

Office of Rail Regulation and
Network Rail

Data Assurance 2011-2012
Asset Management
(Station and Depot Stewardship)

Final Report

Draft 5 | 26 June 2012

This report takes into account the particular instructions and requirements of our client.

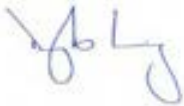
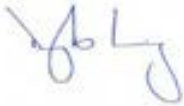
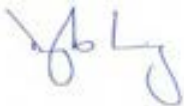
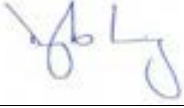
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Abbreviations and Acronyms

ALE	Asset Life Expectancy
ARL	Asset Residual Life
CEFA	Civil Engineering Framework Agreement
DER	Data Extract Report
FAM	Fabric Assessment Manual
LMDSM	Light Maintenance Depot Stewardship Measure
PARL	Percentage Asset Residual Life
SSM	Station Stewardship Measure
TCD	Train Crew Depot

Executive Summary

Introduction

This report describes the outcome of the review of the Station Stewardship and Light Maintenance Depot Stewardship Measures.

The scope of works undertaken was prescribed in the commissioning document Mandate AO-024 and comprised of the following elements:

- Review Process Documentation;
- Review Training Programme;
- Review Audit Process;
- Review LMDSM Process;
- Review Network Rail Report;
- Review Faithful & Gould Report (subsequently dropped); and
- Site review of SSM and LMDSM surveys.

With the exception of the final element all of the work was based on desktop analysis or through data gathering through meetings and discussions.

Documentation

It was concluded that there is generally an appropriate structure of documentation to support the SSM. However there are issues with the detail in some of the documentation associated with the LMDSM. In particular there is a lack of a description of the processes involved. This is currently being addressed by Network Rail.

Training

The Reporter team is satisfied that appropriate training is being provided to the front-line staff as evidenced by the structure as described and the outputs from the surveys. This was evidenced by discussions with Amey at HQ and local levels and a review of the survey outputs and in particular the levels of survey rejection.

In-House Audit

The audit process appears to meet the requirements of the measurement regimes. However in the detailed examination of some of the random station surveys there were some issues which it is considered should have been picked up during the data audit process. It appeared that these errors related particularly to sites where an old survey was being updated and there had been a significant level of investment on site making comparison with the old survey difficult.

LMDSM Process

It is clear that the LMDSM process has lagged some way behind that of the SSM. This is perhaps natural given the high profile nature of the condition of the stations, however whilst this may be understandable, if not acceptable, for the site work there would appear to be little explanation for why the current process is not

adequately documented. It is known that Network Rail is in the process of addressing this but it would appear to have taken a considerable time to reach this stage.

Network Rail Report Review

The Network Rail report contained a lot of the data which had been shared previously. The Reporter is satisfied with the description of the implications as described in the report.

A comparative review of the scoring at a small sample of stations previously reviewed by the Reporter appears inconclusive. It is the Reporter's view that the small scale nature of the sample does not provide any clear or meaningful lessons from the exercise.

Site Review

The site work and subsequent analysis which was undertaken for this review was the most comprehensive undertaken to date and was driven by the requirement to carry out a statistically significant sampling of the data. Fifty-seven stations and ten depots were randomly selected for review. These covered all Routes and Categories of assets and were split in broad proportion to the overall national population.

The results from the work were considered on two levels. The first looked at the emerging results from the individual sites to the asset level and shows the degree to which the original Network Rail survey compares to the Reporter's observations. The results from the high level analysis indicated some positive trends compared to the 2010-11 review. The average variation between those assets judged to be in a better and in a poorer condition considerably reduced thereby implying that the portfolio level impact would be relatively small.

At the secondary level, the individual assessments from the site were combined to provide a determination of the variation in Measure between the Network Rail survey and the Reporter observations. In this the average variations on the SSM and LMDSM which were significantly lower than in 2010-11. Whilst there was a general reduction in the variation between Network Rail and the Reporter this overall closeness occurred despite some very significant variations at individual stations ranging up to +26%. Regardless of this concern, the overall results of the site investigation are considered to show an improvement compared to 2010-11 but there remain issues to be resolved as outlined previously.

Confidence Rating

The confidence ratings for the two measures are judged as:

- 'B2' for Station Stewardship; and
- 'C2' for Light Maintenance Depot Stewardship.

1 Introduction

1.1 Background

Arup was commissioned through the Office of Rail Regulation (ORR) Mandate AO-024 to undertake a further study of the processes and data quality associated with the station and depot stewardship evaluation (Station Stewardship Measure - SSM; Light Maintenance Depot Stewardship Measure - LMDSM). A copy of the Mandate is included in Appendix A.

This document is the Second Draft Final Report of the findings of the commission.

1.2 Structure

The Mandate describing the scope of works to be undertaken during the course of the study highlighted specific elements of the SSM and LMDSM which were to be reviewed. This shaped the proposal and, once this was accepted, the delivery of the commission. The same configuration is followed in the structure of this report.

The main headings in the report are:

- Section 2: Approach
Considers how the execution of the study was structured and describes the means of gathering the information
- Section 3: Process Analysis
Discusses the outcome of the mainly office based work which was undertaken
- Section 4: Site Work
Describes the means of on-site sampling particular facilities and the outcome of this work
- Section 5: Study Conclusion
Considers the complete study as the basis for a set of conclusions leading to the recommendations and the measure confidence rating

2 Approach

2.1 Introduction

The section of the report describes the way in which the commission was executed relating back to the Mandate and the Proposal structure.

2.2 Delivery Structure

On receipt of the Mandate, a proposal was developed which sought to deliver the client requirements. This document was structured to match these requirements as described in the brief.

Based on this the broad structure which was adopted for the delivery was to:



The Proposal considered each element of the scope and outlined how this would be delivered in one of three key stages. The following, whilst covering the same scope as described in the proposal, shows the order in which the elements were planned to be tackled during the course of the work.

Process Analysis

- Review Process Documentation
- Review Training Programme
- Review Audit Process
- Review LMDSM Process
- Review Network Rail Report
- Review Faithful & Gould Report

Site Surveys

- Sampling methodology
- Output Review

Study Outputs

- Analysis of all Work
- Application of Confidence Rating

2.3 Process Analysis

2.3.1 Review Process Documentation

This was an early task which was simplified by Network Rail providing a complete set of relevant documentation (listed in Table 3.1 in Section 3). This avoided the use of out of date documentation from the previous reviews which may have been recently updated.

The study looked at each of the documents and reviewed their contents as well as their fit within the overall structure of process. Particular attention was paid to the comparison between those documents supporting the SSM and those covering LMDSM. The review was undertaken separately by two members of the team whose results were then compared and combined.

2.3.2 Training Programme

The review of the training programme largely focussed on the training of the surveyors who undertake the gathering of the base data supporting the Measures. The probing of this aspect of the regime was undertaken through the various meetings with Network Rail and Amey at a range of levels and included a review of the overall process. It was also discussed with the front line surveyors from Amey. This workstream followed on from concerns about the consistency being applied to the surveys as raised in the last review.

2.3.3 Audit Process

With concerns over the quality and consistency of the data identified in the previous review a further workstream looked at how the data is checked as it passes from site to the point where it is reported to the ORR. As above, the principle means of review here was to probe various individuals at meetings on the subject, but also to review the process in action when meeting with the Network Rail OPAS data specialist, as well as through examination of the relevant files.

2.3.4 LMDSM Process

The purpose of reviewing the LMDSM process during this commission was to determine whether the variances in the methodology applied to this Measure supported the accurate reporting on asset condition in the depots. Questions regarding the process were raised at the meetings of the various individuals and, during the demonstration of the OPAS data input, specific points were raised to tease out any issues particularly associated with this Measure. The review described in 2.2.1 also looked at the LMDSM process from the perspective of its formal documentation.

2.3.5 Network Rail Report

Network Rail has undertaken a review of the impact of previous Reporter recommendations regarding SSM and LMDSM. In addition, an independent assessment, commissioned by Network Rail, of the Reporter team's site

assessments made during the 2010-11 review was undertaken. The results of this work were shared with the Reporter's team with an invitation to comment on the results.

2.3.6 Faithful and Gould Report

Under a commission for the Department for Transport, Faithful and Gould have undertaken a review of the Station Stewardship Measure process in preparation for the likely move to repairing leases under the next round of TOC franchises. In the original scope of works for this commission the Reporter team had been asked to undertake a review of the findings of the report. However, as agreed with the Client, this work is no longer required and has therefore been dropped from the scope of works.

2.4 Site Surveys

As in previous years the bulk of the effort in the commission was the work associated with undertaking a review, on site, of the data gathered by the Network Rail contractor to compile the SSM and LMDSM measures.

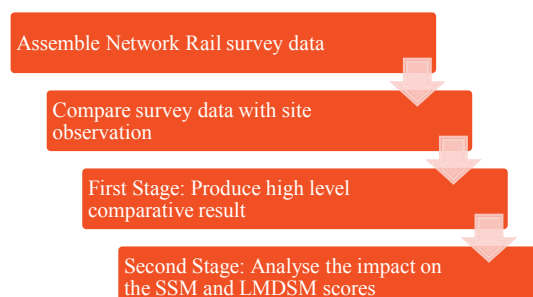
2.4.1 Sampling Methodology

There was a specific requirement in the commission brief to ensure that the volume of site inspections undertaken represented a statistically significant sample. This was to ensure that any findings from the surveys would represent valid results for the overall portfolio of stations. As a result of this requirement, a separate exercise was undertaken by the Reporter team to evaluate the necessary sample size given the relevant station and depot population sizes.

2.4.2 Output Review

The work on site is based on a line by line review of the Asset Residual Life (ARL) of the individual assets identified in the Network Rail surveyors' reports. This review then considers whether the recorded ARL is reflective of the asset as observed on site. Based on this, variations in the assessments are then analysed. In a secondary step, further work is then done to determine how these variations impact on the reported SSM and LMDSM scores for the particular site.

Figure 2-1: Site work Process



For consistency, the approach to reporting used in the 2010/2011 review for the first stage analysis (the high level analysis) has been adopted again.

This considers four factors:

- **ARL:** is the asset condition category reported different (both better and worse) than that observed on site? (note that variations in ARL not impacting on the condition category are ignored since these do not impact on the SSM score)
- **Material:** is the observed asset composition different to that reported? (if this was found an assessment was still to be made of the validity of the ARL and the material change noted)
- **Layout:** is the observed layout of the site different to that reported? (depending on the nature of the layout change, e.g. demolition, complete remodelling, or realignment of kerbing, etc. it may not have been possible to review the asset condition)
- **Asset Life Expectancy (ALE):** is the reported ARL in excess of the ALE for the given category and type of asset?

The key factor in determining if there is any variation in the survey results is driven by the following through of the variations to the point where a revised SSM and LMDSM score is calculated – this is the Stage 2 process. This then leads onto the overall assessment of the study findings.

2.5 Study Outputs

2.5.1 Analysis of All Work

The outputs naturally take account of the whole of the work that has been undertaken in the study. Whilst there is a tendency to focus on the results which emerge from the site surveys, as a result of the figures and percentages which it is possible to quote, a lot of the core lessons to be learnt from the commission come from the meetings, documentation and process reviews which have been undertaken. As such, it is the intention of this report to provide a holistic commentary of the current SSM and LMDSM regime informed by the broad basis of core information gathered.

2.5.2 Previous Recommendations

The section provides a summary of the progress of the previous recommendations relating to SSM and LMDSM for the review in 2010-11.

2.5.3 Application of Confidence Rating

Based on the overall assessment of the regimes, as described above, a confidence rating for each regime (SSM and LMDSM) has been identified. This rating has been fully justified in terms of the accuracy and confidence assessments in the report.

3 Process Analysis

3.1 Introduction

Having described the approach to the commission in the last Section this chapter provides a description of the work which was done and the findings for each of the office based activities. It is split into the respective elements of the scope identified in the Mandate.

3.2 Document Review

As previously stated, Network Rail provided fresh copies of all the relevant documentation which were considered by them to support the processes associated with the SSM and LMDSM. The documents supplied were:

Table 3-1: SSM and LMDSM Relevant Documentation

	Reference	Title	Date
1	NR/ARM/M17PR	Procedures for the Reporting of Station Stewardship Measure	8 October 2010
2	NR/ARM/M17DF	Definitions for the Reporting of Station Stewardship Measure	8 October 2010
3	NR/ARM/M19PR	Procedures for the Reporting of Light Maintenance Depot Condition	11 February 2009
4	NR/ARM/M19DF	Definitions for the Reporting of Light Maintenance Depot Condition	17 February 2004
5	No reference	Fabric Assessment Manual - Volume 1	Undated
6	No reference	OPAS Data Collection: Building Fabric Method of Measurement V6.0	February 2012
7	No reference	OPAS Data Collection: M&E Method of Measurement V5.0	November 2008
8	NR/L3/CIV/006	Level 3 Handbook for the Examination of Structures	4 December 2010
9	NR/L3/CIV/006/7B	Level 3 Handbook for the Examination of Structures – Part 7B Buildings	5 June 2010
10	NR/L3/CIV/006/11B	Level 3 Handbook for the Examination of Structures – Part 11B Reporting and Recording of Examination of Operational Property Structures and Inspection of Buildings in OPAS	5 June 2010

The documents fall into three categories:

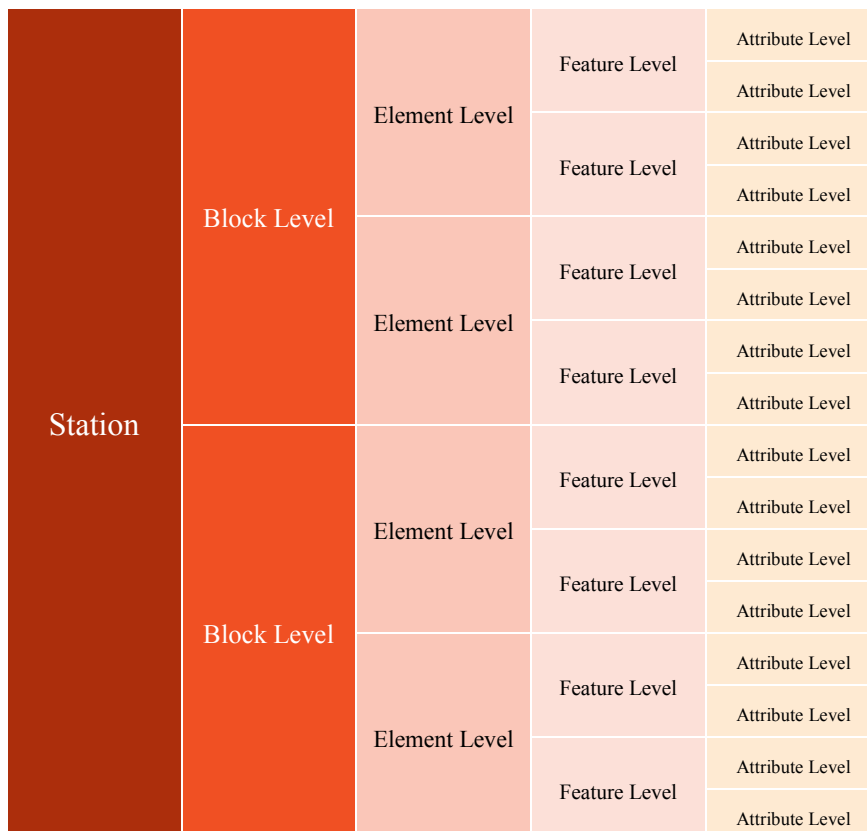
- Dealing with SSM specifically;
- Dealing with LMDSM specifically; and
- More general documentation associated with condition examination and assessment.

3.2.1 SSM Specific Documents

Documents 1 and 2 in Table 3-1 describe the SSM process. Of these, the Procedures document is significantly the most important. It provides a detailed account of the process from the site inspection to the calculation of the SSM. This includes the list of asset weightings, the condition rating bands, and the asset life expectancies. It also contains the target SSM scores for the various categories of station. The Procedures document provides a key explanation of the way in which the measure is calculated.

Apart from some minor comments regarding some of the terminology the review identified little to comment upon in the document apart from the contents of its Appendix C. This appendix contains the list of Asset Life Expectancies for all of the asset elements and within these the individual features and attributes. This was thought to be the only comprehensive list in all of the documentation. However, in the subsequent site work items not covered by the list emerged – examples of this would be those associated with lighting levels and fuelling facilities.

Figure 3-1: Structure within a Station Survey



Regardless of this, the principle concern regarding this list is that there are a significant number of duplications. In addition there are also a number of contradictory entries, examples being:

Table 3-2: Examples of Anomalies in the ALE Tabulation

Element	Feature	Attribute	ALE
Drainage Surface	drainage downpipe	lead	35
Drainage Surface	drainage Downpipe	Lead	40
external doors manual	vehicular manual sliding ext. Door	timber	25
External Doors Manual	Vehicular Manual Sliding External Door	Timber	30
Structure (Elements Horiz)	Beams Girders Joists & Purlins	Steel	80
Structure (Elements Horiz)	Beams, Girders, Joists and Purlins	Steel	100

It is significant to note that the syntax in the element descriptions (accurately reflected in the above table) is not the same in the anomalous line entries.

The breakdown of the assets into the various attributes is also described in the OPAS Data Collection documents (listed as 6 and 7 in Table 3-1). A comparison between the list in these books and the ALE tabulation in NR/ARM/M17PR Appendix C reveals some discontinuities. Examples are listed in Table 3-3.

Table 3-3: Examples of Discontinuities between the ALE List and the Data Collection Books

Element	Feature	Attribute	Comment
Access & Boundary Control	Gate Palisade	Wood	In the Data Collection Book but not in the ALE table
Drainage Foul	Foul Interceptor	Brick	
Structural (Elements Horiz)	Cantilever Beams & Girders	Unspecified	In the ALE table but not in the Data Collection Book
Structural (Elements Vert)	Cantilever Support	Steel	

Previous reviews have identified certain ALE figures which are considered to be surprising. These have been discussed previously and it is noted that no changes have been made to the table. It has previously been agreed that such changes would have a direct impact on the SSM scores and as a result the targets. This is covered in the Network Rail report reviewed in Section 3.6. Nevertheless it is the Reporter's view that there remain certain figures in the table which may require to be reviewed.

Based on the site work described later it became apparent that obsolete survey data is held in OPAS alongside the current data. Thus when a report is run previous surveys are included. It is noted that Network Rail confirm that the old data is not used in the assessment of the Measures however the treatment of the old data is not specifically described in any of the documentation.

A further peculiarity observed is that 'Recon' surveys held in the system appear to have element measures and associated ARLs contained within the block locations. It is not clear where this data has come from since a 'Recon' survey is concerned only with identifying the various blocks on a site and not recording individual element measures.

3.2.2 LMDSM Specific Documentation

In a similar structure to the SSM measures there are currently two principle documents which cover the LMDSM regime – items 3 and 4 in Table 3-1.

Together with a short definition document the current key descriptor of the LMDSM process is NR/ARM/M19PR. This document is very much shorter than its SSM counterpart and whilst it contains a flow chart of the process it is devoid of much of the detail that is described more fully in the equivalent SSM document M17PR. There are also references to Appendix (5.2.1(c)) which does not exist. In short the document does not meet its primary aim of describing the process of how the LMDSM is calculated.

In addition, the document points to a further document NR/ARM/M19MN which is been formally withdrawn and is therefore no longer available. Having raised this final point with Network Rail this discontinuity is accepted and it is understood that a replacement M19MN document will be available in June 2012.

It is our view that the LMDSM process is poorly described in the current documentation. This is because that in comparison with the process documented for SSM the procedure manual is very limited and is not supported by any reference to, for example, the applicable ALEs. The process of combining the fabric and track condition data (which is known to come from two sources) is also not covered in the document, although it has been confirmed by Network Rail subsequent to the issue being raised at a meeting of the parties

It is considered that cross references to the M17PR document may improve the current documentation.

3.2.3 General Survey Documentation

Within the group of more general documentation there are three sub-groups.

Fabric Assessment Manual

The Fabric Assessment Manual (FAM) stands alone. It provides a description of the five asset conditions. This is done in terms of exemplar photographs of certain asset groups of varying category. This document provides an unambiguous account of what the condition categories look like in practice. In discussion with surveyors this very visual and well presented documented was claimed to be the most useful in the portfolio of documents.

The lesson which is believed to come from the FAM is that it demonstrates to surveyors the classification of the various asset conditions. The pictures in the manual are supported by a description of the asset condition and point to the relevant PARL (Percentage Asset Remaining Life) range. The book also contains an abridged version of the ALE tabulation based on that in the SSM procedure document. However, it only covers the asset types described in the main text. The FAM provides a link between the asset condition and the ALE.

Finally, it is noted that the Manual is titled Volume 1. It is understood that Network Rail is reviewing this document and re-issuing it to cover M&E elements and to review the coverage of the fabric elements to provide a description of the most common asset types.

OPAS Data Collection Methods of Measurement

There are two methods of measurement ‘flip books’, one covering building fabric and the other M&E assets. Between them they cover all of the asset features and within these the asset attributes (see Table 3-1). These are presented as a page per feature.

These provide a description of the various asset types and provide guidance and ‘rules’ for the measurement and data collection.

These two documents present a comprehensive set of tables to guide surveyors on the ground. The format is particularly useful for work on site and is recognised by the surveyors as valuable in early work.

It is known that Network Rail has recently shared the ALE tabulation with Amey in accordance with Recommendation 2011SSM02. This is currently issued as a stand-alone tabulation. It is considered that incorporation of the ALE data in these ‘flip books’ may be an effective long-term means of including this information in a format which is useful and easily accessible to the field surveyors.

Level 3 Handbooks

There are three relevant documents in this group (items 8, 9 &10 in Table 3-1).

One is the head linking document with the other two covering respectively:

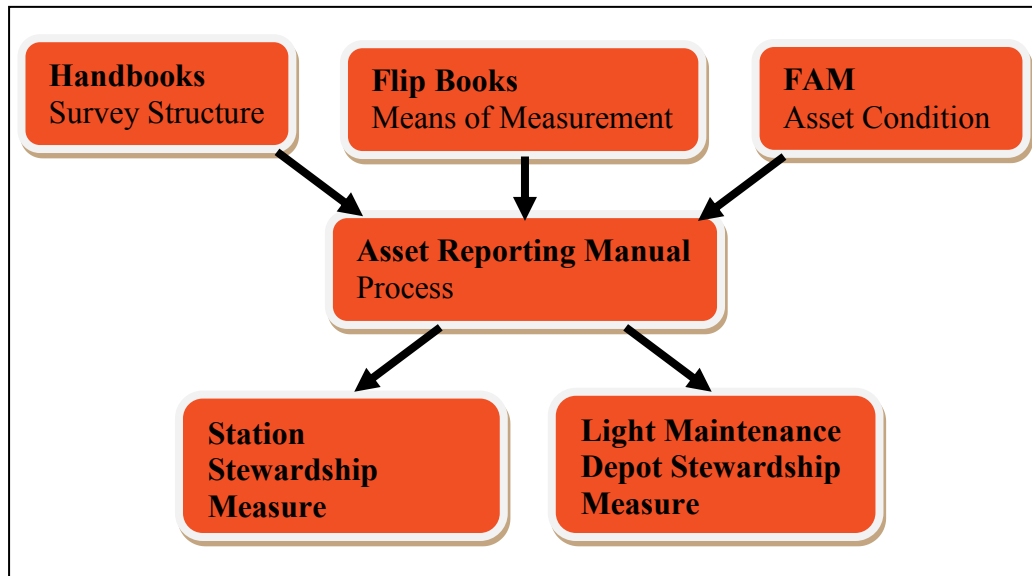
- Buildings(Part 7B); and
- Reporting and Recording of Examination of Operating Property Structures and Inspection of Buildings in OPAS (Part 11B).

The second of these is the most directly relevant to the work undertaken to create the SSM and LMDSM since it directly describes the approach to be taken to create the survey structure leading to the input to OPAS.

The text in the Handbook is comprehensive, well laid out, and explained. No issues were identified with this suite of documents.

3.2.4 Overview

Figure 3-2 is the perceived structure of the documentation supporting both the SSM and LMDSM.

Figure 3-2: SSM and LMDSM Document Structure

The overall structure of the documentation to support the evaluation of the Measures would appear to be suitable for the process as described. Nevertheless whilst the structure appears sound within it there is some concern with certain specific documents including the ALE tabulations and the LMDSM process descriptions.

3.3 Training Review

The training review that was undertaken was focussed on the training given to the Amey surveying teams. The aim of this was to identify if a lack of training may be leading to discrepancies in the surveys which are being undertaken. It was also to ensure that there was a good understanding of the processes to be adopted.

The work focussed on discussions with key individuals from Network Rail and Amey.

The results are presented as a set of findings from the various interviews followed by a set of conclusions.

3.3.1 Findings

Interviews were held with Network Rail at HQ and Route level, and with Amey in the office and with surveyors. The following are the findings.

Amey, particularly in the South and West, has recently recruited new surveyors and thus there is a lot of recent experience of working with new staff of varying experience. Based on the discussion with Amey it is understood that all new recruits are placed on a training course immediately to familiarise them with the particular system approaches for the Network Rail contract. Once the training is successfully completed recruits are ‘buddied’ on site for a further period of six weeks. Following the successful completion of this period surveyors are expected to work alone. They are however supported by an on-call mentor should they require it.

Training specifically associated with the Atrium system is undertaken by staff from Atrium and Amey in-house staff who are recognised as experts in the field.

Surveying staff performance is monitored through the review of the survey quality being submitted. Any particular deficiencies are then subject to appropriate refresher training. Where there are common undesirable trends in the survey outputs particular briefings will be held to correct behaviour.

There are regular technical meetings with the surveying teams to brief out new issues.

Network Rail do not specifically audit the quality of the surveyor training and rely on Amey to provide competent staff to service the contract and deliver the necessary volume and quality of survey outputs. Network Rail does however validate the competence levels of any Amey new recruits who will be engaged in survey work under the CEFA contract.

Individual surveyors confirmed the level of training provided by Amey and the process of briefing out updates and changes in process. There was general satisfaction over the level of initial training and the update briefings.

3.3.2 Conclusion

On the basis of the evidence provided it would appear that Amey has an appropriate regime of staff training and briefing in place. The common role of Amey in-house expertise is seen as providing a co-ordinating role to drive consistent behaviour. Whilst the training may however be consistent and validated as such there remains the issue of ensuring that the right guidance is getting to the front line staff – see Section 3.6.1.

Network Rail's position is that it is not necessarily concerned about individual staff competences providing the required outputs are being delivered. It is felt that this is a legitimate approach whilst Amey is delivering to programme and quality. However, if there is a significant increase in the number of rejected surveys then staff competence may be an area which Network Rail would wish to consider reviewing. Similarly, if it can be shown that delays to programme delivery are a result of poor execution of the surveys, Network Rail may wish to consider intervention.

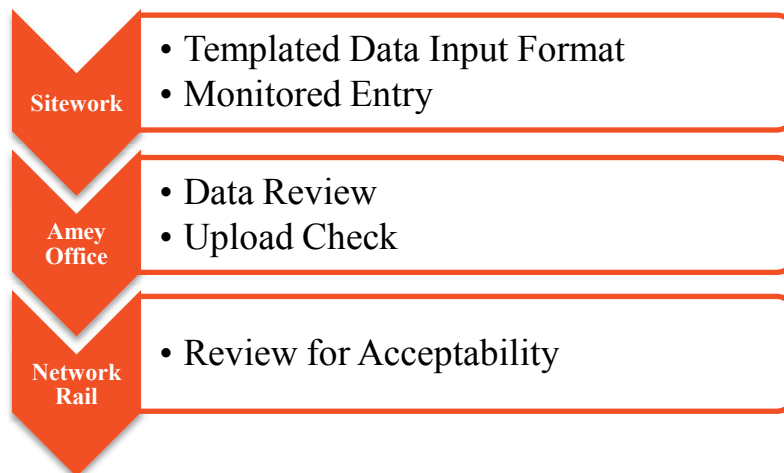
3.4 Internal Audit Process

A specific inclusion in the commissioned scope of works was to review the internal audit processes associated with the survey data. This follows on from the preliminary assessment which was made of this aspect of the Measure reporting in the 2010/2011 review.

The assessment of the auditing of the data was based on the discussions which were held with Network Rail and Amey and also through the association with recently completed surveys which have been reviewed as part of the site works.

3.4.1 Process

Figure 3-3 provides a simplistic view of the process involved in the gathering of the survey data and the checks which are undertaken at each stage.

Figure 3-3: Data Trail

Site Work

During the course of the site work the surveyor is required to input their observations into a database by means of a laptop which contains the structure of the overall station survey. This structure has either been created particularly for the survey through the use of 'Recon' visits, or is largely based on the work of the previous survey.

The system is able to provide an immediate degree of validation on the input by, for example, not allowing the surveyor to input an ARL which is greater than the ALE for a given asset attribute. (This is a recent innovation.)

Such a check on the on-site data entry provides the first audit of the data quality.

