

# Scottish Trunk Road Network Management Contract

## Schedule 2 - Scope

### South West Unit

This is Schedule 2 Scope referred to in the foregoing Agreement between Scottish Ministers and Amey OW Limited dated 18<sup>th</sup> March 2020 relative to the Scottish Trunk Road Management Contract for the South West Unit.

Revision	Change	Date
A	Section 6 – Footway Treatment Spread Rates	4 May 2020
B	Section 2 - 2.2 Rectification of Defects	23 June 2020
C	Section 4.7 Scour Inspection and Assessment, Section 8.5 Control of Asbestos Regulations, Section 9.4 High Loads	7 August 2020
D	Sub-section 4.11 Structures Maintenance, Sub-section 9.4 High Loads	24 August 2020

**Scottish Trunk Road Network Management Contract  
South West Unit**

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# Scottish Trunk Road Network Management Contract

## South West Unit

### 1 Introduction

#### 1.1 Purpose of this Schedule

- 1.1.1 This Schedule 2 Scope includes, a definition of the Unit, the Statutory Functions delegated to the Operating Company, the purpose of the Core Operations to be performed by the Operating Company and the Ordered Operations that may be instructed by the Scottish Ministers by way of Orders.
- 1.1.2 In this Schedule 2 Scope, defined terms have capital initials and a glossary of all defined terms applicable to the Contract are set out in Schedule 1 Conditions of Contract, Clause 1 General, 1.1 Definitions.
- 1.1.3 This Section 1 Introduction includes the reasons why the Scottish Ministers have procured the Contract and the outcomes the Scottish Ministers expect to achieve when the Operating Company performs Operations under the Contract.
- 1.1.4 Section 2 Defects, Hazards Notices & Observations Resulting from Inspections categorises Defects, Hazard Notices, Observations Resulting from Inspections, when they should be rectified and how they should be reported by the Operating Company.
- 1.1.5 Sections 3 Inspection and Maintenance – Roads including Landscape and 4 Inspection and Maintenance – Structures sets out the type of inspection and maintenance to be undertaken by the Operating Company in connection with Trunk Roads together with the Records documenting the results of the inspections and Cyclic Maintenance.
- 1.1.6 Sections 5 Network Operations – Traffic Scotland, 6 Winter Service and 7 Disruption Risk Management describe the operational responsibilities of Transport Scotland with respect to the Trunk Roads of the Unit, which operational responsibilities are performed under Other Contracts and the Operations which are the responsibility of the Operating Company under the Contract.
- 1.1.7 Section 8 Design, Construct & Certification of Operations sets out the investigations, design and construction related responsibilities of the Operating Company when performing Operations including Schemes. This includes safety audits of design and construction activities and the certificates to be provided by the Operating Company demonstrating Operations have been performed in accordance with the Contract.
- 1.1.8 Sections 9 Abnormal Loads, 10 Safety & Development - Developments and 11 Safety & Developments - Road Safety Programme describe the responsibilities of the Operating Company with respect to the movement of abnormal loads by others on the Unit, the

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proposed and approved developments that may require modifications to the Unit and the delivery of the road safety programme which is a strategic priority of the Scottish Ministers

- 1.1.9 Section 12 Signs Requiring Authorisation sets out the responsibilities of the Operating Company with respect to the various signs which are submitted directly either to the Operating Company and or the Director for authorisation before they can be incorporated into the Unit.

### **1.2 The Unit**

- 1.2.1 Scotland's Trunk Road network is approximately 3,500km long, including slip roads and roundabouts. It carries 35% of all traffic and 60% of heavy goods vehicles.
- 1.2.2 The Trunk Road network is organised on a geographical basis and comprises four units. This Contract is for the Unit located in the South West of Scotland ("South West Unit"), the extent of which is set out in Appendix 1 Introduction, Attachment 1.1 Scottish Trunk Road Map.
- 1.2.3 The extent of the Unit includes the items listed in;
- (a) Appendix 1 Introduction, Attachment 1.2 Trunk Roads Inside Boundaries of Unit at Commencement of Service Date 1 and interfaces with other trunk roads and roads which are the responsibility of Operational Partners including local authorities at the locations set out in Attachment 1.3 Trunk Road Boundaries.
  - (b) Attachment 1.4 Trunk Roads Outside Boundaries of Unit at Commencement of Service Date 1 and located beyond the locations set out in Attachment 1.3 Trunk Road Boundaries, and
  - (c) Attachment 1.5 Trunk Roads of the Design, Build, Finance, Operate (DBFO) Contract Provider at Commencement of Service Date 2.
- 1.2.4 The Unit excludes;
- (a) the Trunk Roads listed in Attachment 1.6 Trunk Roads Excluded from Unit and located before the locations set out in Attachment 1.3 Trunk Road Boundaries.
- 1.2.5 The interfaces at the Unit boundary with the Trunk Roads and local roads which are the responsibility of Operational Partners including local authorities are not always clearly defined. The reference document Extent of the Trunk Road Network published by Transport Scotland, identifies protocols for determining the boundaries between the Trunk Roads included in the Unit and the roads which are the responsibility of Operational Partners including local authorities for the purposes of this Contract.

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- 1.2.6 The Operating Company shall comply with these protocols to determine the extent of any of its responsibilities and those of Works Contractors for all Operations, Schemes and Works at such interfaces, if it is not expressly set out in the Contract.
- 1.2.7 The Operating Company shall meet and coordinate with Operational Partners responsible for Trunk Roads and local roads inside and outside the boundaries of the Unit including local authorities. The Operating Company shall manage any local arrangements for inspections and maintenance and any documented cross-boundary arrangements in a coordinated manner and ensure the safety of Operational Items.
- 1.2.8 The Operating Company shall meet with the Operational Partners including the local authorities who are responsible for the Trunk Roads and local roads that interface with the Trunk Roads of the Unit which are the responsibility of the Operating Company at least once (1) before the Commencement of Service Date and thereafter at intervals not exceeding once every six (6) months until the Service End Date to:
- (a) Review each of their responsibilities at the interfaces with the Unit boundaries in accordance with the protocols for determining boundaries set out in the Extent of the Road Network,
  - (b) Identify assets including roadside electrical assets at the interfaces with the Unit boundary which are not being inspected and or maintained by the Operating Company and or the relevant Operational Partners including local authorities,
  - (c) Agree local arrangements for the inspection and maintenance of these assets in accordance with the protocols for determining the boundaries in accordance with the Extent of the Road

The Operating Company shall provide the Director with a copy of the minutes of all 'arrangements for inspection and maintenance at interfaces with Unit boundary' meetings between the Operating Company and all Operational Partners to demonstrate these meetings take place in accordance with this Schedule 2 Scope, Section 1 Introduction, 1.2 The Unit no later than fourteen (14) days after a meeting has taken place.

- 1.2.9 The Operating Company shall identify and record any instances of such arrangements not conforming to the protocols set out in the Extent of the Trunk Road Network and shall inform the Director in writing within fourteen (14) days of discovering such instances of non-conformances.

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1.2.10 Changes in the Unit shall be instructed in accordance with Schedule 1 Conditions of Contract, Clause 6 Change Control and measured and valued in accordance with the applicable rates and prices set out in Schedule 4 Measurement Rates and Prices.

### **1.3 Statutory Functions Delegated to the Operating Company**

1.3.1 The Operating Company shall be responsible for carrying out the Statutory Functions on behalf of the Scottish Ministers referred to in Appendix 1 Introduction, Attachment 1.7 Statutory Functions Delegated to the Operating Company.

1.3.2 When the Operating Company undertakes its duties in accordance with these Statutory Functions, it shall prepare and maintain any appropriate Records and registers in accordance with the requirements of this Contract.

1.3.3 If an authorisation to carry out a Statutory Function on behalf of the Scottish Ministers referred to in Attachment 1.7 Statutory Functions Delegated to the Operating Company expires, or is withdrawn or revoked by the Scottish Ministers, the Operating Company shall cooperate with the Scottish Ministers as required to facilitate a transfer of such Statutory Functions to the Scottish Ministers or a replacement nominated by them in the timescales provided by the Scottish Ministers.

1.3.4 Before exercising any of the Statutory Functions of the Scottish Ministers referred to in Attachment 1.7 Statutory Functions Delegated to the Operating Company, the Operating Company shall notify any interested parties in writing of its intentions, except where necessary to rectify a Category 1a Defect or a Category 1b Defect.

1.3.5 For the avoidance of doubt, the Operating Company shall not subcontract or delegate responsibility for any Statutory Functions of the Scottish Ministers referred to in Attachment 1.7 Statutory Functions Delegated to the Operating Company.

1.3.6 The Operating Company is authorised within this Contract to carry out the Statutory Functions of the Scottish Ministers referred to in Attachment 1.7 Statutory Functions Delegated to the Operating Company under the terms of The Secretary of State's Trunk Road Functions (Contracting Out) (Scotland) Order 1996 ("the Contracting Out Order"), made under Section 69 of the Deregulation and Contracting Out Act 1994.

1.3.7 The Operating Company shall provide such information, co-operation, advice and assistance as may be required to enable the Scottish Ministers to carry out the Statutory Functions that have been retained by the Scottish Ministers and referred to in Appendix 1 Introduction, Attachment 1.8 Statutory Functions Retained by the Scottish Ministers.

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- 1.3.8 The Operating Company shall carry out the Statutory Functions of the Scottish Ministers set out in Attachment 1.7 Statutory Functions Delegated to the Operating Company and any Operations required in connection with the Statutory Functions that have been retained by the Scottish Ministers in accordance with the relevant codes of practice published by the Office of the Scottish Roadworks Commissioner.
- 1.3.9 The Operating Company shall provide such information, co-operation, advice and assistance as may be required by the Director to enable Scottish Ministers to carry out the Statutory Functions in connection with the Unit which are not listed in;
- (a) Attachment 1.7 Statutory Functions Delegated to the Operating Company, and
  - (b) Attachment 1.8 Statutory Functions Retained by the Scottish Ministers
- 1.3.10 No later than thirty (30) days prior to the Commencement of Service Date, the Operating Company shall provide and thereafter maintain until the Service End Date the necessary telecommunication links and three (3) computer terminals, loaded with the appropriate software, permissions and log ins, to provide a connection to the Scottish Road Works Register.
- After the Operating Company has completed the connection to the Scottish Road Works Register, the Operating Company shall have access to a copy of the Scottish Road Works Register for the Unit.
- 1.3.11 No later than five (5) Working Days after the Commencement of Service Date, the Operating Company shall update the Scottish Road Works Register and continuously keep up to date the Scottish Road Works Register until the Service End Date, in accordance with:
- (a) The New Roads and Street Works Act 1991 as amended by the Transport (Scotland) Act 2005, and
  - (b) The Road Works (Scottish Road Work Register, Notices, Directions and Designations (Scotland) Regulations 2008.
- No later than five (5) Working Days after the Service End Date, the Operating Company shall provide the Director with all Records produced by the Operating Company in connection with the Scottish Road Work Register.
- 1.3.12 The Director and the Performance Audit Group shall be entitled to have unrestricted access to the Scottish Road Works Register maintained by the Operating Company on behalf of the Scottish Ministers.
- 1.3.13 The Operating Company shall provide a monthly Scottish Road Works Register Report, listed in Schedule 3 Contract Management, Appendix 1 Introduction, Attachment 1.2 Report

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and Submissions – Other to the Director no later than the fifteenth (15<sup>th</sup>) day of each calendar month from the Commencement of Service Date until the Service End Date, recording performance in relation to its obligation to keep up to date the Scottish Road Works Register.

### **1.4 Other Contracts**

- 1.4.1 Other road or bridge construction or maintenance contracts for which the Scottish Ministers are the employer may be in progress on the Unit at the Commencement of Service Date. They will be either;
- (a) Works Contracts where the previous operating company was acting as Engineer, or
  - (b) Other Contracts.
- 1.4.2 Other Contracts may commence during the term of this Contract.
- 1.4.3 Improvement work in connection with development projects, led or funded by developers or others, may be in progress on the Unit at the Commencement of Service Date or may commence during the term of this Contract.
- 1.4.4 Subject to an Order and unless stated elsewhere in this Contract, the Operating Company shall assist the Director with matters relating to developers' schemes.
- 1.4.5 During the Mobilisation Period, the Director shall provide the Operating Company with details of all Works Contracts in progress on the Unit.
- 1.4.6 For Works Contracts where the previous operating company was acting as Engineer, the Director shall issue an Order requiring the Operating Company to take over the role and responsibilities of the Engineer with effect from the Commencement of Service Date. These Works Contracts shall include those where Works have been substantially completed but the defects correction or maintenance period has not expired.
- 1.4.7 The Director shall ensure, by arrangement with the previous operating company, that all relevant documentation related to these Works Contracts is passed to the Operating Company during the Mobilisation Period.
- 1.4.8 The Operating Company shall undertake all outstanding obligations of the Engineer for these continuing Works Contracts, as detailed in Schedule 3 Contract Management.
- 1.4.9 For Works Contracts where the Operating Company takes over the role and responsibilities of the Engineer, the Operating Company shall also assume the roles required by the Construction (Design and Management) Regulations 2015 that were undertaken by the previous operating company.

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- 1.4.10 The Director shall provide the details and starting dates of Other Contracts to the Operating Company;
- (a) during the Mobilisation Period for all Other Contracts that are then in progress, and
  - (b) no later than two (2) weeks after appointment of a contractor for all Other Contracts that commence after the Commencement of Service Date.
- 1.4.11 For any Other Contract, the Director may issue an Order to the Operating Company stating any requirements for transfer or suspension of specified Operating Company related responsibilities during the construction phase or the maintenance period of an Other Contract. In particular, the Director may, unless the cause of a Defect is fair wear and tear or an Incident, instruct the Operating Company to suspend the carrying out of Defects Correction Operations under Schedule 1 Conditions of Contract, Clause 4 Quality Management, 4.2 Operating Company to Determine Cause of Defects, 4.2.1 within the length of road notified, other than making safe and executing temporary repair of Category 1a Defects and Category 1b Defects, for the advised duration.
- Schedule 2, Scope, Appendix 1 Introduction, Attachment 1.9 Local Requirements in Relation to Transfer & Suspension of Operating Company's Responsibilities contains local requirements (if any) in relation to transfer and suspension of Operating Company responsibilities.
- 1.4.12 If applicable, upon completion of the construction phase or maintenance period of an Other Contract, the Director shall issue an Order requiring the Operating Company to recommence all Operations that may have been transferred or suspended previously by the Director.
- 1.4.13 The Director will provide the Operating Company with the health and safety file for Other Contracts.
- 1.4.14 Subject to an Order, the Director may require the Operating Company to assist with matters relating to Other Contracts.

### **1.5 Inventory Validation, Collection & Updating**

- 1.5.1 The Operating Company shall appoint an Asset Manager in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People to perform the requirements of this Section 1 Introduction, 1.5 Inventory Validation, Collection & Updating and other requirements set out in this Contract.
- 1.5.2 The Operating Company shall assign Contract Personnel to perform the role of Asset Data Specialist who will ensure all asset data required by the Trunk Road Information Manual and

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the Transport Scotland Structures Manual is recorded in the Asset Performance Management System (APMS).

- 1.5.3 For the avoidance of doubt the Scottish Ministers do not in any way guarantee the accuracy and or completeness of any asset data that is or may not be recorded in the APMS at or after the Operations Commencement Date.
- 1.5.4 The Operating Company shall ensure an Asset Data Specialist(s) keeps all asset data required by the Trunk Road Information Manual and the Transport Scotland Structures Manual accurate and complete for several or at least one of the following groups of asset contained in the Trunk Road Information Manual;
- (a) ancillary assets,
  - (b) carriageway,
  - (c) drainage,
  - (d) electrical,
  - (e) geotechnical,
  - (f) landscaping,
  - (g) structures, and
  - (h) technology.
- 1.5.5 The Operating Company shall ensure the Asset Data Specialist(s);
- (a) has the required knowledge and experience of the asset group(s) for which they are responsible, and
  - (b) are trained in the operation of the APMS
- 1.5.6 The Asset Manager shall prepare an Inventory Validation Plan which sets out the means (including resources, processes and programmes of Core Operations) by which the Operating Company will perform the requirements of this Section 1.5 Inventory Validation, Collection & Updating and submit to the Director for comment no later than two months before the Commencement of Service Date. The Director will provide comments on the Inventory Validation Plan no later than one (1) month before the Commencement of Service Date.
- 1.5.7 The Operating Company shall ensure the Inventory and the associated asset data required by the Trunk Road Information Manual and the Transport Scotland Structures Manual contained in the APMS is identical to the actual Inventory physically fixed on the Unit.

