Stage 1 and then a subsequent Combined Stage 1&2 RSA was commissioned on resulting design changes, the report made no reference to such a scenario.

The report also referred to a Departures Tracker saying, “As the tracker document is not finalised this information should be considered in its entirety as a part of a Stage 2 Road Safety Audit.”

In context of this being a Combined Stage 1&2 RSA, references to a preceding Stage 1 RSA and then a subsequent Stage 2 RSA are counter-intuitive and would benefit from explanation.

A number of the preceding RSA Problems were listed and described as being “referred to again in this report”. These were cross-referenced to new Problem numbers which did not appear in the main Problem/Recommendation section.

Another report was submitted as a Stage 3 RSA, and the cover described it as such, but the text in the introduction and throughout the report referred to it as an Interim RSA 3.

RSA reports need to be clear about the RSA process history and the currency/status of previously raised problems brought forward to the latest RSA report.

### 2.2.5 Recommending Removal of Features

RSA Teams should avoid recommending the removal of design features unless it can be demonstrated that they have given due consideration to the reasons for the feature being proposed. One report reviewed this quarter recommended the removal of two design features (one a wooden fence and the other a bollard) and made no recommendation regarding the provision of alternative measures. Whilst the features might have presented various hazards to road users, it seems unlikely that they would be introduced to a design unless there was a reason for them. If an RSA simply recommends their removal, it could result in hazards being introduced which might otherwise have been mitigated. If the RSA Team is unsure as to the rationale behind the design features, they should seek clarification.

Another example was a Problem pertaining to the fact that ‘Ramp Metering Signals’ warning signs were proposed but that it was not clear whether or not the existing ramp metering arrangement was being retained. The situation regarding retention of the ramp metering should have been closed out by clarification sought by the RSA Team but the recommendation simply stated, “Remove the ramp metering.” As well as the risks described above about recommending the removal of features which serve a purpose, this recommendation does not appear to explore the
issue fully. The provision or removal of ramp metering would likely be a strategic design decision and therefore, possibly, outside the scope of the RSA.

2.2.6 Problem Locations

Problem location plans in RSA reports should be clearly indicate the locations of the problems identified. They are not intended to illustrate anything else.

A number of the reviewed RSAs contained no Problem Location Plan and others are of a poor quality.

It is recognised that, on occasions, the quality of drawings provided for audit is low or the drawings are cluttered with labels. In such cases RSA Teams should request a higher quality or less cluttered drawing specifically for use as a location plan.

The plan or plans should also be of a suitable scale to usefully identify the problem locations. In the example given in Figure 2-3 below, the problem labels add to the clutter already existing on the plan provided and has limited usefulness with regard to identifying problem locations.

The example graphic in Figure 2-3 below has had location-identifying text obscured as far as is practicable.

Figure 2-3 Example of cluttered problem location plan

Furthermore, a number of the RSA reports reviewed describe the locations by means of index numbers or letters alone (i.e. Location 1, Location 2 etc.) and have very little or no text description of the locations. The use of location indexes cross-referenced to a clear location plan is good practice (as seen in the illustrative RSA 2 report in Annex F of HD 19/15) but clear text summarising the location as accurately as practicable should be included.
Reference to a drawing number in the Problem summary can also assist in the location the issues but it should be remembered that issues are often related to a number of factors which do not necessarily arise from only one particular drawing or another.

2.2.7 Inclusion of Appendices in Submitted RSA Reports

One of the reviewed RSAs had placeholders for appendices but no content. Reports submitted to the SRDT inbox should be complete and bound into a single document so that the content of appendices do not get separated from the body of the report.

2.2.8 RSA Process and Programming

One of the reviewed reports was a Stage 2 RSA but the introduction included a comment that, at the time of the site visit, substantial construction works had already taken place. This indicates that the RSA might have been commissioned too late in the process.