Amey Office Review

Data passed into the Amey office from site is further reviewed. This work will be undertaken by a senior surveyor and provides a sense-check on the structure and completeness of the survey. Spot checks on the accuracy of the data in terms of the PARL will also be undertaken.

Having satisfied this review the survey will be uploaded into OPAS. The OPAS system provides a further check on the data by validating that certain aspects of the structure and contents of the survey are satisfied or present. It is noted that the system can be forced to accept, for example, incomplete data from a survey. This may be the case where a visual survey has been undertaken which does not cover all of the station assets. Such a forced acceptance can only be carried out with Network Rail approval.

Network Rail

On receipt of notification of a survey having been uploaded to OPAS, Network Rail has a limited period of time in which to review the submission. Failure to raise any concerns over the submission results in automatic acceptance of the data. It is understood that a target for an on-site audit of the survey by Network Rail has been set at 5% of the route portfolio. Comments from Amey and Network Rail would indicate that the level of on-site audit being undertaken may fall short of this target. This was put down to competing pressures rather than any unwillingness to undertake any review. Nevertheless it was claimed by Route staff within Network Rail that local knowledge of site also provided a sense check

of the data integrity by means of their knowledge of activities taking place on the sites.

Evidence from Recent Surveys

In the meetings with Network Rail and Amey it is accepted that there have been issues with data quality in the past. In the same forums it was stated that it now appears that data quality has generally improved. This relates to the completeness of the surveys and their adherence to the 'rules' of the system rather than specifically an indication that the reported ARLs on a line by line basis are more accurate than before. This will be considered in Section 4.

In reviewing the structure of recent surveys which were used as part of the on-site work, it was clear that there is a higher degree of detail (as would be expected) and that the survey structure is a lot clearer and more consistent than the previous ADC lite reviews. This is welcomed.

Nevertheless, a small number of anomalies were identified in some recent surveys which, it is considered, should have been picked up in this audit process. The following table provides some examples of what was found.

Table 3-4: Recent Survey Data Anomalies

Location	Comment
Birkenhead North	Certain access routes and curtilages included in the survey but not shown on survey drawings
Derby Station	A building previously identified as Building 06 in an old survey was changed to Building 17 in the latest survey whilst the previous Building 06 remained in the survey.
Derby Station	Buildings from the previous survey not included in the new survey drawings and in fact now shown outside of the station lease whilst still included in the survey
Perth Depot	Individual portal frames in the depot shed identified separately in the survey in contravention to flip book guidance
Reading Station	Building 05 drawings completely lacking in detail of room allocations compared to the survey

In total around twelve to fifteen similar anomalies were found.

3.4.2 Conclusion

From the evidence obtained it is clear that there is a structured audit process for the survey data leading to the calculation of the SSM and LMDSM. The structure of the data audit appears to be comprehensive but there are clearly some errors coming through the system. The survey results most at risk appear to be those

where a previous survey is being updated in the light of significant investment on site. This clearly makes the remote validation of the survey difficult even with previous site layout knowledge. The number of anomalies discovered in the structure of the surveys during the site reviews is disappointing but limited. These particular cases could be investigated further to identify their cause.

The issue of whether the survey data measures the asset condition accurately is addressed in Section 4 on this report.

3.5 LMDSM Process

As discussed earlier in the report, the LMDSM process was detailed in the Network Rail document NR/ARM/M19MN which has now been formally withdrawn.

Through discussions with Network Rail it is understood that the calculation of the LMDSM has changed from the procedure described in the withdrawn documentation. Previously, the score was based on the calculation of a condition rating for each of the eleven significant assets listed which included track, carriage washers, superstructure etc. and the average across these significant assets was the LMDSM score.

The means of calculating the LMDSM is not detailed in current Network Rail documents other than in the form of a flow chart in the 19PR document. However it is understood that a new procedural document is currently under development which should close this gap.

The LMDSM process has been moved into line with the SSM process in that the method of data capture and processing is the same. Surveys are carried out by the Network Rail surveyor Amey, and uploaded to OPAS in the same way as the station surveys are conducted and also make use of the Fabric Assessment Manual. In addition, the same asset life expectancy listing is used to determine the PARL grade for each element.

It is at this point however that the process diverges from both the SSM process and the withdrawn documentation. Whilst the majority of the site asset information is captured in the Network Rail survey, track condition surveys are carried out independently and supplied to Amey for input into OPAS.

The LMDSM is calculated as the average of all the condition grades for that site location. Each element is treated equally, there are no weightings applied as there are in the SSM calculation to deal with location and importance.

As was later found when it came to modelling the variant LMDSM scores as a result of the site work a lot of questions emerged regarding how the system actually worked in practice. This again demonstrates the lack of documentation to support the processes associated with this Measure.

3.6 Network Rail Report

3.6.1 Review of Previous Recommendation Impact

It was agreed at the end of the 2010/11 review of the SSM and LMDSM that Network Rail would undertake a piece of work to examine in more detail the

results which had emerged. Specifically this would look at the impact of the recommendations from 2010/11 on the future reporting of the Measures. The Network Rail report provides a summary of the findings of this exercise. This work was undertaken by Mott Macdonald under a separate contract to Network Rail.

Phase 1

The Phase 1 results principally cover the review of the impact of the previous Recommendations, and were based on the Reporter's revised SSM scores for twenty-six stations surveyed in 2010/11. These looked at the affect of Recommendations 2011SSM01 and 2011SSM02. The results from these studies had previously been shared with the ORR and the Reporter as interim findings in October 2011. There was broad acceptance of the results of this exercise at that time and the new report does not bring any new information to bear on these issues. This covered workstreams 1.1, 1.2, and 1.3.

Phase 1.4 considers the impact of changing the guidance provided to surveyors to make them more aware of the ALEs and the condition ratings in their assessments. It is noted that there is acknowledgement of the fact that the surveyors do recognise the benefits of the Fabric Assessment Manual FAM (as was also found in direct discussions with the surveyors under this review). It is the Reporter's view that the prime focus of the FAM is to provide a measure of PARL reflective of the condition of the asset on site.

There is a risk that there is disconnect between a pure assessment of asset condition and an evaluation of asset residual life. Surveyors are instructed by Network Rail to consider residual asset life whereas the SSM calculation relies on a condition rating. However, the evidence from the site work (described in Section 4) tends to show that at a portfolio level there is little difference in these approaches.

Phase 2

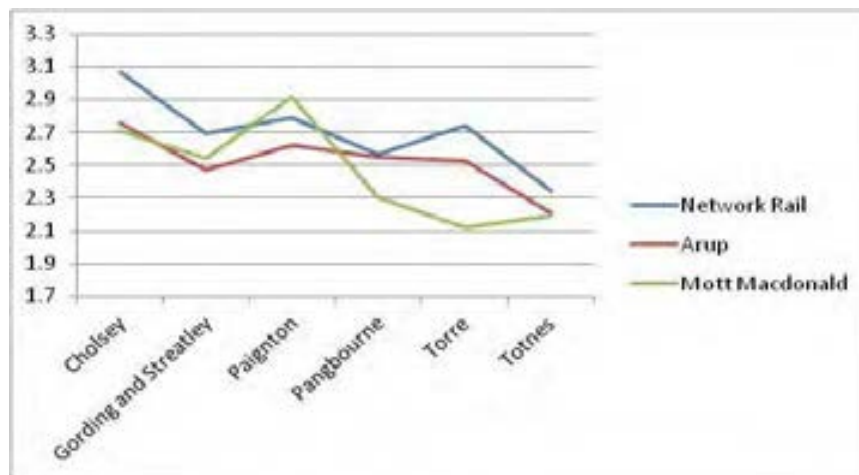
With regard to Phase 2, where the full set of fifty stations (as opposed to the twenty-six in Phase 1) were used to determine any trends, it is notable that the results were broadly in line with those from the first tranche with a resulting average variation of 0.1% on the previous results. As such all of the lessons from Phase 1 appear to hold for the review of the complete set of results in 2010/11.

3.6.2 Independent Audit

In addition to the examination of the implications of the previous recommendations Network Rail also undertook an independent review of six stations which had previously been reviewed by the Reporter's team in 2010-11. This work was also undertaken by Mott Macdonald. For this exercise the reviewers were not given the current Network Rail survey report or the ALE tables.

Figure 3-4 shows the comparative SSM scores for the six stations. What is clear from the graph is that at three of the sites the Reporter and Mott Macdonald view was very similar. Of the other three, the Reporter had judged the condition to be worse than Mott Macdonald at two sites by some margin, and at one site Mott Macdonald's view of condition was worse than both Network Rail and the Reporter.

Figure 3-4: Comparative Results of Independent Review



The Network Rail report tries to establish the reason for the variation in the results. The early focus is on Torre where the Mott Macdonald score is much better (lower) than both Network Rail and the Reporter. The report identifies that the timber elements on the footbridge are a particular source of variation quoting The Reporter's seven measures compared to twenty-four in the further review. It is not clear how the reporting on this element should have been so low since the survey books show that out of fifty-one measures on the footbridge the Reporter's team reviewed forty-eight of them. This discrepancy may be explained by a Visual Inspection having been carried out in the intervening period and on which the Mott Macdonald review was based. It is also noted that recent remedial works have been undertaken to the footbridge but it is not clear when these were undertaken.

At Pangbourne, where the Network Rail and Reporter scores virtually coincide, it is noted that significant improvements to the assessment of the condition of the beams, girders and joists all contributed to the Mott Macdonald improvement in condition.

The report fails to come to any conclusion over the overall comparison with the reporter's assessment. This is odd given that the purpose of the exercise was to determine if there was some bias in the method that the Reporter team were adopting to derive a comparative condition assessment.

It is the Reporter's team view that the comparative sample is small and may not provide a clear answer nevertheless the results are generally on the lower (better) side of the Network Rail assessment so broadly in line with the original review findings. It is recognised however that there are some outlying results.

4 Site Work

4.1 Introduction

This Section of the report provides an account of the work undertaken in the direct review of a sample number of surveys which currently form the basis of the data which is used to calculate the Station Stewardship and Light Maintenance Depot Condition Measures.

4.2 Background

Network Rail began its population of the OPAS database, which supports the SSM and LMDSM measures, in 2007. Prior to that time a different means of capturing asset condition data was used. This was superseded by the introduction of the new regime. In order to populate the database in short course a programme of limited surveys was undertaken. This covered a significant portion of the total station population. These early surveys were termed ADC Lite and were largely undertaken in 2007 and into 2008. Once the database had been sufficiently built up a programme of more detailed surveys was embarked upon to provide more depth to the individual site data. This process of updating the data continues.

In parallel with the detailed surveys Network Rail undertake an annual ‘visual’ inspection of certain asset categories at stations. The data from these inspections is entered into OPAS and effectively supersedes the previous data although both old and new are held together in the system. It should be noted that these visual surveys do not cover all aspects of the detailed surveys. Thus, the survey data applicable to the SSM or LMDSM calculation is often a combination of condition assessments from two or more survey visits.

As part of the review of the overall portfolio of survey data the following information was provided by Network Rail during this review. The data covers surveys up to Period 11 2011/12.

Figure 4-1: Station Population without SSM Data in OPAS

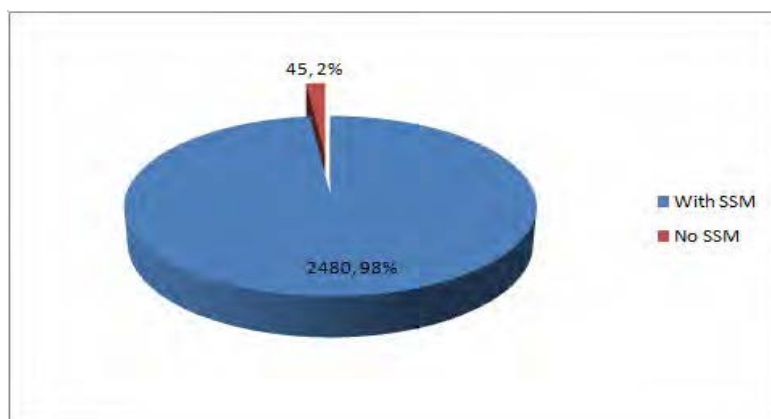


Figure 4-2: Split of Stations without SSM Data by Station Category

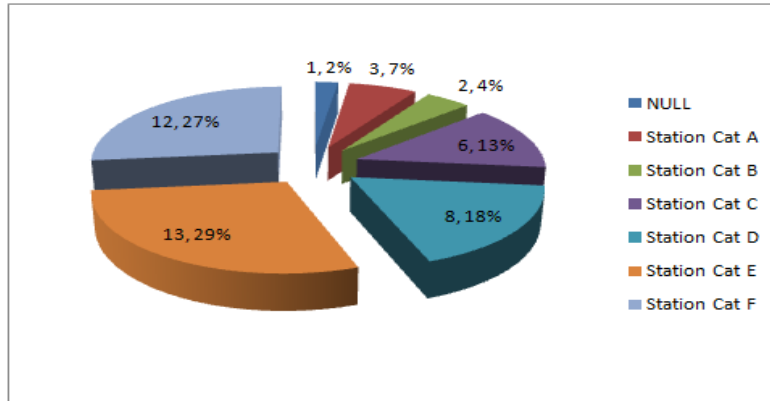


Figure 4-3: Depot Population without LMDSM Data in OPAS

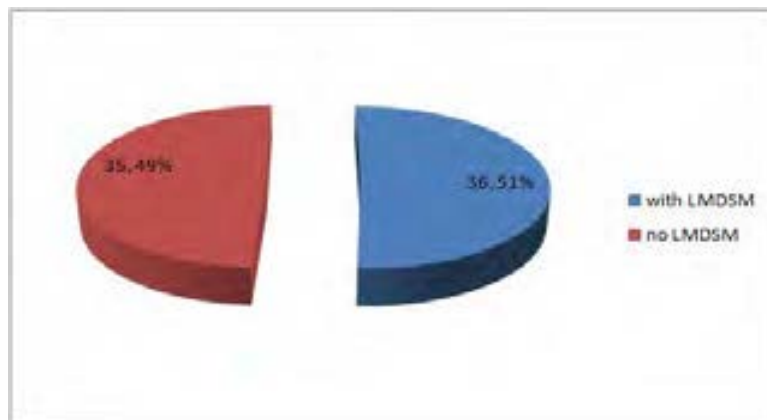
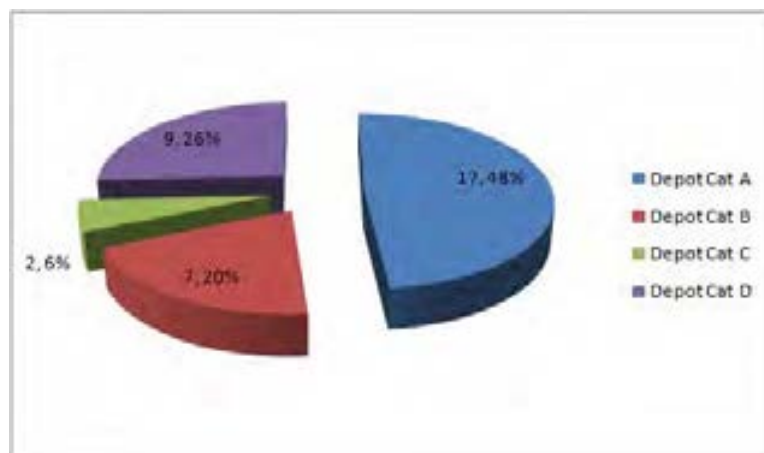


Figure 4-4: Split of Depots without LMDSM Data by Depot Category



What is noticeable about the figures is that 2% of the population of stations have no survey data in OPAS. Included in these are three Category 'A' stations which represents over 10% of their number.

The figures also highlight what was identified in 2010/11 that the proportion of depots with LMDSM scores continues to lag behind stations by a considerable margin with 49% having no valid LMDSM score. This compares with the review undertaken in OPAS last year where it was found that 31% of depots had an appropriate survey and a further 17% a limited survey.

4.3 Sampling Methodology

As a result of the debate in 2010/2011 regarding the significance of the sample size adopted, the Mandate required as a particular activity to undertake a more methodical assessment of the number of sites which should be reviewed this time round. The outcome of this work was shared with ORR and Network Rail in a draft report and at a meeting on 13 February 2012. A copy of the draft sampling paper is attached in Appendix B.

It is not intended to discuss the contents of the sampling report in this document other than to acknowledge the outcome of the exercise. These were that:

- It was agreed that a sample of 57 stations and 10 depots would be reviewed;
- The spread of stations, by both geography and size, would be split in proportion to the national proportions; and
- The minimum station category sample size would be three.

This then was the basis of the planning of the site inspections.

4.4 Site Reviews

For consistency, the general approach to the planning and execution of the site surveys remained with the same pattern of previous years. The following briefly describes the means of selecting the sites and the process adopted at each.

4.4.1 Site Selection

Based on the parameters set out in the sampling paper, and summarised above, the following spread of stations and depots was derived:

Table 4-1: Spread of Site Surveys

Route	Category						Total	Depot
	A	B	C	D	E	F		
Anglia		1			1	3	5	1
Kent			1		1	2	4	1
London North Eastern	1			1	2	4	8	1
London North Western	1		1	2	4	6	14	1
Midland and Continental			1		1	1	3	1
Scotland		1		1	2	4	8	2
Sussex			1	1		1	3	
Wessex		1			1	2	4	1
Western	1		1	1	2	3	8	2
Total	3	3	5	6	14	26	57	10

Note that whilst the Category ‘A’ and ‘B’ station populations are small nationally the minimum sample size of three stations has been applied to the site review distribution.

Based on the foregoing a random set of stations and depots meeting the necessary criteria were identified. The set was modified in the course of the works. The resulting final set of facilities which were subject to review site is listed in Table 4-2.

Table 4-2: Stations Subject to Site Review

Route	Category					
	A	B	C	D	E	F
Anglia		Ipswich			Hertford East	Brandon Crouch Hill Lingwood
Kent			Chatham		Kearsney	East Malling Maidstone-Barracks
London North Eastern				Hexham	Ashwell & Morden Malton	Battersby Elsecar Haydon Br. Hammerton
London North Western	Marylebone		Blackpool North	Todmorden Wrexham General	Brunswick Bushey Erdington Kidsgrove	Adlington Cark Lapworth Ridgmont St Bees Stone
Midland and Continental			Derby		Melton Mowbray	Sileby
Scotland	Glasgow Central	Perth		Mount Florida	Girvan Saltcoats	Fort Matilda Larkhall Laurencekirk Newcraighall
Sussex			Three Bridges	Bognor Regis		Glynde
Wessex		Winchester			Sway	Grateley Yetminster
Western	Reading		Cardiff Queen Street	Liskeard	Bridgewater Radyr	Ashchurch Dovey Jcn Filton Abbey -Wood

Table 4-3: Depots Subject to Site Review

Route	Depot
Anglia	Southend Victoria
Kent	Orpington
London North Eastern	Welwyn
London North Western	Birkenhead North Bletchley
Midland and Continental	Derby Etches Park
Scotland	Ayr Townhead Corkerhill Perth
Sussex	-
Wessex	Fratton
Western	-

Table 4-4 describes the reason for changes to be made to the original set of stations.

Table 4-4: Site Review Selection Change Reasons

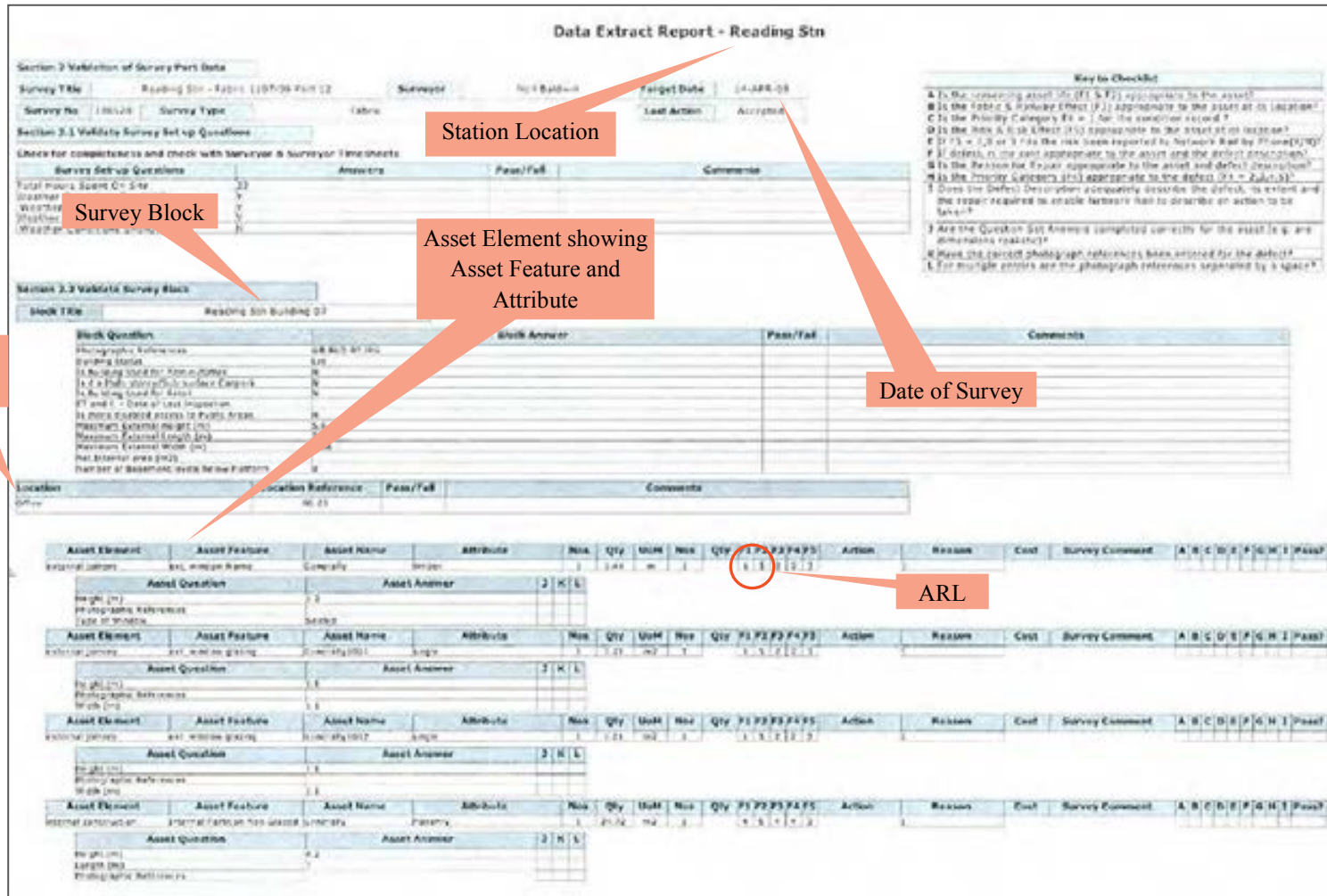
Original Selection	Replacement Selection	Reason
Doncaster Station	Glasgow Central Station	Despite showing that data is present in the system no data found in OPAS*
Lakenheath Station	Brandon Station	Difficult access to the station by rail given the weekend only train service pattern
Bridge of Orchy Station	Larkhall Station	Station was identified as not possessing an OPAS survey
Cardiff Canton Depot	Birkenhead North Depot	No data yet available in OPAS – old methodology still in use
Colchester Depot	Southern Victoria Depot	No data yet available in OPAS – old methodology still in use
Stewart's Lane Depot	Kensal Green Depot	No data yet available in OPAS – old methodology still in use
Kensal Green Depot	Corkerhill Depot	Kensal Green now closed and de-commissioned
Reading Depot	Fratton Depot	No data yet available in OPAS – old methodology still in use

* This is described more fully in Section 4.4.7

4.4.2 Site Review Process

The principle activity on site is the validation or otherwise of the current Network Rail survey data held in OPAS. For this purpose a Data Extract Report (DER) with associated drawings was obtained directly from OPAS. The form of the DER lends itself to such an exercise in that it follows the structure of the survey and provides a line by line analysis of each 'Block' and within it the Locations, Elements and finally Attributes of each asset (see Figure 3-1). For each attribute an 'F1' and 'F2' score is attached and it is these which combine to form the ARL. Figure 4-1 provides an overview of a typical page from a Data Extract Report.

Figure 4-1: Sample Page from a Data Extract Report



On site the aim is to validate as many of the measures in the current surveys as possible within the programmed time. The deployment of resources at each site is driven by the size of the current survey. Thus at small stations it may be possible to complete a review with a single surveyor in a few hours. At the more complex stations it may take a team of individuals a couple of days to review a significant proportion of the survey. Given that our study is undertaken without the benefit of track possessions, the avoidance of the need to access roofs or enter confined spaces and indeed gain access to sensitive areas of the stations and depots, the overall 'hit rate' for the review can never be 100%. In previous years the aim has been to completing reviews of 30% of the measures at any one site, normally this target has been comfortably exceeded. This year the average rate of sampling has been around 76%.

The aim of the review is to determine if any variations observed on site between the observed asset condition and the survey will impact on the reported SSM and LMDSM scores.

The review covers the four principle areas described in Table 4-5.

Table 4-5: Parameters Reviewed on Site

Areas	Impact
Asset Residual Life (F1/F2)	This is the driver in determining the SSM and LMDSM scores for the station and thus a key part of the validation process. As described above, this is the main focus of the on-site review.
Asset Material	This is used as one of the survey accuracy proxies and also a measure of the level of change on site between the periods of inspection. This essentially highlights the areas where the observed composition of an element is different to that reported in the survey.
Layout Change	Another measure which is used as a proxy of the level of redundancy in the survey brought about by changes on site through, for example, remodelling. This is not necessarily a reflection of the quality or accuracy of the survey under review.
Asset Life Expectancy Exceedences	Where a surveyor has identified an ARL which is in excess of the ALE then the system will cut it back to the maximum level permissible - that is the ARL will be made to equal the ALE and thereby assume the asset is in a Category 1 condition. In the past this has been used as a proxy for relative ignorance of the ALE and then as a flag to question whether the surveyors are aware of the ALE value and thus able to place the asset in the correct condition category. It is noted that the system used to record the surveyor ARL input on site has been updated so that it is no longer able to accept figures greater than the respective ALE.

4.4.3 Outcomes

The following tables provide a summary of the outputs from the site work.

Sampling

The overall study sampling methodology required the review of 57 stations of varying categories, and 10 depots. Both of these targets were met during the commission.

The overall number of individual asset measures in the surveys of the sites selected totalled over 37,000 of which the review considered over 28,000. The percentage of measures reviewed on site is shown in Table 4-6. The minimum

achieved at any one site was 39% at Marylebone where access to parts of the main building currently used as offices, and into commercial premises proved to be difficult.

Table 4-6: Summary of Review Percentages

	Total Number of Measures	Measures Reviewed	Percentage
57 Stations	30,799	22,717	74%
10 Depots	6,276	5,691	91%

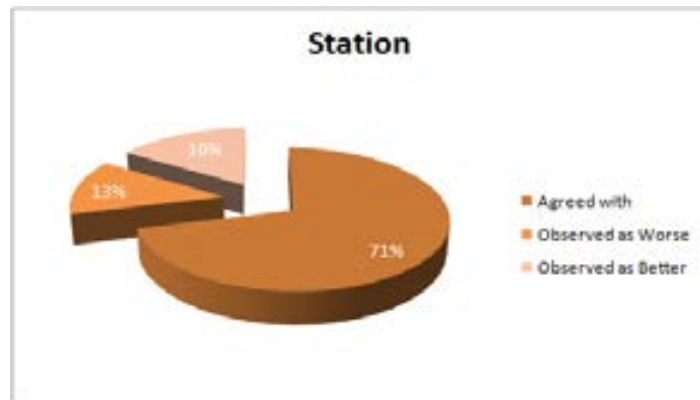
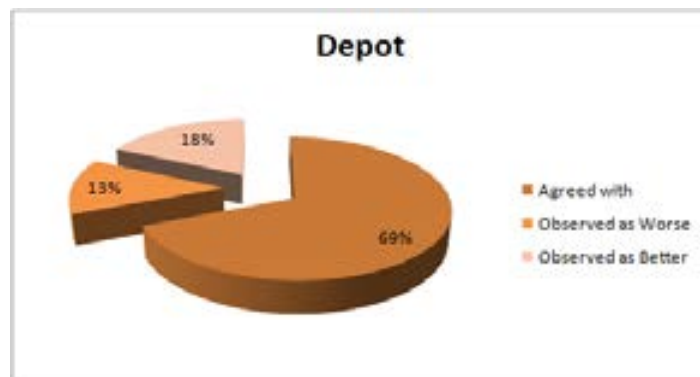
Review Results

Of the measures reviewed the broad split between the parameters in Table 4-5 was as follows:

Table 4-7: High Level Results of the Site works

	ARL		Material	Layout	ALE Exceedence
	Reporter observed an asset condition worse than in the NR survey	Reporter observed an asset condition better than in the NR survey	Reporter observed a variation in the material from that quoted in the survey	Reporter observed a variation in the layout of the site from that described in the survey	The ARL in the survey exceeds the appropriate asset ALE value
57 Stations	13%	16%	2%	18%	5%
10 Depots	13%	18%	2%	4%	5%

The key results are summarised in the following graphs.