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- 1.5.8 The Operating Company shall compare the Inventory contained in the APMS with the actual Inventory physically fixed on the Unit and all inventory validation and collection associated with mandatory attributes shall be performed before and or at the same time as performing Comprehensive Inspections.
- 1.5.9 In the event the Inventory contained in the APMS is different from the actual Inventory physically fixed on the Unit, the Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Inventory physically fixed on the Unit as follows;

**Table 1.5.9 Timescales for initial inventory validation & collection**

Attribute	No later than
Mandatory	12 months after Commencement of Service Date 1*
Desired	24 months after Commencement of Service Date 1
Conditional	24 months after Commencement of Service Date 1
Required	24 months after Commencement of Service Date 1

\*The Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Structures Inventory physically fixed on the Unit with all asset data required by the Transport Scotland Structures Manual no later than twelve (12) months after Commencement of Service Date 1.

- 1.5.10 In the event of changes to the actual Inventory physically fixed on the Unit as a result of Core Operations, Ordered Operations, Works Contracts and or Other Contracts, The Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Inventory physically fixed on the Unit as follows;

**Table 1.5.10 Timescales for ongoing inventory validation & collection**

Attribute	No later than
Mandatory	2 weeks after Inventory is physically fixed on the Unit
Desired	2 weeks after Inventory is physically fixed on the Unit
Conditional	2 weeks after Inventory is physically fixed on the Unit
Required	2 weeks after Inventory is physically fixed on the Unit

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Table 1.5.10 applies to all groups of assets except Structures. The Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Structures Inventory physically fixed on the Unit with all asset data required by the Transport Scotland Structures Manual in accordance with the timescales set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.2 APMS – Structures, 4.2.3

- 1.5.11 In the event of changes to the actual Inventory physically fixed on the Unit as a result of the items listed in Schedule 2 Scope, Appendix 1 Introduction, Attachment 1.5 Trunk Roads of the Design, Build, Finance, Operate (DBFO) Contract Provider at Commencement of Service Date 2, The Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Inventory physically fixed on the Unit as follows;

**Table 1.5.11 Timescales for inventory validation & collection M6 DBFO**

Attribute	No later than
Mandatory	4 weeks after Commencement of Service Date 2
Desired	4 weeks after Commencement of Service Date 2
Conditional	4 weeks after Commencement of Service Date 2
Required	4 weeks after Commencement of Service Date 2

- 1.5.12 The Operating Company shall compare the Inventory contained in the APMS with the actual Inventory physically fixed on the Unit as part of the Comprehensive Inspection, General Inspection and Principal Inspection.

In the event the Inventory contained in the APMS is found to be different from the actual Inventory physically fixed on the Unit after a Comprehensive Inspection, General Inspection and or a Principal Inspection, the Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Inventory physically fixed on the Unit as follows;

**Table 1.5.12 Timescales for inventory validation & collection after inspection**

Attribute	No later than
Mandatory	4 days after completing the inspection
Desired	4 days after completing the inspection
Conditional	4 days after completing the inspection
Required	4 days after completing the inspection

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Table 1.5.12 applies to all groups of assets except Structures. The Operating Company shall update the Inventory contained in the APMS so that they reflect the actual Structures Inventory physically fixed on the Unit with all asset data required by the Transport Scotland Structures Manual in accordance with the timescales set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.2 APMS – Structures, 4.2.3

- 1.5.13 The Operating Company shall, no later than six (6) months after the Commencement of Service Date 1, and every six (6) months thereafter submit a report to the Director based on the audit logs of the updates (if any) made to the Inventory contained in the APMS by the Operating Company.
- 1.5.14 For the avoidance of doubt any updates made to the Inventory contained in the APMS by the Operating Company which either reduces and or increases the quantity of Inventory contained in the APMS shall not entitle the Operating Company to any additional payments and or claims in accordance with Schedule 1 Conditions of Contract, Clause 5 Payments.
- 1.5.15 In the event the Scottish Ministers establish the Inventory contained in the APMS is;
- (a) not in accordance with the required standards of accuracy and completeness as set out in the Trunk Road Information Manual and Transport Scotland Structures Manual, and or
  - (b) different from the actual Inventory physically fixed on the Unit.

and where the Operating Company fails to execute within the time specified in the terms of this Contract, any necessary Defects Correction Operations required by this Contract or the Scottish Ministers in relation to this Non-Conformance, the Scottish Ministers are entitled to execute such Defects Correction Operations themselves or arrange for the execution of Defects Correction Operations by other contractors at their option to:

- (c) Recover from the Operating Company the costs incurred by the Scottish Ministers in connection with the execution of the Defects Correction Operations in relation to this Non-Conformance either on demand from the Operating Company as debt due to the Scottish Ministers, or
- (d) Deduct the mount of these costs from the next payment or any subsequent payment, due to the Operating Company under this Contract

### **1.6 Investment objectives of the contract**

- 1.6.1 The Scottish Ministers have entered into the Contract with the Operating Company to help execute the Road Asset Management Policy, Road Asset Management Strategy and Road

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Asset Management Plan for Scottish Trunk Roads (published by Transport Scotland) and achieve the following principal objectives by way of Core Operations and Ordered Operations in connection with the Unit;

- (a) Value for Money and Innovation – To make economic and efficient use of available resources for road maintenance and foster innovation in all aspects of work,
- (b) Resilience and Prosperity – To provide consistent, predictable and reliable journeys for the movement of people and goods, and to minimise disruption caused by roadworks, unplanned incidents and severe weather conditions,
- (c) Sustainability – To reduce carbon and waste and enhance environments,
- (d) Customer Care and Travel Information – To provide customers with up-to-date, reliable travel information and support the level of satisfaction in trunk road services,
- (e) Safety – To provide a road network that is safe for all users, seeking to continually reduce risk and casualties,
- (f) Condition – To measure and maintain our trunk road assets in a condition that meets the needs of our users but which is also affordable,
- (g) Accessibility and Integration – To provide a network that is accessible to all users, with improved connectivity, and to ensure that traffic moves freely and quickly across Scotland.

This includes carrying out the Statutory Functions on behalf of the Scottish Ministers and requires the Operating Company to co-ordinate and co-operate with Operational Partners.

- 1.6.2 The Scottish Ministers have also entered into the Contract to develop a collaborative business relationship with the Operating Company to enhance the performance of Transport Scotland and the Operating Company.

## **2 Defects, Hazard Notices & Observations Resulting from Inspections**

### **2.1 Categorisation, Recording & Reporting**

2.1.1 Unless otherwise stated in this Contract, the Trunk Road Information Manual and Transport Scotland Structures Manual define how the Operating Company;

- (a) records each asset,
- (b) inspects assets including frequencies and the required qualifications of inspectors,
- (c) categorise, respond and rectify Defects including the timescales in which these Operations are to be performed,
- (d) assess the condition of assets,
- (e) perform Cyclic Maintenance and other types of maintenance and
- (f) enter Records into APMS from Data Capture Devices.

2.1.2 Defects are categorised in accordance with Trunk Road Information Manual as;

- (a) Category 1a Defect,
- (b) Category 1b Defect,
- (c) Category 2 Low Defect, and
- (d) Category 2 High Defect

and are referred to in this Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections as Defects unless otherwise stated.

2.1.3 When classifying Defects, the Operating Company shall give consideration to the potential impact on all road users including motorists, pedestrians, cyclists, motorcyclists, equestrians, disabled users, Relevant Organisations, Operational Partners and other stakeholders until the Service End Date.

2.1.4 The Trunk Road Information Manual does not to contain an exhaustive list of Defects. In the absence of a definition of a Defect classification in the Trunk Road Information Manual, the Operating Company shall make the classification based on first principles, taking into account the definition of Defect classification set out in Trunk Road Information Manual and the definition of a Defect in Schedule 1 Conditions of Contract.

2.1.5 Actual Defect repair dates and the actions required by the Operating Company for all Defects completed by the Operating Company or any third party shall be entered into the APMS by the Operating Company in accordance with Trunk Road Information Manual and Transport Scotland Structures Manual.

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- 2.1.6 Where Defects are Damage to Crown Property the Operating Company shall comply with the following requirements of Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations;
- (a) Damage to Crown Property & third Party Claims;
  - (b) Claims Against Scottish Ministers;
  - (c) Damage to Crown Property, and
  - (d) Miscellaneous Claims by Scottish Ministers
- 2.1.7 The Operating Company shall record all information in connection with Hazard Notices and Observations Resulting from Inspections in the APMS no later than twenty four (24) hours after receiving notification from the Director and or Performance Audit Group.
- 2.1.8 The Operating Company shall provide the Director with a monthly report on the status of all Defects, Hazard Notices and Observations Resulting from Inspections recorded in the APMS.

**2.2 Rectification of Defects**

- 2.2.1 Unless stated otherwise in Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections and or 3 Inspection & Maintenance – Roads Including Landscape, Defects shall be temporarily and or permanently rectified by the Operating Company in accordance with the Trunk Road Information Manual.
- 2.2.2 The Operating Company shall no later than sixty (60) Working Days prior to the Commencement of Service Date, start to liaise with the previous operating company in relation to Defects and no later than the Commencement of Service Date compile a detailed Record (including photographs, location and descriptions of each Defect) of all Category 1a Defects, Category 1b Defects and Category 2 High Defects within the Unit that:
- (a) Will not be repaired by the previous operating company prior to the Commencement of Service Date, and
  - (b) Subject to an Order will become the responsibility of the Operating Company under the Contract.
- 2.2.3 Where there is any dispute or difference between the previous operating company and the Operating Company concerning the existence or classification of a Defect, the Operating Company shall notify the Scottish Ministers a minimum of thirty (30) Working Days before the Commencement of Service Date and the Scottish Ministers will provide a decision to resolve any dispute or difference.

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Any Defect that is not on the detailed Record required in accordance with Section 2 Defects, Hazard Notices & Observations Resulting From Inspections, 2.2. Rectification of Defects, 2.2.2 or has not been notified to the Scottish Ministers in accordance with this Section 2.2. Rectification of Defects, 2.2.3 shall be deemed to have occurred on or after the Commencement of Service Date.

2.2.4 Subject to the provisions of Section 2.2 Rectification of Defects, 2.2.5, the Operating Company shall undertake all repair of all Category 1a Defects and Category 1b Defects on the Unit howsoever and when so ever arising.

2.2.5 The Operating Company shall carry out temporary and permanent repairs of Category 1a Defects, Category 1b Defects, and permanent repairs of Category 2 Low Defects or Category 2 High Defects.

Repair of Defects is an Ordered Operation and shall be measured and valued in accordance with the applicable rates and prices set out in Schedule 4 Measurement Rates and Prices with the exception of Defects related to Cyclic Maintenance set out in Schedule 2 Scope, Section 2.4 Rectification of Defects Related to Cyclic Maintenance.

The Director shall issue an Order to facilitate payment in accordance with Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations.

2.2.6 Notwithstanding any temporary repair, hazard mitigation measures or interim measures that may be taken by the Operating Company or others in respect of a Category 1a Defect or Category 1b Defect, such Category 1a Defect or Category 1b Defect shall be deemed to exist until permanently repaired in accordance with the Contract.

2.2.7 At least sixty (60) Working Days prior to the Service End Date, the Operating Company shall liaise with the incoming operating company (or other party taking over responsibility for the Unit) and compile a detailed list and record of Category 1a Defects, Category 1b Defects, Category 2 High Defects within the Unit that will not be repaired prior to the Service End Date.

Such record shall include photographs and descriptions that shall clearly identify the nature and location of the Category 1a Defect, Category 1b Defects and Category 2 High Defects. After the Service End Date, the incoming operating company (or other party taking over responsibility for the Unit) shall become responsible for the repair of all such Category 1a Defects, Category 1b Defects and Category 2 High Defects.

2.2.8 Where there is any dispute or difference between the Operating Company and the incoming operating company (or other party taking over responsibility for the Unit) concerning the

## **Scottish Trunk Road Network Management Contract South West Unit**

existence or classification of a Category 1a Defect, Category 1b Defect and Category 2 High Defect, the Operating Company or the incoming operating company (or other party taking over responsibility for the Unit) shall notify the Scottish Ministers before the Service End Date and the Scottish Ministers will provide a decision to resolve a dispute or difference.

Any Category 1a Defect and Category 1b Defect that is not on the detailed list required in accordance with Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections, 2.2 Rectification of Defects, 2.2.7 or that has not been notified to the Scottish Ministers in accordance with this Section 2.2 Rectification of Defects, 2.2.8 shall be deemed to have occurred after the Service End Date.

2.2.9 In respect of Category 1a Defects, Category 1b Defects and Category 2 High Defects contained in the list compiled in accordance with Section 2.2 Rectification of Defects, 2.2.7 or decided by the Scottish Ministers in accordance with Section 2.2 Rectification of Defects, 2.2.8 to be a Category 1a Defect, Category 1b Defect or Category 2 High Defects, the Scottish Ministers shall, at their discretion, be entitled to either;

- (a) recover from the Operating Company the costs incurred by the Scottish Ministers in connection with repair of such Category 1a Defects, Category 1b Defects and or Category 2 High Defects as a debt due to the Scottish Ministers, or
- (b) deduct the amount of these costs from the next payment or any subsequent payment due, to the Operating Company pursuant to the provisions of this Contract.

2.2.10 The Operating Company shall;

- (a) record, combine and prioritise the repair of all Category 2 Low Defects using an objective criteria that has a direct relationship with the Purpose and Objectives of the Contract including the Road Asset Management Plan for Scottish Trunk Roads and Trunk Road Information Manual, and
- (b) prepare and submit programmes and Bids for the repair of Category 2 Low Defects to the Director in accordance with Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations.

2.2.11 Category 2 Low Defects may also be used by the Director to inform asset management decisions, budget allocations and justify future spending requirements.

### **2.3 Rectification of Hazard Notices & Observations Resulting from Inspections**

2.3.1 The Director and or the Performance Audit Group may observe situations within the Unit that present an immediate hazard. In such circumstances, the Director and or the Performance

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Audit Group shall issue a Hazard Notice to the Operating Company, which shall be copied to whoever did not issue the Hazard Notice.

- 2.3.2 The Director and or the Performance Audit Group may also identify other circumstances where its observations require an action by the Operating Company. In such circumstances, the Director and or the Performance Audit Group shall issue an Observation Resulting from Inspection to the Operating Company, which shall be copied to whoever did not issue the Observation Resulting from Inspection.
- 2.3.3 Hazard Notices and Observations Resulting from Inspection are not instructions from the Performance Audit Group or the Director to the Operating Company. They are a method of formally and independently identifying and recording potential Defects and or Defaults on the Unit and requesting responses from the Operating Company.

Hazard Notices and Observations Resulting from Inspection are intended to help ensure Operations are performed in accordance with the Contract and realise the Purpose and Objectives of the Contract.

- 2.3.4 The Operating Company shall respond to any Hazard Notice or Observation Resulting from Inspection received without delay in accordance with the following:

(a) Hazard Notices – No later than the maximum secondary response time set out in Schedule 5 Specification & Drawings, 32/1 Incident Response including a visit the location of the Hazard Notice, and

(b) Observation Resulting from Inspections – No later than twenty four (24) hours

to decide if the Hazard Notice and or Observation Resulting from Inspection is a Defect and should be recorded in the APMS.