Significant costs could be incurred if elements have to be reconstructed to resolve problems which might have been designed out before construction had the RSA been commissioned in good time. This can often be the result of the design and construction programmes not accommodating the time required for compilation and approval of the RSA Brief and its package of supporting information. Overseeing Organisations and Design Teams should take care to ensure that all pre-RSA and post-RSA processes described in HD 19/15 can be carried out in good time.

2.2.9 Entire Checklist Included as Headings

Some RSAs include headings for many or all of the main checklist items listed in the HD 19/15 annexes with the text, “No specific road safety problems identified” for example below some, and often most of the headings. This is not a requirement and is not suggested in the HD 19/15 illustrative reports.
Appendix A

Quarterly Factsheet
1st October 2017 to 31st December 2017
Quarterly Factsheet - 1st October 2017 - 31st December 2017 (Rev. 2.1)

Basic Information

<table>
<thead>
<tr>
<th></th>
<th>This Quarter</th>
<th>Database Since Jan 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of RSAs submitted</td>
<td>56</td>
<td>1716</td>
</tr>
<tr>
<td>RSA Team Leader specifically identified</td>
<td>100%</td>
<td>94%</td>
</tr>
<tr>
<td>Project Sponsor specifically identified</td>
<td>91%</td>
<td>91%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>This Quarter</th>
<th>Database Since Jan 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of problems recorded</td>
<td>5.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Response Report issued</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Exception Report issued</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

RSAs By Highways England Area - This Quarter

[Graph showing RSA distribution by Highways England Area]

RSAs By Scale of Scheme - This Quarter

[Graph showing RSA distribution by Scale of Scheme]

RSAs By Scheme Type - This Quarter

[Graph showing RSA distribution by Scheme Type]

Scheme key:
- All Lanes Running / Smart Motorways
- Bridge
- Bus Lane / Guided Bus
- Conversion from Single to Dual Carriageway
- Drainage
- Enforcement Infrastructure / Cameras
- Junction Improvement
- Link Improvement
- Maintenance Infrastructure / Access / Safety
- Traffic Signals (New)
- WCHR-Crossing
- WCHR-Path / Way / Route
- Public Realm / Urban Regeneration
- Public Transport Interchange / Hub
- Road / Access Closure or Feature / Facility Removal / Shared Use (WCHRs & Traffic)
- Shared Use (WCHRs Only)
- Signs / Markings
- Temporary Traffic Management
- Tram or LRT Route / Facility
- Tunnel
- Widening
Quarterly Factsheet - 1st October 2017 - 31st December 2017 (Rev. 2.1)

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

- **Example**: Charts marked by this symbol exclude data for Stage 4 RSAs as those compliances are not directly comparable.
- **Unique reference, identified RSA stage and status**: The inner ring shows this quarter.

### Scheme description
- **Compliant**: 99%
- **Non-Compliant**: 1%

### Details of RSA Brief and CV approvals
- **Compliant**: 74%
- **Non-Compliant**: 26%

### Identified RSA Team membership
- **Compliant**: 93%
- **Non-Compliant**: 7%

### Required details of site visit in full
- **Compliant**: 93%
- **Non-Compliant**: 7%

### Specific road safety problems identified
- **Compliant**: 47%
- **Non-Compliant**: 43%

### Recommendations for actions
- **Compliant**: 98%
- **Non-Compliant**: 2%

### Marked up location map
- **Compliant**: 95%
- **Non-Compliant**: 5%

### RSA Team statement
- **Compliant**: 98%
- **Non-Compliant**: 2%

### List of documents and drawings reviewed
- **Compliant**: 100%
- **Non-Compliant**: 0%

### Items such as correspondence are NOT INCLUDED
- **Compliant**: 98%
- **Non-Compliant**: 2%

### Unrelated technical matters are NOT INCLUDED
- **Compliant**: 98%
- **Non-Compliant**: 2%

### Certificate of Competency details stated
- **Stated**: 97%
- **Not Stated**: 3%
- **Pre Dec 13**: 0%

**Road Safety Audit Database**

The outer ring shows the whole database since January 2014.

Inclusion of Certificate of Competency details is not mandatory.