Figure 4-2: Average Station ARL Assessment**Figure 4-3: Average Depot ARL Assessment**

Tables in Appendix 'C' provide a more detailed breakdown of the results by individual site.

The following provides a comparison with the values obtained from 2011.

Table 4-8: Comparison with 2010/2011 Results

		ARL		Material	Layout	ALE Exceedence
		Poorer ARL Observed by Reporter	Improved ARL Observed by Reporter			
Stations	2012	13%	16%	2%	18%	5%
	2011	4%	27%	1%	3%	3%
Depots	2012	13%	18%	2%	4%	5%
	2011	3%	37%	2%	2%	3%

Whilst these high level figures provide an overall indication of the quality of the surveys under review it is the impact on the current SSM and LMDSM scores which is the determining factor. In the past these variations have proved a limited indicator of the overall impact on the final asset scores.

4.4.4 Commentary on the High Level Results

The results show variations in some areas when compared to the outcomes from 2010/2011. The following provides a commentary on the results as described in Tables 4-7 and 4-8.

The average number of measures per site has gone up when compared to last year. Given that the aim of the selection of the sites is to provide a random sample then it is not surprising that the increased number of more detailed (Full) surveys coming through the system is having an impact.

The increased percentage of identified variations in the ARL assessments for both those judged by the Reporter team to be in worse condition than recorded and at the same time a significant decline in the assets found to be in better condition has meant that there is more of a balance between the two assessments now. It is considered that this may have an impact on the variation in the Measures when calculated since these would logically appear to be more in line.

The secondary measure variations (those associated with material or layout) remain at a relatively low level but within that the layout anomaly rate has increased significantly. This is largely due to the number of locations visited which are currently experiencing or have recently experienced investment. Reading, Derby and Glasgow Central stations are cases in point where certain buildings in the survey had been demolished. As stated previously the recording of variations brought about by material or layout variations are not necessarily associated with errors in the survey but can be attributed to enhancement work or delay in catching up with work done since the last five yearly survey.

The level of ALE exceedences remains modest but as discussed in Table 4-5 it is seen as evidence of a lack of appreciation of the associated ALE value which can then lead to errors in the SSM calculation. Network Rail has previously accepted the recommendation to circulate the set ALEs to their contractor and there was direct evidence of this when Amey were interviewed. In the meantime the planned closure of the loop-hole in the data collection software (as a result of a previous Reporter recommendation) which permitted this should see this measure decline over time and disappear completely on all new surveys.

4.4.5 SSM Score Impact

Results

Whilst the high level review provides a broad indication of the quality of the data and highlights the number of instances where there is disagreement over the ARL of individual assets it is the impact on the SSM score which is the issue to be resolved.

Table 4-9: SSM Results by Station

No.	Station Category	Station	Route	Reported SSM Score	Modelled Network Rail Score	Reporter Modelled Score	Variation Between Modelled Scores
1	A	Glasgow Central Stn	Scotland	1.82	1.88	1.94	-3%
2	A	Marylebone Stn	LNW	2.82	*	*	*
3	A	Reading Stn	Western	2.28	2.28	2.28	0%
4	B	Ipswich Stn	Anglia	2.62	2.57	2.35	9%
5	B	Perth Stn	Scotland	2.28	2.37	2.13	10%
6	B	Winchester Stn	Wessex	2.28	2.07	2.22	-7%
7	C	Blackpool North Stn	LNW	2.56	2.58	2.62	-2%
8	C	Cardiff Queen Street Stn	Western	2.46	2.49	2.34	6%
9	C	Chatham Stn	Kent	2.36	2.27	2.33	-3%
10	C	Derby Stn	Midland & Continental	2.14	2.21	2.14	3%
11	C	Three Bridges Stn	Sussex	1.94	1.93	2.09	-8%
12	D	Bognor Regis Stn	Sussex	2.60	2.61	2.66	-2%
13	D	Hexham Stn	LNE	2.65	2.64	2.85	-8%
14	D	Liskeard Stn	Western	2.58	2.64	2.39	9%
15	D	Mount Florida Stn	Scotland	1.95	1.86	2.06	-11%
16	D	Todmorden Stn	LNW	2.81	3.00	2.78	7%
17	D	Wrexham General Stn	LNW	2.45	2.42	2.30	5%
18	E	Ashwell and Morden Stn	LNE	2.30	2.67	2.23	16%
19	E	Bridgwater Stn	Western	2.90	2.90	2.52	13%
20	E	Brunswick Stn	LNW	2.00	1.99	2.22	-12%
21	E	Bushey Stn	LNW	2.26	2.27	2.26	0%
22	E	Erdington Stn	LNW	2.29	2.34	2.08	11%
23	E	Girvan Stn	Scotland	2.08	2.01	2.07	-3%
24	E	Hertford East Stn	Anglia	2.77	2.77	2.52	9%
25	E	Kearsney Stn	Kent	2.46	2.56	2.58	-1%
26	E	Kidsgrove Stn	LNW	2.18	2.12	2.52	-19%
27	E	Malton Stn	LNE	2.10	2.13	2.09	2%
28	E	Melton Mowbray Stn	Midland & Continental	2.16	2.19	2.23	-2%
29	E	Radyr Stn	Western	2.29	2.25	2.31	-3%
30	E	Saltcoats Stn	Scotland	2.51	2.42	2.28	6%
31	E	Sway Stn	Wessex	2.58	2.55	2.49	2%
32	F	Adlington (Lancashire) Stn	LNW	2.16	2.15	2.38	-11%
33	F	Ashchurch for Tewkesbury Stn	Western	1.84	1.89	1.58	16%
34	F	Battersby Stn	LNE	2.56	2.76	2.63	5%
35	F	Brandon Stn	Anglia	2.36	2.40	2.17	10%
36	F	Cark Stn	LNW	2.27	2.29	2.19	4%
37	F	Crouch Hill Stn	Anglia	2.59	2.60	1.93	26%
38	F	Dovey Junction Stn	Western	2.14	2.14	1.86	13%
39	F	East Malling Stn	Kent	2.49	2.41	2.70	-12%
40	F	Elsecar Stn	LNE	2.29	2.29	2.35	-3%
41	F	Filton Abbey Wood Stn	Western	2.06	2.13	2.02	5%
42	F	Fort Matilda Stn	Scotland	2.31	2.34	2.22	5%
43	F	Glynde Stn	Sussex	2.64	2.65	2.65	0%
44	F	Grateley Stn	Wessex	1.99	1.82	1.83	-1%
45	F	Hammerton Stn	LNE	2.18	2.09	2.08	0%
46	F	Haydon Bridge Stn	LNE	2.79	2.76	2.40	13%
47	F	Lapworth Stn	LNW	2.44	2.45	2.34	4%
48	F	Larkhall Stn	Scotland	2.32	2.04	1.93	5%
49	F	Laurencekirk Stn	Scotland	1.72	1.98	1.69	15%
50	F	Lingwood Stn	Anglia	1.94	1.99	2.05	-3%
51	F	Maidstone Barracks Stn	Kent	1.98	2.02	2.39	-18%
52	F	Newcraighall Stn	Scotland	2.20	2.20	1.97	10%
53	F	Ridgmont Stn	LNW	2.07	2.09	2.36	-13%
54	F	Sileby Stn	Midland & Continental	2.44	2.44	2.35	4%
55	F	St Bees Stn	LNW	2.68	2.81	2.66	5%
56	F	Stone Stn	LNW	2.19	2.24	2.57	-15%
57	F	Yetminster Stn	Wessex	2.99	2.78	2.76	1%

Note: Negative variations denote a worse condition and the SSM value increasing

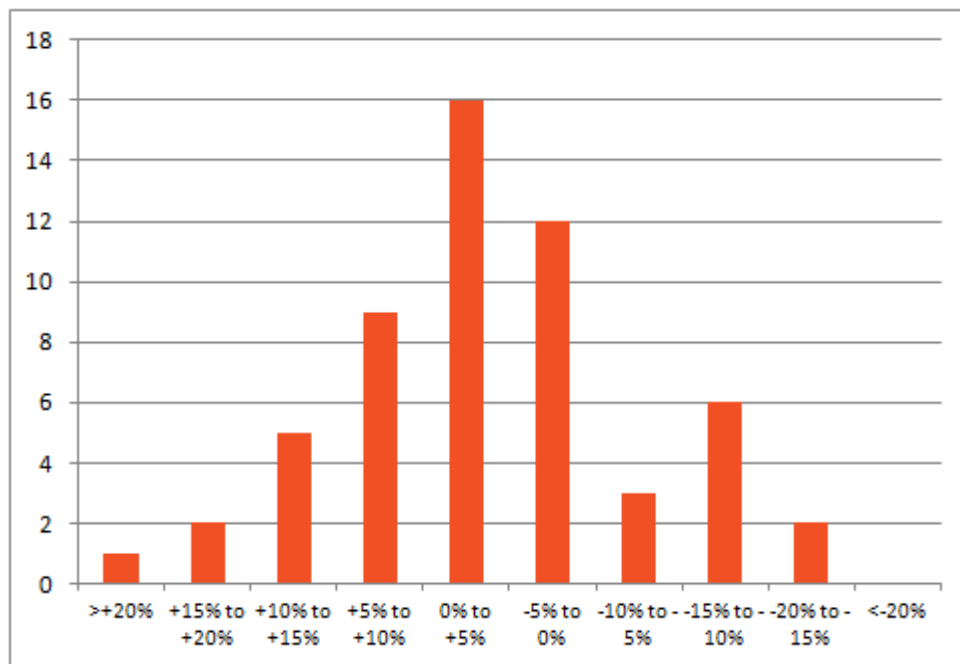
* It was not possible to create a comparative score for **Marylebone Station** since the DER used on the survey varied from the Excel data download used as input to the model. During investigation of this issue by Network Rail it emerged that DER contained data from a July 2011 survey which the Excel output excluded. It was discovered that the M&E survey output was only submitted on 23 April 2012. This delay was caused by access issues and the need to 'force validate' certain elements of the survey. In conclusion, the station examination reports had not been fully uploaded and submitted, but some parts had when the extract was performed to create the DER. This allowed the Reporter access to a segment of the PDF which relates to the forced submissions, but the whole report needed to be uploaded and validated through the standard process before a matching Excel data output would have been generated. In hindsight, the mix of timings make it clear that the station reference data for both the generation of the PDF and the Excel data extract should have been based on the previous surveys, but this was not apparent to the Reporter's team at the time.

An Excel version of the Network Rail survey data was obtained and run taking account of the latest Amey survey results in OPAS. As discussed previously older versions of the data are retained by OPAS. The result of this data run is the Modelled Network Rail Score for the particular station. In Table 4-9 this is compared to the Network Rail reported results.

Accepting that the modelled Network Rail score is the baseline against which the review should be measured the final column notes the variation between the Network Rail and Reporter SSM assessments.

The range of variation between the two measures is from -19% to +26%. The spread of results is shown in Figure 4-4.

Figure 4-4: Spread of Variation in the SSM Findings



With a clear peak of results in the low percentages and over half of the variations lying between -5% and +5% and a broadly symmetrical range of results, then it could be anticipated that the averages across the data sets would be low. The average of the variations, as a complete set, is +1.7%. The results of breaking the results down by Station Category and Route are shown in Tables 4-10 and 4-11 respectively.

Table 4-10: Analysis of SSM Variation by Station Category

Station Category	Reporter Assessment Compared to Network Rail Assessment
Category A	-2%
Category B	+4%
Category C	-1%
Category D	0%
Category E	+1%
Category F	+2%
Rounded Average	+1%

Note: Negative variations denote a worse condition and the SSM value increasing

Table 4-11: Analysis of SSM Variations by Route

Route	Reporter Assessment Compared to Network Rail Assessment
Anglia	+10%
Kent	-9%
London North Eastern	+6%
London North Western	-3%
Midland & Continental	+2%
Scotland	+4%
Sussex	-3%
Wessex	-1%
Western	+7%
Rounded Average	+1%

Note: Negative variations denote a worse condition and the SSM value increasing

No attempt has been made to map the results against the date of the survey since original detailed surveys are likely to have been updated with more recent visual inspections potentially splitting the age of the data between two or in some cases three inspections.

Review of Findings

The site work which has been undertaken this year is the most comprehensive of the current Reporter's tenure with more stations and more measures being reviewed in the process. The size of the survey was driven by the requirement to ensure that the sampling of the reported measures was statistically significant.

The impact on the SSM score, as an average, shows a marked drop from the previous study where an average variation of 6% improvement in condition compares to a 1.7% improvement found by this study. Whilst this would seem to indicate a convergence of outcomes it should be noted that there remain significant variations at individual stations and within the Station Categories there remain some small variations. Since the Regulatory Targets are based on the split by Station Category and Route these figures remain relevant. Nevertheless, when considered as a portfolio, the overall variation is minor.

4.4.6 LMDSM Score Impact

The comparative assessment for the LMDSM was undertaken in a similar manner to that for SSM. The evaluation of the survey data took data for the main depot fabric and the track scores into account in the evaluation. The LMDSM calculation from the base data does not weight the various asset groups but rather takes the average across all key assets. This is different to the means of evaluating the SSM. Table 4-12 shows the results of the comparative assessment.

Table 4-12: LMDSM Results by Depot

No.	Depot	Route	Reported SSM Score	Modelled Network Rail Score	Reporter Modelled Score	Variation Between Modelled Scores
1	Ayr LMD	Scotland	2.60	2.32	2.44	-5%
2	Birkenhead North LMD	London North Western	2.18	2.22	2.47	-11%
3	Bletchley LMD	London North Western	2.02	2.08	2.24	-8%
4	Corkerhill LMD	Scotland	2.61	2.60	2.57	1%
5	Derby Etches Park LMD	Midland & Continental	2.19	2.39	2.51	-5%
6	Fratton TCD (LMD)	Wessex	2.54	2.57	2.52	2%
7	Orpington TCD (LMD)	Kent	2.47	1.86	1.93	-4%
8	Perth LMD	Scotland	3.77	3.76	3.20	15%
9	Southend Victoria LMD	Anglia	2.39	3.16	3.19	-1%
10	Welwyn Garden City LMD	London North Eastern	2.57	2.98	2.95	1%

Note: Negative variations denote a worse condition and the SSM value increasing

As with the SSM calculation Table 4-12 provides a comparison between the 2010 Annual Return reported LMDSM, the evaluation of the Network Rail score based on the data held in OPAS, and the modified score taking account of the Reporter observations on site. The meaningful comparison is between the last two of these. The variation between the Network Rail and Reporter modelled scores is provided in the final column of the table. The average across the ten depots is -2%, meaning the Reporter observed overall a worsening of the asset condition compared to the Network Rail surveys.

The Regulatory Targets associated with LMDSM split the depots into England and Wales, and Scotland. Based on the foregoing the following averages emerge.

Table 4-13: Variations in LMDSM by Regulatory Target Split

Grouping	Reporter Assessment Compared to Network Rail Assessment
England and Wales	-4%
Scotland	+4%

Note: Negative variations denote a worse condition and the SSM value increasing

Review of Findings

With the exception of Birkenhead and Bletchley all of the other depots subject to review were last surveyed in 2007. This was a time when reduced scope surveys were being undertaken in order to populate OPAS. Thus, it is probably not surprising that, given their age, some variations in the asset assessments have been identified. However, Birkenhead and Bletchley were both subject to detailed surveys in 2011. During the review both of these sites were subject to high levels of validation (85% and 90% respectively). Given the recent surveys it would be comforting to see a high correlation between the Network Rail and Reporter surveys. Unfortunately, these are the two sites where the Reporter has recorded the highest level of disagreement in terms of the assets being in a poorer condition than the Network Rail survey would indicate. In both cases the Depot Shed appears to have contributed a very significant part of this.

4.4.7 Conclusion

In bringing the site works to a conclusion it is noticeable that, apart from the increased volume of data now available as a result of the more detailed surveys working their way through the system, the difference between positive and negative comparative views on the ARL has dropped markedly from 23% to 3% for stations, and from 34% to 5% for depots. This tends to indicate a distinct narrowing of the gap between results which was borne out in practice by a significantly reduced average variation in the measures.

However, there are two key areas which it is felt need to be highlighted:

- The gap since the last full inspection of a significant category 'A' station and to not populate their OPAS system with survey data that had been obtained in the interim (Noted that the five years since the last full inspection of this station will expire in November 2012).
- Despite the level of survey audit and checking which has been described and evidenced there do appear to be certain surveys which can best be described as lacking in structure and rigour.

Considering each of these:

Five Yearly Inspections

Doncaster Station had been selected as a station for review. On searching the OPAS system for the Data Extract Report it was clear that no data existed for the site which could be downloaded. On pursuing the matter it appeared that Doncaster, whilst not on the list of stations with no data (see Section 4.2), relied on an assessment made based on a previous methodology from 2007. When this was raised with Network Rail it was stated that the station was currently being surveyed and that this would comply with the five yearly interval requirement. It was however noted that the Amey programme of inspections for the LNE area did not include Doncaster.

In discussion with a Network Rail Route Asset Manager (RAM) it was stated that the means of programming inspection work is on the basis of 'due date'. If this is the case then Doncaster should have perhaps been identified sooner.

This nevertheless raises the question of how many other stations have their surveys currently approaching the required five yearly interval. Exacerbating this problem also is the fact that Amey are behind on programme. This is evidenced by the statement from the RAMs to the effect that Amey had respectively delivered 88% and 65% of their detailed examination programmes for 2011-12. In addition, as a result of the early push for survey data in 2007 with the ADC Lite programme there is a potential 'bow wave' of new detailed surveys requiring to be undertaken in order to meet the five-yearly interval inspections.

It is recommended that a review be made of the current dates for full inspection of all stations and this shared with the ORR.

Survey Structure

Whilst a lot of the surveys which are reviewed are very simple in terms of their structure, by necessity the large stations are bound to have surveys which have much greater levels of complexity. Combine this with replacement (from ADC Lite) surveys and site remodelling can lead to confusion in the structure of the survey models. A case in point is Derby. This station has benefitted from remodelling and, linked to this, the survey results appear to be in two parts with separate drawings for each. The latest survey excludes and renumbers certain buildings. The new survey drawings take account of the fact that certain buildings have been removed but are still included in the survey. Does this mean they are still part of the SSM calculation? It is concerning that with the quality of the audit process as described to the Reporter team that this should occur. Other minor examples of the drawings not showing all of the survey blocks were noted. Whilst it is recognised that these would not alter the quality of the survey it does demonstrate that the checking process is not infallible.

5 Study Conclusions

5.1 Introduction

This Section of the report provides a summary of the overall conclusions of commission. It includes a list of recommendations and the Reporter's Confidence Rating for SSM and LMDSM.

5.2 Conclusions

The principle conclusions to emerge from the study are:

5.2.1 Documentation

There is generally an appropriate structure of documentation to support the SSM. There are issues associated with the detail in some of the documentation and in particular the lack of a procedures manual associated with the LMDSM. There are also discontinuities between documents and the ALE table remains flawed.

5.2.2 Training

The Reporter team is satisfied that appropriate training is being provided to the front-line staff as evidenced by the structure as described and the outputs from the surveys. It is noted that as a result of recent recruitment by Amey the training regime has had to be made robust if the programme is to be caught up through the rapid and effective deployment of the new staff.

Whilst there is general satisfaction with the structure of the training it is clear that the focus of the guidance given to the surveyors is based on indentifying the ARL of each asset independently of the asset condition. There was concern that this may lead to a diminution of the accuracy of the SSM score which, as stated previously, is based on the condition rating. However, the outcome of the review (which was based on a pure assessment of condition rating) demonstrated that at a portfolio level this did not appear to provide a marked variation in output.

5.2.3 In-House Audit

The process as described appears to meet the requirements of the process however the issue which has been identified with the survey at Derby where buildings may be included twice in the survey gives cause for concern. Basic errors like those found at Reading where the survey drawings did not detail the Elements within the Blocks also lead the Reporter to question the checking process which is taking place. In the majority of cases these will not affect the outcome of the survey but, in the case of Derby there will be clear implications.

5.2.4 LMDSM Process

It is clear that the LMDSM process has lagged some way behind that of the SSM. This is perhaps natural given the high profile nature of the condition of the

stations, however whilst this may be understandable, if not acceptable, for the site work there would appear to be little explanation for why the current process is not adequately documented. It is known that Network Rail is in the process of addressing this but it would appear to have taken a considerable time to reach this stage. Experience in trying to mimic the LMDSM process during the course of this study confirmed the opaque nature of the process.

5.2.5 Network Rail Report Review

The Network Rail report contained a lot of the data which had been shared previously. The Reporter is satisfied with the description of the implications as described in the report.

The comparative review of the scoring at a sample of six stations appears inconclusive both in terms of a stated conclusion and the inference which can be drawn from the results. The small scale nature of the sample does not provide any clear or meaningful lessons and cannot be judged to be a significant sample in terms of a statistical comparison.

5.2.6 Site Review

The site work and subsequent analysis which was undertaken for this review was the most comprehensive undertaken to date and was driven by the requirement to carry out a statistically significant sampling of the data. This applies to both the SSM and LMDSM. As described, the results from the work have been considered on two levels. The first considers the emerging results from the individual sites to the asset level and shows the degree to which the original Network Rail survey compares to the Reporter's observations. The results from the high level analysis indicated some positive trends with the average variations on site between those assets judged to be in a better and a poorer condition considerably reduced. This pointed to the potential evening out of the overall variations for the impact on the actual measures. The site work also identified a number of issues associated with the structure of some surveys.

At the secondary level, the individual considerations from the site are combined to provide a determination of the variation in Measure between the Network Rail survey and the Reporter observations. In this the promised indications from the high level review translated themselves into average variations on the SSM and LMDSM which were significantly lower than in 2010-11. This meant that there would appear to be convergence in the two sets of results. This overall closeness was however generated despite some very significant variations at individual stations ranging up to +26%. In total there were seventeen stations where the variation, either up or down, was greater than 10%. In reviewing the individual variations on a site by site basis the majority of them have been driven by a significant number of disagreements in a single Block. These are usually footbridges or buildings. The largest variation, at Crouch Hill, (+26%) was last surveyed in March 2008 and since then there has been considerable investment in this facility. Nevertheless the same is not true for all sites.

Regardless of these concerns, the overall results of the site investigation are considered to show an improvement compared to 2010-11 but there remain issues to be resolved as outlined previously.

5.3 Confidence Rating

The Mandate covering the study contained details of the method to be adopted in determining the Confidence Rating of the two Measures.

5.3.1 Station Stewardship Measure

System Reliability

The review has covered a broad range of activities and processes associated with the delivery of the SSM. This begins with the training of the site surveyors and ends with the auditing of the surveys by Network Rail. The review has identified a number of areas where there is some cause for concern regarding the execution of what appears to be an appropriately structured process. This manifests itself in the poorly structured survey at one particular station and the lack of co-ordinated drawings at some others. Whilst this latter point shows poor practice it is considered that it would not have a significant effect on the survey. However, it may impact on future surveys which require to link into the previous data. On this basis the system reliability grading is put at 'B'.

Accuracy Grading System

The accuracy grading has been evaluated based on the averages of the results from across the sample. This is based on the data in Table 4-9c for the whole population and shows a +1.7% variance. Whilst the requirement of the accuracy rating is to base the results on a 95% confidence level it has been determined that averages shall apply. As a result the Accuracy Grading applicable to the SSM is '2'.

Comparison with 2010-11 Results

The SSM Confidence Rating for 2010-11 scored Network Rail at level 'B3'. Whilst the survey results, in terms of the gap between the two surveys, have clearly closed considerably (indicating a greater level of accuracy) it is considered that there has been little progress in some areas of the process development. Again, to repeat earlier comments whilst the process appears to be strong there are a number of minor areas which lead to concern about the delivery of the regime on an ongoing basis.

Comparison with Benchmark

The higher grading of the Measure indicates that Network Rail has clearly improved in terms of the accuracy of the SSM. There remain a small number of areas associated with the process which need to be resolved to allow the Confidence Grading to improve. These areas are highlighted above and in Section 4.4.7.

Highest Achievable Grade

It is the Reporter's view that it will be possible for Network Rail to achieve a system reliability rating of 'A'. The discovery of some shortcomings in the process delivery stopped the award the reliability rating being a grade 'A'. Once these issues are resolved the reliability rating will improve.

In terms of the accuracy there is more of an issue. The comparison between the survey and site observation has, despite the structure of the processes, a degree of

subjectivity involved in it. Further the potential lag between the survey and the review will inject a further level of variation. Given the foregoing it is felt unlikely that '1*' could be achieved consistently.

5.3.2 Light Maintenance Depot Measure

System Reliability

There are considered to be a number of shortcomings in the process associated with this Measure. The principle of which is the lack of supporting documentation describing the regime and making the calculation of the Measure clear. Whilst this is a clear failure the centralised nature of the way in which the Measure is calculated means that there should not be any variations in approach and limited impact on the Measure itself. The lack of detailed surveys at the depots continues to be a cause for concern with half the sites being reported on the old methodology. On this basis the system reliability grading is put at 'C'.

Accuracy Grading System

Based on the same principles as adopted in the assessments of the grading of the SSM the low average variation between the Network Rail and Reporter results leads to the awarding of an Accuracy Grading of '2'.

Comparison with 2010-11 Results

The LMDSM Confidence Grading awarded in 2010-11 was level 'C4'. Once again, as with the SSM there has been a marked closing of the gap between the two sets of results. The scale of the depot survey in 2011 has clearly been much larger than in previous reviews and this may have helped to iron-out individual site issues to provide a more balanced view of the accuracy of the measure.

There remain a number of issues with the process which seem to make little progress and a number of the issues raised in 2010-11 remain.

Comparison with Benchmark

There is no reason why the Confidence Rating for the LMDSM should not be at the same level as the SSM. What is currently dragging it down is the lack of a documented process and clear understanding of the way the regime ties data from various surveys together. It is known that Network Rail is working on improvements to the documentation and it is hoped that this will close out issues which will lead to an improvement in the System Reliability assessment.

Highest Achievable Grade

The highest achievable grade for the LMDSM is considered to be the same as that for SSM at Confidence Grading 'A1'.

5.4 Recommendations

5.4.1 Progress on Previous Recommendations

The following table describes the progress which has been made on the previously identified recommendations.

Table 5-1: Progress on Previous Recommendations

Recommendation Number	Recommendation	Due Date	Progress
2011SSM01	Update system in OPAS such that ARLs greater than the ALE cannot be input	March 2011	Completed
2011SSM02	Review the ALE tabulation to remove discrepancies, and validate assessments of asset life	May 2011	Work has begun regarding the review of the ALE tables. This work is ongoing.
2011SSM03	Review whether the recording system should be updated to allow for greater than one defect per recorded element	May 2011	Completed
2011SSM04	Issue guidance on LMDC assessments similar to the recent SSM note including a review of the asset weightings	March 2011	Work on the review of the LMDC (LMDSM) documentation is ongoing with completion expected in June 2012
2011SSM05	Prioritise updating of survey data	May 2011	Evidence of resources being developed to depot surveys and a commitment to complete all depot surveys during current Control Period, thus deemed completed.

5.4.2 Reporter Recommendations

Throughout the report a number of actions have been suggested which it is believed will improve the processes and quality of the data behind the SSM and LMDSM. Table 5-2 contains the Reporter Recommendations from the review.

Table 5-2: Reporter Recommendations

Number	Recommendation to Network Rail	Location in Text	Network Rail Data Champion	Due Date
2012SSM01	The ALE data should be included in the surveyor flip books as a means of bringing these figures to the attention of the surveyors when they are structuring and undertaking their surveys.	3.2.3	John Chappell	Oct 2012
2012SSM02	A list of the last full survey at each station should be provided to the ORR to reassure them that the quinquennial reviews are being undertaken timeously.	4.4.7	John Chappell	July 2012
2012SSM03	A more rigorous approach should be taken to the auditing of surveys at stations where significant investment has taken place to ensure accuracy and to validate that new layouts are accurately described and that old data is not retained when new assets are added	3.4.2 / 4.4.7	John Chappell	Sept 2012
2012SSM04	Network Rail should monitor its achievement of the 5% site audit of its CEFA contractor's detailed survey outputs	3.4.1	John Chappell	July 2012

Appendix A

Commission Mandate

Mandate for Independent Reporter Part A – Data assurance 2011-2012, Asset Management (station stewardship)

Audit Title:	Data assurance 2011-2012, Asset Management (station stewardship)
Mandate Ref:	TBC
Document version:	Final
Date:	2 December 2011
Draft prepared by:	Chris Fieldsend
Remit prepared by:	Chris Fieldsend
Network Rail reviewer:	John Chappell

Authorisation to proceed

ORR	Chris Fieldsend	
Network Rail	John Chappell	

Purpose

This mandate sets out the scope of work for the Part A Independent Reporter (Arup) to review Network Rail's (NR) asset management (station stewardship) data. As regulated targets, it is critical that ORR has assurance of the quality of this data. The Station Stewardship Measure (SSM) is used by Network Rail to inform over £1 billion of investment in operational property. It is therefore imperative that ORR has confidence that these investment decisions are based on reliable and accurate data. Similarly, ORR needs confidence that the Light Maintenance and Depot Condition Measure (LMDCM) can be used to inform investment in Network Rail's depots.