- 2.3.5 Hazard Notices and Observations Resulting from Inspections may refer to any part of the Operations.

- 2.3.6 The Operating Company shall supply one e-mail address to the Performance Audit Group to which all Hazard Notices and Observations Resulting from Inspection shall be communicated and exchanged.

- 2.3.7 The Operating Company shall maintain a register of all Hazard Notices and Observations Resulting from Inspection issued and responded to, whether

(a) it is a Defect, action due and actions completed, any Defect repair required and/or remedy of any Default and/or Non-Conformance, and

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- (b) provide the Director with a monthly report on the status of all Hazard Notices and Observations Resulting from Inspection.

2.3.8 For any hazardous situation an oral report may be given by the Director and or the Performance Audit Group to Contract Personnel on Site and to the Operating Company at the Central Office.

If a hazardous situation is related to traffic management and the Operating Company is not directly responsible for the work, an oral report may be made by the Director and or the Performance Audit Group to the Operating Company at the Central Office.

In all other cases which do not involve traffic management, an oral report may be made by the Director and or the Performance Audit Group to the Operating Company at the Central Office.

2.3.9 A Hazard Notice giving written confirmation of the hazard will be issued by the Director and or the Performance Audit Group. This will be sent by e-mail to the Operating Company and copied to whoever did not issue it.

2.3.10 The Operating Company shall reply to the Director and or the Performance Audit Group by telephone call, confirmed via e-mail, within twenty four (24) hours of an oral report being issued. The reply shall give details of the actions taken by the Operating Company to remove the hazard and be sent to both Director and the Performance Audit Group.

2.3.11 Observations Resulting from Inspection may be issued when;

- (a) non-compliant maintenance, non-compliant workmanship or any other Non-Conformance and/or remedy of any Defaults and/or Non-Conformance is observed,
- (b) Defects of concern are identified, or
- (c) other events of concern are observed which may include unexpected road closures, unusual traffic congestion or other occurrence that may affect the maintenance and management of the Trunk Road network.

2.3.12 When the Operating Company has received an Observation Resulting from Inspection, it shall reply directly to the Director and the Performance Audit Group by e-mail, within the timescale referred to in the Observation Resulting from Inspection.

The reply shall either give details of the Operating Company's proposals to rectify the Defect and or Non-Conformance and/or any Default or state that the Defect and or Non-Conformance and/or any Default will be rectified at a future date as part of a specific maintenance programme, as appropriate.

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2.3.13 The time for reply by the Operating Company shall be within five (5) Working Days of receipt of an Observation Resulting from Inspection and this period may be changed by the Director depending on the nature of the Observation Resulting from Inspection.

**2.4 Rectification of Defects Related to Cyclic Maintenance**

2.4.1 The rectification of all Defects resulting directly and or indirectly as a consequence of the Operating Company not performing Cyclic Maintenance in accordance with the Contract including the Trunk Road Information Manual and the Transport Scotland Structures Manual shall not entitle the Operating Company to any additional payments and claims in accordance with Schedule 1 Conditions of Contract, Clause 5 Payments.

2.4.2 The control of vegetation where it affects or has the potential to affect the safe operation of the Trunk Roads of the Unit, including footpaths and cycle tracks, the forward visibility, and or sightlines of road signs and or access to or the operation of any Inventory Item is Cyclic Maintenance and shall, unless stated otherwise in this Contract, be performed in accordance with the Trunk Road Information Manual and is a Core Operation.

### **3 Inspection & Maintenance – Roads Including Landscape**

#### **3.1 Introduction**

- 3.1.1 This Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape and the Trunk Road Information Manual, detail the Trunk Road management, Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance requirements to be performed by the Operating Company. These requirements also apply to Trunk Road related elements of Structures and roadside electrical assets including power supplies. Management, inspection and maintenance requirements for Structures are set out in Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures.
- 3.1.2 These requirements do not cover major structural maintenance for the replacement or renewal life-expired road pavements although the procedural requirements may assist in pavement management.
- 3.1.3 There may be instances where the Operating Company is required to carry out additional Routine Monitoring Inspections, Comprehensive Inspections and maintenance requirements to take account of local conditions. Details of such local requirements are provided in Schedule 2 Scope, Appendix 3 – Roads Attachment 3.1 Additional Local Requirements Including Geotechnical Asset Monitoring.
- For the avoidance of doubt the information set out in Appendix 3 Roads Attachment 3.1 Additional Local Requirements Including Geotechnical Asset Monitoring, Table 3.1.2 Comprehensive Inspections of Geotechnical Assets & Reporting Requirements is indicative, for information only and the Operating Company shall plan and perform all Operations relating to geotechnical assets based on the information set out in the APMS.
- 3.1.4 At the Commencement of Service Date there will be items of Constructional Plant on the Unit that may require maintenance. Such items will normally be related to safety and include temporary safety barriers, temporary supports to Structures, temporary electrical equipment, temporary traffic management equipment and related equipment to make safe Defects.
- During the Mobilisation Period, the Operating Company shall agree the maintenance requirements and availability of all such items of Constructional Plant with the outgoing operating company and perform any maintenance requirements on the available items of Constructional Plant in accordance with manufacturer's recommendations and this Contract.
- 3.1.5 When undertaking Operations in accordance with this Section 3 Inspection & Maintenance – Roads Including Landscape, the Operating Company shall comply with the requirements of

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Schedule 5 Specification & Drawings, 110SR Information Boards with regard to Operations information signs.

- 3.1.6 In order to minimise the environmental impacts and disruption to road users arising from Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance the Operating Company shall, wherever practicable, undertake multiple activities concurrently which includes performing Routine Monitoring Inspections, Comprehensive Inspections, Cyclic Maintenance and rectifying Category 2 Low Defects at the same time as a Scheme.
- 3.1.7 The Operating Company shall develop a system for managing and performing audits of Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance.
- 3.1.8 The Operating Company shall provide seven (7) day's advance notification of the time, location and nature of an Operating Company's audit to the Director and the Performance Audit Group to enable the Director and the Performance Audit Group to witness the Operating Company audit being performed.
- 3.1.9 The Operating Company shall maintain a record of any Defects found during Operations and shall report any hazards immediately to the Director and the Performance Audit Group.

### **3.2 APMS – Roads Including Landscape**

- 3.2.1 The Operating Company shall use the APMS provided during the Mobilisation Period to implement, monitor and record all Inventory, Routine Monitoring Inspections, Comprehensive Inspections, Defects, Cyclic Maintenance in accordance with Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections, 3 Inspection & Maintenance – Roads Including Landscape.
- 3.2.2 A Data Capture Device shall be used for recording Inventory (validation, collection, & updating), Cyclic Maintenance remedial work, electrical testing, electricity meter reading and all similar Operations including data recorded during Routine Monitoring Inspections, Comprehensive Inspections and to record all Defects identified.

Routine Monitoring Inspections and Comprehensive Inspections data shall be uploaded to and downloaded from the APMS in accordance with the timescales set out in the Trunk Road Information Manual.

- 3.2.3 The APMS shall include the dates of the last Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance Operations required by Section 2 Defect, Hazard Notices & Observations Resulting from Inspections, 3 Inspection & Maintenance – Roads including Landscape and maintenance operations undertaken by the previous operating company.

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3.2.4 Where the dates of the last Routine Monitoring Inspections, Comprehensive Inspections and or Cyclic Maintenance Operations required by this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape are unavailable during the Mobilisation Period, the Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance Operation shall be performed by the Operating Company as follows:

- (a) Routine Monitoring Inspections: No later than twenty four (24) hours after the Commencement of Service Date, and
- (b) Comprehensive Inspections and or Cyclic Maintenance Operations: No later than six (6) months after the Commencement of Service Date.

or in another timescale confirmed by the Director after discovering the dates of the last Routine Monitoring Inspections, Comprehensive Inspections and or Cyclic Maintenance Operations are unavailable.

### **3.3 Inspections**

3.3.1 The Operating Company shall perform all Routine Monitoring Inspections and Comprehensive Inspections in accordance with the Trunk Road Information Manual and record all the corresponding data required by the Trunk Road Information Manual in the APMS.

3.3.2 The Operating Company shall perform all Operations required by Schedule 2 Scope, Section 3 Inspections & Maintenance – Roads Including Landscape using Contract Personnel who possess the qualifications and experience specified in the Trunk Road Information Manual.

3.3.3 During Routine Monitoring Inspections and Comprehensive Inspections (in addition to and during other inspections of the Unit in liaison with Operational Partners or other third parties), the Operating Company shall collect, collate and record (as part of the Annual Landscape Management Report and landscape Inventory recorded in the APMS) information relating to wildlife road kill incidents involving the following;

- (a) Badger,
- (b) Beaver,
- (c) Deer (Red, Roe & Fallow),
- (d) Fox,
- (e) Hedgehog,
- (f) Other (named),
- (g) Otter,

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- (h) Pine Marten,
- (i) Raptor Species,
- (j) Red Squirrels, and
- (k) Wildcat

- 3.3.4 The Operating Company shall undertake additional Routine Monitoring Inspections and Comprehensive Inspections and any other necessary Operations relating to Severe Weather identified from using it's Expert Weather Forecasting Service in accordance with the requirements of Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management.
- 3.3.5 The Operating Company shall plan and perform all Routine Monitoring Inspections and Comprehensive Inspections to minimise disruption to traffic, other road users and the public while ensuring adequate access is available to allow these Operations to be performed safely by the Contract Personnel.
- 3.3.6 Whenever practicable, Routine Monitoring Inspections, Comprehensive Inspections that require Lane Occupation shall be carried out by the Operating Company in conjunction with other Operations. Where separate Lane Occupations are necessary, Routine Monitoring Inspections and Comprehensive Inspections shall be undertaken by the Operating Company during off-peak traffic conditions.
- 3.3.7 The Operating Company shall plan its schedule of Comprehensive Inspections requiring a Lane Occupation in accordance with the Trunk Road Information Manual and after reviewing the groups of Comprehensive Inspections to be performed.

### **3.4 Cyclic Maintenance**

- 3.4.1 The Operating Company shall carry out Cyclic Maintenance in accordance with this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape and the following;
- (a) Trunk Road Information Manual,
  - (b) the APMS and,
  - (c) Schedule 5 Specification & Drawings.
- 3.4.2 The Operating Company shall review the intervals for Cyclic Maintenance where set out in the above and recorded in the APMS on an annual basis and no later than twelve (12) months after Commencement of Service Date.

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The Operating Company shall provide the Director with a report no later than thirteen (13) months after the Commencement of Service Date (and thereafter on an annual basis) containing the findings of the review, conclusions and recommendations for changes to the intervals for Cyclic Maintenance of individual Inventory Items or groups of Inventory Items to the Director for their consent to ensure;

- (a) that continued asset operation and condition are maintained,
- (b) the Purpose and Objectives of the Contract are realised, and
- (c) the Cyclic Maintenance activities referenced in Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape, 3.4.1 are performed in accordance with the Contract.

3.4.3 Unless stated otherwise within this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape, all Cyclic Maintenance data shall be recorded against Inventory Items. Where required by this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape and the Trunk Road Information Manual, other data associated with Cyclic Maintenance shall also be recorded in the APMS such as condition ratings, checklists, reports, photographs and Certificates.

3.4.4 The Operating Company shall provide a monthly Litter and Refuse Collection Report listed in Schedule 3 Contract Management, Appendix 1 Introduction Attachment 1.2 Report and Submissions – Other, to the Director no later than the fifteenth (15<sup>th</sup>) day of each month from the Commencement of Service Date until the Service End Date, recording performance in relation to keeping certain Routes clear of litter. The Litter and Refuse Collection Report shall report as a minimum:

- (a) Date,
- (b) Locations, and
- (c) Number of black bags and individual large items of litter and refuse collected on the specific Routes in the previous month.

### **3.5 Landscape Development Process**

3.5.1 The Operating Company shall appoint a Landscape Architect in accordance with the provisions of Schedule 3 Contract Management, Section 2 Key People.

3.5.2 No later than thirty (30) days after the start of the Mobilisation Period, the Director will provide the Operating Company with landscape management information, including as a minimum any historical;

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- (a) Landscape Strategy,
  - (b) Landscape Inventory,
  - (c) Landscape Development Plan, and
  - (d) Annual Landscape Management Report.
- 3.5.3 The Operating Company shall procure and ensure the Records of Routine Monitoring Inspections, Comprehensive Inspections and the Cyclic Maintenance of the Landscape Areas, as detailed in the Trunk Road Information Manual and Schedule 5 Specification & Drawings, are complete and kept up to date at all times in the APMS.
- 3.5.4 The Operating Company will be required to take over the maintenance responsibilities for Landscape Areas created as part of any Scheme.
- 3.5.5 The Operating Company's Landscape Architect shall prepare and submit, on behalf of the Operating Company, the following documentation as detailed within this Schedule 2 Scope, Section 3 Inspections & Maintenance – Roads, 3.5 Landscape Development Process;
- (a) The Landscape Strategy including Tree Management Strategy,
  - (b) Schedule of Landscape Opportunities,
  - (c) The Landscape Development Plan including Tree Management Plan, and
  - (d) The Annual Landscape Management Report.
- 3.5.6 The Operating Company shall upload to APMS (subject to the provisions of Schedule 1 conditions of Contract, Clause 1 General, 1.10 Provision of Documents) one Electronic Copy of the following documents and associated Drawings in portable document format (pdf);
- (a) Landscape Strategy including Tree Management Strategy,
  - (b) Schedule of Landscape Opportunities
  - (c) Landscape Development Plan including Tree Management Plan,
  - (d) Annual Landscape Management Report,
  - (e) Grassland Report,
  - (f) Invasive or Injurious Species Management Plan,
  - (g) Deer Management Plan, and
  - (h) Pesticide Plan.

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In accordance with the timescales detailed within this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape. In addition, if requested by the Director, a hard copy will also be provided.

- 3.5.7 The Operating Company's Landscape Architect shall attend all landscape and environmental progress meetings arranged with the Director. The Landscape Architect shall attend meetings with others, including the Director's staff, any third party organisations or individuals and meet the requirements of the Trunk Road Information Manual, concerning landscape issues related to the Unit.

### Landscape Strategy and Tree Management Strategy

- 3.5.8 During the first Annual Period, the Operating Company shall ensure that the Landscape Architect prepares a detailed Landscape Strategy Including Tree Management Strategy for the Unit that takes full account of the Landscape Strategy developed by the previous operating company.

The detailed Landscape Strategy Including Tree Management Strategy shall be submitted for the Director's consent no later than fifty (50) Working Days before the end of the first Annual Period.

- 3.5.9 The Operating Company shall ensure that the Landscape Architect annually reviews and updates the Landscape Strategy Including Tree Management Strategy.

The review shall take account of changes affecting the Unit since the preparation of the previous version of the Landscape Strategy including outputs from previous version of the Landscape Development Plan & Tree Management Plan, Trunk Road alterations, third party interventions, natural changes and the like.

The revised Landscape Strategy including Tree Management Strategy shall be submitted by the Operating Company to the Director for consent no later than 31 July during each Annual Period.

- 3.5.10 The Landscape Strategy including Tree Management Strategy shall be prepared in accordance with Transport Scotland's policy document: Fitting Landscapes: Securing More Sustainable Landscapes and shall identify and describe in detail the specific landscape character of each of the individual Routes of the Unit. This shall include the relevant features and elements within and adjacent to the Unit.