Background

Arup last reviewed NR's asset management (station stewardship) data in Q3 (November – February) 2010-2011. The review concluded that NR has sound processes in place for the derivation of SSM, and that the overall quality of the data had improved (from a C4 to a B3) since 2009-2010. The review also found that new documentation introduced to assess Asset Life Expectancy (ALE) could lead to varied individual assessments between stations and station elements.

The 2010-2011 Q3 review also assessed LMDCM. While the confidence rating improved from a C5 (in 2009-2010) to a C4, the review found issues relating to a dichotomy of methodologies and a lack of detailed reporting in OPAS (Operational Property Asset System).

ORR, NR and Arup have worked together to fully understand the implications of the findings and agree the most appropriate way to address the recommendations. In August 2011 ORR, NR and Arup agreed a plan to fully understand the variations observed during the review. The plan sets out a number of actions for completion by the end of December 2011, under the Part A Independent Reporter Building and Civils Transformation programme.

Scope

In assessing SSM and LMDC this review should:

- comment on the reliability, quality, consistency, completeness and accuracy of the reported data;
- present a confidence grade for each KPI and comment upon the direction of travel since last reviewed in Q3 2010-2011; and
- report on progress against recommendations made in Q3 2010-2011 and make appropriate recommendations where necessary.

Specifically, the review should consider the:

- findings of the recent Asset Stewardship Measures review (conducted by Faithful+Gould), and potential implications on SSM nationally
- extent of variance between NR's SSM survey results, and those determined by the Independent Reporter
- form of any variances found, i.e. variation in measure, variation in residual life, new layout or equipment, different material, unable to validate or other
- appropriateness of processes and guidelines for assessing the ALE
- extent and quality of training provided to SSM and LMDCM surveyors
- quality of systems used to record SSM and LMDCM, and appropriateness of supporting documentation
- sampling of elements assessed at different stations and depots
- extent, frequency and thoroughness of which NR conduct internal audits
- impact of individual station / depot variances on the top level regulated measures (SSM and LMDCM)
- comprehensiveness of depot condition surveys that support the LMDCM
- collation and reporting mechanism for LMDCM
- extent to which there is a systematic bias (optimistic or pessimistic) in both SSM and LMDCM

Methodology

The Reporter should:

- review the findings of the Faithful+Gould report and agree with NR and ORR as to whether further analysis is required
- meet with relevant Network Rail employees to understand any procedural changes [to the processes used to report SSM and LMDCM] since the Q3 2010-2011 report
- review all relevant documentation and systems, and comment upon their quality and fitness for purpose
- meet with NR's surveyors (Amey) to understand the training / guidance provided, and conduct joint surveys (Reporter to confirm number)
- review the full training programme for SSM and LMDCM
- outline their proposed methodology to assess the specific requirements listed above (including visits to stations and depots)

outline their sampling methodology, and anticipated number of station / depot visits. ORR and NR are keen for the Reporter to review a statistically significant sample, and would like the Reporter to note the feasibility of this within their proposal

- review the analysis (final report due January 2012) conducted by NR, following the joint review of the 2010-2011 SSM / LMDCM data assurance report
- state the confidence that ORR / NR can have in the findings, given their proposed methodology

Deliverables

The Reporter should provide a publishable report, including findings, conclusions and recommendations. The report should be prepared in draft form and sent electronically to Network Rail and ORR, at the same time. The Reporter should facilitate feedback (via a tripartite feedback session) and provide a revised report with track changes. This should be followed by a final report for publication on ORR's website.

Timescales

A fully costed proposal for this work is required by 9 December 2011. Work is expected to commence shortly after, following approval by NR and ORR. A draft report is required by 24 February 2012 and a final report is required by 30 March 2012.

Independent Reporter remit proposal

The Independent Reporter shall prepare a fully costed proposal for review and approval by NR and ORR on the basis of this mandate. The approved remit will form part of the mandate and shall be attached to this document. The proposal will detail methodology, tasks, programme, deliverables, resources and costs.

Confidence grades

The Independent Reporter shall provide a confidence grade for each of the measures under investigation. The confidence grading system in Annex A should be used. For each measure, the Independent Reporter should include the:

- confidence grade for this review;
- commentary on direction of travel since last year;
- commentary on this year's grade against ORR's benchmark; and
- an indication of the highest achievable grade for each measure.

Annex A: Confidence grading system

System reliability grading system

System Reliability Band	Description
A	<p>Appropriate, auditable, properly documented, well-defined and written records, reporting arrangements, procedures, investigations and analysis shall be maintained, and consistently applied across Network Rail. Where appropriate the systems used to collect and analyse the data will be automated. The system is regularly reviewed and updated by Network Rail's senior management so that it remains fit for purpose. This includes identifying potential risks that could materially affect the reliability of the system or the accuracy of the data and identifying ways that these risks can be mitigated.</p> <p>The system that is used is recognised as representing best practice and is an effective method of data collation and analysis. If necessary, it also uses appropriate algorithms.</p> <p>The system is resourced by appropriate numbers of effective people who have been appropriately trained. Appropriate contingency plans will also be in place to ensure that if the system fails there is an alternative way of sourcing and processing data to produce appropriate outputs.</p> <p>Appropriate internal verification of the data and the data processing system is carried out and appropriate control systems and governance arrangements are in place.</p> <p>The outputs and any analysis produced by the system are subject to management analysis and challenge. This includes being able to adequately explain variances between expected and actual results, time-series data, targets etc.</p> <p>There may be some negligible shortcomings in the system that would only have a negligible effect on the reliability of the system.</p>
B	<p>As A, but with minor shortcomings in the system.</p> <p>The minor shortcomings would only have a minor effect on the reliability of the system.</p>
C	<p>As A, but with some significant shortcomings in the system.</p> <p>The significant shortcomings would have a significant effect on the reliability of the system.</p>
D	<p>As A, but with some highly significant shortcomings in the system.</p> <p>The highly significant shortcomings would have a highly significant effect on the reliability of the system.</p>

Notes:

1. System reliability is a measure of the overall reliability, quality, robustness and integrity of the system that produces the data.
2. Some examples of the potential shortcomings include old assessment, missing documentation, insufficient internal verification and undocumented reliance on third-party data.

Accuracy grading system

Accuracy Band	Description
1*	Data used to calculate the measure is accurate to within 0.1%
1	Data used to calculate the measure is accurate to within 1%
2	Data used to calculate the measure is accurate to within 5%
3	Data used to calculate the measure is accurate to within 10%
4	Data used to calculate the measure is accurate to within 25%
5	Data used to calculate the measure is accurate to within 50%
6	Data used to calculate the measure is inaccurate by more than 50%
X	Data accuracy cannot be measured

Notes:

1. Accuracy is a measure of the closeness of the data used in the system to the true values.
2. Accuracy is defined at the 95% confidence level - i.e. the true value of 95% of the data points will be in the accuracy bands defined above.

Benchmark grades

As agreed with Network Rail, from Q3 2011-2012 data assurance reviews will use this new confidence grading system. A characteristic of the new system is the introduction of a benchmark grade; the grade at which ORR believes the measure should be, given what we know about the processes and level of subjectivity in deriving it. It should be noted that the derivation and application of benchmark grades has recently been introduced, and all parties should decide how useful this element is throughout the review. The table below provides ORR's benchmark grades for the 2011-2012 data assurance review of asset management (station stewardship).

Measure	Benchmark grade
SSM	A1
LMDCM	A1

Appendix B

Sampling Paper

To	John Chappell (NR) Bob Kirk (NR) Justin Kennedy (NR) Chris Fieldsend (ORR) Jim Bostock (ORR) Mervyn Carter (ORR) Douglas Leeming (Arup)	Date 13 February 2012
Copies	Stefan Sanders (Arup)	Reference number IH
From	Ian Hood x 52031 (13 Fitzroy Street, London) Andrew Eaves (Arup) Shiv Nanda (NR) Fazilat Dar (ORR)	File reference
Subject	SSM/LMDC Sample Sizes	

This memo sets out the conclusions of a meeting held on the 10th February 2012 with Shiv Nanda, Fazilat Dar, Andrew Eaves and Ian Hood. The purpose of the meeting was to jointly agree the sample sizes for the Arup audit of Station Stewardship measure (SSM) and Light Maintenance Depot Condition (LMDC) scoring, following the proposal issued by Arup in the document 'SSM Sampling Proposal v1' dated 24th January 2012.

Meeting Notes & Summary:

The Arup SSM & LMDC Sampling Proposal recommends using a sample size of 57 stations with a confidence level of 95% & level of 0.06 precision. Following discussions and before this meeting, the depot sample of 17 recommended in the report was reduced to an initial 10 when the results can be reviewed and the need for increasing the sample can be decided. It has also subsequently been agreed with NR that only the 35 depots with scores recorded in OPAS can be sampled because only those depots have disaggregated score data. The sample size of 10 therefore represents a significant size of the available depots (this being 29% of the total depot population).

A sample of 57 stations and 10 depots is a starting point, however we need to recognise that this is an iterative and continuous improvement process NR and Arup would be embarking on.

The proposal bases its analysis on the standard deviation for the differences (0.23). This is considered to be appropriate.

A pair t test has been used in the above proposal for stations. The principle behind this test is understandable as we want to compare two population means of

scores, though ideally these two sets of scores should be pre and post recommendations made by ORR/Arup.

In the meeting we recognised that before we start comparing NR and Arup scores at 0.1 to 0.01 level of accuracy we need to ensure that there is least amount of variance between the methodology used to calculate SSM / LMDC scores and the methodology used to test them for assurance/audit purposes.

Key steps to reduce variance and make the t test sampling and testing more precise and accurate going forward would include:

1. Commonality in understanding and skill levels of NR Surveyors and Arup auditors;
2. Ensuring NR surveyors and Arup auditors do not have missing documentation, insufficient internal verification and undocumented reliance on third-party data;
3. Training plan for NR surveyors; and
4. Possibility of including joint surveys.

For the t test to be effective (in determining correct sample size & rejecting the null hypothesis) the key assumptions are that a same set of population is tested for before and after scores after a recommended change has been administered. E.g. checking patient's condition before and after a recommended drug has been administered. If the recommended drug has not been administered the variance between before and after loses its significance regarding the impact of the drug, but it will highlight the difference in the method of measurements – in our case of the NR survey and the Arup audit.

Under present circumstances and at this point in time, if for whatever reason (and these may well be valid reasons) all recommendations proposed by Arup have not been carried out, checking SSM and LMDC scores against Arup measure for reliability & accuracy loses its significance.

Nonetheless, it very importantly points out the variance in the way in which NR & Arup measure these scores and prompts us to act accordingly.

Therefore, NR and Arup have to work hand in hand to achieve two key goals:

1. NR's ability to have a reliable and accurate measure that Arup recognises with confidence.
2. Arup's ability to conduct audits & provide assurance on the accuracy and precision of SSM & LMDC score is achieved.

In summary, the present t test highlights variance in the way scores are measured (both at process & skill level). Hence the starting point is to take joint steps to reduce this variance, for which the proposed sample sizes of 57 stations and 10 depots will be suitable. This would, going forward help Arup to be able to provide assurance on accuracy & reliability of SSM/LMDC scores.

Follow up questions and answers

- 1) When we met on the 1 Feb we talked about understanding the sample size required for a category level assessment of SSM (as Regulated). Although we recognised this was most probably unaffordable / undeliverable I had thought part of the task was to understand the degree of compromise imported by looking only at the national level – did I misunderstand or did we decide not to do this?

Table 1 shows the precision that results from our recommended sample sizes by station category, and Table 2 gives an indication of the sample sizes required to obtain a consistent precision of 6% across all station categories. These figures, however, should be treated with caution because the standard deviations by station category are based on little data.

Table 1: Suggested Sample Sizes – Station Category

Station Category	Standard Deviation (s)	Confidence Level (α)	Z-value (z)	Precision Level (p)	Sample Size (n _{int})	Finite Pop'n Sample Size (n)
A	0.08	95%	1.96	0.095	3.0	3
B	0.18	95%	1.96	0.200	3.0	3
C	0.10	95%	1.96	0.090	4.7	5
D	0.11	95%	1.96	0.095	5.6	6
E	0.06	95%	1.96	0.032	13.8	14
F	0.29	95%	1.96	0.113	26.1	26
Overall	0.23	95%	1.96	0.060	57.9	57

Table 2: Sample Size Scenarios – Station Category

Station Category	Standard Deviation (s)	Confidence Level (α)	Z-value (z)	Precision Level (p)	Sample Size (n _{int})	Finite Pop'n Sample Size (n)
A	0.08	95%	1.96	0.060	7.5	6
B	0.18	95%	1.96	0.060	33.2	22
C	0.10	95%	1.96	0.060	10.7	11
D	0.11	95%	1.96	0.060	13.9	14
E	0.06	95%	1.96	0.060	3.9	4
F	0.29	95%	1.96	0.060	92.6	86
Overall						143

- 1) What is the ‘confidence level’ and the ‘precision’ offered by a sample of 10 for LMDSM?

Table 3 shows a range of confidence levels and precision levels that lead to a sample size of 10 for depots. In the case of depots it makes sense to do an initial smaller scale study as we do not have any pre-existing information. After the initial study the sampling plan can be reassessed depending on the findings.

Table 3: Sample Size Scenarios - Depots

Standard Deviation (s)	Confidence Level (α)	Z-value (z)	Precision Level (p)	Sample Size (n_{inf})	Finite Pop'n Sample Size (n)
0.23	95%	1.96	0.100	20.8	17
0.23	95%	1.96	0.140	10.6	10
0.23	85%	1.44	0.100	11.2	10
0.23	90%	1.64	0.120	10.2	10

Is a precision of 6% adequate for ORR's purposes when the ORR benchmark for SSM and LMDSM is an accuracy of 1% (i.e. A1)?

This touches on a very important aspect of the work. We would argue that this is a hypothetical question at this stage. We are expecting that there will be a difference between the NR and Arup scores similar to what was found last year (and in the subsequent NR analysis) as mentioned in the meeting notes above. The challenge for this work will be to identify / confirm the root causes for the differences and their impact.

To provide a Confidence Grade for SSM, we will need to define the baseline from which we are measuring reliability and accuracy. It has already been agreed to defer the introduction of mitigations for some of the root causes identified last year until the start of CP5 (for example, the impact of including no platform tactile and copers in the SSM score). Other mitigations have only just been introduced and won't yet be affecting the SSM scores. Whilst the former can be discounted from our assessment of reliability and accuracy - albeit by approximating their impact on the scoring - we would argue that the latter should be included in the assessment. Given their impact has yet to feed through to the scoring, an accuracy of 1 (within 1%) will not be achievable this year.

LMDC is another matter as we have not really tested this before. As indicated above, we will probably have to take a pragmatic approach given that the sample size for a precision of 1% is likely to be prohibitively large.

Appendix C

Detailed Site Survey Results

The sheets showing the breakdown of the individual site review results are presented in the following pages in alphabetical order within station category and then for the depots.

The following is the order of data presentation.

Station Category A	1 Glasgow Central	2 Marylebone	3 Reading
Station Category B	4 Ipswich	5 Perth	6 Winchester
Station Category C	7 Blackpool North	8 Cardiff Queen Street	9 Chatham
	10 Derby	11 Three Bridges	-
Station Category D	12 Bognor Regis	13 Hexham	14 Liskeard
	15 Mount Florida	16 Todmorden	17 Wrexham General
Station Category E	18 Ashwell	19 Bridgewater	20 Brunswick
	21 Bushey	22 Erdington	23 Girvan
	24 Hertford East	25 Kearsney	26 Kidsgrove
	27 Malton	28 Melton Mowbray	29 Radyr
	30 Saltcoats	31 Sway	-
Station Category F	32 Adlington	33 Ashchurch	34 Battersby
	35 Brandon	36 Cark	37 Crouch Hill
	38 Dovey Junction	39 East Malling	40 Elsecar
	41 Filton Abbey Wd.	42 Fort Matilda	43 Glynde
	44 Grateley	45 Hammerton	46 Haydon Bridge
	47 Lapworth	48 Larkhall	49 Laurencekirk
	50 Lingwood	51 Maidstone Barracks	52 Newcraighall
	53 Ridgemont	54 Sileby	55 St Bees
	56 Stone	57 Yetminster	-
Depot	1 Ayr Townhead	2 Birkenhead North	3 Bletchley
	4 Cokerhill	5 Derby Etches Park	6 Fratton
	7 Orpington	8 Perth	9 Southend Victoria
	10 Welwyn	-	-

Following the individual facility sheets are summaries of the weekly survey and an overall assessment of the high level figures.

1 Glasgow Central (Cat A) [Calculated SSM Variation -3%]

Station	GLASGOW CENTRAL		SCORE 64%					Network Rail Survey v07/05/10;04/11/07			
Date of Visit	30/03/2012		Mil/DL					Surveying Firm	Amey/Atkins		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	0	0	#DIV/0!	0	0	0	0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Access Route 01	4	4	100%	1	0	0	3	25%	0%	0%	75%
Access Route 02	7	7	100%	1	0	1	5	14%	0%	14%	71%
Access Route 03	6	2	33%	0	0	0	2	0%	0%	0%	100%
Access Route 04	6	6	100%	0	0	5	1	0%	0%	83%	17%
Access Route 05	10	10	100%	0	0	10	0	0%	0%	100%	0%
Access Route 06	4	4	100%	0	0	4	0	0%	0%	100%	0%
Access Route 07	12	12	100%	4	1	0	7	33%	8%	0%	58%
Access Route 08	11	11	100%	2	2	0	7	18%	18%	0%	64%
Access Route 09	4	4	100%	0	0	0	4	0%	0%	0%	100%
Building 01	67	17	25%	0	0	0	17	0%	0%	0%	100%
Building 02	2	2	100%	0	1	0	1	0%	50%	0%	50%
Building 03	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 04	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 05	4	2	50%	0	0	0	2	0%	0%	0%	100%
Building 06	3	1	33%	0	0	0	1	0%	0%	0%	100%
Building 07	3	1	33%	0	0	0	1	0%	0%	0%	100%
Building 08	3	1	33%	0	0	0	1	0%	0%	0%	100%
Building 09	2	2	100%	0	0	2	0	0%	0%	100%	0%
Building 10	2	1	50%	0	0	0	1	0%	0%	0%	100%
Building 11	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 12	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 13	6	4	67%	0	0	0	4	0%	0%	0%	100%
Building 14	7	7	100%	0	0	7	0	0%	0%	100%	0%
Building 15	5	5	100%	0	0	5	0	0%	0%	100%	0%
Building 16	5	5	100%	0	0	5	0	0%	0%	100%	0%
Building 17	4	4	100%	0	0	4	0	0%	0%	100%	0%
Building 18	2	2	100%	0	0	2	0	0%	0%	100%	0%
Building 19	2	2	100%	0	0	0	2	0%	0%	0%	100%
Building 20	2	1	50%	0	0	0	1	0%	0%	0%	100%
Building 21	5	5	100%	0	0	5	0	0%	0%	100%	0%
Building 22	2	1	50%	0	0	0	1	0%	0%	0%	100%
Building 23	2	2	100%	0	0	0	2	0%	0%	0%	100%
Canopy 01	13	12	92%	1	0	2	9	8%	0%	15%	77%
Canopy 02	10	0	0%	0	0	0	0	0%	0%	0%	100%
Car Park 01	4	4	100%	0	0	4	0	0%	0%	100%	0%
Car Park 02	5	5	100%	0	0	5	0	0%	0%	100%	0%
Concourse 01	9	7	78%	2	0	1	4	22%	0%	11%	67%
Concourse 02	4	4	100%	1	0	0	3	25%	0%	0%	75%
Platform 01	36	27	75%	0	3	1	23	0%	8%	3%	89%
Platform 02	20	20	100%	6	0	0	14	30%	0%	0%	70%
Platform 03	20	19	95%	4	0	0	15	20%	0%	0%	80%
Platform 04	22	16	73%	2	0	2	12	9%	0%	9%	82%
Platform 05	21	15	71%	1	0	0	14	5%	0%	0%	95%
Platform 06	19	19	100%	4	0	4	11	21%	0%	21%	58%
Platform 07	21	19	90%	3	2	2	12	14%	10%	10%	67%
Platform 08	22	22	100%	1	1	0	20	5%	5%	0%	91%
Train Shed 01	90	83	92%	25	0	3	55	28%	0%	3%	69%
Total	516	397	77%	58	10	74	255	11%	2%	14%	72%

Glasgow Central (continued)

Station	GLASGOW CENTRAL		SCORE	64%	Network Rail Survey	v07/05/10;04/11/07
Date of Visit	30/03/2012	MB/DL			Surveying Firm	Amey/Atkins
Commentary						
Block	Measures Better	Measures Beyond ALE	Comments			
All	0	0				
Access Route 01	0	1				
Access Route 02	2	0				
Access Route 03	0	0			Restricted access to this area	
Access Route 04	0	0			Access route changed	
Access Route 05	0	0			Access route changed	
Access Route 06	0	0			Access route changed	
Access Route 07	0	4				
Access Route 08	0	2				
Access Route 09	0	0				
Building 01	2	0				
Building 02	0	0				
Building 03	0	0				
Building 04	0	0				
Building 05	2	0				
Building 06	0	0				
Building 07	0	0				
Building 08	0	0				
Building 09	0	0				
Building 10	1	0				
Building 11	0	0				
Building 13	0	0				
Building 14	1	0				
Building 15	0	0				
Building 16	0	0				
Building 17	0	0				
Building 18	0	0				
Building 19	0	0				
Building 20	1	0				
Building 21	1	0				
Building 22	0	0				
Building 23	1	0				
Canopy 01	0	0				
Canopy 02	0	0				
Car Park 01	0	0			Car park layout changed	
Car Park 02	0	0			Car park layout changed	
Concourse 01	0	2				
Concourse 02	1	1				
Platform 01	0	0				
Platform 02	6	1				
Platform 03	1	0				
Platform 04	0	0				
Platform 05	0	0				
Platform 06	0	0				
Platform 07	0	1				
Platform 08	2	1				
Train Shed 01	1	28				
Total	22	41				

2 Marylebone (Cat A) [Calculated SSM Variation Undetermined]

Station	MARYLEBONE		SCORE	85%				Network Rail Survey	m29/07/11:28/09/07			
Date of Visit	21/03/2012	GH/DL						Surveying Firm	Amey/Mouchel			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	24	17	71%	9	0	0	8	38%	0%	0%	63%	
Access Route 02	10	9	90%	2	1	0	6	20%	10%	0%	70%	
Access Route 03	11	11	100%	1	0	0	10	9%	0%	0%	91%	
Access Route 04	12	11	92%	1	0	0	10	8%	0%	0%	92%	
Access Route 05	10	10	100%	0	0	0	10	0%	0%	0%	100%	
Building 01	1034	246	24%	43	3	0	200	4%	0%	0%	96%	
Building 02	37	17	46%	0	1	0	16	0%	3%	0%	97%	
Building 03	31	2	6%	0	0	0	2	0%	0%	0%	100%	
Building 04	62	31	50%	0	0	0	31	0%	0%	0%	100%	
Building 05	11	11	100%	0	0	11	0	0%	0%	100%	0%	
Building 06	6	6	100%	0	0	0	6	0%	0%	100%	0%	
Building 07	20	17	85%	2	0	0	15	10%	0%	0%	90%	
Canopy 01	23	23	100%	0	0	0	23	0%	0%	0%	100%	
Canopy 02	12	11	92%	0	0	0	11	0%	0%	0%	100%	
Canopy 03	7	3	43%	0	1	0	2	0%	14%	0%	86%	
Canopy 04	15	14	93%	0	0	0	14	0%	0%	0%	100%	
Canopy 05	17	15	88%	0	0	0	15	0%	0%	0%	100%	
Platform 01	33	28	85%	0	0	0	28	0%	0%	0%	100%	
Platform 02	37	31	84%	0	0	0	31	0%	0%	0%	100%	
Platform 03	42	39	93%	1	2	4	32	2%	5%	10%	83%	
Retail Unit 01	1	0	0%	0	0	0	0	0%	0%	0%	100%	
Retail Unit 02	1	0	0%	0	0	0	0	0%	0%	0%	100%	
Train Shed 01	21	16	76%	0	0	0	16	0%	0%	0%	100%	
Train Shed 02	2	2	100%	0	0	0	2	0%	0%	0%	100%	
Total	1479	570	39%	59	8	21	482	4%	1%	1%	94%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	7	3										
Access Route 02	1	0										
Access Route 03	5	0										
Access Route 04	5	0										
Access Route 05	5	0										
Building 01	39	71	A lot of the offices in this building were not accessible to survey									
Building 02	1	4										
Building 03	0	0										
Building 04	1	3										
Building 05	0	0										
Building 06	0	0										
Building 07	1	3										
Canopy 01	22	0										
Canopy 02	3	0										
Canopy 03	0	0										
Canopy 04	5	0										
Canopy 05	12	0										
Platform 01	13	0										
Platform 02	14	0										
Platform 03	10	0										
Retail Unit 01	0	0										
Retail Unit 02	0	0										
Train Shed 01	3	1										
Train Shed 02	2	0										
Total	149	85										

3 Reading (Cat A) [Calculated SSM Variation 0%]

Station	READING		SCORE					Network Rail Survey		09/04/2010	
Date of Visit	06/03/2012	GH	56%					Surveying Firm	Amey		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	47	47	100%	12	0	0	35	26%	0%	0%	74%
Access Route 02	164	163	99%	52	0	0	111	32%	0%	0%	68%
Access Route 03	26	26	100%	0	0	26	0	0%	0%	100%	0%
Building 01	641	518	81%	65	0	7	446	10%	0%	1%	89%
Building 02	349	349	100%	0	0	349	0	0%	0%	100%	0%
Building 03	47	47	100%	0	0	47	0	0%	0%	100%	0%
Building 04	68	68	100%	0	0	68	0	0%	0%	100%	0%
Building 05	2385	751	31%	9	0	0	742	0%	0%	0%	100%
Building 06	427	0	0%	0	0	0	0	0%	0%	0%	100%
Building 07	219	0	0%	0	0	0	0	0%	0%	0%	100%
Building 08	11	11	100%	0	0	11	0	0%	0%	100%	0%
Canopy 01	60	60	100%	8	2	40	10	13%	3%	67%	17%
Canopy 02	98	97	99%	9	0	72	16	9%	0%	73%	17%
Canopy 03	94	90	96%	29	0	17	44	31%	0%	18%	51%
Canopy 04	31	31	100%	0	0	31	0	0%	0%	100%	0%
Canopy 05	11	7	64%	1	1	0	5	9%	9%	0%	82%
Canopy 06	13	13	100%	0	0	13	0	0%	0%	100%	0%
Car Park 01	15	14	93%	8	0	0	6	53%	0%	0%	47%
Car Park 02	11	11	100%	0	0	11	0	0%	0%	100%	0%
Concourse 01	19	19	100%	2	0	1	16	11%	0%	5%	84%
Footbridge 01	116	99	85%	5	0	0	94	4%	0%	0%	96%
Lift/escalator 01	19	19	100%	0	0	19	0	0%	0%	100%	0%
Lift/escalator 02	21	21	100%	0	0	21	0	0%	0%	100%	0%
Lift/escalator 03	23	23	100%	0	0	23	0	0%	0%	100%	0%
Lift/escalator 04	22	20	91%	0	0	0	20	0%	0%	0%	100%
Lift/escalator 05	11	8	73%	0	1	1	6	0%	9%	9%	82%
Lift/escalator 06	2	2	100%	0	0	0	2	0%	0%	0%	100%
Lift/escalator 07	2	2	100%	0	0	0	2	0%	0%	0%	100%
Lift/escalator 08	2	2	100%	0	0	0	2	0%	0%	0%	100%
Lift/escalator 09	16	13	81%	0	0	0	13	0%	0%	0%	100%
Lift/escalator 10	1	1	100%	0	0	0	1	0%	0%	0%	100%
Platform 01	96	87	91%	18	0	6	63	19%	0%	6%	75%
Platform 02	143	79	55%	34	1	36	8	24%	1%	25%	50%
Platform 03	58	53	91%	6	0	36	11	10%	0%	62%	28%
Platform 04	50	50	100%	8	0	25	17	16%	0%	50%	34%
Subway 01	169	169	100%	0	0	169	0	0%	0%	100%	0%
Total	5487	2970	54%	266	5	1029	1670	5%	0%	19%	76%

Reading (continued)