- 3.5.11 The Landscape Strategy shall include;

- (a) clear cross-referencing to the landscape Inventory,
- (b) Ordnance Survey based location plans clearly showing the areas under review,

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- (c) brief descriptions of the areas under review, highlighting the general character of the relevant area, the appearance and value of the landscape, comments on the quality of the landscape and any ecological elements that may impact on, or be affected by, the maintenance and management of the Unit's soft estate,
- (d) a range of photographs depicting the various character zones,
- (e) the perceived main issues relating to the continued management of the Unit's soft estate in each location, taking into account topics such as safety, visual aspects, general amenity and biodiversity. Consideration shall be given to the interests and elements of land immediately adjacent to, but out with, the Unit,
- (f) consideration of any relevant, related studies, plans or strategies for the location including, as a minimum, historic route action plans and Route Accident Reduction Plans and the production of a Safe System Approach to Road Safety, as set out in the Road Safety Framework, Strategic Road Safety Plan and any successor Reference Document,
- (g) general proposals for the future development of the environment related to the Trunk Roads of the Unit,
- (h) information or proposals related to the landscape development process set out in the Trunk Road Information Manual,
- (i) any other issues that may be relevant to the landscape strategy, including as a minimum information and advice from third parties such as Scottish Natural Heritage, Operational Partners and other Relevant Organisations, and
- (j) Tree Management Strategy (which shall be prepared in accordance with Schedule 2 Scope, Appendix 3 Road Attachment 3.2 Tree Management Strategy & Tree Management Plan).

### Landscape Opportunities

- 3.5.12 The landscape opportunities inspections shall be undertaken throughout the Unit by the Landscape Architect regularly at intervals not exceeding twelve (12) months to identify potential opportunities to improve the landscape associated with the Trunk Roads of the Unit.
- 3.5.13 The landscape opportunities inspections shall identify;
- (a) potential landscape Schemes and interventions, and

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- (b) Landscape Areas that could be improved by changing the maintenance requirements detailed in Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape.

Both of the above categories shall be considered and developed in terms of;

- (c) general amenity,
- (a) improved efficiency and appropriateness of maintenance,
- (b) road safety and reliability,
- (c) improved biodiversity and nature conservation,
- (d) sustainability and climate change,
- (e) any other issues identified as significant by the Landscape Architect, and
- (f) Purpose and Objectives of the Contract

3.5.14 The Landscape Architect shall record the results of the landscape opportunities inspections in the Schedule of Landscape Opportunities. The Schedule of Landscape Opportunities shall be submitted to the Director no later than 31 July in each Annual Period.

3.5.15 When identified within the Schedule of Landscape Opportunities, the Operating Company shall submit to the Director a report detailing the proposed changes to the maintenance requirements for Landscape Areas. The report shall include a full description of the benefits of the proposed change and any cost savings or cost increases associated with undertaking the alternative maintenance activities. Subject to an Order and when consented to by the Director, the Operating Company shall implement the proposed changes to the maintenance requirements.

3.5.16 The Schedule of Landscape Opportunities shall be used by the Landscape Architect in the preparation of the Landscape Development Plan including Tree Management Plan. The Schedule of Landscape Opportunities shall be based on the results of the regular landscape opportunities inspections, ad hoc inspections, visits to the Unit by the Landscape Architect and inform any future versions of the Landscape Strategy including Tree Management Strategy.

3.5.17 The Operating Company shall provide the following information to the Director for each opportunity listed in the Schedule of Landscape Opportunities which shall include as a minimum;

- (a) road number and location,

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- (b) outline description and justification for including the opportunity in the Schedule of Landscape Opportunities and,
- (c) landscape objectives of the opportunity,
- (d) outline cost estimate.

Landscape Development Plan and Tree Management Plan

- 3.5.18 The Operating Company shall take account of the Landscape Strategy including Tree Management Strategy in preparing the Landscape Development Plan including the Tree Management Plan. The Landscape Development Plan shall be developed to ensure compliance with the Specification and take account of the opportunities identified in the Schedule of Landscape Opportunities referred to in this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape, 3.5 Landscape Development Process.
- 3.5.19 No later than fifty (50) Working Days before the end of the first Annual Period, the Operating Company shall ensure that the Landscape Architect prepares and submits a Landscape Development Plan including Tree Management Plan for the second Annual Period for the Director's consent.
- 3.5.20 The Operating Company shall ensure that the Landscape Architect reviews, revises and updates the Landscape Development Plan including Tree Management Plan during each subsequent Annual Period. The updated Landscape Development Plan including Tree Management Plan shall be submitted for the Director's consent no later than 15 August in each subsequent Annual Period.
- 3.5.21 When developing the Landscape Development Plan including Tree Management Plan, the Operating Company shall ensure that the Landscape Architect takes account of Transport Scotland's landscape design and management policy contained in Fitting Landscapes: Securing More Sustainable Landscapes.
- 3.5.22 When developing the Landscape Development Plan including Tree Management Plan, the Operating Company shall ensure that the Landscape Architect takes account of Transport Scotland's commitment to the protection and enhancement of biodiversity through relevant Legislation and documents including as a minimum, but not limited to;
- (a) Scotland's Biodiversity: It's in Your Hands, and
  - (b) 2020 Challenge for Scotland's Biodiversity.

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3.5.23 The Landscape Development Plan shall include, as a minimum, recommendations;

- (a) in accordance with the Landscape Strategy including Tree Management Strategy,
- (b) resulting from the Annual Landscape Management Report,
- (c) resulting from the Operating Company's landscape opportunities inspections and Schedule of Landscape Opportunities referred to in this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape,
- (d) resulting from Tree Management Plan including Operations considered a priority by the Operating Company,
- (e) resulting from inspections and patrols including Operations not defined as a Category 1a Defect, a Category 1b Defect or a Category 2 High Defect.

The Operating Company shall prepare the Tree Management Plan in accordance with Schedule 2 Scope, Appendix 3 Road Attachment 3.2 Tree Management Strategy & Tree Management Plan.

3.5.24 For each proposal or intervention included within the Landscape Development Plan the Operating Company shall include the following information;

- (a) road number,
- (b) Scheme name,
- (c) detailed description and justification for including the opportunity in the Landscape Development Plan,
- (d) related landscape objectives,
- (e) large scale plan showing the proposal, its location and relationship with the surrounding adjacent landscaping,
- (f) detailed design/layout plans and Drawings with supporting sketches or photographs illustrating the specific proposal,
- (g) detailed breakdown of the cost estimate,
- (h) priority ratings (high, medium or low) with details and justification for priority rating, and
- (i) detailed design programme and construction programme.

Landscape Scheme Preparation

3.5.25 The Operating Company shall provide an Estimated Bid Value for all potential landscaping Schemes and interventions as well as cost estimates for improvements to maintenance

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requirements. The Operating Company shall prepare a Statement of Intent and Value for Money Assessment for all potential Schemes, interventions and alterations to maintenance Operations as identified in the Landscape Development Plan, following discussions with the Director.

- 3.5.26 The Statement of Intent information submitted for each for each proposal shall be as required in the landscape Statement of Intent proforma included in Schedule 3 Contract Management, Appendix 7 Control of Core Operations & Ordered Operations.
- 3.5.27 The Operating Company shall Design and execute landscape Schemes and interventions. The Operating Company shall submit detailed Designs to the Director for consent prior to execution.
- 3.5.28 The Operating Company shall provide and maintain throughout each Annual Period, a detailed programme for all landscape Schemes and interventions that have been subject to an Order. The detailed programme shall include the;
- (a) period of construction,
  - (b) activities to be undertaken, and
  - (c) estimated completion dates.

This programme shall be submitted to the Director when requested.

### Annual Landscape Management Report

- 3.5.29 No later than 31 May during the second Annual Period (and every year thereafter), the Operating Company shall submit a draft Annual Landscape Management Report to the Director for his review and comment. The Annual Landscape Management Report shall provide a review of all landscape Operations performed on the Unit during the previous Annual Period.
- 3.5.30 The Annual Landscape Management Report shall correspond to the areas of the Unit as described in the APMS.
- 3.5.31 The draft Annual Landscape Management Report shall record;
- (a) the general condition of the Landscape Areas of the Unit including a short statement for each area,
  - (b) details of the effectiveness of maintenance Operations undertaken,
  - (c) details of the effectiveness of the changes consented to by the Director, that have been made to the maintenance Operations as stated in Section 3 Inspection &

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- Maintenance – Roads Including Landscape, 3.7 Landscape Development Process, 3.5.22,
- (d) a summary of all Operations undertaken as part of the Landscape Development Plan including a statement on the progress of all approved Schemes,
  - (e) details of the additional Landscape Areas added to or removed from the Operating Company's maintenance programme resulting from the completion of Schemes undertaken by others working on behalf of the Director,
  - (f) information on all newly created Landscape Areas of the Unit created by the Operating Company (or any contractors working on its behalf) during the period covered by the report that are subject to establishment maintenance,
  - (g) the performance of any contractors, sub-contractors and or suppliers of any tier responsible for landscape Operations on the Unit,
  - (h) a statement advising the Director on the progress on delivering the requirements of the Landscape Strategy,
  - (i) the Operating Company's achievement of the requirements of the Pesticide Plan referred to in this Section 3 Inspection & Maintenance – Roads Including Landscape, 3.5 Landscape Development Process, specifying the general level of pesticide use throughout the Unit and noting locations subjected to significant applications. If requested by the Director, pesticide record forms that are produced by the Operating Company in accordance with the Specification shall be included as an appendix to the Annual Landscape Management Report,
  - (j) details of the Operations undertaken in support of enhancing biodiversity and nature conservation, including work associated with creating, repairing or improving any wildlife mitigation measures for the Unit,
  - (k) a statement from the Operating Company detailing any problems or specific unforeseen issues that have affected the delivery of the landscape requirements contained in this Contract that may have arisen during the period covered by the Annual Landscape Management Report and recommendations for action required,
  - (l) details of any significant amendments made by the Operating Company to the landscape Inventory in the APMS,
  - (m) a Grassland Report as described in Schedule 2 Scope, Appendix 3 – Roads Attachment 3.3 Grassland Report, setting out the Operating Company's achievements

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and any concerns and opportunities for the grassed areas in each section of the areas identified within the Landscape Strategy,

- (n) an Invasive or Injurious Species Report referring to the approved Invasive or Injurious Species Management Plan required by this Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads including Landscape, 3.5 Landscape Development Process, detailing the location, nature and extent of the invasive or injurious species infestations that can be found on the Unit and the success or otherwise of the measures taken by the Operating Company to reduce the area and extent of the known infestations,
- (o) a summary report of road kill Records for the Unit and details of the impact on the species identified within the report, and
- (p) an executive summary of the key issues arising out of the Annual Landscape Management Report.

3.5.32 As part of its Annual Landscape Management Report, the Operating Company shall prepare and submit a Pesticide Plan including targets for the potential reduction of pesticide usage through the use of alternative, but equally effective, proposals. The Pesticide Plan shall take account of the relevant requirements contained within the Specification.

3.5.33 As part of its Annual Landscape Management Report, the Operating Company shall prepare and submit an Invasive or Injurious Species Management Plan prepared in accordance with Schedule 2 Scope, Appendix 3 Roads Attachment 3.4 Invasive or Injurious Species Management Plan.

The Invasive or Injurious Species Management Plan shall include details of both non-native as well as native species, where either have an impact on the Unit and ensure compliance with relevant legislation on invasive species control. The Invasive or Injurious Species Management Plan shall include as a minimum;

- (a) details contained within the Invasive or Injurious Species Report of infestations on the Unit,
- (b) proposals for achieving a reduction in infestation of invasive or injurious species during the next Annual Period, and
- (c) proposed targets for reducing infestations of invasive or injurious species during the next Annual Period.

The Director shall consider the Invasive or Injurious Species Report and, where appropriate, consent to the Operating Company's targets for reducing infestations of invasive or injurious species during the next Annual Period. All areas of infestation of invasive or injurious species

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shall be recorded within the APMS and updated annually before the end of each Annual Period.

- 3.5.34 As part of its Annual Landscape Management Report, the Operating Company shall prepare and submit a Deer Management Plan as described in Schedule 2 Scope, Appendix 3 Roads Attachment 3.5 Deer Management Plan, setting out the Operating Company's achievements in respect of deer management and its strategy and future proposals for the next Annual Period. The Deer Management plan shall take into account the matters set out in Schedule 2 Scope, Appendix 3 Roads Attachment 3.5 Deer Management Plan.
- 3.5.35 The Director shall review the draft Annual Landscape Management Report and, if required, provide the Operating Company with comments no later than twenty-five (25) Working Days after receiving the draft Annual Landscape Management Report. The Operating Company will incorporate the comments received from the Director (where appropriate) and submit a final version of the Annual Landscape Management Report to the Director no later than twenty-five (25) Working Days after receiving comments.

### 3.6 Electrical

- 3.6.1 The roadside electrical assets to be inspected and maintained solely by the Operating Company in accordance with this Schedule 2 Scope and Schedule 5 Specification & Drawings are set out in Trunk Roads Information Manual and include as a minimum;
- (a) bollards – electrical;
  - (b) cabinets & pillars – electrical;
  - (c) cable chambers;
  - (d) drainage ancillary items – electrical,
  - (e) electrical ducting & cables,
  - (f) lighting points,
  - (g) navigation aids,
  - (h) navigation lights (sea & air),
  - (i) roadside services – electrical,
  - (j) structure – electrical,
  - (k) traffic control barrier – electrical,
  - (l) traffic signs electrical, and
  - (m) weather stations.

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3.6.2 Transport Scotland's roadside electrical assets to be maintained by the Operating Company and under contracts with others including Traffic Scotland Operations and Infrastructure Services Contractor and Traffic Scotland Systems Contractor include Traffic Scotland Equipment in accordance with this Schedule 2 Scope and Schedule 5 Specifications & Drawings are set out in Trunk Road Information Manual and include as a minimum;

- (a) cabinets & pillars - electrical
- (b) CCTV & cameras,
- (c) detector loops,
- (d) emergency telephone boxes,
- (e) traffic signals – controller, and
- (f) traffic signals – signal apparatus.

3.6.3 The Traffic Scotland Equipment necessary to facilitate provision of the Traffic Scotland Service is split into two discrete components;

- (a) Traffic Scotland passive maintained, and
- (b) Traffic Scotland active maintained equipment.

The Operating Company shall inspect, manage and perform Cyclic Maintenance on the infrastructure elements (that include as a minimum poles, foundations, masts, cladding and gantries) of the Traffic Scotland Equipment detailed in Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape, 3.6 Electrical, 3.6.2 and the Trunk Road Information Manual.

The Traffic Scotland Equipment and the cabling, wiring and ducting arrangements for this equipment shall be managed and maintained by the Traffic Scotland Operations and Infrastructure Services Contractor.

The Operating Company shall comply with the procedures for shared access to the electrical assets as detailed in Schedule 2 Scope, Appendix 3 – Roads Attachments 3.6 Procedure for Accessing, Maintaining, Inspecting & Testing of Shared Electrical Assets

3.6.4 The Operating Company shall ensure that all new and replacement road lighting equipment is fully compatible with Transport Scotland's lighting central management system. The installation of such road lighting equipment shall include configuration, integration, and commissioning onto the lighting central management system. When de-energising and re-energising any element of a road lighting asset already on the lighting central management

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system for any purpose, the Operating Company shall ensure the road lighting asset remains compatible and fully operational with the lighting central management system.

- 3.6.5 The lighting central management system will be used to control and manage lighting assets on the Trunk Road network. The inventory created within the lighting central management system will automatically update the inventory held within the APMS.
- 3.6.6 The Operating Company shall provide such assistance as is required by the Director in order to develop the maintenance and management arrangements for roadside electrical assets within the APMS.
- 3.6.7 The Operating Company shall produce an energy inventory of un-metered roadside electrical supply equipment to comply with the requirements of the Balancing and Settlement Code of Practice 520 issued by ELEXON within the timescales and in accordance with the procedures detailed in Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape, 3.6 Electrical, 3.6.8.
- 3.6.8 The Operating Company shall prepare and submit an energy inventory in a format and having the content as consented to by the Director. The bulk of energy to operate roadside electrical assets is purchased through an unmetered arrangement with the distribution network operators in Scotland. Transport Scotland procures energy on a half-hourly basis and is required to submit monthly updates to the distribution network operators. The Operating Company shall prepare and submit the energy inventory by the 21st day of each calendar month, or the first Working Day after the 21st day of each calendar month, to the Director.
- 3.6.9 The lighting central management system will be provided by the Director to the Operating Company no later than Commencement of Service Date. The Operating Company when consented by the Director shall deploy the lighting central management system on an incremental basis to operate the illuminated assets on the Trunk Road network.
- 3.6.10 The infrastructure for the lighting central management system will include roadside and illuminated asset mounted communications devices that interface with the lighting central management system host via the general packet radio service communications network. Such infrastructure, where provided by the Operating Company as part of the Operations including compatible electronic lamp control gear, shall comply with the requirements of the Specification.
- 3.6.11 The Operating Company shall provide such assistance as may be required by the Director in order to develop the lighting central management system for the maintenance and management of illuminated assets.

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- 3.6.12 The Operating Company shall provide such assistance to the Traffic Scotland Operations and Infrastructure Services Contractor as required by the Director in the management and maintenance of the inventory for Traffic Scotland Equipment held in the APMS.
- 3.6.13 The Operating Company shall ensure that the provision of power supplies to the roadside electrical assets, through appropriate distribution network operators, are safe and remain safe at all times. Such supplies shall be provided and maintained by the Operating Company in accordance with Transport Scotland's guidance document LDS8006 - Electricity Supplies to Roadside Electrical Assets and Lighting.
- 3.6.14 The Operating Company shall manage and ensure safe operation of all electrical supplies to roadside electrical assets. This shall include the following;
- (a) reporting to the appropriate distribution network operator any loss of supply, managing any consequences arising and ensuring restoration of supply,
  - (b) reporting to a third party, Operational Partner, Relevant Organisation any hazard, Defect and failure of any roadside electrical assets fixed on the Trunk Roads of the Unit which is the responsibility of a third party, Operational Partner or a Relevant Organisation. For example any ULEV charge points, outside of the Operating Company Central Office and or depots, to be used by the public road users for the purposes of charging their ULEV,  
  
All reports sent to a third party, Operational Partner, Relevant Organisation of any hazard, Defects and failure of a roadside electrical asset fixed on the Trunk Roads of the Unit shall be sent to the Asset Manager at the same time.
  - (c) The Asset Manager ensures a third party, Operational Partner or a Relevant Organisation removes any hazard and rectifies any Defect or failure of any roadside electrical asset fixed on the Trunk Roads of the Unit which is the responsibility of a third party, Operational Partner or a Relevant Organisation and reported to them by the Operating Company,
  - (d) The Asset Manager liaises and coordinates with all third parties, Operational Partners and Relevant Organisations who are responsible for roadside electrical assets fixed on the Trunk Roads of the Unit to ensure they are inspecting and maintaining roadside electrical assets in accordance with the relevant standards and Legislation including the New Roads and Street Works Act 1991, as amended by the Transport (Scotland) Act 2005,

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- (e) The Asset Manager reports immediately to the Director all occurrences of discovering a third party, Operational Partner or Relevant Organisation is not inspecting and maintaining a roadside electrical asset fixed on the Trunk Roads of the Unit which is the responsibility of a third party, Operational Partner and Relevant Organisation,
- (f) repairing any Defect in the downstream distribution network including making safe any hazard, Defect and failure of any roadside electrical asset fixed on the Trunk Roads of the Unit which is the responsibility of a third party, Operational Partner or Relevant Organisation until representatives of a third party, Operational Partner or Relevant Organisations arrive at the location of the roadside electrical asset which is the subject of a hazard, Defect or failure and takes over responsibility for the removal of the hazard and rectification of the Defect or failure of the roadside electrical asset,
- (g) all required inspections, testing, and Cyclic Maintenance of downstream distribution network in accordance with Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape,
- (h) notifying any third party of loss of supply to its assets supplied from the Trunk Road distribution network,
- (i) recording all power supply hazards, Defects and failures including those in connection with roadside electrical assets fixed on the Trunk Roads of the Unit which are the responsibility of a third party, Operational Partner or Relevant Organisation, and
- (j) recording in a suitable tabulated form the distribution network operator supply system type and the measured value of the distribution network operator's external earth fault loop impedance i.e.  $Z_e$ , in ohms, at the point of interface between the distribution network operator and the roadside electrical assets.

Both of these parameters shall be those entered in the BS 7671:2008+A3:2015 Certificate for each point of interface. This requirement applies to all distribution network operator supplies that energise roadside electrical assets whether directly or as part of a shared supply installation. The resulting table shall be submitted along with the energy inventory, as required by the Director.

- 3.6.15 The Operating Company shall provide such assistance as the Director may require in resolving any matter relating to the roadside electrical assets inventory necessary to enable the Director to obtain the un-metered supply certificate.
- 3.6.16 The Director will make arrangements for the direct payment of un-metered roadside electrical energy used on the Unit.

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3.6.17 The Operating Company shall obtain electricity meter readings for supplies to roadside electrical assets of the Unit on a monthly basis and shall provide the information to the Director in the format and detail agreed and in accordance with the requirements of Schedule 5 Specification & Drawings, A71AR Creation, Maintenance & Submission of Documents & Other Media

### **3.7 Skid Resistance Management**

3.7.1 The Operating Company shall appoint a Skid Resistance Manager in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People. The Skid Resistance Manager shall manage the Operating Company's skid resistance team.

3.7.2 The Operating Company shall comply with the requirements of the Design Manual for Roads and Bridges for skid resistance management and the requirements and advice contained in Transport Scotland Interim Amendment No: 51 Skid Resistance. If there is any conflict between these documents, the Transport Scotland Interim Amendment No: 51 Skid Resistance shall take precedence.

3.7.3 The Operating Company shall undertake investigations as described in Transport Scotland Interim Amendment No: 51 Skid Resistance and record this information in APMS.

3.7.4 After 30 November in each Annual Period, the Operating Company shall use the APMS to generate the long-list of Sites to be investigated in accordance with Transport Scotland Interim Amendment No: 51 Skid Resistance and record this information in APMS.

3.7.5 The Operating Company shall complete all investigations of all Sites identified as requiring an investigation by 15 August in each Annual Period.

3.7.6 Following completion of the detailed investigations, the Operating Company shall submit proposals for the erection, maintenance and removal of warning signs in accordance with the Transport Scotland Interim Amendment No: 51 Skid Resistance for the Director's consent. Following receipt of the Director's consent and subject to an Order, the Operating Company shall erect, maintain and remove such warning signs and record the information in the APMS.

3.7.7 Before 30 September in each Annual Period, the Operating Company shall prepare and submit to the Director an Annual Report which summarises its activities in respect of skid resistance management in the format detailed within Transport Scotland Interim Amendment No: 51 Skid Resistance.

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3.7.8 The Operating Company's Skid Resistance Manager and a practitioner from its skid resistance team shall attend a Transport Scotland skid policy user group on dates to be notified by the Director.

### **3.8 Operating Company Management System Requirements**

- 3.8.1 In addition to specific requirements stated elsewhere in this Contract, the Operating Company's Management System shall contain documented processes and procedures for;
- (a) Operations carried out by inspection and patrol teams to make Category 1a Defects and Category 1b Defects safe at the time of inspection,
  - (b) storage and retrieval of all Records using either the APMS or other storage facilities available remotely to the Director and the Performance Audit Group,
  - (c) checklists used for all types of Inventory Item collection, Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance set out in the Trunk Road Information Manual,
  - (d) method statements to be developed and used for all types of roadside electrical apparatus in accordance with guidelines within Transport Scotland guidance document LDS8023 – Electrical Maintenance Guidelines and requirements in the Specification,
  - (e) Records to be maintained to support the robustness of all types of Routine Monitoring Inspections, Comprehensive Inspections and Cyclic Maintenance,
  - (f) how Contract Personnel report any Category 1a Defects, Category 1b Defect and Category 2 High Defect which they observe when travelling within the Unit,
  - (g) how the Operating Company monitors, receives, distributes, replies to and addresses all Hazard Notices and Observations Resulting from Inspection,
  - (h) the validation of all data for correctness and completeness before it is incorporated into the APMS in accordance with the Trunk Road Information Manual,
  - (i) planning, executing, monitoring and managing Operating Company Operations and the demonstration of the accuracy and rigour of the Operating Company's Routine Monitoring Inspections, Comprehensive Inspections, Defect rectification and Cyclic Maintenance, and
  - (j) Training all Contract Personnel who perform Operations set out in Schedule 2 Scope, Section 3 Inspection & Maintenance - Roads Including Landscape to ensure they have the minimum qualifications as set out in the Trunk Road Information Manual

3.8.2 The procedures for Routine Monitoring Inspections shall include;

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- (a) how the Operating Company carries out its Routine Monitoring Inspections duties, how Contract Personnel record Defects and ensure that prompt action is taken to remedy them,
- (b) how the locations of Defects are accurately recorded,
- (c) the vehicles to be utilised and the equipment to be carried by them, and
- (d) details covering Routine Monitoring Inspections Routes such as programmes, resources, estimated inspection speeds and average durations.

3.8.3 The procedures for Comprehensive Inspections shall include;

- (a) how the Operating Company carries out its Comprehensive Inspection duties,
- (b) how Contract Personnel record Defects and ensure that prompt action is taken to remedy them,
- (c) how the locations of Defects are accurately recorded,
- (d) the equipment to be used by Comprehensive Inspections teams,
- (e) programmes,
- (f) resources, and
- (g) method statements.

3.8.4 The procedures for maintenance shall include how the Operating Company carries out its Defects rectification and Cyclic Maintenance including compliance with Schedule 5 Specification & Drawings and how the required timescales will be achieved.

3.8.5 The procedures for managing Category 2 Low Defects shall include how the Operating Company groups Category 2 Low Defects together, prioritises the repairs and prepares and submits programmes and Bids for the repairs of Category 2 Low Defects to the Director.

## **4 Inspection & Maintenance – Structures**

### **4.1 Introduction**

4.1.1 Transport Scotland's management and maintenance of Structures requirements follow the asset management principles set out in Well Managed Highway Infrastructure: A Code of Practice and Transport Scotland's Road Asset Management Plan for Scottish Trunk Roads.

4.1.2 This Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures set out the requirements for the management and maintenance of all Structures on the Unit for which the Director is responsible. Details of all Structures for which the Director is responsible are contained in the APMS.

For the avoidance of doubt the information set out in any attachment of Schedule 2 Scope, Appendix 4 Structures is indicative, for information only and the Operating Company shall plan and perform all Operations required under this Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures based on the information set out in the APMS.

4.1.3 Structures with particular requirements are set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements, which includes requirements for more particular or enhanced levels of management and maintenance.

4.1.4 This Section 4 Inspection & Maintenance – Structures details the inspection and maintenance requirements to be undertaken by the Operating Company to;

- (a) maintain Structures in a good, safe and clean condition,
- (b) ensure Structures are safe for use, fit for purpose and can carry current traffic loads, and
- (c) efficiently undertake the planning, prioritisation and completion of maintenance Operations and Special Inspections.

4.1.5 The Operating Company shall include documented procedures in the Operating Company's Management System to deliver the requirements of this Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures.

4.1.6 All documents to be submitted by the Operating Company to the Director and all Records and the like to be maintained by the Operating Company in accordance with this Section 4 Inspection & Maintenance – Structures shall meet the requirements of Section 5 Specification & Drawings, 071 AR Creation, Maintenance & Submission of Documents and Other Media.

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- 4.1.7 The Operating Company shall comply with the requirements of Section 5 Specification & Drawings, 110 SR Information Boards with regard to Operations information signs when undertaking Operations in accordance with this Section 4 Inspection & Maintenance - Structures.
- 4.1.8 In accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People, the Operating Company shall appoint a;
- (a) Bridges Manager,
  - (b) Major Bridges Manager, who shall report to the Bridges Manager, as part of delivering the requirements of Schedule 2 Scope, Section 4 Inspections & Maintenance – Structures, 4.14 Structures with Particular Requirements.
  - (c) Gantry Manager, who shall report directly to the Bridges Manager, to deliver the requirements of Section 4 Inspection & Maintenance – Structures, 4.16 Access Systems.
- 4.1.9 The Operating Company shall undertake;
- (a) Structures Safety Inspections,
  - (b) General Inspections,
  - (c) Principal Inspections,
  - (d) Scour Inspections and Scour Assessments, and
  - (e) Special Inspections as required.
- All Contract Personnel performing any of the above inspections, with the exception of Structures Safety Inspections, shall be appointed in accordance with Schedule 3 Contract Management, Section 2 Key People and possess the relevant certification in accordance with National Highways Sector Scheme 31 and BD 63 Inspection of Highway Structures of the Design Manual for Roads & Bridges.
- 4.1.10 All Trunk Road Structures are subject to these inspection requirements, except where specifically excluded by the Director. The requirements for inspections to be led by Senior Inspectors are set out in Transport Scotland Structures Manual.
- 4.1.11 All inspections shall be undertaken in accordance with the standards and advice notes contained in the Design Manual for Roads and Bridges and the following Transport Scotland documents;
- (a) Transport Scotland Structures Manual, and

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(b) Scour Management and Flood Emergency Plan

4.1.12 The inspection programme for a given Structure shall be determined by the timing of the previous inspections on the same Structure. New inspections shall be started in the sequence required, and in time to provide inspection reports at the intervals specified in;

- (a) BD63 Inspection of Highway Structures of the Design Manual for Roads and Bridges,
- (b) the Transport Scotland Structures Manual and
- (c) Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures, 4.14 Structures with Particular Requirements.

4.1.13 Where the inspection of a Structure has to take place over more than one Annual Period, each annual programme shall be compiled in accordance with the timings of previous inspections while ensuring that the maximum interval for inspecting each structural element does not exceed the interval as determined in;

- (a) Design Manual for Roads and Bridges BD63 Inspection of Highway Structures;
- (b) Transport Scotland Structures Manual
- (c) Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures, 4.14 Structures with Particular Requirements.

4.1.14 All Trunk Road Structures are subject to the inspection requirements of this Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures, , except where specifically excluded by the Director.

4.1.15 Inspections of Structures that are accommodation bridges for private users shall include the road surface of the Structure and for a further five (5) metres beyond either end of the Structure, together with any provided surface water drainage. Vehicle restraint systems, where provided, shall be inspected for a minimum of thirty (30) metres from each terminal or anchorage at the vehicle parapet interface.

4.1.16 No later than thirty (30) days prior to the Commencement of Service Date and annually on the 15<sup>th</sup> January thereafter, the Operating Company shall prepare an inspection schedule and programme and submit them to the Director for written consent. The inspection schedule shall itemise the inspections for each Structure and Access System.

4.1.17 The Operating Company shall use new and or innovative inspection techniques when performing the Operations set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures and submit proposals to use new and or innovative inspection techniques to the Director for consideration and written consent.

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### **4.2 APMS - Structures**

4.2.1 The APMS are used to record the information and programmes relating to the management, monitoring and maintenance of existing and proposed Structures.

The Operating Company shall use and update the APMS in accordance with the Transport Scotland Structures Manual, as issued by the Director and as amended and re-issued by the Director from time to time; and the other requirements of this Contract.

The APMS shall be kept up to date by the Operating Company until the Service End Date.

4.2.2 The Operating Company shall update all data held in the APMS, as follows;

- (a) within three (3) Working Days of becoming aware of any new data or changes to existing data, particularly after any inspections of Structures have been undertaken,
- (b) within four (4) days of becoming aware of any Defect in, or omission from, the existing data, and
- (c) within twenty eight (28) days of existing Structures, including sign gantries, having been;
  - (i) demolished or infilled,
  - (ii) widened,
  - (iii) maintained and subjected to remedial work, or
  - (iv) strengthened and or improved.

### **4.3 Network Structures Documents & Records**

4.3.1 No later than one (1) month after the Commencement of Service Date, the Operating Company shall supply the Director with an Electronic Copy of and upload all documents including manuals that have been transferred to it by the previous operating company into the APMS, excluding the documents referred to in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements.

The Operating Company shall advise the Director of any deficiencies and or discrepancies found in these documents and shall submit proposals for resolving such deficiencies and or discrepancies including the preparation of operations and maintenance manuals necessary for the safe inspection and maintenance Operations set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures no later than six (6) months after the Commencement of Service Date.