Station	READING		GH	SCORE	56%	Network Rail Survey	09/04/2010
Date of Visit	06/03/2012					Surveying Firm	Amey
Commentary							
Block	Measures Better	Measures Beyond ALE	Comments				
Access Route 01	6	3					
Access Route 02	8	21					
Access Route 03			Demolished as part of remodelling works				
Building 01	120	4					
Building 02							
Building 03							
Building 04			Demolished as part of remodelling works				
Building 05	90	20					
Building 06							
Building 07							
Building 08							
Canopy 01	1		Partly hoarded off for construction				
Canopy 02	1						
Canopy 03	20	4	partly demolished				
Canopy 04			Demolished as part of remodelling works				
Canopy 05	1						
Canopy 06			Demolished as part of remodelling works				
Car Park 01							
Car Park 02			Demolished as part of remodelling works				
Concourse 01	9						
Footbridge 01	48	1					
Lift/escalator 01			Demolished as part of remodelling works				
Lift/escalator 02			Demolished as part of remodelling works				
Lift/escalator 03			Demolished as part of remodelling works				
Lift/escalator 04	14						
Lift/escalator 05							
Lift/escalator 06							
Lift/escalator 07							
Lift/escalator 08							
Lift/escalator 09							
Lift/escalator 10							
Platform 01	5	29					
Platform 02	7	18	Partly hoarded off for construction				
Platform 03	9	4	Partly hoarded off for construction				
Platform 04	2	3	Partly hoarded off for construction				
Subway 01			Demolished as part of remodelling works				
Total	341	107					

4 Ipswich (Cat B) [Calculated SSM Variation +9%]

Station	IPSWICH		SCORE 90%					Network Rail Survey v29/10/10;31/10/07				
Date of Visit	19/03/2012							Surveying Firm Amey/WYG				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	0	0%	0	0	0	0	0%	0%	0%	100%	
Access Route 01	30	29	97%	2	0	0	27	7%	0%	0%	93%	
Building 01	39	28	72%	3	2	1	22	8%	5%	3%	85%	
Building 02	4	4	100%	1	0	0	3	25%	0%	0%	75%	
Building 03	2	2	100%	0	0	2	0	0%	0%	100%	0%	
Building 04	2	0	0%	0	0	0	0	0%	0%	0%	100%	
Building 05	2	0	0%	0	0	0	0	0%	0%	0%	100%	
Building 06	2	0	0%	0	0	0	0	0%	0%	0%	100%	
Building 07	9	9	100%	0	0	0	9	0%	0%	0%	100%	
Canopy 01	41	39	95%	1	0	0	38	2%	0%	0%	98%	
Canopy 02	27	24	89%	2	0	0	22	7%	0%	0%	93%	
Car Park 01	53	52	98%	8	0	1	43	15%	0%	2%	83%	
Car Park 02	12	12	100%	0	0	1	11	0%	0%	8%	92%	
Footbridge 01	76	71	93%	4	0	0	67	5%	0%	0%	95%	
Platform 01	41	38	93%	0	1	0	37	0%	2%	0%	98%	
Platform 02	43	42	98%	0	2	2	38	0%	5%	5%	91%	
Platform 03	8	7	88%	0	4	0	3	0%	50%	0%	50%	
Total	393	357	91%	21	9	7	320	5%	2%	2%	91%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All	0	0										
Access Route 01	5	1										
Building 01	10	0										
Building 02	0	0										
Building 03	0	0										
Building 04	0	0										
Building 05	0	0										
Building 06	0	0										
Building 07	0	0										
Canopy 01	22	0										
Canopy 02	6	0										
Car Park 01	7	3										
Car Park 02	4	0										
Footbridge 01	14	0										
Platform 01	5	4										
Platform 02	4	3										
Platform 03	1	0										
	78	11										

5 Perth (Cat B) [Calculated SSM Variation +10%]

Station	PERTH		SCORE 82%					Network Rail Survey		v21/04/11	
Date of Visit	24/02/2012							Surveying Firm		Atkins / Amey	
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	2	0	0%				0	0%	0%	0%	100%
Access Route 01	1	1	100%	0	0	0	1	0%	0%	0%	100%
Access Route 02	11	11	100%	2	0	0	9	18%	0%	0%	82%
Building 01	6	0	0%				0	0%	0%	0%	100%
Building 02	2	0	0%				0	0%	0%	0%	100%
Building 03	2	0	0%				0	0%	0%	0%	100%
Building 04	8	0	0%				0	0%	0%	0%	100%
Canopy 01	28	25	89%	4	0	0	21	14%	0%	0%	86%
Canopy 02	20	20	100%	6	0	1	13	30%	0%	5%	65%
Car Park 01	12	12	100%	2			10	17%	0%	0%	83%
Car Park 02	5	5	100%				5	0%	0%	0%	100%
Car Park 03	15	14	93%	2		1	11	13%	0%	7%	80%
Concourse 01	3	3	100%	1	2		0	33%	67%	0%	0%
Footbridge 01	55	53	96%	5	0	0	48	9%	0%	0%	91%
Footbridge 02	12	7	58%	0	0	0	7	0%	0%	0%	100%
Footbridge 03	65	65	100%	12	1	4	48	18%	2%	6%	74%
Footbridge 04	26	26	100%	0	0	1	25	0%	0%	4%	96%
Footbridge 05	63	62	98%	4	0	1	57	6%	0%	2%	92%
Platform 01	28	27	96%		1		26	0%	4%	0%	96%
Platform 02	48	40	83%		4	1	35	0%	8%	2%	90%
Platform 03	93	77	83%		14		63	0%	15%	0%	85%
Train Shed 01	36	29	81%	11	1	0	17	31%	3%	0%	67%
Train Shed 02	44	38	86%	10	0	1	27	23%	0%	2%	75%
Total	585	515	88%	59	23	10	423	10%	4%	2%	84%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
Access Route 01											
Access Route 02	4										
Building 01											
Building 02											
Building 03											
Building 04											
Canopy 01	6										
Canopy 02	3										
Car Park 01	3										
Car Park 02			Note, block identification between car park 2 and 3 wrong								
Car Park 03											
Concourse 01											
Footbridge 01	19										
Footbridge 02	2		Lifts not in use - could not access footbridge deck								
Footbridge 03	3	30									
Footbridge 04	12										
Footbridge 05	31	4									
Platform 01	12										
Platform 02	14	2									
Platform 03	25	1									
Train Shed 01	5	2									
Train Shed 02	11										
Total	150	19									

6 Winchester (Cat B) [Calculated SSM Variation -7%]

Station	WINCHESTER		SCORE 83%		Network Rail Survey		30/09/2011				
Date of Visit	07/03/2012		JD		Surveying Firm		Amey				
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	24	23	96%	2			21	8%	0%	0%	92%
Access Route 02	14	14	100%				14	0%	0%	0%	100%
Access Route 03	12	12	100%				12	0%	0%	0%	100%
Access Route 04	9	0	0%				0	0%	0%	0%	100%
Access Route 05	7	0	0%				0	0%	0%	0%	100%
Apron 01	16	0	0%				0	0%	0%	0%	100%
Building 01	527	197	37%	31		8	158	6%	0%	2%	93%
Building 02	125	61	49%	9	7		45	7%	6%	0%	87%
Building 03	21	0	0%				0	0%	0%	0%	100%
Building 04	36	19	53%				19	0%	0%	0%	100%
Building 05	27	0	0%				0	0%	0%	0%	100%
Canopy 01	18	18	100%	5			13	28%	0%	0%	72%
Canopy 02	19	19	100%	5			14	26%	0%	0%	74%
Canopy 03	36	34	94%	5	3		26	14%	8%	0%	78%
Canopy 04	7	7	100%	2			5	29%	0%	0%	71%
Car Park 01	19	19	100%	1			18	5%	0%	0%	95%
Car Park 02	22	22	100%	5			17	23%	0%	0%	77%
Car Park 03	4	4	100%				4	0%	0%	0%	100%
Curtilage 01	2	2	100%	1			1	50%	0%	0%	50%
Curtilage 02	2	2	100%	1	1		0	50%	50%	0%	0%
Curtilage 03	2	0	0%				0	0%	0%	0%	100%
Curtilage 04	5	0	0%				0	0%	0%	0%	100%
Curtilage 05	1	0	0%				0	0%	0%	0%	100%
Curtilage 06	1	0	0%				0	0%	0%	0%	100%
Platform 01	31	29	94%	2			27	6%	0%	0%	94%
Platform 02	31	29	94%	4			25	13%	0%	0%	87%
Subway 01	35	34	97%		1		33	0%	3%	0%	97%
Total	1053	545	52%	73	12	8	452	7%	1%	1%	91%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01	7	1									
Access Route 02	12										
Access Route 03	9										
Access Route 04											
Access Route 05											
Apron 01											
Building 01	41	1									
Building 02	21										
Building 03											
Building 04	14										
Building 05											
Canopy 01	2										
Canopy 02	5										
Canopy 03	13										
Canopy 04	2										
Car Park 01	8										
Car Park 02	8										
Car Park 03	4										
Curtilage 01											
Curtilage 02											
Curtilage 03											
Curtilage 04											
Curtilage 05											
Curtilage 06											
Platform 01	10	1									
Platform 02	1	2									
Subway 01	24										
Total	181	5									

7 Blackpool North (Cat C) [Calculated SSM Variation -2%]

Station	BLACKPOOL NORTH		SCORE 91%					Network Rail Survey v30/12/11;11/08/07						
Date of Visit	14/03/2012		JD							Surveying Firm	Amey/Mouchel			
Summary														
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %			
All	4	4	100%				4	0%	0%	0%	100%			
Access Route 01	12	12	100%				12	0%	0%	0%	100%			
Access Route 02	27	27	100%	3			24	11%	0%	0%	89%			
Building 01	34	22	65%			3	19	0%	0%	9%	91%			
Building 02	13	11	85%				11	0%	0%	0%	100%			
Canopy 01	16	15	94%	1		2	12	6%	0%	13%	81%			
Canopy 02	11	10	91%				10	0%	0%	0%	100%			
Canopy 03	12	11	92%	1			10	8%	0%	0%	92%			
Canopy 04	11	11	100%	1			10	9%	0%	0%	91%			
Car Park 01	19	19	100%			3	16	0%	0%	16%	84%			
Car Park 02	28	28	100%	1			27	4%	0%	0%	96%			
Platform 01	33	33	100%	5		1	27	15%	0%	3%	82%			
Platform 02	33	33	100%	2			31	6%	0%	0%	94%			
Platform 03	28	28	100%	2			26	7%	0%	0%	93%			
Platform 04	29	29	100%	1	1		27	3%	3%	0%	93%			
Total	310	293	95%	17	1	9	266	5%	0%	3%	91%			
Commentary														
Block	Measures Better	Measures Beyond ALE	Comments											
All														
Access Route 01	2													
Access Route 02														
Building 01														
Building 02														
Canopy 01	1	1												
Canopy 02	1													
Canopy 03		1												
Canopy 04	1													
Car Park 01														
Car Park 02		1												
Platform 01		2												
Platform 02														
Platform 03	1													
Platform 04														
Total	6	5												

8 Cardiff Queen Street (Cat C) [Calculated SSM Variation +6%]

Station	CARDIFF QUEEN STREET		SCORE		88%		Network Rail Survey					
Date of Visit	12/03/2012		GH						Surveying Firm			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	7	0	0%				0	0%	0%	0%	100%	
Access Route 01	9	6	67%	1			5	11%	0%	0%	89%	
Building 01	184	44	24%	7			37	4%	0%	0%	96%	
Building 02	293	138	47%	6	1	1	130	2%	0%	0%	97%	
Building 03	53	28	53%		1	2	25	0%	2%	4%	94%	
Building 04	79	20	25%				20	0%	0%	0%	100%	
Canopy 01	21	20	95%	2	1		17	10%	5%	0%	86%	
Canopy 02	21	15	71%	2	1		12	10%	5%	0%	86%	
Canopy 03	8	0	0%				0	0%	0%	0%	100%	
Car Park 01	10	9	90%	1			8	10%	0%	0%	90%	
Lift / Escalator 01	38	0	0%				0	0%	0%	0%	100%	
Platform 01	70	50	71%	8	1		41	11%	1%	0%	87%	
Platform 02	52	35	67%	6		1	28	12%	0%	2%	87%	
Subway 01	51	30	59%	7			23	14%	0%	0%	86%	
Waiting Shelter 01	1	1	100%				1	0%	0%	0%	100%	
Total	897	396	44%	40	5	4	347	4%	1%	0%	95%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All	0	0										
Access Route 01	4	0										
Building 01	21	1	NO ACCESS TO NON-PUBLIC AREAS, Illumination levels not a valid feature but in book									
Building 02	70	0	NO ACCESS TO NON-PUBLIC AREAS, LOCATION 007 NOT ON DRAWING									
Building 03	16	0										
Building 04	9	0	NO ACCESS TO NON-PUBLIC AREAS									
Canopy 01	4	0										
Canopy 02	1	0										
Canopy 03	0	0										
Car Park 01	4	0										
Lift / Escalator 01	0	0										
Platform 01	3	0										
Platform 02	3	1										
Subway 01	4	0										
Waiting Shelter 01	0	0										
Total	139	2										

9 Chatham (Cat C) [Calculated SSM Variation -3%]

Station	CHATHAM		SCORE	81%								Network Rail Survey
Date of Visit	21/03/2012		/D									Surveying Firm
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%					0%	0%	0%	100%	
Access Route 01	7	7	100%		2		5	0%	29%	0%	71%	
Access Route 02	11	11	100%	2			9	18%	0%	0%	82%	
Access Route 03	24	24	100%	6			18	25%	0%	0%	75%	
Access Route 04	28	28	100%	2	1		25	7%	4%	0%	89%	
Access Route 05	7	7	100%				7	0%	0%	0%	100%	
Apron 01	7	7	100%	2			5	29%	0%	0%	71%	
Apron 02	9	9	100%	2	1		6	22%	11%	0%	67%	
Building 01	360	74	21%	18		4	52	5%	0%	1%	94%	
Building 02	246	192	78%	6	18	3	165	2%	7%	1%	89%	
Building 03	269	176	65%	28	1	2	145	10%	0%	1%	88%	
Building 04	172	37	22%			1	36	0%	0%	1%	99%	
Building 05	28	0	0%					0%	0%	0%	100%	
Canopy 01	36	36	100%	6		8	22	17%	0%	22%	61%	
Canopy 02	24	24	100%	1		5	18	4%	0%	21%	75%	
Canopy 03	18	18	100%	3			15	17%	0%	0%	83%	
Canopy 04	17	17	100%	3			14	18%	0%	0%	82%	
Canopy 05	8	8	100%	2			6	25%	0%	0%	75%	
Car Park 01	52	50	96%	1			49	2%	0%	0%	98%	
Car Park 02	46	45	98%	9			36	20%	0%	0%	80%	
Curtilage 01	8	8	100%	3	1		4	38%	13%	0%	50%	
Curtilage 02	3	3	100%		1		2	0%	33%	0%	67%	
Curtilage 03	5	5	100%		1		4	0%	20%	0%	80%	
Curtilage 04	3	3	100%		1		2	0%	33%	0%	67%	
Curtilage 05	5	5	100%	1			4	20%	0%	0%	80%	
Curtilage 06	3	3	100%		1		2	0%	33%	0%	67%	
Footbridge 01	91	0	0%					0%	0%	0%	100%	
Platform 01	59	58	98%	15			43	25%	0%	0%	75%	
Platform 02	70	70	100%	11	1	2	56	16%	1%	3%	80%	
Total	1618	927	57%	121	29	25	750	7%	2%	2%	89%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Station												
Access Route 01												
Access Route 02	2											
Access Route 03												
Access Route 04	2											
Access Route 05	2											
Apron 01	1											
Apron 02	1	2										
Building 01	2	12	External only									
Building 02	78	3										
Building 03	14	26										
Building 04	9		External only									
Building 05			Demolished									
Canopy 01	13	6										
Canopy 02	7	1										
Canopy 03	4	3										
Canopy 04	4											
Canopy 05	4											
Car Park 01	3											
Car Park 02	1	2										
Curtilage 01	1	3										
Curtilage 02												
Curtilage 03	1											
Curtilage 04												
Curtilage 05		1										
Curtilage 06												
Footbridge 01			Not surveyed									
Platform 01	2	4										
Platform 02		5										
Total	151	68										

10 Derby (Cat C) [Calculated SSM Variation +3%]

Station	DERBY	SCORE	36%		Network Rail Survey	29/04/2011					
Date of Visit	27/03/2012				Surveying Firm	Amev					
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	1	1	100%	0	0	0	1	0%	0%	0%	100%
Access Route 01	11	10	91%	2	0	1	7	18%	0%	9%	73%
Access Route 02	28	27	96%	13	0	1	13	46%	0%	4%	50%
Access Route 03	3	3	100%	0	0	0	3	0%	0%	0%	100%
Access Route 04	17	17	100%	0	0	1	16	0%	0%	8%	94%
Access Route 05	4	4	100%	0	0	0	4	0%	0%	0%	100%
Access Route 06	25	25	100%	0	0	25	0	0%	0%	100%	0%
Access Route 07	2	2	100%	0	0	2	0	0%	0%	100%	0%
Access Route 08	9	9	100%	0	0	9	0	0%	0%	100%	0%
Building 01	74	74	100%	0	0	74	0	0%	0%	100%	0%
Building 02	47	47	100%	0	0	47	0	0%	0%	100%	0%
Building 03	206	206	100%	0	0	206	0	0%	0%	100%	0%
Building 04	41	41	100%	0	0	41	0	0%	0%	100%	0%
Building 05	440	440	100%	0	0	440	0	0%	0%	100%	0%
Building 06	1141	1141	100%	0	0	1141	0	0%	0%	100%	0%
Building 07	48	44	92%	8	1	0	35	17%	2%	0%	81%
Building 08	140	133	95%	12	3	2	116	9%	2%	1%	88%
Building 09	105	89	85%	10	0	0	79	10%	0%	0%	90%
Building 10	205	146	71%	13	1	28	104	6%	0%	14%	80%
Building 11	125	100	80%	10	4	3	83	8%	3%	2%	86%
Building 12	129	129	100%	0	0	129	0	0%	0%	100%	0%
Building 13	68	68	100%	0	0	68	0	0%	0%	100%	0%
Building 14	478	478	100%	0	0	478	0	0%	0%	100%	0%
Building 15	70	66	94%	18	2	1	47	26%	3%	1%	70%
Building 16	42	39	93%	4	1	4	30	10%	2%	10%	79%
Building 17	1615	1163	72%	308	68	25	762	19%	4%	2%	75%
Canopy 01	6	4	67%	4	0	0	0	67%	0%	0%	33%
Canopy 02	16	15	94%	1	0	0	14	6%	0%	0%	94%
Canopy 03	14	14	100%	0	0	0	14	0%	0%	0%	100%
Canopy 04	17	17	100%	0	0	0	17	0%	0%	0%	100%
Canopy 05	12	12	100%	0	0	0	12	0%	0%	0%	100%
Canopy 06	18	18	100%	0	0	0	18	0%	0%	0%	100%
Canopy 07	15	15	100%	0	0	0	15	0%	0%	0%	100%
Footbridge 01	316	304	96%	9	0	5	290	3%	0%	2%	96%
Platform 01	36	35	97%	9	0	0	26	25%	0%	0%	75%
Platform 02	61	61	100%	2	0	0	59	3%	0%	0%	97%
Platform 03	60	57	95%	3	0	0	54	5%	0%	0%	95%
Subway 01	37	30	81%	5	1	7	17	14%	3%	13%	65%
Undercroft 01	68	68	100%	0	0	68	0	0%	0%	100%	0%
Total	5750	5154	90%	431	81	2806	1836	7%	1%	49%	42%

Derby (continued)

Station	DERBY		SCORE	36%	Network Rail Survey	29/04/2011
Date of Visit	27/02/2012				Surveying Firm	Amey
Commentary						
Block	Measures Better	Measures Beyond ALE	Comments			
All						
Access Route 01						
Access Route 02	2	4				
Access Route 03	1					
Access Route 04	4					
Access Route 05		1				
Access Route 06			Not on Drawing			
Access Route 07			Not on Drawing			
Access Route 08			Not on Drawing			
Building 01			Not on Drawing			
Building 02			Not on Drawing			
Building 03			Not on Drawing			
Building 04			Not on Drawing			
Building 05			Not on Drawing			
Building 06			Not on Drawing			
Building 07	10	1				
Building 08	27	9				
Building 09	16	3				
Building 10	30	5				
Building 11	27	1				
Building 12			Not on Drawing			
Building 13			Not on Drawing			
Building 14			Not on Drawing			
Building 15	6	4				
Building 16	5	2				
Building 17	108	44				
Canopy 01	1					
Canopy 02	4					
Canopy 03	5					
Canopy 04	5					
Canopy 05	2					
Canopy 06	5					
Canopy 07	4					
Footbridge 01	154					
Platform 01	5					
Platform 02	17					
Platform 03	20					
Subway 01	7	2				
Undercroft 01						
total	465	76				

11 Three Bridges (Cat C) [Calculated SSM Variation -8%]

Station	THREE BRIDGES			SCORE 69%				Network Rail Survey v21/02/12 31/07/02			
Date of Visit	05/03/2012							Surveying Firm	Aney /		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	12	12	100%	5	1	0	6	42%	8%	0%	50%
Access Route 02	8	6	75%	3	0	0	3	38%	0%	0%	63%
Access Route 03	13	12	92%	4	0	0	8	31%	0%	0%	69%
Access Route 04	9	9	100%	0	0	9	0	0%	0%	100%	0%
Access Route 05	13	13	100%	0	0	13	0	0%	0%	100%	0%
Access Route 06	27	9	33%	0	0	0	9	0%	0%	0%	100%
Building 01	15	15	100%	6	0	0	9	40%	0%	0%	60%
Building 02	5	5	100%	1	0	0	4	20%	0%	0%	80%
Building 03	5	5	100%	0	0	0	5	0%	0%	0%	100%
Building 04	6	6	100%	1	0	0	5	17%	0%	0%	83%
Building 05	5	5	100%	0	0	0	5	0%	0%	0%	100%
Building 06	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 07	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 08	2	0	0%	0	0	0	0	0%	0%	0%	100%
Building 09	2	0	0%	0	0	0	0	0%	0%	0%	100%
Canopy 01	11	8	73%	0	0	0	8	0%	0%	0%	100%
Canopy 02	9	8	89%	0	1	2	5	0%	11%	22%	67%
Canopy 03	18	16	89%	2	1	0	13	11%	6%	0%	83%
Canopy 04	20	18	90%	1	0	0	17	5%	0%	0%	95%
Car Park 01	22	22	100%	8	1	0	13	36%	5%	0%	59%
Car Park 02	12	12	100%	6	0	0	6	50%	0%	0%	50%
Platform 01 - non p	8	8	100%	4	0	0	4	50%	0%	0%	50%
Platform 01	51	51	100%	13	1	1	36	25%	2%	2%	71%
Platform 02	56	50	89%	9	0	0	41	16%	0%	0%	84%
Platform 03	41	33	80%	4	0	1	28	10%	0%	2%	88%
Platform 04	17	15	88%	6	0	0	9	35%	0%	0%	65%
Total	391	338	86%	73	5	26	234	19%	1%	7%	73%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01	0	1									
Access Route 02	0	0									
Access Route 03	0	3									
Access Route 04	0	0									
Access Route 05	0	0									
Access Route 06	2	3									
Building 01	0	3									
Building 02	3	1									
Building 03	0	0									
Building 04	0	1									
Building 05	1	0									
Building 06	0	0									
Building 07	0	0									
Building 08	0	0									
Building 09	0	0									
Canopy 01	3	0									
Canopy 02	4	0									
Canopy 03	0	6									
Canopy 04	0	1									
Car Park 01	0	6									
Car Park 02	0	4									
Platform 01 non-p	0	3									
Platform 01	1	5									
Platform 02	2	8									
Platform 03	0	7									
Platform 04	0	0									
	16	52									

12 Bognor Regis (Cat D) [Calculated SSM Variation +2%]

Station	BOGNOR REGIS		SCORE 74%					Network Rail Survey			
Date of Visit	08/03/2012	JD						Surveying Firm			
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	2	2	100%	0	0	0	2	0%	0%	0%	100%
Access Route 01	23	23	100%	8	0	0	15	35%	0%	0%	65%
Access Route 02	13	13	100%	2	0	0	11	15%	0%	0%	85%
Access Route 03	17	17	100%	1	1	1	14	6%	6%	6%	82%
Access Route 04	10	10	100%	2	1	2	5	20%	10%	20%	50%
Access Route 05	6	5	83%	1	2	0	2	17%	33%	0%	50%
Access Route 06	8	5	63%	0	0	0	5	0%	0%	0%	100%
Access Route 07	5	0	0%				0	0%	0%	0%	100%
Apron 01	3	3	100%	1	1	0	1	33%	33%	0%	33%
Building 01	669	222	33%	55	10	2	155	8%	1%	0%	90%
Building 02	404	251	62%	42	5	3	201	10%	1%	1%	88%
Building 03	41	26	63%	5	1	0	20	12%	2%	0%	85%
Building 04	18	14	78%	1	1	0	12	6%	6%	0%	89%
Building 05	29	20	69%	4	2	1	13	14%	7%	3%	76%
Canopy 01	22	22	100%	5	0	0	17	23%	0%	0%	77%
Canopy 02	29	27	93%	9	0	0	18	31%	0%	0%	69%
Canopy 03	13	13	100%	1	0	0	12	8%	0%	0%	92%
Canopy 05	18	18	100%	6	1	0	11	33%	6%	0%	61%
Canopy 06	18	18	100%	1	1	0	16	6%	6%	0%	89%
Car Park 01	19	19	100%	2	1	0	16	11%	5%	0%	84%
Concourse 01	6	6	100%	1	0	0	5	17%	0%	0%	83%
Non-Pass Plat 01	18	18	100%	0	0	1	17	0%	0%	6%	94%
Platform 01	49	49	100%	18	2	2	27	37%	4%	4%	55%
Platform 02	37	37	100%	11	1	1	24	30%	3%	3%	65%
Retail Unit 01	1	1	100%	0	0	0	1	0%	0%	0%	100%
Retail Unit 02	1	1	100%	0	0	0	1	0%	0%	0%	100%
Train shed 01	44	40	91%	10	0	0	30	23%	0%	0%	77%
Total	1523	880	58%	186	30	13	651	12%	2%	1%	85%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
Access Route 01	5	2									
Access Route 02	4										
Access Route 03	10										
Access Route 04	1	2									
Access Route 05		1									
Access Route 06	1										
Access Route 07			No access								
Apron 01											
Building 01	33	42	Limited access								
Building 02	42	35									
Building 03	8	4									
Building 04	1	1									
Building 05	4	1									
Canopy 01	9	5									
Canopy 02	2	6									
Canopy 03	6	1									
Canopy 04			No Asset Elements								
Canopy 05	1	2									
Canopy 06	3										
Car Park 01	3	1									
Concourse 01	3	1									
Non-Pass Plat 01	5										
Platform 01	1	10									
Platform 02	2	6									
Retail Unit 01											
Retail Unit 02											
Train shed 01	11	2									
Total	155	122									

13 Hexham (Cat D) [Calculated SSM Variation -8%]

Station	HEXHAM		SCORE 73%					Network Rail Survey				
Date of Visit	11/03/2012		JD					Surveying Firm				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Station	2	2	100%	0	0	0	2	0%	0%	0%	100%	
Access Route 01	12	12	100%	4	0	2	6	33%	0%	17%	50%	
Access Route 02	5	5	100%	3	0	0	2	60%	0%	0%	40%	
Access Route 03	4	4	100%	3	0	0	1	75%	0%	0%	25%	
Building 01	29	29	100%	3	0	0	26	10%	0%	0%	90%	
Canopy 01	19	19	100%	3	0	1	15	16%	0%	5%	79%	
Canopy 02	21	21	100%	3	0	1	17	14%	0%	5%	81%	
Canopy 03	10	10	100%	2	0	1	7	20%	0%	10%	70%	
Footbridge 01	24	24	100%	10	2	0	12	42%	8%	0%	50%	
Platform 01	22	22	100%	3	1	0	18	14%	5%	0%	82%	
Platform 02	31	30	97%	3	2	1	24	10%	6%	3%	81%	
Waiting Shelter 01	1	1	100%	0	1	0	0	0%	100%	0%	0%	
Total	180	179	99%	37	6	6	130	21%	3%	3%	73%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Station	0	0										
Access Route 01	1	4										
Access Route 02	0	3										
Access Route 03	0	3										
Building 01	14	0	Roof only									
Canopy 01	0	1										
Canopy 02	1	1										
Canopy 03	1	0										
Footbridge 01	0	2										
Platform 01	3	3										
Platform 02	8	3										
Waiting Shelter 01	0	0										
Total	28	20										

14 Liskeard (Cat D) [Calculated SSM Variation +9%]

Station	LISKEARD		SCORE 91%					Network Rail Survey			
Date of Visit	14/03/2012	GH						Surveying Firm			
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	6	6	100%	2			4	33%	0%	0%	67%
Access Route 02	3	3	100%				3	0%	0%	0%	100%
Access Route 03	22	22	100%		1		21	0%	5%	0%	95%
Access Route 04	14	14	100%	2			12	14%	0%	0%	86%
Access Route 05	7	7	100%				7	0%	0%	0%	100%
Access Route 06	10	10	100%				10	0%	0%	0%	100%
Building 01	257	152	59%	5	3	5	139	2%	1%	2%	95%
Building 02	131	71	54%	3	2		66	2%	2%	0%	96%
Building 03	40	16	40%		2		14	0%	5%	0%	95%
Building 04	38	36	95%		1	1	34	0%	3%	3%	95%
Canopy 01	14	10	71%		1		9	0%	7%	0%	93%
Canopy 02	12	9	75%				9	0%	0%	0%	100%
Car Park 01	8	8	100%	2			6	25%	0%	0%	75%
Car Park 02	9	8	89%	3			5	33%	0%	0%	67%
Car Park 03	6	6	100%				6	0%	0%	0%	100%
Curtilage 01	1	0	0%				0	0%	0%	0%	100%
Curtilage 02	1	0	0%				0	0%	0%	0%	100%
Curtilage 03	1	0	0%				0	0%	0%	0%	100%
Curtilage 04	1	0	0%				0	0%	0%	0%	100%
Curtilage 05	1	0	0%				0	0%	0%	0%	100%
Curtilage 06	1	0	0%				0	0%	0%	0%	100%
Curtilage 07	1	0	0%				0	0%	0%	0%	100%
Footbridge 01	7	7	100%				7	0%	0%	0%	100%
Platform 01	37	33	89%	2			31	5%	0%	0%	95%
Platform 02	39	39	100%	1	1		37	3%	3%	0%	95%
Platform 03	30	29	97%	1			28	3%	0%	0%	97%
Waiting Shelter 01	6	5	83%	1			4	17%	0%	0%	83%
Waiting Shelter 02	6	5	83%	1	1		3	17%	17%	0%	67%
Waiting Shelter 03	6	5	83%	1	1		3	17%	17%	0%	67%
Total	715	501	70%	24	13	6	458	3%	2%	1%	94%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01	2										
Access Route 02											
Access Route 03	14										
Access Route 04	9										
Access Route 05	2										
Access Route 06	4										
Building 01	69	3	no access to non-public areas								
Building 02	14	1	no access to non-public areas								
Building 03	8	1									
Building 04	10	1									
Canopy 01	4										
Canopy 02	5										
Car Park 01	4										
Car Park 02	4										
Car Park 03	1										
Curtilage 01											
Curtilage 02											
Curtilage 03											
Curtilage 04											
Curtilage 05											
Curtilage 06											
Curtilage 07											
Footbridge 01	2										
Platform 01	6										
Platform 02	10										
Platform 03	9										
Waiting Shelter 01											
Waiting Shelter 02											
Waiting Shelter 03											
Total	177	6									

15 Mount Florida (Cat D) [Calculated SSM Variation -11%]

Station	MOUNT FLORIDA		SCORE 73%		Network Rail Survey		30/09/2011				
Date of Visit	02/03/2012	GM			Surveying Firm		Arney				
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	2	2	100%				2	0%	0%	0%	100%
Access Route 01	14	14	100%	11			3	79%	0%	0%	21%
Access Route 02	13	13	100%	5			8	38%	0%	0%	62%
Access Route 03	23	23	100%	8			15	35%	0%	0%	65%
Access Route 04	8	8	100%	1			7	13%	0%	0%	88%
Access Route 05	17	17	100%	7			10	41%	0%	0%	59%
Building 01	127	127	100%	26			101	20%	0%	0%	80%
Building 02	41	41	100%	6			35	15%	0%	0%	85%
Canopy 01	7	7	100%	2			5	29%	0%	0%	71%
Canopy 02	7	7	100%				7	0%	0%	0%	100%
Footbridge 01	49	49	100%	5			44	10%	0%	0%	90%
Footbridge 02	52	52	100%	20			32	38%	0%	0%	62%
Lift 01	27	27	100%	9			18	33%	0%	0%	67%
Platform 01	64	64	100%	20			44	31%	0%	0%	69%
Total	451	451	100%	120	0	0	331	27%	0%	0%	73%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
Access Route 01		4									
Access Route 02											
Access Route 03		2									
Access Route 04											
Access Route 05		1									
Building 01		16									
Building 02		4									
Canopy 01											
Canopy 02											
Footbridge 01		3									
Footbridge 02		6									
Lift 01		5									
Platform 01	1	13									
total	1	54									

16 Todmorden (Cat D) [Calculated SSM Variation +7%]

Station	TODMORDEN			SCORE 87%				Network Rail Survey	v15/07/11			
Date of Visit	01/01/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	7	7	100%		1		6	0%	14%	0%	86%	
Access Route 02	6	6	100%		1		5	0%	17%	0%	83%	
Building 01	8	4	50%				4	0%	0%	0%	100%	
Car Park 01	8	8	100%		1		7	0%	13%	0%	88%	
Platform 01	28	28	100%	3		1	24	11%	0%	4%	86%	
Platform 02	33	33	100%	4			29	12%	0%	0%	88%	
Total	90	86	96%	7	3	1	75	8%	3%	1%	88%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	1											
Access Route 02												
Building 01	2											
Car Park 01	4											
Platform 01	2											
Platform 02		1										
total	9	1										

17 Wrexham General (Cat D) [Calculated SSM Variation +5%]

Station	Wrexham General		SCORE 90%		Network Rail Survey	22/04/2011					
Date of Visit	01/01/2012	GH				Surveying Firm	Amey				
Summary		More to get from pictures									
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	2	0	0%				0	0%	0%	0%	100%
Access Route 01	63	59	94%	1			58	2%	0%	0%	98%
Access Route 02	15	14	93%	2			12	13%	0%	0%	87%
Access Route 03	10	9	90%	2			7	20%	0%	0%	80%
Access Route 04	9	8	89%				8	0%	0%	0%	100%
Building 01	203	181	89%	21	4	1	155	10%	2%	0%	87%
Building 02	388	229	59%	4	1	2	222	1%	0%	1%	98%
Building 03	62	57	92%	4	1		52	6%	2%	0%	92%
Canopy 01	24	23	96%	2			21	8%	0%	0%	92%
Canopy 02	21	21	100%	1			20	5%	0%	0%	95%
Canopy 03	23	19	83%	2	1		16	9%	4%	0%	87%
Car Park 01	9	9	100%				9	0%	0%	0%	100%
Car Park 02	6	6	100%				6	0%	0%	0%	100%
Car Park 03	6	6	100%				6	0%	0%	0%	100%
Car Park 04	3	3	100%				3	0%	0%	0%	100%
Car Park 05	16	14	88%	1	1		12	6%	6%	0%	88%
Curtilage/openland 01	4	4	100%	1	1		2	25%	25%	0%	50%
Curtilage/openland 02	5	3	60%	2			1	40%	0%	0%	60%
Curtilage/openland 03	7	7	100%				7	0%	0%	0%	100%
Curtilage/openland 04	11	10	91%		1	1	8	0%	9%	9%	82%
Curtilage/openland 05	1	1	100%				1	0%	0%	0%	100%
Curtilage/openland 06	4	4	100%				4	0%	0%	0%	100%
Curtilage/openland 07	4	3	75%				3	0%	0%	0%	100%
Curtilage/openland 08	1	1	100%				1	0%	0%	0%	100%
Curtilage/openland 09	2	2	100%				2	0%	0%	0%	100%
Footbridge 01	93	91	98%	21	6	4	60	23%	6%	4%	67%
Lift/escalator 01	35	28	80%	1			27	3%	0%	0%	97%
Lift/escalator 02	34	26	76%		1		25	0%	3%	0%	97%
Platform 01	75	64	85%	5		1	58	7%	0%	1%	92%
Platform 02	63	56	89%	1	3		52	2%	5%	0%	94%
Platform 03	30	24	80%		1	1	22	0%	3%	3%	93%
Waiting Shelter 01	2	2	100%	1			1	50%	0%	0%	50%
Total	1231	984	80%	72	21	10	881	6%	2%	1%	92%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
Access Route 01	4	1									
Access Route 02	3	1									
Access Route 03	2										
Access Route 04			Not shown on drawing								
Building 01	39	1	ticket office being redecorated								
Building 02	52	1									
Building 03	8	2									
Canopy 01											
Canopy 02	1										
Canopy 03	1										
Car Park 01	2										
Car Park 02	3		not on drawing								
Car Park 03	3		not on drawing								
Car Park 04											
Car Park 05		1									
Curtilage/openland 01											
Curtilage/openland 02											
Curtilage/openland 03											
Curtilage/openland 04	2	1									
Curtilage/openland 05			not on drawing								
Curtilage/openland 06			not on drawing								
Curtilage/openland 07			not on drawing								
Curtilage/openland 08			not on drawing								
Curtilage/openland 09			not on drawing								
Footbridge 01	9	3	one span and stairs recently renewed								
Lift/escalator 01	8										
Lift/escalator 02	10										
Platform 01	9	5									
Platform 02	9	2									
Platform 03	9										
Waiting Shelter 01											
total	66	16									

18 Ashwell and Morden (Cat E) [Calculated SSM Variation +16%]

Station	ASHWELL & MORDEN			SCORE 91%				Network Rail Survey	25/03/2011				
Date of Visit	20/03/2012			DL					Surveying Firm	Amey			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
All	1	1	100%				1	0%	0%	0%	100%		
Access Route 01	18	18	100%	1			17	6%	0%	0%	94%		
Building 01	76	34	45%	3			31	4%	0%	0%	96%		
Building 02	1	0	0%				0	0%	0%	0%	100%		
Car Park 01	7	7	100%	1			6	14%	0%	0%	86%		
Curtilage 01	5	5	100%				5	0%	0%	0%	100%		
Footbridge 01	25	24	96%	4			20	16%	0%	0%	84%		
Platform 01	23	23	100%	2			21	9%	0%	0%	91%		
Platform 02	30	29	97%	1			28	3%	0%	0%	97%		
Waiting Shelter 01	17	16	94%	1		1	14	6%	0%	6%	88%		
Waiting Shelter 02	7	7	100%				7	0%	0%	0%	100%		
Total	210	164	78%	13	0	1	150	6%	0%	0%	93%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
All													
Access Route 01	4												
Building 01	6												
Building 02													
Car Park 01													
Curtilage 01													
Footbridge 01		2											
Platform 01	7												
Platform 02	8												
Waiting Shelter 01	6	1											
Waiting Shelter 02	5	1											
Total	36	4											

19 Bridgewater (Cat E) [Calculated SSM Variation +13%]

Station	BRIDGEWATER		SCORE		89%		Network Rail Survey				
Date of Visit	15/03/2012		GH				Surveying Firm				
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	1	1	100%				1	0%	0%	0%	100%
Access Route 01	6	6	100%				6	0%	0%	0%	100%
Access Route 02	8	8	100%			1	7	0%	0%	13%	88%
Building 01	2	1	50%		1		0	0%	50%	0%	50%
Building 02	2	2	100%		1		1	0%	50%	0%	50%
Canopy 01	18	17	94%		1		16	0%	6%	0%	94%
Canopy 02	19	18	95%		1		17	0%	5%	0%	95%
Car Park 01	7	7	100%				7	0%	0%	0%	100%
Footbridge 01	36	34	94%	3		1	30	8%	0%	3%	89%
Platform 01	35	32	91%	2		3	27	6%	0%	9%	86%
Platform 02	35	32	91%	1		2	29	3%	0%	6%	91%
Total	169	158	93%	6	4	7	141	4%	2%	4%	90%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All	1										
Access Route 01	2										
Access Route 02	5										
Building 01											
Building 02											
Canopy 01	12										
Canopy 02	10										
Car Park 01	5										
Footbridge 01	2										
Platform 01	12										
Platform 02	10										
Total	59	0									

20 Brunswick (Cat E) [Calculated SSM Variation -12%]

Station	BRUNSWICK		SCORE 68%					Network Rail Survey	02/02/11 22/06/07			
Date of Visit	02/01/2012	GH						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	22	21	95%	7			14	32%	0%	0%	68%	
Access Route 02	25	25	100%	8	1		16	32%	4%	0%	64%	
Access Route 03	2	2	100%				2	0%	0%	0%	100%	
Building 01	5	4	80%	3			1	60%	0%	0%	40%	
Car Park 01	13	12	92%	4			8	31%	0%	0%	69%	
Footbridge 01	91	91	100%	32		1	58	35%	0%	1%	64%	
Platform 01	35	33	94%	5			28	14%	0%	0%	86%	
Platform 02	27	25	93%	7			18	26%	0%	0%	74%	
Total	220	213	97%	66	1	1	145	30%	0%	0%	69%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	3	5										
Access Route 02	3	2										
Access Route 03		1										
Building 01												
Car Park 01	2											
Footbridge 01	32	5										
Platform 01	8	1										
Platform 02	9	2										
Total	57	16										

21 Bushey (Cat E) [Calculated SSM Variation 0%]

Station	BUSHEY		SCORE 71%					Network Rail Survey v01/03/11;31/12/08						
Date of Visit	26/03/2012		JD							Surveying Firm	Amey/Atkins			
Summary														
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %			
All	2	0	0%				0	0%	0%	0%	100%			
Access Route 01	31	31	100%	19			12	61%	0%	0%	39%			
Access Route 02	36	35	97%	27			8	75%	0%	0%	25%			
Access Route 03	28	26	93%	13			13	46%	0%	0%	54%			
Building 01	128	122	95%	9	12		101	7%	9%	0%	84%			
Building 02	59	22	37%	3			19	5%	0%	0%	95%			
Building 03	25	17	68%	2			15	8%	0%	0%	92%			
Building 04	75	62	83%	4	2		56	5%	3%	0%	92%			
Building 05	29	20	69%	5	1		14	17%	3%	0%	79%			
Canopy 01	27	24	89%	7			17	26%	0%	0%	74%			
Canopy 02	16	14	88%	2			12	13%	0%	0%	88%			
Car Park 01	10	8	80%	5		1	2	50%	0%	10%	40%			
Curtilage 01	3	3	100%	1			2	33%	0%	0%	67%			
Curtilage 02	2	2	100%				2	0%	0%	0%	100%			
Curtilage 03	1	1	100%				1	0%	0%	0%	100%			
Curtilage 04	1	1	100%	1			0	100%	0%	0%	0%			
Platform 01	55	52	95%	24	1		27	44%	2%	0%	55%			
Platform 02	37	36	97%	14			22	38%	0%	0%	62%			
Platform 03	9	9	100%		1		8	0%	11%	0%	89%			
Platform 04	69	69	100%	20	1		48	29%	1%	0%	70%			
Platform 05	44	44	100%	6			38	14%	0%	0%	86%			
Subway 01	113	102	90%	15	5		82	13%	4%	0%	82%			
Waiting Shelter 01	4	4	100%	2			2	50%	0%	0%	50%			
Waiting Shelter 02	3	3	100%	2			1	67%	0%	0%	33%			
Total	807	707	88%	181	23	1	502	22%	3%	0%	75%			
Commentary														
Block	Measures Better	Measures Beyond ALE	Comments											
All														
Access Route 01	1	2												
Access Route 02		6												
Access Route 03	5	3												
Building 01	46	4												
Building 02	7	4												
Building 03	6	4												
Building 04	40	4												
Building 05	2	3												
Canopy 01	5													
Canopy 02	8													
Car Park 01														
Curtilage 01	1													
Curtilage 02	1													
Curtilage 03														
Curtilage 04														
Platform 01	10	9												
Platform 02	4	5												
Platform 03	1													
Platform 04	11	8												
Platform 05	9	2												
Subway 01	34	4												
Waiting Shelter 01														
Waiting Shelter 02		2												
Total	191	60												

22 Erdington (Cat E) [Calculated SSM Variation +11%]

Station	ERDINGTON			SCORE 89%				Network Rail Survey	03/11/2011				
Date of Visit	12/03/2012			DL					Surveying Firm	Amey			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
All	2	1	50%				1	0%	0%	0%	100%		
Access Route 01	16	16	100%	2			14	13%	0%	0%	88%		
Access Route 02	24	21	88%	2	3		16	8%	13%	0%	79%		
Building 01	136	65	48%		5		60	0%	4%	0%	96%		
Cartilage 01	1	1	100%				1	0%	0%	0%	100%		
Cartilage 02	1	1	100%				1	0%	0%	0%	100%		
Platform 01	35	31	89%	3			26	9%	0%	0%	91%		
Platform 02	36	35	97%	4			31	11%	0%	0%	89%		
Waiting Shelter 01	3	3	100%				3	0%	0%	0%	100%		
Waiting Shelter 02	4	4	100%				4	0%	0%	0%	100%		
Total	258	178	69%	11	8	0	159	4%	3%	0%	93%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
All													
Access Route 01	3	1											
Access Route 02	5	5											
Building 01	28	5											
Cartilage 01	1												
Cartilage 02	1												
Platform 01	1	11											
Platform 02	1	10											
Waiting Shelter 01		2											
Waiting Shelter 02	1	2											
	41	36											

23 Girvan (Cat E) [Calculated SSM Variation -3%]

Station	GIRVAN		SCORE 81%					Network Rail Survey	31/01/2011			
Date of Visit	21/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	4	0	0%				0	0%	0%	0%	100%	
Access Route 01	37	36	97%	10			26	27%	0%	0%	73%	
Access Route 02	2	2	100%	1			1	50%	0%	0%	50%	
Access Route 03	15	14	93%	3			11	20%	0%	0%	80%	
Access Route 04	15	13	87%	3			10	20%	0%	0%	80%	
Access Route 05	15	14	93%				14	0%	0%	0%	100%	
Building 01	298	225	76%	33	2	4	186	11%	1%	1%	87%	
Canopy 01	7	5	71%	2			3	29%	0%	0%	71%	
Canopy 02	7	5	71%	1			4	14%	0%	0%	86%	
Canopy 03	6	4	67%	1			3	17%	0%	0%	83%	
Car Park 01	18	18	100%	2			16	11%	0%	0%	89%	
Curtilage 01	10	6	60%	1			5	10%	0%	0%	90%	
Curtilage 02	3	3	100%	1			2	33%	0%	0%	67%	
Curtilage 03	2	2	100%				2	0%	0%	0%	100%	
Curtilage 04	2	0	0%				0	0%	0%	0%	100%	
Curtilage 05	1	1	100%				1	0%	0%	0%	100%	
Platform 01	40	34	85%	6			28	15%	0%	0%	85%	
Platform 02	27	24	89%	7			17	26%	0%	0%	74%	
Subway 01	11	10	91%	2			8	18%	0%	0%	82%	
Total	520	416	80%	73	2	4	337	14%	0%	1%	85%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	4	1										
Access Route 02												
Access Route 03	2	1										
Access Route 04	2	1										
Access Route 05	1											
Building 01	42	16										
Canopy 01												
Canopy 02												
Canopy 03												
Car Park 01	4	1										
Curtilage 01		1										
Curtilage 02		1										
Curtilage 03		2										
Curtilage 04												
Curtilage 05		1										
Platform 01	1	6										
Platform 02	4	5										
Subway 01		2										
Total	60	38										

24 Hertford East (Cat E) [Calculated SSM Variation +9%]

Station	HERTFORD EAST		SCORE 97%					Network Rail Survey v10/12/10;22/03/08				
Date of Visit	20/03/2012		DL					Surveying Firm Amey/WYG				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	1	0	0%				0	0%	0%	0%	100%	
Access Route 01	10	10	100%				10	0%	0%	0%	100%	
Access Route 02	9	9	100%				9	0%	0%	0%	100%	
Building 01	383	100	26%	1	1		98	0%	0%	0%	99%	
Building 02	49	11	22%	1			10	2%	0%	0%	98%	
Building 03	12	6	50%				6	0%	0%	0%	100%	
Canopy 01	33	25	76%	3			22	9%	0%	0%	91%	
Canopy 02	35	27	77%	1		2	24	3%	0%	6%	91%	
Canopy 03	10	9	90%				9	0%	0%	0%	100%	
Car Park 01	13	13	100%				13	0%	0%	0%	100%	
Car Park 02	3	3	100%				3	0%	0%	0%	100%	
Concourse 01	14	13	93%				13	0%	0%	0%	100%	
Platform 01	19	19	100%				19	0%	0%	0%	100%	
Platform 02	20	20	100%				20	0%	0%	0%	100%	
Total	611	265	43%	6	1	2	256	1%	0%	0%	99%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	2											
Access Route 02	1											
Building 01	38	2	Little access to building rooms									
Building 02	4	4										
Building 03	2											
Canopy 01	4											
Canopy 02	9											
Canopy 03	5											
Car Park 01												
Car Park 02												
Concourse 01	5											
Platform 01	8											
Platform 02	7	1										
Total	85	7										

25 Kearsney (Cat E) [Calculated SSM Variation -1%]

Station	KEARSNEY		SCORE 85%					Network Rail Survey			
Date of Visit	21/03/2012	GM						Surveying Firm			
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	1	1	100%				1	0%	0%	0%	100%
Access Route 01	15	15	100%	2			13	13%	0%	0%	87%
Access Route 02	13	12	92%	7			5	54%	0%	0%	46%
Access Route 03	17	13	76%	3			10	18%	0%	0%	82%
Access Route 04	4	3	75%				3	0%	0%	0%	100%
Building 01	140	75	54%	13			62	9%	0%	0%	91%
Building 02	21	18	86%				18	0%	0%	0%	100%
Canopy 01	14	14	100%				14	0%	0%	0%	100%
Canopy 02	13	13	100%				13	0%	0%	0%	100%
Car Park 01	18	18	100%	3			15	17%	0%	0%	83%
Curtilage 01	3	3	100%				3	0%	0%	0%	100%
Curtilage 02	3	3	100%	1			2	33%	0%	0%	67%
Curtilage 03	2	2	100%	1			1	50%	0%	0%	50%
Footbridge 01	39	39	100%	4			35	10%	0%	0%	90%
Platform 01	41	40	98%	5		2	33	12%	0%	5%	83%
Platform 02	34	32	94%	3			29	9%	0%	0%	91%
Waiting shelter 01	2	2	100%	1			1	50%	0%	0%	50%
Total	380	303	80%	43	0	2	258	11%	0%	1%	88%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
Access Route 01											
Access Route 02											
Access Route 03	1										
Access Route 04											
Building 01	6										
Building 02											
Canopy 01	1										
Canopy 02	1										
Car Park 01											
Curtilage 01											
Curtilage 02											
Curtilage 03											
Footbridge 01	4	2									
Platform 01	1										
Platform 02	2										
Waiting shelter 01											
Total	16	2									

26 Kidsgrove (Cat E) [Calculated SSM Variation -19%]

Station	KIDSGROVE		SCORE 69%		Network Rail Survey						
Date of Visit	19/03/2012	JD			Surveying Firm						
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	2	2	100%	0	0	0	2	0%	0%	0%	100%
Building 01	10	10	100%	5	0	0	5	50%	0%	0%	50%
Canopy 01	7	7	100%	3	0	0	4	43%	0%	0%	57%
Canopy 02	8	8	100%	3	0	0	5	38%	0%	0%	63%
Car Park 01	16	16	100%	4	0	1	11	25%	0%	6%	69%
Curtilage 01	1	1	100%	0	0	0	1	0%	0%	0%	100%
Footbridge 01	72	72	100%	25	0	4	43	35%	0%	6%	60%
Platform 01	37	37	100%	7	0	3	27	19%	0%	8%	73%
Platform 02	28	28	100%	6	0	0	22	21%	0%	0%	79%
Platform 03	24	24	100%	4	0	0	20	17%	0%	0%	83%
Platform 04	26	26	100%	5	1	1	19	19%	4%	4%	73%
Total	231	231	100%	62	1	9	159	27%	0%	4%	69%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All	0	0									
Building 01	0	4	Roof only								
Canopy 01	0	1									
Canopy 02	0	1									
Car Park 01	2	4									
Curtilage 01	0	0									
Footbridge 01	0	10									
Platform 01	2	7									
Platform 02	3	6									
Platform 03	3	4									
Platform 04	3	5									
Total	13	42									

27 Malton (Cat E) [Calculated SSM Variation +2%]

Station	MALTON		SCORE 86%					Network Rail Survey	31/7/2007-v24/1/11			
Date of Visit	21/02/2012							Surveying Firm				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	1	0	0%				0	0%	0%	0%	100%	
Access Route 01	3	3	100%				3	0%	0%	0%	100%	
Access Route 02	1	1	100%				1	0%	0%	0%	100%	
Building 01	16	5	31%				5	0%	0%	0%	100%	
Canopy 01	18	15	83%	2			13	11%	0%	0%	89%	
Car Park 01	16	3	19%				3	0%	0%	0%	100%	
Platform 01	47	37	79%	7			30	15%	0%	0%	85%	
Total	102	64	63%	9	0	0	55	9%	0%	0%	91%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	1											
Access Route 02												
Building 01	2											
Canopy 01	2											
Car Park 01	3											
Platform 01	9	7										
Total	17	7										

29 Radyr (Cat E) [Calculated SSM Variation -3%]

Station	RADYR		SCORE 65%					Network Rail Survey	24/08/2010				
Date of Visit	11/03/2012		GH						Surveying Firm	Amey			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
All	1	0	0%				0	0%	0%	0%	100%		
Access Route 01	12	12	100%	1			11	8%	0%	0%	92%		
Access Route 02	22	22	100%	6			16	27%	0%	0%	73%		
Building 01	65	19	29%	4		4	11	6%	0%	0%	88%		
Building 02	58	25	43%	8	1	2	14	14%	2%	3%	81%		
Car Park 01	31	26	84%	7			19	23%	0%	0%	77%		
Footbridge 01	45	45	100%	18	2		25	40%	4%	0%	56%		
Platform 01	53	46	87%	18			28	34%	0%	0%	66%		
Platform 02	60	55	92%	15			40	25%	0%	0%	75%		
Waiting Shelter 01	3	3	100%	2			1	67%	0%	0%	33%		
Waiting Shelter 02	3	3	100%	2			1	67%	0%	0%	33%		
Total	353	256	73%	81	3	6	166	23%	1%	2%	75%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
All													
Access Route 01	1												
Access Route 02	3												
Building 01		2	Abandoned building - fenced off no access										
Building 02	5	2	No access to ticket office										
Car Park 01	3												
Footbridge 01	7												
Platform 01	8	4											
Platform 02	7	2											
Waiting Shelter 01													
Waiting Shelter 02													
Total	34	10											

30 Saltcoats (Cat E) [Calculated SSM Variation +6%]

Station	SALTCOATS		SCORE 90%					Network Rail Survey	11/02/2011			
Date of Visit	20/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	3	1	33%				1	0%	0%	0%	100%	
Access Route 01	17	16	94%	1			15	6%	0%	0%	94%	
Access Route 02	9	9	100%				9	0%	0%	0%	100%	
Access Route 03	9	9	100%	1			8	11%	0%	0%	89%	
Access Route 04	7	7	100%	1			6	14%	0%	0%	86%	
Building 01	185	125	68%	14		2	109	8%	0%	1%	91%	
Canopy 01	13	12	92%	1			11	8%	0%	0%	92%	
Curtilage 01	3	3	100%	2			1	67%	0%	0%	11%	
Curtilage 02	3	3	100%	1			2	33%	0%	0%	67%	
Footbridge 01	53		0%	1			-1	2%	0%	0%	98%	
Platform 01	54	49	91%	3			46	6%	0%	0%	94%	
Platform 02	47	40	85%	1			39	2%	0%	0%	98%	
Waiting Shelter 01	3	3	100%	1			2	33%	0%	0%	67%	
Total	406	277	68%	27	0	2	248	7%	0%	0%	93%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	3											
Access Route 02	4											
Access Route 03	4											
Access Route 04	4											
Building 01	32	7										
Canopy 01	4	1										
Curtilage 01												
Curtilage 02												
Footbridge 01	21											
Platform 01	20											
Platform 02	11	4										
Waiting Shelter 01												
Total	103	12										

31 Sway (Cat E) [Calculated SSM Variation +2%]

Station	SWAY		SCORE 78%					Network Rail Survey v14/05/11;29/02/08				
Date of Visit	21/03/2012	JD						Surveying Firm Amey/Interserve				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%	1			1	50%	0%	0%	50%	
Access Route 01	25	15	60%	4			11	16%	0%	0%	84%	
Access Route 02	5	5	100%	2			3	40%	0%	0%	60%	
Building 01	281	254	90%	40	3		211	14%	1%	0%	85%	
Canopy 01	19	19	100%	5			14	26%	0%	0%	74%	
Canopy 02	23	23	100%	2			21	9%	0%	0%	91%	
Canopy 03	8	8	100%	2			6	25%	0%	0%	75%	
Car Park 01	15	15	100%	8			7	53%	0%	0%	47%	
Curtilage 01	2	2	100%	1			1	50%	0%	0%	50%	
Footbridge 01	42	42	100%	14			28	33%	0%	0%	67%	
Platform 01	30	29	97%	5	3		21	17%	10%	0%	73%	
Platform 02	24	23	96%	5	3		15	21%	13%	0%	67%	
Total	476	437	92%	89	9	0	339	19%	2%	0%	79%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	11											
Access Route 02												
Building 01	138	9										
Canopy 01	4											
Canopy 02	1	1										
Canopy 03	6											
Car Park 01	2											
Curtilage 01	1	1										
Footbridge 01	6											
Platform 01	7											
Platform 02	3	1										
Total	179	12										