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Subject to an Order the Director may instruct the Operating Company to implement the proposals for resolving any deficiencies and or discrepancies including the preparation of operation and maintenance manuals.

- 4.3.2 No later than twenty eight (28) Working Days after completion of any work to new or existing Structures by the Operating Company or by a Works Contractor, the Operating Company shall submit to the Director new and amended as-built Records, including maintenance and operations manuals and health and safety files required by the Design Manual for Roads and Bridges and or Legislation and upload these Records into the APMS.
- 4.3.3 No later than ninety (90) days before the Service End Date the Operating Company shall review, update and supply the Director with an Electronic Copy of a list of all documents in relation to all Operations relating to Structures and upload all documents into APMS.

### **4.4 Structures Safety Inspections**

- 4.4.1 The Operating Company shall undertake the following types of structures Safety Inspections;
- (a) Routine, and
  - (b) Reactive
- 4.4.2 Where practicable, routine Structures Safety Inspections shall be undertaken by the Operating Company at the same time as other inspection and maintenance duties and Operations.
- 4.4.3 Structures Safety Inspections shall be undertaken to identify any deficiencies that, if not rectified, represent or may result in;
- (a) a danger to the public and therefore require immediate or urgent action,
  - (b) accidents
  - (c) deterioration or behaviours indicating a reduction in load carrying capacity, and
  - (d) increased repair costs.
- 4.4.4 The Operating Company shall undertake routine Structures Safety Inspections either during maintenance of Structures or when the Operating Company is performing other Operations.. When undertaking the routine Structures Safety Inspection the Operating Company shall;
- (a) observe the Structure,
  - (b) record any signs of problems or deficiencies, and
  - (c) report them to the Bridges Manager.

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Routine Structures Safety Inspections of all Structures that can be observed from a slow moving vehicle travelling along the Trunk Roads of the Unit at speeds not exceeding fifty (50) mph shall be performed at intervals not exceeding seven (7) days.

Routine Structures Safety Inspections of all Structures and or parts of Structures that cannot be observed from a slow moving vehicle travelling along the Trunk Roads of the Unit at speeds not exceeding fifty (50) mph shall be performed on foot by Contract Personnel at intervals not exceeding three (3) months.

- 4.4.5 The Operating Company shall perform an inspection and or assessment of all Structures and or parts of Structures that cannot be observed from a slow moving vehicle travelling along the Trunk Roads of the Unit to establish if a shorter interval of three (3) months is required for a Structures Safety Inspection.

The Operating Company shall prepare and submit a report to the Director, no later than six (6) months after the Commencement of Service Date, which sets out as a minimum:

- (a) List and location of all Structures and or parts of Structures that cannot be observed from a slow moving vehicle travelling at speeds of not exceeding fifty (50) mph along the Trunk Roads of the Unit,
- (b) The inspection and or assessment performed on each Structure including dates when an inspection and or assessment was performed,
- (c) The name and qualifications of the Contract Personnel who performed the inspection and or assessment of each Structure,
- (d) Conclusions and recommendations for the intervals of Structures Safety Inspections for each Structure and or parts of Structures, and
- (e) The cost of each Structures Safety Inspection that should be performed at intervals less than three (3) months.

Any accepted recommendations of the Operating Company for a reduction in the intervals of three (3) months that applies to Structures and or parts of Structures that cannot be observed from a slow moving vehicle travelling at speeds of not exceeding fifty (50) mph along the Trunk Roads of the Unit will be the subject of an Order.

- 4.4.6 The Operating Company shall undertake reactive Structures Safety Inspections after a problem or deficiency or a weather warning in the location of a Structure has been observed or reported by;
- (a) any of the Contract Personnel, or

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- (b) Police Scotland or the public, or
- (c) United Kingdom Met Office

and report them to the Bridges Manager. The Operating Company shall remove all debris, obstructions, or hazards identified during a Structures Safety Inspection in accordance with the treatment response timescales of a Category 1a Defect or a Hazard Notice.

4.4.7 The Operating Company shall submit a monthly report to the Director's bridges manager detailing the findings of all routine and reactive Structures Safety Inspections.

4.4.8 The Operating Company shall identify, classify, record and repair:

- (a) all debris, obstructions, or other such hazards
- (b) Parapet or associated Vehicle Restraint System Defects, or
- (c) graffiti on a Structure

as either Category 1a Defects, Category 1b Defects or Category 2 high Defects in accordance with the requirements of Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections including the Trunk Road Inspection Manual.

For any Defects identified from Principal Inspections or General Inspections, the Defect description and priority ranking used shall be in accordance with the requirements in The Inspection Manual for Highways Structures Volume 1 and the Transport Scotland Structures Manual.

4.4.9 The Operating Company shall comply with the requirements of Schedule 1 Conditions of Contract and Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations in relation to;

- (a) Damage to Crown Property & Third Party Claims,
- (b) Claims against the Scottish Ministers,
- (c) Damage to Crown Property, and
- (d) Miscellaneous Claims by Scottish Ministers

### 4.5 General Inspections

4.5.1 The Operating Company shall undertake General Inspections at intervals not exceeding two (2) years. This shall exclude any Structures on which a Principal Inspection has been carried out during the same Annual Period in which the General Inspection is due to be conducted.

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- 4.5.2 The programme of General Inspections for each Structure shall be coordinated with the programme of Principal Inspections for each Structure using the following continuous six (6) year inspection cycle;
- (a) Principal Inspection,
  - (b) a first General Inspection two (2) years after the Principal Inspection,
  - (c) a second General Inspection four (4) years after the Principal Inspection, and
  - (d) the next Principal Inspection six (6) years after the previous Principal Inspection.
- 4.5.3 The Operating Company shall use the existing cycle of inspections undertaken by the previous operating company as the basis for developing and implementing an inspection programme that meets these inspection requirements set out in this Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.5 General Inspections, 4.5.2.
- 4.5.4 Before commencing General Inspections each year the Operating Company shall submit to the Director for consent and the Performance Audit Group a programme that identifies the number of General Inspections that are programmed to be carried out each month.
- 4.5.5 When undertaking General Inspections, the Operating Company shall record the condition of every part of a Structure visible from the ground and deck level and, where necessary, access confined spaces.
- 4.5.6 General Inspections shall be recorded on a proforma provided within the APMS.

### **4.6 Principal Inspections**

- 4.6.1 Structures for which Principal Inspections are required are listed within the APMS and in Schedule 2 Scope, Appendix 4 Structures Attachment 4.2 List of Structures Requiring Principal Inspections. Details of the year in which the next Principal Inspection may be due for each Structure are provided in Schedule 2 Scope, Appendix 4 Structures Attachment 4.2 List of Structures Requiring Principal Inspections where this is known.
- For the avoidance of doubt the information set out in Schedule 2 Scope, Appendix 4 Structures Attachment 4.2 List of Structures Requiring Principal Inspections is indicative and for information only. The Operating Company shall plan and perform all Principal Inspections based on the information set out in the APMS (including major bridges database).
- 4.6.2 The Operating Company shall undertake Principal Inspections during the specified year for Structures listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.2 List of Structures Requiring Principal Inspections at intervals not greater than six (6) years after the preceding Principal Inspection.

Before commencing Principal Inspections each year the Operating Company shall, in accordance with the timescale set out in the Transport Scotland Structures Manual, submit a programme to the Director for consent and the Performance Audit Group that identifies the number of Principal Inspections that are programmed to be carried out each month.

#### **4.7 Scour Inspections and Assessments**

- 4.7.1 For Structures within, adjacent to, over, or carrying, tidal or non-tidal watercourses, checks for scour shall be carried out as part of a General Inspection and Principal Inspection in accordance with Design Manual for Roads and Bridges and Transport Scotland Scour Management and Flood Emergency Plan.
- 4.7.2 Prior to carrying out a Principal Inspection or General Inspection, the Operating Company shall review any previous stage 1 and stage 2 Scour Assessments undertaken in accordance with Transport Scotland's The Assessment of Scour and Hydraulic Actions at Highway Structures Scour Management Strategy and Flood Emergency Plan June 2020 and or BA 74 Assessment of Scour at Highways Bridges of the Design Manual for Roads and Bridges to ensure that any changes in conditions are identified during the Principal Inspection or General Inspection as described in Transport Scotland Scour Management and Flood Emergency Plan.

Subject to an Order, the Operating Company shall revise previous stage 1 and stage 2 Scour Assessments to quantify any changes in condition. The Operating Company shall assess the potential for scour and record any observations as part of General Inspections and Principal Inspections in accordance with Transport Scotland Scour Management and Flood Emergency Plan. Details of scour observed at General Inspection or Principal Inspection shall be included in the General Inspection or Principal Inspection report.

- 4.7.3 Inspections for Scour Assessments shall be undertaken in accordance with Transport Scotland's The Assessment of Scour and Hydraulic Actions at Highway Structures Scour Management Strategy and Flood Emergency Plan June 2020.

All Structures within, adjacent to, over or carrying tidal and non-tidal watercourses are listed in Section 2 Scope, Appendix 4 Structures Attachment 4.3. List of Structures Over or Carrying Water Courses that have been Subject to Stage 1 Scour Assessment and have been identified for stage 1 assessment in accordance with Design Manual for Roads & Bridges.

- 4.7.4 In accordance with Design Manual for Roads and Bridges, the Operating Company shall ensure that the inspector undertaking the inspection shall have the required knowledge and suitable experience to perform the inspections in accordance with the Contract.

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- 4.7.5 For Structures where a new or revised stage 1 Scour Assessment is required, the Operating Company shall undertake a Scour Inspection and collect the data regarding the Structure, its foundations, the water course and any information on the history of the Structure and any previous scour history. Where a risk of scour is identified, a stage 2 Scour Assessment may be required in accordance with Design Manual for Roads and Bridges guidance.
- 4.7.6 A stage 2 Scour Assessment shall involve a calculation of the potential scour depths, possible impact and uplift effects. Existing Structures that have had a stage 2 Scour Assessment are listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.4 List of Structures Over or Carrying Water Courses that have been Subject to Stage 2 Scour Assessment.
- 4.7.7 The need for additional Scour Inspections of Structures after periods of heavy rainfall shall be assessed by the Operating Company as a reactive Structures Safety Inspection and, where required, a Special Inspection shall be undertaken in accordance with Transport Scotland Scour Management and Flood Emergency Plan.
- 4.7.8 In addition to the requirements of Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures, 4.7 Scour Inspections and Assessments, 4.7.2 when required by Transport Scotland's The Assessment of Scour and Hydraulic Actions at Highway Structures Scour Management Strategy and Flood Emergency Plan June 2020, the Operating Company shall, subject to an Order, undertake Stage 1 and Stage 2 Scour Assessments of a Structure.

### **4.8 Special Inspections**

- 4.8.1 The Operating Company shall undertake Special Inspections to investigate particular concerns rather than at programmed intervals. With the exception of the Special Inspections set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements, undertaking Special Inspections shall be subject to an Order.
- 4.8.2 Special Inspections shall generally be undertaken by the Operating Company to investigate particular concerns identified during a General Inspection or Principal Inspection. Underwater inspections shall, subject to an Order, be required for bridge foundations within water where not included in the scope of General Inspections, Principal Inspections and Scour Inspections requirements as detailed in Scour Management and Flood Emergency Plan.

### **4.9 Weather Resistant Steel Bridge Monitoring**

- 4.9.1 The Operating Company shall undertake the management and monitoring of Structures incorporating weather resistant steel in accordance with;

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- (a) the Design Manual for Roads and Bridges, and
- (b) the requirements for carrying out and reporting General and Principal Inspections referred to in Schedule 2 Scope, Section 4 Inspection & Maintenance, 4.5 General Inspection and 4.6 Principal Inspections

- 4.9.2 Structures incorporating weather resistant steel that require to be monitored are listed within the APMS. The system contains data on the year in which the next Principal Inspection is due and the last year in which the steel thickness measurements were taken.
- 4.9.3 The Operating Company shall ensure that steel thickness measurement data is recorded, stored and presented in Principal Inspection reports in order that corrosion trends are apparent. Only certified calibrated gauges may be used. The APMS contains data on the measurements, locations and previously measured steel thicknesses. The Operating Company shall use such data to monitor the corrosion trends and report on them in the relevant Principal Inspection reports.
- 4.9.4 The Operating Company shall measure, record, store and present the results of the actual steel thicknesses at the critical locations identified in the Principal Inspection reports.
- 4.9.5 The Operating Company shall incorporate in its General Inspection procedures a visual inspection procedure of the critical areas where measurements are taken and areas prone to corrosion, particularly in the vicinity of all deck joints, at intervals not exceeding two (2) years.

### **4.10 Structures Cyclic Maintenance**

- 4.10.1 No later than thirty (30) days prior to the Commencement of Service Date, the Operating Company shall review the Cyclic Maintenance schedules of the previous operating company to assist in the development of the Operating Company's own Cyclic Maintenance schedules for this Contract.
- 4.10.2 No later than thirty (30) days prior to the Commencement of Service Date and during the first week of every Annual Period thereafter, the Operating Company shall prepare a Cyclic Maintenance schedule and programme and submit them to the Director for written consent. The Cyclic Maintenance schedule shall itemise the Cyclic Maintenance requirements for each Structure and Access System.
- 4.10.3 Duties detailed in the Cyclic Maintenance schedule shall be undertaken at least twice per year in each Annual Period as follows;
- (a) Autumn Programme – Between the period October to December;
  - (b) Spring/Summer Programme – Between the period of April and June, and

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- (c) additionally as required

The inspection and cleaning frequencies of Bearings and Bearing Shelves (see Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.10 Structures Cyclic Maintenance, 4.10.6) for certain structures should be performed in accordance with Schedule 2 Scope, Appendix 4 Structures Attachment 4.1 Structures Bearing Schedule Maintenance Frequency.

4.10.4 The Operating Company shall ensure that it has sufficiently trained and experienced Contract Personnel available to undertake the following duties and those set out in the maintenance schedule consented and approved by the Director;

- (a) concrete repairs and sacrificial anode installations,
- (b) concrete crack injection,
- (c) minor masonry repairs,
- (d) masonry pointing,
- (e) gabion repairs,
- (f) polysulphide joint sealant,
- (g) steel corrosion treatment,
- (h) maintenance painting,
- (i) bolt torqueing, replacement and protective coating,
- (j) bearing lubrication,
- (k) Structures drainage clearing, and
- (l) other minor structural repairs as agreed with the Director

4.10.5 A summarised example of the Cyclic Maintenance schedule is provided in Schedule 2 Scope, Appendix 4 Structures Attachment 4.5 Structures Maintenance Schedule Proforma Example and includes provisions for recording the actions taken including the dates these were taken and completed.

4.10.6 The Cyclic Maintenance schedule containing Cyclic Maintenance requirements for Structures, completion dates and changes to Cyclic Maintenance requirements throughout the Contract Period shall be held in the APMS for monitoring and auditing purposes.

4.10.7 Until the Service End Date, the Operating Company shall update the maintenance schedule within five (5) Working Days of undertaking any work with;

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- (a) any other actions taken, and
- (b) the dates when further Cyclic Maintenance is required.

The Operating Company shall update the Cyclic Maintenance schedule when changes to Cyclic Maintenance are required to comply with the requirements of this Section 4 Inspection & Maintenance - Structures.

- 4.10.8 Before commencing Cyclic Maintenance activities identified in the cyclic maintenance schedule each year, the Operating Company shall submit to the Director and the Performance Audit Group a programme that identifies each Structure that will be the subject of Cyclic Maintenance activities and are programmed to be carried out each month for the written consent of the Director. The Operating Company shall not commence any Cyclic Maintenance activity until the Director has provided written consent to the Cyclic Maintenance schedule
- 4.10.9 The Operating Company shall demonstrate they have performed the Operations set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures by taking photographs of Operations in accordance with Schedule 5 Specification & Drawings, Series 6100 Core Operations.
- The Operating Company shall upload a Certificate including all photographs complete with the grid reference and geographical location tag for each Structure into the APMS no later than ten (10) Working Days after the Operation is finished.
- 4.10.10 The Operating Company shall demonstrate they have performed each annual programme of inspection and Cyclic Maintenance of Structures by uploading a Certificate into the APMS no later than twenty-five (25) Working Days after each annual programme of inspection and maintenance of Structures is complete.
- 4.10.11 The maintenance of Structures and any associated Access Systems comprises activities relating to servicing of the Structure. Maintenance shall be undertaken regularly or at pre-determined intervals in accordance with the relevant operations manual, log book or maintenance schedule for a Structure.
- 4.10.12 The Cyclic Maintenance of structures does not include the repair or renewal of structural elements or components that are Damage to Crown Property, Category 1a Defects and or Category 1b Defects.
- 4.10.13 Structural elements or components that have been damaged and or are Category 1a Defects or Category 1b Defects shall be repaired in accordance with the requirements of Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections.

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Any requirement for repair or renewal work that is not Damage to Crown Property and or a Category 1a Defect, Category 1b Defect and Category 2 High Defect shall be identified by the Operating Company during inspections and assessments and included in the structural maintenance programme detailed in Section 4 Inspection & Maintenance – Structures, 4.10 Structures Cyclic Maintenance.

- 4.10.14 The Operating Company shall carry out maintenance of Structures as necessary and or required, and no earlier than every four (4) months or later than every seven (7) months, to meet the requirements of this Section 4 Inspection & Maintenance – Structures unless a Category 1a Defect, Category 1b Defect, Damage to Crown Property or any other damage event in relation to a Structure requires an increase in the frequency of the Cyclic Maintenance of a Structure.
- 4.10.15 All graffiti shall be dealt with in accordance with the requirements of Section 3 Inspection & Maintenance – Roads Including Landscape which includes either covering up graffiti using a suitable type of overcoat material that is identical and or consistent with the colour of a metal substrate of the structure upon which the graffiti is located, or in the case of concrete masonry or porous substrate, graffiti removed by pressure washing.
- 4.10.16 The Operating Company shall undertake Cyclic Maintenance of the following items in accordance with the Specification and any relevant existing maintenance manuals;
- (a) substructures and superstructures,
  - (b) expansion joints,
  - (c) drainage systems including carriageway drainage on or adjacent to Structures and clearing drainage outlet manholes and other drainage systems and facilities within the Unit,
  - (d) pedestrian and vehicle parapets and pedestrian protection on Structures,
  - (e) bearings and bearing shelves,
  - (f) Structures adjacent to, within, or over or conveying watercourses,
  - (g) the non-electrical components of sign gantries, signal gantries, high mast lighting and other masts,
  - (h) underpasses and culverts used by pedestrians, cyclists and other road users unless an agreement exists with an Operational Partner which confirms the Operational Partner is responsible for inspection and maintenance of a Structure or a particular part of a Structure,

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- (i) retaining walls, and
- (j) non-structural items excluding Access Systems associated with Structures. Non-structural items include as a minimum;
  - (i) access stairs,
  - (ii) access walkways,
  - (iii) access platforms,
  - (iv) hinges,
  - (v) doors,
  - (vi) deck drainage components and steelwork,
  - (vii) ladders,
  - (viii) pumps,
  - (ix) access chambers,
  - (x) sumps,
  - (xi) grills,
  - (xii) trash screens,
  - (xiii) access covers,
  - (xiv) water gates,
  - (xv) ventilation ducts and grills, and
  - (xvi) ancillary lighting connected with the above.

4.10.17 The Operating Company shall ensure that all non-structural items associated with Structures operate effectively and that all Structures shall be free of all vegetation, plant matter, debris and the like.

4.10.18 The Operating Company shall repair damage to, and or Category 1a Defects and Category 1b Defect in, the items listed in Section 4 Inspection & Maintenance – Structures, 4.10 Structures Cyclic Maintenance, 4.10.16 in accordance with the requirements of this Contract. The Operating Company shall report any such Category 1a Defects and Category 1b Defect in accordance with Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections.

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### 4.11 Structures Maintenance

- 4.11.1 Maintenance of Structures shall include the repair, renewal and replacement of structural elements or components that have become unserviceable through wear and tear or deteriorated with time and usage.
- 4.11.2 Maintenance of Structures shall include the upgrading of Structures to bring specific elements and components of Structures up to current requirements, including safety and durability standards.
- 4.11.3 The Operating Company shall determine the Maintenance of Structures requirements from the results of;
- (a) Structures Safety Inspections,
  - (b) General Inspections,
  - (c) Principal Inspections,
  - (d) Special Inspections,
  - (e) Scour Inspections,
  - (f) Scour Assessments,
  - (g) Bridge Assessments,
  - (h) reports and information for Structures with particular monitoring requirements,
  - (i) maintenance programmes undertaken by the previous operating company,
  - (j) the Transport Scotland Structures Workbank, as advised by the Director, and
  - (k) any other special risk management programmes or assessments advised or subject to an Order.
- 4.11.4 Recommendations for maintenance of Structures Operations shall be submitted to the Director by the Operating Company as part of the annual Bids and programme process in accordance with the requirements of Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations.
- 4.11.5 The Bridges Manager shall keep maintenance files for each Structure at the Central Office and upload these maintenance files into Asset Performance Maintenance System which shall be kept up to date until Service End Date. These shall be in Electronic Copy and referenced by Structure reference number, Structure name, the junctions between which they are located, and national Ordnance Survey grid coordinates.
- Maintenance files for Structures shall contain;

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- (a) copies of all inspections together with details of maintenance of Structures and repair, and
- (b) Drawings and Records showing;
  - (i) location and extent of maintenance of Structures Operations and Works,
  - (ii) materials employed,
  - (iii) date of implementation,
  - (iv) details of Works Contractors and subcontractors employed,
  - (v) costs of Operations and Works, and
  - (vi) any health and safety files including risk assessment and method statements (RAMS)

4.11.6 The Operating Company shall review;

- (a) inspection, assessment, special investigation and feasibility reports for Structures and Access Systems,
  - (b) reports and information relating to the monitoring and management of sub-standard Structures,
  - (c) monitoring requirements for Structures with known Defects,
  - (d) test results and known strengthening and replacement requirements,
  - (e) reports and information for Structures with particular monitoring requirements,
  - (f) the Transport Scotland Structures Workbank,
  - (g) special programmes,
  - (h) previous maintenance programmes and procedures, and
  - (i) any other special programmes or assessments advised or subject to an Order,
- and identify and prioritise;
- (j) maintenance, strengthening and replacement Operations required for Structures, non-structural items and any associated Access Systems,
  - (k) Special Inspections, Scour Inspection and Scour Assessments,
  - (l) at risk pier assessments,
  - (m) pedestrian and vehicle parapet and vehicle restraint system assessments,
  - (n) Latent Defects, safety critical and any future risk management based programmes,

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- (o) effectiveness of wind shielding and noise barriers,
- (p) Structures assessments and interim and formal measures for sub-standard Structures,
- (q) additional monitoring over and above that identified in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.11 Structures Maintenance and 4.14 Structures with Particular Requirements,
- (r) Defect repair criteria and strategies,
- (s) monitoring requirements for Structures with known Defects, and
- (t) any other special programmes or assessments advised or subject to an Order,

for inclusion in the annual Bids and programmes process which includes one (1), three (3) and five (5) year programmes for network Structures and one (1), three (3) and ten (10) year programme for major Structures in accordance with Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations.

4.11.7 In addition to preparing the structures maintenance programme set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.11 Structures Maintenance, 4.11.1 to 4.11.6 the Operating Company shall prioritise and rank all the Schemes in such programmes as well as Schemes with priority three and four work as designated in the Transport Scotland Structures Manual, Part A - A13 Prioritising, Ranking of Defective Main Elements arising from Principal and General Inspections undertaken in an inspection year.

The Operating Company shall use any risk prioritisation and or life-cycle planning tools or output provided by the Director to assist in the value management prioritisation in relation to Structures. The methodology adopted by the prioritisation process is outlined in the document Structures Risk Prioritisation Tool – Methodology (March 2019).

The results of the value management prioritisation as set out above shall be submitted to the Director for his written consent and form the basis of a one (1) year and three (3) year programme.

The Director shall consider the results of the prioritisation along with any other Schemes to be included in the programme. All programmes shall be submitted in accordance with the dates set out in the annual process described in Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations as a stage 1 submission.

4.11.8 The Director may, from time to time and at his own discretion, review, change and re-prioritise the Schemes to be included in the approved programme.

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- 4.11.9 All Structures Scheme cost estimates, shall be reviewed by the Operating Company and if required, revised prior to undergoing value management as set out in Section 4 Inspection & Maintenance – Structures, 4.11 Structures Maintenance, 4.11.7.
- 4.11.10 All Structures Scheme cost estimates shall be developed in line with the requirements of this Contract. Where the scope of work changes, Scheme cost estimates shall be revised to ensure they reflect the change in scope and are accurate. The Operating Company shall, when requested, provide the Director with the current scope of work and accurate cost estimate to be used for value management as set out in Section 4 Inspection & Maintenance – Structures, 4.11 Structures Maintenance, 4.11.7.
- 4.11.11 The Operating Company shall familiarise itself with any agreements the Scottish Ministers have with third parties that may impact upon the management, maintenance and replacement of Structures. Schedule 2 Scope, Appendix 4 Structures Attachment 4.6 List of Agreements with Third Parties that Affect Existing and Future Management, Maintenance & Replacement of Structures lists agreements with third parties and provides a brief description to help the Operating Company understand its duties and obligations in connection with these Structures.

### **4.12 Structural Assessments**

- 4.12.1 Structural assessments and the resulting required actions are essential in ensuring that all Structures remain in a safe and serviceable state. The Operating Company shall inform the Director immediately of any issue or deterioration identified as a result of a structural assessment that has a detrimental effect on the load carrying capacity of a Structure.
- 4.12.2 Structural reviews (BD 101) shall be undertaken on a six (6) year cycle to coincide and be performed as part of a Principal Inspection and the requirements of Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements
- 4.12.3 Subject to an Order, the Operating Company shall undertake;
- (a) structural assessments required due to increases in vehicle loadings above those used in the design of a Structure,
  - (b) assessment of a Structure or part of a Structure that is noted in an inspection to have deteriorated, and whose design or assessed load carrying capacity may have been reduced,
  - (c) assessment of Structures without HB ratings and or SV ratings,

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- (d) assessment and upgrading of vehicle parapets in accordance with Transport Scotland Interim Amendment No 25 Assessment & Upgrading of Existing Vehicle Parapets,
- (e) structural reviews in accordance with BD101 Structural Review and Assessment of Highway Structures and, if required an assessment in accordance with BD101 Structural Review and Assessment of Highway Structures of all Trunk Road Structures during this Contract for the purpose of establishing or confirming the validity of the latest assessment, or their original design if there has been no subsequent assessment,
- (f) identification and assessment of 'particularly at risk' supports in accordance with Transport Scotland Interim Amendment No 29 Identification of Particularly at Risk' Supports, and
- (g) structural reviews in accordance with BD101 Structural Review and Assessment of Highway Structures and or, if required structural assessment of Structures that are proposed to be modified.

4.12.4 The Operating Company shall assess a Structure or part of a Structure whenever it is damaged.

4.12.5 The following provides details on vehicle parapets and bridge supports with assessments in progress, or that require upgrading or that are under review and may require further detailed assessment;

- (a) Schedule 2 Scope, Appendix 4 Structures Attachments 4.7 List of Structures Subject to Assessment & Upgrading of Vehicle Parapets to Transport Scotland Interim Amendment No 25,
- (b) Attachment 4.8 List of Structures Subject to Identification of 'Particularly at Risk' Supports to Transport Scotland Interim Amendment No 29

4.12.6 The Operating Company shall follow the procedure referred to in Schedule 2 Scope, Appendix 4 Structures Attachment 4.9 Technical Approval Procedures for Assessment of Structures in Scotland to obtain Technical Approval for structural assessments.

4.12.7 Subject to an Order, the Operating Company shall undertake structural assessments to level one (1) to three (3) as consented to by the Director in accordance with the assessment requirements in the Design Manual for Roads and Bridges.

4.12.8 The Director may, at his discretion and subject to an Order, require the Operating Company to undertake level four (4) and five (5) assessments that require specialist knowledge and expertise using appropriately skilled and experienced assessing engineer(s).

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- 4.12.9 Subject to an Order, where a structural assessment is in progress at Commencement of Service Date, the Operating Company shall undertake the completion of the assessment to the level of assessment consented to by the Director.
- 4.12.10 The Operating Company shall inform the Director of any identified assessment that cannot be completed before the end of the final Annual Period prior to undertaking any work on the assessment. The Director shall decide;
- (a) if the Operating Company is required to undertake the identified assessment, or
  - (b) if he wishes to make alternative arrangements out with the Operating Company's arrangements for undertaking the identified assessment.
- 4.12.11 Subject to the requirements in Section 4 Inspection & Maintenance – Structures, 4.12 Structural Assessment, 4.12.10, the Operating Company shall complete all structural assessments in progress no later than the end of the final Annual Period. The Operating Company shall not initiate any new assessments that may continue beyond the end of the final Annual Period.
- 4.12.12 Schedule 2 Scope, Appendix 4 Structures Attachment 4.10 List of Sub Standard Structures with Structural Assessments in Progress lists sub-standard Structures with assessments in progress at the start of the first Annual Period or that are under review and may require structural assessment.

### **4.13 Sub-standard Structures & Structures with Known Defects**

- 4.13.1 The Operating Company shall undertake the management of sub-standard Structures and the management of Structures with known Defects in order to;
- (a) maintain public safety, and
  - (b) enable sub-standard Structures to remain in service whilst further assessments are carried out and until any replacement or strengthening is completed or the Structure is no longer deemed sub-standard.

These obligations may change during the Contract Period and any additional obligations may be subject to an Order.

The Operating Company shall manage sub-standard Structures in accordance with the requirements of the Design Manual for Roads and Bridges.

- 4.13.2 All Structures that are sub-standard or require monitoring are listed within the APMS. A summary of sub-standard Structures is provided in Schedule 2 Scope, Appendix 4 Structures Attachment 4.11 List of Sub Standard Structures.

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Schedule 2 Scope, Appendix 4 Attachment 4.12 List of Structures with Known Defects Requiring Monitoring that are sub Standard lists Structures with known Defects requiring monitoring that are sub-standard and Appendix 4 Structures Attachment 4.13 List of Structures with Known Defects Requiring Monitoring that are Not Sub Standard lists Structures with known Defects requiring monitoring that are not sub-standard.

- 4.13.3 The interim measures proformas within BD79 Management of Substandard Highway Structures of the Design Manual for Roads and Bridges shall be used by the Operating Company in relation to sub-standard Structures or Structures with known Defects. Details of the current assessments and monitoring, interim and permanent measures that have been or shall be applied to sub-standard Structures are recorded in the APMS for each sub-standard Structure.
- 4.13.4 The Operating Company shall be responsible for ensuring that all sub-standard Structures and Structures with known Defects have appropriate assessment ratings, monitoring regimes and agreed interim and planned permanent measures in place.

The Operating Company shall, in accordance with BD 101 Structural Review and Assessment of Highways Structure, undertake a structural review and assessment of any structure that is sub-standard and requires monitoring, the structural integrity of which has worsened and or deteriorated when compared to structural integrity recorded by a previous inspection.

- 4.13.5 The Operating Company shall review in November of each Annual Period each sub-standard Structure and its associated interim measures proforma and each Structure with known Defects. The Operating Company shall attend an annual review meeting and present all relevant information on the status and condition of all sub-standard Structures and Structures with known defects to aid decision making in relation to the strengthening and or replacement of a Structure.

The Operating Company shall undertake appropriate monitoring and maintain interim measures in place until appropriate work is implemented or the Structure is assessed as adequate or has been strengthened or replaced.