32 Adlington (Cat F) [Calculated SSM Variation -11%]

Station	ADLINGTON		SCORE 68%					Network Rail Survey	12/11/2010			
Date of Visit	02/01/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	11	11	100%	2	1		8	18%	9%	0%	73%	
Access Route 02	16	15	94%	8		1	6	50%	0%	6%	44%	
Access Route 03	7	7	100%			1	6	0%	0%	14%	86%	
Building 01	85	85	100%	19	4		62	22%	5%	0%	73%	
Car Park 01	10	10	100%	2			8	20%	0%	0%	80%	
Curtilage 01	3	3	100%				3	0%	0%	0%	100%	
Curtilage 02	1	1	100%				1	0%	0%	0%	100%	
Curtilage 03	3	3	100%	1			2	33%	0%	0%	67%	
Platform 01	24	24	100%	8			16	33%	0%	0%	67%	
Platform 02	28	28	100%	9			19	32%	0%	0%	68%	
Waiting Shelter 01	3	3	100%	3			0	100%	0%	0%	0%	
Waiting Shelter 02	2	2	100%	2			0	100%	0%	0%	0%	
Total	193	192	99%	54	5	2	131	28%	3%	1%	68%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	1	2										
Access Route 02	1	1										
Access Route 03												
Building 01	3	1										
Car Park 01												
Curtilage 01		1										
Curtilage 02		1										
Curtilage 03		1										
Platform 01		2										
Platform 02	1	1										
Waiting Shelter 01												
Waiting Shelter 02												
total	6	10										

33 Ashchurch for Tewksbury (Cat F) [Calculated SSM Variation +16%]

Station	ASHCHURCH		SCORE 89%					Network Rail Survey	17/12/2009			
Date of Visit	11/03/2012	DL						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	13	9	69%				9	0%	0%	0%	100%	
Curtilage 01	2	2	100%	1			1	50%	0%	0%	50%	
Footbridge 01	44	44	100%				44	0%	0%	0%	100%	
Platform 01	20	19	95%	5			14	25%	0%	0%	75%	
Platform 02	21	20	95%	5			15	24%	0%	0%	76%	
Waiting Shelter 01	3	3	100%				3	0%	0%	0%	100%	
Waiting Shelter 02	3	3	100%				3	0%	0%	0%	100%	
Total	106	100	94%	11	0	0	89	10%	0%	0%	90%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01												
Curtilage 01		1										
Footbridge 01	25	9										
Platform 01	4											
Platform 02	6											
Waiting Shelter 01		1										
Waiting Shelter 02		1										
Total	35	12										

34 Battersby (Cat F) [Calculated SSM Variation +5%]

Station	BATTERSBY			SCORE	63%				Network Rail Survey	v27/01/12;14/11/07			
Date of Visit	12/03/2012		JD					Surveying Firm	Amey / WYG				
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
Access Route 01	2	2	100%	1			1	50%	0%	0%	50%		
Access Route 02	2	2	100%				2	0%	0%	0%	100%		
Car Park 01	2	2	100%		2		0	0%	100%	0%	0%		
Platform 01	22	22	100%	7			15	32%	0%	0%	68%		
Platform 02	12	12	100%	5			7	42%	0%	0%	58%		
Total	40	40	100%	13	2	0	25	33%	5%	0%	63%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
Access Route 01													
Access Route 02													
Car Park 01													
Platform 01		2											
Platform 02	3												
Total	3	2											

35 Brandon (Cat F) [Calculated SSM Variation +10%]

Station	BRANDON		DL		SCORE 89%		Network Rail Survey v04/01/12, 06/01/08					
Date of Visit	22/03/2012						Surveying Firm		Amey - Interserve			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	11	7	64%			1	6	0%	0%	9%	91%	
Access Route 02	4	2	50%	1			1	25%	0%	0%	75%	
Canopy 01	8	7	88%				7	0%	0%	0%	100%	
Car Park 01	5	4	80%				4	0%	0%	0%	100%	
Footbridge 01	43	43	100%	3			40	7%	0%	0%	93%	
Platform 01	18	18	100%		4		14	0%	22%	0%	78%	
Platform 02	21	18	86%	1	1		16	5%	5%	0%	90%	
Total	110	99	90%	5	5	1	88	5%	5%	1%	90%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01		1										
Access Route 02												
Canopy 01												
Car Park 01	1	1										
Footbridge 01	1	2										
Platform 01	5											
Platform 02	5	1										
Total	12	5										

36 Cark (Cat F) [Calculated SSM Variation +4%]

Station	CARK		SCORE 95%					Network Rail Survey	11/04/2011			
Date of Visit	20/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	8	8	100%	1			7	13%	0%	0%	88%	
Access Route 02	13	6	46%				6	0%	0%	0%	100%	
Car Park 01	4	3	75%	1			2	25%	0%	0%	75%	
Curtilage 01	5	5	100%				5	0%	0%	0%	100%	
Curtilage 02	10	8	80%				8	0%	0%	0%	100%	
Footbridge 01	37	35	95%	1			34	3%	0%	0%	97%	
Platform 01	26	25	96%	1			24	4%	0%	0%	96%	
Platform 02	38	27	71%	2			25	5%	0%	0%	95%	
Waiting Shelter 01	22	18	82%				18	0%	0%	0%	100%	
Waiting Shelter 02	20	19	95%		1		18	0%	5%	0%	95%	
Total	183	154	84%	6	1	0	147	3%	1%	0%	96%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01		1										
Access Route 02		1										
Car Park 01	1											
Curtilage 01		2										
Curtilage 02	1	1	Curtilage 03 has no measures included									
Footbridge 01	5											
Platform 01	2	8										
Platform 02	1	6										
Waiting Shelter 01	4	3										
Waiting Shelter 02	6	1										
Total	20	23										

37 Crouch Hill (Cat F) [Calculated SSM Variation +26%]

Station	Crouch Hill		SCORE 66%					Network Rail Survey	06/03/2008			
Date of Visit	23/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%				2	0%	0%	0%	100%	
Access Route 01	19	19	100%			10	9	0%	0%	53%	47%	
Access Route 02	10	10	100%			1	9	0%	0%	10%	90%	
Platform 01	37	29	78%		12	1	16	0%	32%	3%	65%	
Platform 02	33	31	94%		10		21	0%	30%	0%	70%	
Waiting Shelter 01	8	8	100%				8	0%	0%	0%	100%	
Waiting Shelter 02	8	8	100%				8	0%	0%	0%	100%	
Curtilage 01	2	2	100%		2		0	0%	100%	0%	0%	
Curtilage 02	1	1	100%		1		0	0%	100%	0%	0%	
Total	120	110	92%	0	25	12	73	0%	21%	10%	69%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All	2		Station Refurbished 2010-2011									
Access Route 01	8		Station Refurbished 2010-2011									
Access Route 02	7		Station Refurbished 2010-2011									
Platform 01	15		Station Refurbished 2010-2011									
Platform 02	13		Station Refurbished 2010-2011									
Waiting Shelter 01	3		Station Refurbished 2010-2011									
Waiting Shelter 02	3		Station Refurbished 2010-2011									
Curtilage 01			Station Refurbished 2010-2011									
Curtilage 02			Station Refurbished 2010-2011									
Total	51	0										

38 Dovey Junction (Cat F) [Calculated SSM Variation +13%]

Station	DOVEY JUNCTION			SCORE 98%				Network Rail Survey	01/01/2009				
Date of Visit	14/03/2012			DL					Surveying Firm	Leavers			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
Handstand 01	3	3	100%				3	0%	0%	0%	100%		
Platform 01	46	42	91%				42	0%	0%	0%	100%		
Waiting Shelter 01	3	3	100%		1		2	0%	33%	0%	67%		
Total	52	48	92%	0	1	0	47	0%	2%	0%	98%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
Handstand 01		1											
Platform 01	11												
Waiting Shelter 01	1	1											
Total	12	2											

39 East Malling (Cat F) [Calculated SSM Variation -12%]

Station	EAST MALLING		SCORE 59%					Network Rail Survey			
Date of Visit	26/03/2012		JD				Surveying Firm				
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	10	10	100%	7	0	0	3	70%	0%	0%	30%
Access Route 02	11	11	100%	6	0	0	5	55%	0%	0%	45%
Building 01	45	23	51%	4	1	4	14	9%	2%	9%	80%
Curtilage 01	3	3	100%	3	0	0	0	100%	0%	0%	0%
Curtilage 02	10	6	60%	2	0	0	4	20%	0%	0%	80%
Platform 01	27	27	100%	3	1	4	19	11%	4%	15%	70%
Platform 02	27	27	100%	2	1	5	19	7%	4%	19%	70%
Waiting Shelter 01	3	3	100%	0	2	0	1	0%	67%	0%	33%
Total	136	110	81%	27	5	13	65	20%	4%	10%	67%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01	0	7									
Access Route 02	1	5									
Building 01	0	0	Boarded up and no access								
Curtilage 01	0	2									
Curtilage 02	0	2									
Platform 01	0	1									
Platform 02	0	1									
Waiting Shelter 01	0	0									
Total	1	18									

40 Elsecar (Cat F) [Calculated SSM Variation -3%]

Station	ELSECAR			SCORE 81%				Network Rail Survey	v 31/01/12			
Date of Visit	01/03/2012	JD						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Platform 01	37	37	100%	6	2		29	16%	5%	0%	78%	
Platform 02	36	36	100%	6			30	17%	0%	0%	83%	
Total	73	73	100%	12	2	0	59	16%	3%	0%	81%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Platform 01												
Platform 02	6											
total	6	0										

41 Filton Abbey Wood (Cat F) [Calculated SSM Variation +5%]

Station	FILTON ABBEY WOOD		SCORE 73%					Network Rail Survey					
Date of Visit	11/03/2012		GH						Surveying Firm				
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
All	1	0	0%				0	0%	0%	0%	100%		
Access Route 01	31	15	48%	3	1	2	9	10%	3%	6%	81%		
Access Route 02	11	11	100%	6			5						
Access Route 03	1	0	0%				0	0%	0%	0%	100%		
Car Park 01	6	6	100%	3			3	50%	0%	0%	50%		
Curtilage 01	4	4	100%				4						
Curtilage 02	4	4	100%				4						
Footbridge 01	64	64	100%	10		1	53						
Platform 01	38	37	97%	15			22						
Platform 02	71	70	99%	12	1		57						
Waiting Shelter 01	4	4	100%	2	1		1						
Waiting Shelter 02	4	3	75%	2			1	50%	0%	0%	50%		
Waiting Shelter 03	4	4	100%	2			2	50%	0%	0%	50%		
Total	243	222	91%	55	3	3	161	23%	1%	1%	75%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
All													
Access Route 01	3	2											
Access Route 02													
Access Route 03													
Car Park 01													
Curtilage 01		2											
Curtilage 02		2											
Footbridge 01	28												
Platform 01	8												
Platform 02	11	1											
Waiting Shelter 01													
Waiting Shelter 02													
Waiting Shelter 03		2											
Total	50	9											

42 Fort Matilda (Cat F) [Calculated SSM Variation +5%]

Station	FORT MATILDA		SCORE 82%					Network Rail Survey	19/07/2011			
Date of Visit	20/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	8	8	100%	2			6	25%	0%	0%	75%	
Access Route 02	11	10	91%	4			6	36%	0%	0%	64%	
Building 01	93	44	47%	11		1	32	12%	0%	1%	87%	
Canopy 01	6	6	100%	1			4	17%	0%	17%	67%	
Car Park 01	9	9	100%	1			7	11%	0%	11%	78%	
Footbridge 01	42	42	100%	3			39	7%	0%	0%	93%	
Platform 01	24	20	83%	1	1		18	4%	4%	0%	92%	
Platform 02	28	23	82%	1		1	21	4%	0%	4%	91%	
Total	221	162	73%	24	1	4	133	11%	0%	2%	87%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	1	1										
Access Route 02	1											
Building 01		8	No access to the inside of the building - being renovated									
Canopy 01	1											
Car Park 01	1											
Footbridge 01	19	2										
Platform 01	2											
Platform 02	6											
Total	31	11										

43 Glynde (Cat F) [Calculated SSM Variation 0%]

Station	GLYNDE		SCORE 90%		Network Rail Survey	29/02/2008					
Date of Visit		JD			Surveying Firm	Amey					
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	9	9	100%	4			5	44%	0%	0%	56%
Building 01	22	17	77%				17	0%	0%	0%	100%
Canopy 01	11	11	100%	3			8	27%	0%	0%	73%
Footbridge 01	24	24	100%	1			23	4%	0%	0%	96%
Platform 01	21	21	100%	3			18	14%	0%	0%	86%
Platform 02	21	21	100%	2			19	10%	0%	0%	90%
Waiting shelter 01	19	19	100%				19	0%	0%	0%	100%
Waiting shelter 02	4	4	100%				4	0%	0%	0%	100%
Total	131	126	96%	13	0	0	113	10%	0%	0%	90%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01											
Building 01	1										
Canopy 01											
Footbridge 01	1										
Platform 01	1										
Platform 02	2										
Waiting shelter 01											
Waiting shelter 02											
Total	5	0									

44 Grateley (Cat F) [Calculated SSM Variation -1%]

Station	GRATELEY		SCORE 96%					Network Rail Survey	31/01/2012			
Date of Visit	07/03/2012	DL						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%				2	0%	0%	0%	100%	
Access Route 01	17	17	100%	3			14	18%	0%	0%	82%	
Access Route 02	18	18	100%	1			17	6%	0%	0%	94%	
Access Route 03	20	20	100%				20	0%	0%	0%	100%	
Access Route 04	15	14	93%	1			13	7%	0%	0%	93%	
Car Park 01	25	21	84%	2			19	8%	0%	0%	92%	
Car Park 02	36	32	89%	2			30	6%	0%	0%	94%	
Car Park 03	21	20	95%				20	0%	0%	0%	100%	
Car Park 04	9	9	100%				9	0%	0%	0%	100%	
Car Park 05	6	6	100%				6	0%	0%	0%	100%	
Car Park 06	33	33	100%				33	0%	0%	0%	100%	
Curtilage 01	2	2	100%				2	0%	0%	0%	100%	
Curtilage 02	16	14	88%	2			12	13%	0%	0%	88%	
Curtilage 03	2	2	100%				2	0%	0%	0%	100%	
Curtilage 04	7	7	100%				7	0%	0%	0%	100%	
Curtilage 05	15	15	100%	1			14	7%	0%	0%	93%	
Footbridge 01	50	49	98%				49	0%	0%	0%	100%	
Platform 01	44	42	95%	1			41	2%	0%	0%	98%	
Platform 02	49	43	88%	4			39	8%	0%	0%	92%	
Waiting Shelter 01	5	5	100%				5	0%	0%	0%	100%	
Waiting Shelter 02	5	5	100%				5	0%	0%	0%	100%	
Waiting Shelter 03	4	4	100%				4	0%	0%	0%	100%	
Total	401	380	95%	17	0	0	363	4%	0%	0%	96%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01												
Access Route 02	3	3										
Access Route 03	11	3										
Access Route 04	6	3										
Car Park 01	4		General Note: Station has recently been upgraded with clearly new surfacing in the car parks and access routes. This has probably prompted the recent new inspection.									
Car Park 02	5											
Car Park 03	7											
Car Park 04	2											
Car Park 05	2											
Car Park 06	4											
Curtilage 01	1											
Curtilage 02	6											
Curtilage 03	1											
Curtilage 04	4	1										
Curtilage 05	3	1										
Footbridge 01	13	2										
Platform 01	3											
Platform 02	3											
Waiting Shelter 01	1											
Waiting Shelter 02	2											
Waiting Shelter 03	2											
Total	83	11										

45 Hammerton (Cat F) [Calculated SSM Variation 0%]

Station	HAMMERTON		SCORE 88%					Network Rail Survey	31/07/2007			
Date of Visit	21/02/2012							Surveying Firm				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	8	8	100%				8	0%	0%	0%	100%	
Access Route 02	4	4	100%	1			3	25%	0%	0%	75%	
Building 01	66	5	8%	1			4	2%	0%	0%	98%	
Canopy 01	13	10	77%	2			8	15%	0%	0%	85%	
Car Park 01	3	3	100%				3	0%	0%	0%	100%	
Car Park 02	3	3	100%	1			2	33%	0%	0%	67%	
Curtilage 01	3	3	100%				3	0%	0%	0%	100%	
Platform 01	31	27	87%	4			23	13%	0%	0%	87%	
Platform 02	24	23	96%	1			22	4%	0%	0%	96%	
Waiting Shelter 01	2	2	100%		1		1	0%	50%	0%	50%	
Total	157	88	56%	10	1	0	77	6%	1%	0%	93%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01		3										
Access Route 02		2										
Building 01	1											
Canopy 01	2											
Car Park 01		3										
Car Park 02	1											
Curtilage 01		3										
Platform 01	7	3										
Platform 02	8	5										
Waiting Shelter 01												
Total	19	19										

46 Haydon Bridge (Cat F) [Calculated SSM Variation +13%]

Station	HAYDON BRIDGE		SCORE 80%					Network Rail Survey v10/12/10;29/06/07				
Date of Visit	11/03/2012	JD						Surveying Firm Amey/WYG				
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	8	8	100%				8	0%	0%	0%	100%	
Access Route 02	3	3	100%				3	0%	0%	0%	100%	
Access Route 03	4	4	100%				4	0%	0%	0%	100%	
Access Route 04	2	2	100%	1			1	50%	0%	0%	50%	
Canopy 01	10	10	100%	2			8	20%	0%	0%	80%	
Car Park 01	9	9	100%	1			8	11%	0%	0%	89%	
Curtilage 01	2	2	100%				2	0%	0%	0%	100%	
Platform 01	18	18	100%	2	4	1	11	11%	22%	6%	61%	
Platform 02	14	14	100%	2	1		11	14%	7%	0%	79%	
Waiting Shelter 01	1	1	100%				1	0%	0%	0%	100%	
Total	71	71	100%	8	5	1	57	11%	7%	1%	80%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	7											
Access Route 02	3											
Access Route 03	3											
Access Route 04	1											
Canopy 01		1										
Car Park 01	2											
Curtilage 01												
Platform 01	5											
Platform 02	8											
Waiting Shelter 01												
Total	29	1										

47 Lapworth (Cat F) [Calculated SSM Variation +4%]

Station	LAPWORTH		SCORE 87%					Network Rail Survey	05/08/2011			
Date of Visit	11/03/2012	DL						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	14	13	93%	1			12	7%	0%	0%	93%	
Access Route 02	4	4	100%	1			3	25%	0%	0%	75%	
Car Park 01	10	8	80%	1			7	10%	0%	0%	90%	
Curtilage 01	1	1	100%				1	0%	0%	0%	100%	
Footbridge 01	49	46	94%	2			44	4%	0%	0%	96%	
Platform 01	20	18	90%		2		16	0%	10%	0%	90%	
Platform 02	26	23	88%		2		21	0%	8%	0%	92%	
Waiting Shelter 01	6	6	100%	1			5	17%	0%	0%	83%	
Waiting Shelter 02	6	6	100%				6	0%	0%	0%	100%	
Total	136	125	92%	6	4	0	109	4%	3%	0%	93%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	3											
Access Route 02												
Car Park 01	2											
Curtilage 01		1										
Footbridge 01	12	1										
Platform 01	1											
Platform 02	1											
Waiting Shelter 01	1	1										
Waiting Shelter 02	1	1										
Total	21	3										

48 Larkhall (Cat F) [Calculated SSM Variation +5%]

Station	LARKHALL		SCORE 96%					Network Rail Survey	20/01/2012			
Date of Visit	21/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%				2	0%	0%	0%	100%	
Access Route 01	4	4	100%				4	0%	0%	0%	100%	
Access Route 02	8	8	100%				8	0%	0%	0%	100%	
Access Route 03	3	3	100%				3	0%	0%	0%	100%	
Platform 01	40	40	100%	2			38	5%	0%	0%	95%	
Total	57	57	100%	2	0	0	55	4%	0%	0%	96%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All	2											
Access Route 01	3											
Access Route 02	5											
Access Route 03	2											
Platform 01	10											
Total	22	0										

49 Laurencekirk (Cat F) [Calculated SSM Variation +15%]

Station	LAURENCEKIRK		SCORE 82%					Network Rail Survey	28/09/2011			
Date of Visit	02/01/2012	MB						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	3	3	100%	0	0	0	3	0%	0%	0%	100%	
Access Route 02	21	14	67%	1	0	0	13	5%	0%	0%	95%	
Access Route 03	8	8	100%	1	0	0	7	13%	0%	0%	88%	
Access Route 04	7	7	100%	1	0	0	6	14%	0%	0%	86%	
Access Route 05	20	19	95%	1	0	3	15	5%	0%	15%	80%	
Building 01	106	78	74%	21	1	2	54	20%	1%	2%	77%	
Canopy 01	12	12	100%	5	0	0	7	42%	0%	0%	58%	
Curtilage 01	6	5	83%	0	1	0	4	0%	17%	0%	83%	
Curtilage 02	4	4	100%	0	0	0	4	0%	0%	0%	100%	
Footbridge 01	66	66	100%	7	0	1	58	11%	0%	2%	88%	
Platform 01	29	29	100%	2	1	1	25	7%	3%	3%	86%	
Platform 02	35	34	97%	0	1	1	32	0%	3%	3%	94%	
Waiting Shelter 01	2	2	100%	0	0	0	2	0%	0%	0%	100%	
Total	319	281	88%	39	4	8	230	12%	1%	3%	84%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All	1	0										
Access Route 02	8	0										
Access Route 03	3	0										
Access Route 04	2	0										
Access Route 05	7	0										
Building 01	19	0	No access to store rooms									
Canopy 01	1	0										
Curtilage 01	1	1										
Curtilage 02	1	0										
Footbridge 01	10	0										
Platform 01	4	3										
Platform 02	5	1										
Waiting Shelter 01	0	1										
total	62	6										

50 Lingwood (Cat F) [Calculated SSM Variation -3%]

Station	LINGWOOD			SCORE 82%				Network Rail Survey v06/08/11: 31/08/07			
Date of Visit	22/03/2012	DL						Surveying Firm	Amey / WYG		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	24	18	75%	9	1		8	38%	4%	0%	58%
Building 01	12	10	83%				10	0%	0%	0%	100%
Building 02	47	39	83%	4			35	9%	0%	0%	91%
Canopy 01	16	13	81%	2			11	13%	0%	0%	88%
Platform 01	22	19	86%	1		1	17	5%	0%	5%	91%
Total	121	99	82%	16	1	1	81	13%	1%	1%	85%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Access Route 01	1	8									
Building 01		1									
Building 02		7									
Canopy 01	1										
Platform 01		2									
Total	2	18									

51 Maidstone Barracks (Cat F) [Calculated SSM Variation -18%]

Station	MAIDSTONE BARRACKS												
Date of Visit	20/03/2012		JD	SCORE 100%				Network Rail Survey					
								Surveying Firm					
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL%	MAT%	LAY%	OK%		
Platform 01	37	37	100%				37	0%	0%	0%	100%		
Platform 02	36	36	100%				36	0%	0%	0%	100%		
Total	73	73	100%	0	0	0	73	0%	0%	0%	100%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
Platform 01													
Platform 02													
Total	0	0											

52 Newcraighall (Cat F) [Calculated SSM Variation +10%]

Station	NEWCRAIGHALL		SCORE 87%					Network Rail Survey	27/07/2009			
Date of Visit	22/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	0	0%				0	0%	0%	0%	100%	
Access Route 01	8	8	100%	1			7	13%	0%	0%	88%	
Access Route 02	13	13	100%	1	1		11	8%	8%	0%	85%	
Access Route 03	3	3	100%				3	0%	0%	0%	100%	
Car Park 01	40	33	83%	3			30	8%	0%	0%	93%	
Platform 01	22	15	68%	3			12	14%	0%	0%	86%	
Waiting Shelter 01	3	3	100%	1			2	33%	0%	0%	67%	
Waiting Shelter 02	3	3	100%	1			2	33%	0%	0%	67%	
Total	91	75	82%	9	1	0	65	10%	1%	0%	89%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
Access Route 01	5	1										
Access Route 02	7	1										
Access Route 03												
Car Park 01	13	1										
Platform 01	2	1										
Waiting Shelter 01	2											
Waiting Shelter 02	1											
Total	30	4										

53 Ridgmont (Cat F) [Calculated SSM Variation -13%]

Station	RIDGEMONT		SCORE 63%					Network Rail Survey	10/07/2009				
Date of Visit	20/03/2012		JD						Surveying Firm	Amey			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
Access Route 01	6	6	100%	2			4	33%	0%	0%	67%		
Access Route 02	6	6	100%	2			4	33%	0%	0%	67%		
Curtilage 01	3	3	100%	1		2	0	33%	0%	67%	0%		
Platform 01	23	22	96%	4			18	17%	0%	0%	83%		
Platform 02	21	21	100%	7		1	13	33%	0%	5%	62%		
Waiting Shelter 01	2	2	100%	2			0	100%	0%	0%	0%		
Waiting Shelter 02	2	2	100%	2			0	100%	0%	0%	0%		
Total	63	62	98%	20	0	3	39	32%	0%	5%	63%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
Access Route 01													
Access Route 02		1											
Curtilage 01													
Platform 01		2											
Platform 02		4											
Waiting Shelter 01		2											
Waiting Shelter 02		2											
Total	0	11											

54 Sileby (Cat F) [Calculated SSM Variation +4%]

Station	SILEBY			SCORE 81%				Network Rail Survey	11/08/2007			
Date of Visit	29/02/2012							Surveying Firm	WYG			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	14	14	100%	4			10	29%	0%	0%	71%	
Access Route 02	22	22	100%	4	1		17	18%	5%	0%	77%	
Platform 01	22	22	100%	4			18	18%	0%	0%	82%	
Platform 02	20	20	100%	2			18	10%	0%	0%	90%	
Total	78	78	100%	14	1	0	63	18%	1%	0%	81%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	1	1										
Access Route 02	5	3										
Platform 01		1										
Platform 02	1	1										
total	7	6										

55 St Bees (Cat F) [Calculated SSM Variation +5%]

Station	ST BEES		SCORE 86%					Network Rail Survey	21/11/2011			
Date of Visit	20/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	3	3	100%	2			1	67%	0%	0%	33%	
Car Park 01	7	7	100%	1			6	14%	0%	0%	86%	
Curtilage 01	4	4	100%				4	0%	0%	0%	100%	
Curtilage 02	4	4	100%				4	0%	0%	0%	100%	
Footbridge 01	23	21	91%	5			16	22%	0%	0%	78%	
Platform 01	27	25	93%			2	23	0%	0%	7%	93%	
Platform 02	28	25	89%	2	1	1	21	7%	4%	4%	86%	
Waiting Shelter 01	5	5	100%				5	0%	0%	0%	100%	
Waiting Shelter 02	5	5	100%				5	0%	0%	0%	100%	
Total	106	99	93%	10	1	3	85	9%	1%	3%	87%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01		1										
Car Park 01	2											
Curtilage 01	3											
Curtilage 02	2											
Footbridge 01	5											
Platform 01	6	4										
Platform 02	1	4										
Waiting Shelter 01	1											
Waiting Shelter 02	1											
	21	9										

56 Stone (Cat F) [Calculated SSM Variation -15%]

Station	STONE		SCORE 74%					Network Rail Survey			
Date of Visit	19/01/2012							JD		Surveying Firm	
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Canopy 01	15	15	100%	6	0	0	9	40%	0%	0%	60%
Footbridge 01	33	33	100%	9	4	0	20	27%	12%	0%	61%
Platform 01	19	19	100%	3	0	0	16	16%	0%	0%	84%
Platform 02	17	17	100%	0	0	0	17	0%	0%	0%	100%
Total	84	84	100%	18	4	0	62	21%	5%	0%	74%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
Canopy 01	0	0	Drainage box defect against building								
Footbridge 01	2	7									
Platform 01	1	2									
Platform 02	3	0									
Total	6	9									

57 Yetminster (Cat F) [Calculated SSM Variation +1%]

Station	YETMINSTER		SCORE 77%					Network Rail Survey	31/07/2008			
Date of Visit	09/03/2012	DL						Surveying Firm	Leavers			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	14	13	93%		2	2	9	0%	14%	14%	71%	
Access Route 02	8	8	100%				8	0%	0%	0%	100%	
Access Route 03	14	13			4							
Building 01	80	40	50%	5			35	0%	0%	0%	94%	
Platform 01	30	26	87%	3	1		22	10%	3%	0%	87%	
Platform 02	14	14	100%	1			13	7%	0%	0%	93%	
Waiting Shelter 01	5	5	100%				5	0%	0%	0%	100%	
Total	165	119	72%	9	7	2	92	5%	4%	1%	89%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	6											
Access Route 02	8											
Access Route 03	9											
Building 01	11	3										
Platform 01	9	1										
Platform 02												
Waiting Shelter 01	2											
Total	45	4										

1 Ayr Townhead Depot [Calculated LMDSM Variation -5%]

Station	Ayr Townhead	SCORE		81%								Network Rail Survey	27/07/2007
Date of Visit	23/02/2012											Surveying Firm	Amey
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
All	3	0	0%				0	0%	0%	0%	100%		
CET 01	6	4	67%				4	0%	0%	0%	100%		
Carriage Washer 01	6	4	67%	1			3	17%	0%	0%	83%		
Insp / Maint Pit 01	24	24	100%	5			19	21%	0%	0%	79%		
Road 1	3	3	100%	1			2	33%	0%	0%	67%		
Carriage Washer	3	3	100%				3	0%	0%	0%	100%		
Points ladder 3457	3	3	100%	1			2	33%	0%	0%	67%		
Road 2	3	3	100%	1			2	33%	0%	0%	67%		
Road 3	3	3	100%				3	0%	0%	0%	100%		
Road 4	3	2	67%	1			1	33%	0%	0%	67%		
Road 5	3	3	100%	1			2	33%	0%	0%	67%		
Points ladder 469	3	3	100%	1			2	33%	0%	0%	67%		
Road 6	3	3	100%				3	0%	0%	0%	100%		
Road 7	3	3	100%				3	0%	0%	0%	100%		
Road 8	3	3	100%	1			2	33%	0%	0%	67%		
Road 9	3	3	100%				3	0%	0%	0%	100%		
Total	75	67	89%	13	0	0	54	17%	0%	0%	83%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
All													
CET 01													
Carriage Washer 01	1												
Insp / Maint Pit 01	8	4											
Road 1													
Carriage Washer													
Points ladder 3457													
Road 2													
Road 3													
Road 4													
Road 5													
Points ladder 469													
Road 6													
Road 7													
Road 8													
Road 9													
Total	9	4											

2 Birkenhead North Depot [Calculated LMDSM Variation -11%]

Station	Birkenhead North LMD		SCORE 74%					Network Rail Survey	11/05/2011			
Date of Visit	29/02/2012	GH						Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Access Route 01	66	44	67%	10		5	29	15%	0%	8%	77%	
Access Route 02	12	0	0%				0	0%	0%	0%	100%	
Access Route 03	22	3	14%				3	0%	0%	0%	100%	
Apron 01	8	7	88%	2			5	25%	0%	0%	75%	
Apron 02	3	3	100%				3	0%	0%	0%	100%	
Apron 03	14	14	100%	3		4	7	21%	0%	29%	50%	
Building 03	31	12	39%				12	0%	0%	0%	100%	
Building 04	185	180	97%	8	7	1	164	4%	4%	1%	91%	
Building 05	122	114	93%	20	2		92	16%	2%	0%	82%	
Building 06	236	157	67%	41			116	17%	0%	0%	83%	
Car Park 01	20	16	80%	4			12	20%	0%	0%	80%	
Car Park 02	11	0	0%				0	0%	0%	0%	100%	
Car Park 03	4	3	75%				3	0%	0%	0%	100%	
Curtilage 01	14	11	79%				11	0%	0%	0%	100%	
Curtilage 02	18	0	0%				0	0%	0%	0%	100%	
Curtilage 03	6	0	0%				0	0%	0%	0%	100%	
Depot Shed 01	582	571	98%	69	21	104	377	12%	4%	18%	67%	
Insp pit 01	11	11	100%	2			9	18%	0%	0%	82%	
Insp pit 02	10	10	100%				10	0%	0%	0%	100%	
Insp pit 03	13	13	100%	4			9	31%	0%	0%	69%	
Insp pit 04	15	14	93%	3			11	20%	0%	0%	80%	
Insp pit 05	15	14	93%	2			12	13%	0%	0%	87%	
Insp pit 06	15	14	93%	4			10	27%	0%	0%	73%	
Insp pit 07	14	13	93%	5			8	36%	0%	0%	64%	
Track Data	28	28	100%				28	0%	0%	0%	100%	
Total	1475	1252	85%	177	30	114	931	12%	2%	8%	78%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Access Route 01	15	7										
Access Route 02			Not on drawing									
Access Route 03	1		Not on drawing									
Apron 01	1											
Apron 02												
Apron 03	4											
Building 03												
Building 04	65											
Building 05	12											
Building 06	23	2										
Car Park 01	3	2										
Car Park 02												
Car Park 03	1											
Curtilage 01	2											
Curtilage 02			not on drawing									
Curtilage 03			not on drawing									
Depot Shed 01	42	36										
Insp pit 01	1	1										
Insp pit 02												
Insp pit 03	1											
Insp pit 04												
Insp pit 05												
Insp pit 06												
Insp pit 07												
Track Data												
total	169	48										

3 Bletchley Depot [Calculated LMDSM Variation -8%]

Station	BLETCHLEY DEPOT		SCORE					81%		Network Rail Survey	23/06/2011
Date of Visit	20/03/2012									Surveying Firm	Amey
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Access Route 01	35	30	86%	8		3	19	23%	0%	9%	69%
Access Route 02	14	14	100%	5		1	8	36%	0%	7%	57%
Access Route 03	3	3	100%				3	0%	0%	0%	100%
Access Route 04	5	5	100%	1		2	2	20%	0%	40%	40%
Apron 01	2	2	100%	1			1	50%	0%	0%	50%
Apron 02	16	16	100%	2			14	13%	0%	0%	88%
Apron 03	8	8	100%	2	1		5	25%	13%	0%	63%
Apron 04	4	4	100%				4	0%	0%	0%	100%
Apron 05	4	4	100%	1			3	25%	0%	0%	75%
Apron 06	4	4	100%				4	0%	0%	0%	100%
Apron 07	3	3	100%	1			2	33%	0%	0%	67%
Apron 08	10	10	100%	4			6	40%	0%	0%	60%
Apron 09	7	7	100%	4			3	57%	0%	0%	43%
Apron 10	12	12	100%	1			11	8%	0%	0%	92%
Building 01	87	49	56%	14	5	1	29	16%	6%	1%	77%
Building 02	12	8	67%	2			6	17%	0%	0%	83%
Building 03	21	19	90%	3			16	14%	0%	0%	86%
Building 04	33	32	97%	5	1	1	25	15%	3%	3%	79%
Building 05	13	7	54%				7	0%	0%	0%	100%
Building 06	29	20	69%	4	1		15	14%	3%	0%	83%
Building 07	30	21	70%	4		1	16	13%	0%	3%	83%
Building 08	318	293	92%	44	3	1	245	14%	1%	0%	85%
Building 09	28	26	93%	6			20	21%	0%	0%	79%
Building 10	56	47	84%	12		1	34	21%	0%	2%	77%
Building 11	15	15	100%	1			14	7%	0%	0%	93%
Building 12	15	12	80%	2			10	13%	0%	0%	87%
Canopy 01	14	14	100%				14	0%	0%	0%	100%
Car Park 01	16	16	100%	2		2	12	13%	0%	13%	75%
Carriage Washer 01	10	9	90%	1	1		7	10%	10%	0%	80%
Depot Shed 01	919	841	92%	102	23	40	676	11%	3%	4%	82%
Fuelling 01	18	16	89%	4			12	22%	0%	0%	78%
Insp pit 01	7	7	100%				7	0%	0%	0%	100%
Insp pit 02	8	8	100%	1			7	13%	0%	0%	88%
Insp pit 03	12	12	100%				12	0%	0%	0%	100%
Insp pit 04	12	12	100%	1			11	8%	0%	0%	92%
Non-Pass Platf 01	12	12	100%	3			9	25%	0%	0%	75%
Sidings 01	9	7	78%				7	0%	0%	0%	100%
Sidings 02	10	10	100%				10	0%	0%	0%	100%
Track Data	120	120	100%				120	0%	0%	0%	100%
Total	1951	1755	90%	241	35	53	1426	12%	2%	3%	83%

Bletchley Depot (continued)

Station	BLETCHLEY DEPOT		SCORE 81%	Network Rail Survey	23/06/2011
Date of Visit	20/03/2012			Surveying Firm	Amey
Commentary					
Block	Measures Better	Measures Beyond ALE	Comments		
Access Route 01	5	3	Part of the access route appears to have ben given over to Carillion for their training facility		
Access Route 02	1	2			
Access Route 03	1				
Access Route 04	1				
Apron 01					
Apron 02	4	1			
Apron 03					
Apron 04	1	1			
Apron 05					
Apron 06	1				
Apron 07					
Apron 08		2			
Apron 09		3			
Apron 10	3	1			
Building 01	1	5			
Building 02					
Building 03	4	1			
Building 04	1	4			
Building 05					
Building 06	2	2			
Building 07	1	3			
Building 08	8	30			
Building 09	1	3			
Building 10	1				
Building 11	2				
Building 12					
Canopy 01		3			
Car Park 01	5	1			
Carriage Washer 01			Asset called up not in table.		
Depot Shed 01	86	36	EX 17-22 + RO8 locations NOT ON DRAWING		
Fuelling 01		1			
Insp pit 01					
Insp pit 02					
Insp pit 03					
Insp pit 04					
Non-Pass Plat 01		1			
Sidings 01		2			
Sidings 02					
Track Data	4				
	133	105			

4 Corkerhill Depot [Calculated LMDSM Variation +1%]

Station	CORKERHILL DEPOT		SCORE 86%					Network Rail Survey	31/08/2007			
Date of Visit	12/04/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	2	2	100%	1			1	50%	0%	0%	50%	
CET 01	11	10	91%			10	0	0%	0%	91%	9%	
Carriage Washer 01	18	14	78%	9		1	4	50%	0%	6%	44%	
Depot Shed 01	81	81	100%	8	1	1	71	10%	1%	1%	88%	
Depot Shed 02	248	242	98%	15	3	7	217	6%	1%	3%	90%	
Depot Shed 03	30	30	100%		2		28	0%	7%	0%	93%	
Depot Shed 04	32	32	100%		2		30	0%	6%	0%	94%	
Fuelling 01	10	7	70%		1		6	0%	10%	0%	90%	
Inspection Pit 01	8	8	100%				8	0%	0%	0%	100%	
Inspection Pit 02	7	7	100%				7	0%	0%	0%	100%	
Inspection Pit 03	9	9	100%				9	0%	0%	0%	100%	
Inspection Pit 04	4	4	100%				4	0%	0%	0%	100%	
Total	460	446	97%	33	9	19	385	7%	2%	4%	87%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All												
CET 01												
Carriage Washer 01												
Depot Shed 01	38	5										
Depot Shed 02	49	23										
Depot Shed 03	4	1										
Depot Shed 04	6	1										
Fuelling 01												
Inspection Pit 01	5											
Inspection Pit 02	5											
Inspection Pit 03	7											
Inspection Pit 04	2											
Total	116	30										

5 Derby Etches Park Depot [Calculated LMDSM Variation -3%]

Station	Etches Park LMD			SCORE 79%				Network Rail Survey		28/01/2007	
Date of Visit	28/02/2012			GH					Surveying Firm		Amey
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	4	4	100%			4	0	0%	0%	100%	0%
CET 01	5	0	0%				0	0%	0%	0%	100%
CET 02	5	0	0%				0	0%	0%	0%	100%
Carriage Washer 01	9	7	78%	5			2	56%	0%	0%	44%
Carriage Washer 02	2	2	100%	1			1	50%	0%	0%	50%
Depot Shed 01	437	413	95%	123	3	7	280	28%	1%	2%	70%
Depot Shed 02	0	0	0%				0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Depot Shed 03	95	91	96%	25	6		60	26%	6%	0%	67%
Fuelling 01	2	0	0%				0	0%	0%	0%	100%
Fuelling 02	17	12	71%	3			9	18%	0%	0%	82%
Insp pit 01	0	0	0%				0	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
Insp pit 02	6	6	100%	3			3	50%	0%	0%	50%
Insp pit 03	6	6	100%	3			3	50%	0%	0%	50%
Insp pit 04	10	10	100%	3			7	30%	0%	0%	70%
Insp pit 05	10	10	100%	3			7	30%	0%	0%	70%
Insp pit 06	10	9	90%	3			6	30%	0%	0%	70%
Insp pit 07	7	6	86%				6	0%	0%	0%	100%
Insp pit 08	7	6	86%				6	0%	0%	0%	100%
Track Data	345	345	100%				345	0%	0%	0%	100%
Total	977	927	95%	172	9	11	735	18%	1%	1%	80%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
CET 01											
CET 02											
Carriage Washer 01											
Carriage Washer 02											
Depot Shed 01	45	64									
Depot Shed 02											
Depot Shed 03	7	8									
Fuelling 01											
Fuelling 02	3	1									
Insp pit 01											
Insp pit 02											
Insp pit 03		1									
Insp pit 04	2										
Insp pit 05	2										
Insp pit 06											
Insp pit 07	2										
Insp pit 08											
Track Data											
total	61	74									

6 Fratton Depot [Calculated LMDSM Variation +2%]

Station	FRATTON DEPOT	SCORE 76%						Network Rail Survey	28/09/2007		
Date of Visit	22/03/2012							Surveying Firm	Amey		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
All	6	6	100%	5			1	83%	0%	0%	17%
CET 01	7	6	86%	3			3	43%	0%	0%	57%
CET 02	5	4	80%			3	1	0%	0%	60%	40%
CET 03	8	7	88%	4			3	50%	0%	0%	50%
Carriage Washer 01	17	17	100%	1			16	6%	0%	0%	94%
Depot Shed 01	362	328	91%	68	6	9	245	19%	2%	2%	77%
Fuelling 01	27	24	89%	10			14	37%	0%	0%	63%
Inspection Pit 01	10	10	100%	2			8	20%	0%	0%	80%
Inspection Pit 02	10	10	100%	1			9	10%	0%	0%	90%
Track Data	87	78	90%	1	4	3	70	1%	5%	3%	91%
Total	539	490	91%	95	10	15	370	18%	2%	3%	78%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
CET 01											
CET 02											
CET 03											
Carriage Washer 01	6										
Depot Shed 01	111	15									
Fuelling 01	5	5									
Inspection Pit 01	4										
Inspection Pit 02	4										
Track Data	5										
Total	135	20									

7 Orpington Depot [Calculated LMDSM Variation -4%]

Station	ORPINGTON DEPOT		SCORE 72%					Network Rail Survey	18/05/2007				
Date of Visit	21/03/2012		GH						Surveying Firm	Amey			
Summary													
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %		
Carriage Washer 01	17	13	76%	1	2		10	6%	12%	0%	82%		
Track Data	12	12	100%	4			8	33%	0%	0%	67%		
Total	29	25	86%	5	2	0	18	17%	7%	0%	76%		
Commentary													
Block	Measures Better	Measures Beyond ALE	Comments										
Carriage Washer 01	3												
Track Data													
Total	3	0											

8 Perth Depot [Calculated LMDSM Variation +15%]

Station	Perth LMD	SCORE 93%						Network Rail Survey	27/07/2007			
Date of Visit	24/02/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
All	5	2	40%	1			1	20%	0%	0%	80%	
CET 01	8	5	63%	1			4	13%	0%	0%	88%	
Carriage Washer 01	9	0	0%				0	0%	0%	0%	100%	
Depot Shed 01	503	496	99%	2	2	33	459	0%	0%	7%	93%	
Fuelling 01	14	0	0%				0	0%	0%	0%	100%	
Footbridge 01	19	19	100%	1			18	5%	0%	0%	95%	
Points Ladder pts3	3	3	100%				3	0%	0%	0%	100%	
road 6	3	3	100%				3	0%	0%	0%	100%	
road 5	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 2-5	3	3	100%				3	0%	0%	0%	100%	
road 10	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 7-10	3	3	100%				3	0%	0%	0%	100%	
road 9	3	3	100%				3	0%	0%	0%	100%	
road 8	3	3	100%				3	0%	0%	0%	100%	
road 7	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 2-4-6-12	3	3	100%				3	0%	0%	0%	100%	
road 4	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 12	3	3	100%				3	0%	0%	0%	100%	
road 3	3	3	100%				3	0%	0%	0%	100%	
road 2	3	3	100%				3	0%	0%	0%	100%	
road 1	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 1-9	3	3	100%				3	0%	0%	0%	100%	
road 4	3	3	100%				3	0%	0%	0%	100%	
road 5	3	3	100%				3	0%	0%	0%	100%	
road 6	3	3	100%				3	0%	0%	0%	100%	
points ladder pts 6 11-13	3	3	100%				3	0%	0%	0%	100%	
road 3	3	3	100%				3	0%	0%	0%	100%	
road 2	3	3	100%				3	0%	0%	0%	100%	
road 1	3	3	100%				3	0%	0%	0%	100%	
Total	627	591	94%	5	2	33	551	1%	0%	5%	94%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
All		1										
CET 01												
Carriage Washer 01	2											
Depot Shed 01	380											
Fuelling 01												
Footbridge 01	3	2										
Points Ladder pts3												
road 6												
road 5												
points ladder pts 2-5												
road 10												
points ladder pts 7-10												
road 9												
road 8												
road 7												
points ladder pts 2-4-6-12												
road 4												
points ladder pts 12												
road 3												
road 2												
road 1												
points ladder pts 1-9												
road 4												
road 5												
road 6												
points ladder pts 6 11-13												
road 3												
total	385	3										

9 Southend Victoria Depot [Calculated LMDSM Variation -1%]

Station	SOUTHEND DEPOT		SCORE 95%					Network Rail Survey	02/03/2007			
Date of Visit	07/03/2012							Surveying Firm	Amey			
Summary												
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %	
Carriage Washer 01	23	19	83%	4			15	17%	0%	0%	83%	
Track Data	60	60	100%				60	0%	0%	0%	100%	
Total	83	79	95%	4	0	0	75	5%	0%	0%	95%	
Commentary												
Block	Measures Better	Measures Beyond ALE	Comments									
Carriage Washer 01	1											
Track Data												
Total	1	0										

10 Welwyn Depot [Calculated LMDSM Variation +1%]

Station	WELWYN DEPOT		SCORE 88%					Network Rail Survey	02/03/2007		
Date of Visit	05/01/2012							Surveying Firm	Amey		
Summary											
Block	Elements	Audited	%	ARL	MAT	LAY	OK	ARL %	MAT %	LAY %	OK %
Building 01	4	4	100%	1			3	25%	0%	0%	75%
Building 02	4	4	100%				4	0%	0%	0%	100%
Building 03	4	4	100%								
Building 04	2	1	50%								
Carriage Washer 01	4	4	100%	1			3	25%	0%	0%	75%
Track Data	42	42	100%				42	0%	0%	0%	100%
Total	60	59	98%	2	0	0	52	3%	0%	0%	97%
Commentary											
Block	Measures Better	Measures Beyond ALE	Comments								
All											
CET 01											
Carriage Washer 01	2	2									
Insp / Maint Pit 01											
Total	2	2									

Week 1 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
55	St Bees	106	99	93%	10	10%	1	1%	3	3%	21	21%	9	9%
36	Cark	183	154	84%	6	4%	1	1%	0	0%	20	13%	23	15%
27	Malton	102	64	63%	9	14%	0	0%	0	0%	17	27%	7	11%
46	Hammerton	157	88	56%	10	11%	1	1%	0	0%	19	22%	19	22%
5	Perth	585	515	88%	59	11%	23	4%	10	2%	150	29%	19	4%
30	Saltcoats	406	277	68%	27	10%	0	0%	2	1%	103	37%	12	4%
42	Fort Matilda	221	162	73%	24	15%	1	1%	4	2%	31	19%	11	7%
23	Girvan	520	416	80%	73	18%	2	0%	4	1%	60	14%	38	9%
48	Larkhall	57	57	100%	2	4%	0	0%	0	0%	22	39%	0	0%
52	Newcraighall	91	75	82%	9	12%	1	1%	0	0%	30	40%	4	5%
	Week 1 Total	2428	1907	79%	229	12%	30	2%	23	1%	473	25%	142	7%
	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1	Ayr Townhead	75	67	89%	13	19%	0	0%	0	0%	9	13%	4	6%
8	Perth	627	591	94%	5	1%	2	0%	33	6%	385	65%	3	1%
	Week 1 Total	702	658	94%	18	3%	2	0%	33	5%	394	60%	7	1%

Week 2 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
10	Derby	5750	5154	90%	431	8%	81	2%	2806	54%	465	9%	76	1%
54	Sileby	78	78	100%	14	18%	1	1%	0	0%	7	9%	6	8%
28	Melton Mowbray	604	479	79%	147	31%	13	3%	15	3%	40	8%	26	5%
17	Wrexham General	1231	984	80%	72	7%	21	2%	10	1%	66	7%	16	2%
40	Elsecar	73	73	100%	12	16%	2	3%	0	0%	6	8%	0	0%
16	Todmorden	90	86	96%	7	8%	3	3%	1	1%	9	10%	1	1%
49	Laurencekirk	319	281	88%	39	14%	4	1%	8	3%	62	22%	6	2%
20	Brunswick	220	213	97%	66	31%	1	0%	1	0%	57	27%	16	8%
15	Mount Florida	451	451	100%	120	27%	0	0%	0	0%	1	0%	54	12%
32	Adlington	193	192	99%	54	28%	5	3%	2	1%	6	3%	10	5%
	Week 2 Total	9009	7991	89%	962	12%	131	2%	2843	36%	719	9%	211	3%

	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
5	Derby Etches Park	977	927	95%	172	19%	9	1%	11	1%	61	7%	74	8%
2	Birkenhead North	1475	1252	85%	177	14%	30	2%	114	9%	169	13%	48	4%
	Week 2 Total	2452	2179	89%	349	16%	39	2%	125	6%	230	11%	122	6%

Week 3 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
11	Three Bridges	391	338	86%	73	22%	5	1%	26	8%	16	5%	52	15%
37	Crouch Hill	120	110	92%	0	0%	25	23%	12	11%	51	46%	0	0%
3	Reading	4773	2902	61%	266	9%	5	0%	961	33%	342	12%	108	4%
6	Winchester	1053	545	52%	73	13%	12	2%	8	1%	181	33%	5	1%
44	Grateley	401	380	95%	17	4%	0	0%	0	0%	83	22%	11	3%
12	Bognor Regis	1523	880	58%	186	21%	30	3%	13	1%	155	18%	122	14%
57	Yetminster	165	119	72%	9	8%	7	6%	2	2%	45	38%	4	3%
43	Glynde	131	126	96%	13	10%	0	0%	0	0%	5	4%	0	0%
	Week 3 Total	8557	5400	63%	637	12%	84	2%	1022	19%	878	16%	302	6%
	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
10	Welwyn Depot	60	59	98%	2	3%	0	0%	0	0%	2	3%	2	3%
9	Southend Victoria	83	79	95%	4	5%	0	0%	0	0%	1	1%	0	0%
	Week 3 Total	143	138	97%	6	4%	0	0%	0	0%	3	2%	2	1%

Week 4 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
22	Erdington	258	178	69%	11	6%	8	4%	0	0%	41	23%	36	20%
47	Lapworth	136	125	92%	6	5%	4	3%	0	0%	21	17%	3	2%
38	Dovey Junction	52	48	92%	0	0%	1	2%	0	0%	12	25%	2	4%
8	Cardiff Queen St.	897	396	44%	40	10%	5	1%	4	1%	139	35%	2	1%
33	Ashchurch	106	100	94%	11	11%	0	0%	0	0%	35	35%	12	12%
29	Radyr	353	256	73%	81	32%	3	1%	6	2%	34	13%	10	4%
41	Filton Abbey Wood	243	222	91%	55	25%	3	1%	3	1%	50	23%	9	4%
14	Liskeard	715	501	70%	24	5%	13	3%	6	1%	177	35%	6	1%
19	Bridgewater	136	125	92%	6	5%	4	3%	0	0%	21	17%	3	2%
34	Battersby	40	40	100%	13	33%	2	5%	0	0%	3	8%	2	5%
13	Hexham	180	179	99%	37	21%	6	3%	6	3%	28	16%	20	11%
45	Haydon Bridge	71	71	100%	8	11%	5	7%	1	1%	29	41%	1	1%
7	Blackpool North	310	293	95%	17	6%	1	0%	9	3%	6	2%	5	2%
	Week 4 Total	3497	2534	72%	309	12%	55	2%	35	1%	596	24%	111	4%

	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
		0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
		0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!
	Week 4 Total	0	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!	0	#DIV/0!

Week 5 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
4	Ipswich	393	357	91%	21	6%	9	3%	7	2%	78	22%	11	3%
24	Hertford East	611	265	43%	6	2%	1	0%	2	1%	85	32%	7	3%
18	Ashwell & Morden	210	164	78%	13	8%	0	0%	1	1%	36	22%	4	2%
2	Marylebone	1479	570	39%	59	10%	8	1%	21	4%	149	26%	85	15%
35	Brandon	110	99	90%	5	5%	5	5%	1	1%	12	12%	5	5%
50	Lingwood	121	99	82%	16	16%	1	1%	1	1%	2	2%	18	18%
26	Kidsgrove	231	231	100%	62	27%	1	0%	9	4%	13	6%	42	18%
56	Stone	84	84	100%	18	21%	4	5%	0	0%	6	7%	9	11%
21	Bushey	807	707	88%	181	26%	23	3%	1	0%	191	27%	60	8%
53	Ridgemont	63	62	98%	20	32%	0	0%	3	5%	0	0%	11	18%
25	Kearsney	380	303	80%	43	14%	0	0%	2	1%	16	5%	2	1%
9	Chatham	1618	927	57%	121	13%	29	3%	25	3%	151	16%	68	7%
39	East Malling	136	110	81%	27	25%	5	5%	13	12%	1	1%	18	16%
51	Maidstone Barracks	73	73	100%	0	0%	0	0%	0	0%	0	0%	0	0%
31	Sway	476	437	92%	89	20%	9	2%	0	0%	179	41%	12	3%
	Week 5 Total	6792	4488	66%	681	15%	95	2%	86	2%	919	20%	352	8%

	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
3	Bletchley Depot	1951	1755	90%	241	14%	35	2%	53	3%	133	8%	105	6%
7	Orpington Depot	29	25	86%	5	20%	2	8%	0	0%	3	12%	0	0%
6	Fratton Depot	539	490	91%	95	19%	10	2%	15	3%	135	28%	20	4%
	Week 5 Total	2519	2270	90%	341	15%	47	2%	68	3%	271	12%	125	6%

Week 6 Summary

	Station	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
1	Glasgow Central	516	397	77%	58	15%	10	3%	74	19%	22	6%	41	10%
	Week 6 Total	516	397	77%	58	15%	10	3%	74	19%	22	6%	41	10%
	Depot	Measure Total	Reviewed	Percentage	Optimistic ARL		Material Fails		Layout Fails		Pessimistic ARL		ARL Greater Than ALE	
					Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
4	Corkerhill Depot	460	446	97%	33	7%	9	2%	19	4%	116	26%	30	7%
	Week 6 Total	460	446	97%	33	7%	9	2%	19	4%	116	26%	30	7%

Overall Summary

STATION								
Time	Number of Sites	Measures	Audit	Arup observed ...				ALE to have been Exceeded by the Quoted ARL
				condition to be worse than that reported	material to be different to that reported	the layout to have been changed	condition to be better than that reported	
Week 1	10	2428	1907	229	30	23	473	142
			79%	12%	2%	1%	25%	7%
Week 2	10	9009	7991	962	131	2843	719	211
			89%	12%	2%	36%	9%	3%
Week 3	8	8557	5400	637	84	1022	878	302
			63%	12%	2%	19%	16%	6%
Week 4	13	3497	2534	309	55	35	596	111
			72%	12%	2%	1%	24%	4%
Week 5	15	6792	4488	681	95	86	919	352
			66%	15%	2%	2%	20%	8%
Week 6	1	516	397	58	10	74	22	41
			77%	15%	3%	19%	6%	10%
Total	57	30799	22717	2876	405	4083	3607	1159
			74%	13%	2%	18%	16%	5%

DEPOT								
Time	Number of Sites	Measures	Audit	Arup observed ...				ALE to have been Exceeded by the Quoted ARL
				condition to be worse than that reported	material to be different to that reported	the layout to have been changed	condition to be better than that reported	
Week 1	2	702	658	18	2	33	394	7
			94%	3%	0%	5%	60%	1%
Week 2	2	2452	2179	349	39	125	230	122
			89%	16%	2%	6%	11%	6%
Week 3	2	143	138	6	0	0	3	2
			97%	4%	0%	0%	2%	1%
Week 4	0	0	0	0	0	0	0	0
Week 5	3	2519	2270	341	47	68	271	125
			90%	15%	2%	3%	12%	6%
Week 6	1	460	446	33	9	19	116	30
			97%	7%	2%	4%	26%	7%
Total	10	6276	5691	747	97	245	1014	286
			91%	13%	2%	4%	18%	5%