The Operating Company shall submit proposals for monitoring and maintaining interim measures in accordance with Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.13 Sub Standard Structures & Structures with Known Defects, 4.13.6 for the Director's consent. If, at any time, any Structure is categorised as an immediate risk Structure in accordance with the Design Manual for Roads and Bridges, the Operating

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Company shall inform the Director and shall implement the necessary safety and interim measures immediately.

4.13.6 The Operating Company shall submit all proposals and changes, including;

- (a) any new monitoring and interim measures,
- (b) amendments to the existing monitoring measures,
- (c) where the existing structural assessment rating may no longer be valid and the Structure requires re-assessment in accordance with Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.12 Structural Assessment,
- (d) strengthening and replacement work, and
- (e) the cessation of monitoring

for the written consent of the Director.

4.13.7 The Director shall determine the programme and funding for strengthening and replacement of sub-standard Structures and Structures that are beyond their service life or Structures that require replacement for other reasons.

4.13.8 The proposed strengthening and replacement programme is provided in Schedule 2 Scope, Appendix 4 Structures Attachment 4.14 Strengthening & Replacement Programme for Sub-Standard Structures. The programme is subject to the funding of competing priorities and is controlled by the Director.

Schemes arising from the strengthening and replacement programme are subject to the requirements of Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.10 Structures Cyclic Maintenance and 4.11 Structures Maintenance.

The Operating Company shall provide such advice as may be requested by the Director to enable him to prioritise this work.

### **4.14 Structures with Particular Requirements**

4.14.1 The Operating Company shall inspect, monitor, test, manage and maintain the Structures with particular requirements listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.15 Structures with Particular Requirements, in accordance with the manuals and associated schedules listed Schedule 2 Scope, Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements.

4.14.2 No later than one (1) month after the Commencement of Service Date, the Operating Company shall supply the Director with an Electronic Copy of all documents including

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manuals that have been transferred to it by the previous operating company and upload all documents into the APMS.

The Operating Company shall advise the Director of any documents or parts thereof listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements that were not transferred and of any further documents that it requires. The Director will forward to the Operating Company any such further documents if available.

The Operating Company shall advise the Director of any deficiencies and or discrepancies found in these documents and shall submit proposals for resolving such deficiencies and or discrepancies including the preparation of operations and maintenance manuals for Structures listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.15 Structures with Particular Requirements which do not have any corresponding documents listed in Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements no later than six (6) months after the Commencement of Service Date.

- 4.14.3 In each Annual Period, the Operating Company shall review each of the documents listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements for each of the Structures listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.15 Structures with Particular Requirements.

Following the annual review of the documents and subject to the written consent of the Director, the Operating Company shall update the documents to meet the requirements of current Legislation and to include any amendments required to reflect work carried out.

- 4.14.4 Immediately following receipt of the Director's written consent, an Electronic Copy of each updated document shall be issued to the Director by the Operating Company.

- 4.14.5 The Operating Company shall issue an annual inspection report for each Structure in a General Inspection format to the Director by 31 January in the calendar year following the inspections of each Structure.

The annual inspection report shall cover the matters identified in the documents referred to in Schedule 2 Scope, Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements including any mechanical and electrical installations. Copies of periodic inspection and test Certificates shall be provided with the reports where applicable. Separate reports shall be provided for all Access Systems that remain certified for use.

The Operating Company shall include recommendations in the annual inspection report relating to the use of new and or innovative inspection techniques that have the potential to

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minimise the need for significant temporary access equipment and reduce the impact of Operations on Operational Partners.

- 4.14.6 The Operating Company shall provide Principal Inspection reports in accordance with the requirements of Schedule 5 Specification & Drawings, 071AR Creation, Maintenance & Submission of Documents & Other Media at the intervals indicated in Schedule 2 Scope, Appendix 4 Structures Attachment 4.15 Structures with Particular Requirements that include detailed summaries of the inspection reports.

Principal Inspection reports shall include priority ranking of Defects that have been identified. The Operating Company shall provide Principal Inspection reports no later than 30 November in the year in which the Principal Inspection cycle becomes due.

- 4.14.7 The Operating Company shall enter all inspection reports and related data directly into the APMS in a format consented to by the Director in writing within ten (10) Working Days of their production.
- 4.14.8 For the Structures listed in Schedule 2 Scope, Appendix 4 Structures Attachment 4.15 Structures with Particular Requirements, the Operating Company shall upload a summary Defect report into the APMS in a format consented to by the Director in writing within ten (10) Working Days of its production.
- 4.14.9 The Operating Company shall provide the Director with and upload the following documents in relation to the Structures listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.15 Structures with Particular Requirements into the APMS no later than ninety (90) days before the Service End Date;
- (a) The most up to date and current version of the documents listed in and added to Schedule 2 Scope, Appendix 4 Structures Attachment 4.16 Documents for Structures with Particular Requirements, and
  - (b) Any other documents including Defects Inspection Reports prepared by the Operating Company for the Structures listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.15 Structures with Particular Requirements

### **4.15 Access Systems**

- 4.15.1 The Gantry Manager shall supervise the use of all Access Systems and carry out the duties referred to in this Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.15 Access Systems.
- 4.15.2 Structures listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.17 Structures with Bridge Access Gantries & Or Runway Beams, Table 4.17.1 Structures with Access Systems

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have Access Systems that may be used by the Operating Company to gain access for inspection and maintenance Operations.

4.15.3 Structures listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.17 Structures with Bridge Access Gantries & or Runway Beams, Table 4.17.2 Structures with Permanent Access Systems have permanent bridge access gantries, runway beams and other Access Systems.

The Operating Company shall ensure that such permanent bridge access gantries, runway beams and other Access Systems remain certified for use until the Service End Date unless that need is expressly excluded in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements, in which case certification shall be carried out according to need in accordance with this Contract.

4.15.4 The Operating Company shall be responsible for the inspections, testing, maintenance and operation of any Access Systems, including those listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.17 Structures with Bridge Access Gantries & or Runway Beams. The Operating Company shall ensure that prior to use, all Access Systems comply in all respects with the manufacturer's recommendations and maintenance manuals for those systems and with Legislation and standards including as a minimum;

- (a) BS 6037, 1-2017 Planning, Design, Installation & Use of Permanently Installed Access Equipment. Code of Practice Suspended Access Equipment or equivalent,
- (b) BS 5974: 2017 Planning, Design, Setting Up & Use of Temporary Suspended Access Equipment. Code of Practices or equivalent,
- (c) BS EN 1808:2015 Safety Requirements for Suspended Access Equipment. Design Calculations, Stability Criteria, Construction, Examination & Tests, or equivalent, and
- (d) all requirements and recommendations in The Operation and Maintenance of Bridge Access Gantries and Runways. (Second Edition 2007) published by the Institution of Structural Engineers.

4.15.5 The Operating Company shall be responsible for and shall provide;

- (a) method statements (including risk assessments) for inspections, maintenance and testing,
  - (b) certification, and
  - (c) operations, maintenance and inspection logs and health and safety files,
- in relation to all Access Systems.

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4.15.6 Where available, the Director shall provide the Operating Company with operations and maintenance manuals and manufacturers' instructions in relation to Access Systems.

4.15.7 The Operating Company shall permit the use of Access Systems to allow Undertakers to inspect and maintain their plant and equipment where this is fixed to a Structure.

The Operating Company shall liaise with, supervise and accompany all;

- (a) Statutory Authorities,
- (b) Operational Partners,
- (c) authorised contractors, and
- (d) other interested third parties

who are using the Access Systems.

4.15.8 The Operating Company shall ensure that routine inspection and testing and periodic electrical inspections and testing of the Access Systems, including as a minimum testing of runway beams, are carried out in accordance with the operations and maintenance manuals and, where appropriate, the manufacturer's recommendations.

Certificates shall be held on the Health and Safety file for the work. The Operating Company shall ensure that the gantry operations and maintenance manual is kept up to date with the following;

- (a) design and check Certificates for access gantries and runway beams, that shall be signed by a chartered engineer with suitable relevant experience,
- (b) an electrical installation completion Certificate in relation to any electrical work that is undertaken on the gantry in accordance with B S7671; 2008 +A3:2015. Requirements for Electrical Installations, IET Wiring,
- (c) periodic electrical inspections and testing carried out on existing installations, and
- (d) test Certificates for all lifting devices and the system as a whole.

4.15.9 The Operating Company shall undertake all inspection and testing as set out in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.15 Access Systems, 4.15.8 regardless of whether it intends to use the Access Systems or not, unless a system is specifically exempted from permanent certification in Section 4 Inspection & Maintenance – Structures, 4.14 Structures with Particular Requirements. Inspection and testing shall still be necessary if exempted systems are to be used.

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- 4.15.10 The Client's Representative appointed by the Operating Company shall ensure that a Construction Phase Plan covering all Works or Operations relating to or requiring the use of all Access Systems is prepared.
- 4.15.11 The Operating Company, as Principal Contractor (or contractor), shall develop the Construction Phase Plan and prepare a full and detailed method statement to cover the specific Site Operations involved for any Operations utilising an Access System.
- 4.15.12 Where a temporary access platform is installed, or equipment supported or attached to the permanent Structure, the Operating Company shall satisfy itself regarding;
- (a) the competence of the Designer, Principal Contractor and contractor for the Design, installation and operation of the temporary Access System and equipment, and
  - (b) ensuring that the existing Structure has been assessed and certified as adequate to support all loading conditions resulting from the installation and operation of the temporary Access Systems.
- 4.15.13 Before any temporary Access System is used, the Operating Company shall procure and ensure that the;
- (a) Design, installation and required certification for the temporary Access System, and
  - (b) the associated operations manual, incorporating all health and safety procedures, are up to date and in accordance with Legislation, current regulations and standards.
- 4.15.14 General Inspections and Principal Inspections shall be carried out on all Access Systems, including but not limited to gantries, cradles, shuttles or suspended scaffold installations.
- The General Inspections and Principal Inspections of all Access Systems shall be reported separately but in the same format as those undertaken on the Structure at two (2) year and six (6) year intervals or as recommended in the appropriate document referred to in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures, 4.15 Access Systems, 4.15.4.
- 4.15.15 The Operating Company shall maintain an inspection regime and register for suspended scaffolding installations. This shall be placed on the Health and Safety file for the work and, where the scaffold is not temporary, added to the maintenance manual for the structure in question.
- 4.15.16 For new temporary or permanent access installations, or for existing systems that are brought back into use, the Operating Company shall provide the appropriate design and check Certificates that shall be placed on the relevant Health and Safety File. These shall be

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signed by a chartered civil or chartered structural engineer, with suitable and relevant experience, where they relate to any suspended Access System installation.

- 4.15.17 The Operating Company shall ensure that its management procedures are in place at the Commencement of Service Date and are kept up to date for the operation and maintenance of all Access Systems. Such Access Systems are listed in Schedule 2 Scope, Appendix 4 Structure Attachment 4.17 Structures with Bridge Access Gantries & Or Runway Beams and shall be maintained in a certified and serviceable state whether mounted on the Structure or not.
- 4.15.18 The Gantry Manager shall be responsible for the control of gantry operations and for ensuring that;
- (a) details of operational, inspection and maintenance procedures and required staffing levels are included in each of the gantry operations and maintenance manuals,
  - (b) operations and maintenance manuals are reviewed at regular intervals and kept up to date until the Service End Date,
  - (c) procedures and the keeping of operating, inspection and maintenance Records are reviewed regularly in accordance with the requirements and recommendations of The Operation and Maintenance of Bridge Access Gantries and Runways. (Second Edition 2007) published by the Institution of Structural Engineers and
  - (d) risk assessments are performed to identify the appropriate safety and first aid equipment required for each operational Access System and ensuring that such equipment is included.
- 4.15.19 The Operating Company shall ensure that the Gantry Manager and gantry operators receive any training necessary for the management and operation of the existing Access Systems and for any new system that is commissioned. Other persons, including those not employed by the Operating Company, having a justifiable requirement for access onto such systems shall be trained and inducted by the Operating Company. Records of training together with the assessment of the suitability of the selected personnel shall be retained by the Operating Company.
- 4.15.20 The Operating Company shall ensure that in the event of emergencies or Access System breakdown, a safe means of exiting the Access System is available at all locations.
- 4.15.21 Where required by the operation and maintenance manuals, Access Systems shall be removed from the Structure and placed in secure and weather tight storage environment by the Operating Company.

**4.16 Technical Approval, Departures from Standards**

4.16.1 The Operating Company shall submit approval in principle forms in accordance with BD2 Technical Approval of Highways Structures of the Design Manual for Roads and Bridges and applications for departures from standards forms for Structures to the Director for consent using the forms provided in Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.4 Certification.

4.16.2 Applications for departures from standards shall allow adequate time for consideration by the Director. Such departures shall be requested prior to their inclusion in the approval in principle form or an addendum to the approval in principle form.

Departures from standards that have been consented to by the Director shall be included within the approval in principle submission in accordance with the requirements of Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations.

4.16.3 No later than twenty-five (25) Working Days after receipt of the Operating Company's approval in principle submission and departure from standards submission, the Director shall;

- (a) consent to the submission in writing, or
- (b) reject the submission in writing with reasons, or
- (c) request the Operating Company to supply further information within five (5) Working Days.

If the approval in principle submission is rejected by the Director, the period for consent of twenty-five (25) Working Days shall recommence on receipt of the redrafted submission.

If the Director requests the Operating Company to supply further information, the minimum period for consent will be extended by five (5) Working Days commencing on receipt of the additional information.

If the Operating Company cannot provide the additional information within five (5) Working Days, it shall contact the Director to agree an alternative timeframe.

Where the Director is unable for any reason to meet this timescale, he shall notify the Operating Company in writing. The Operating Company shall not be entitled to any additional payment if the Director is unable to meet the timescales referred to.

**4.17 Bridges Signed “Low Headroom” and Bridges that are Subject to Bridge Strikes**

4.17.1 Bridges with clearances below 5.03 metres shall have signs identifying the maximum safe height for a vehicle that may pass beneath it.

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4.17.2 High vehicles are classified as those that;

- (a) cannot pass safely under a bridge with the standard minimum headroom clearance of 5.03 metres, or
- (b) have a vehicle and load combination greater than 4.95 metres in height, allowing for the minimum safety margin of 0.075 metres.

4.17.3 The Operating Company shall implement the requirements of the following documents, as part of its procedures and Incident Response Plans, to deal with bridges strike Incidents on the Unit;

- (a) Response to a Bridge Strike over the Railway – A Protocol for Highway and Road Managers, Police and Bridge Owners, and
- (b) Prevention of Strikes on Bridges over Highways – A Protocol for Highway Managers and Bridge Owners.

Where a bridge carries a Trunk Road over a public road that is part of the road network of another roads authority or Operational Partner and the clearance under that bridge is less than the maximum requirement the Operating Company shall liaise with the roads authority or Operational Partner to ensure all signs are in accordance with appropriate Legislation and are maintained to reduce the probability of a strike on a Trunk Road Structure.

In respect of the latter document the Operating Company shall follow the guidance given the inspection and maintenance of signing at bridges with low headroom

4.17.4 Structures with signed low headroom are listed within the APMS and in Schedule 2 Scope, Appendix 4 Structures Attachment 4.18 List of Bridges with Signed Low Headroom above and below the Trunk Road.

4.17.5 Structures of the Unit that have been subject to bridge strikes are listed in the APMS and Schedule 2 Scope, Appendix 4 Structures Attachment 4.19 List of Structures Subject to Bridge Strikes (between January 2009 and December 2018).

4.17.6 The Operating Company shall prepare a report in the form set out in Schedule 3 Contract Management, Appendix 7 Control of Core & Ordered Operations, Attachment 7.15 Report of Incidence of Damage to Crown Property and upload a copy of the report into the APMS no later than ten (10) Working Days after a Structure of the Unit has been the subject of a bridge strike.

4.17.7 The Operating Company shall prepare a report in the form set out in Schedule 3 Contract Management, Appendix 7 Control of Core & Ordered Operations Attachment 7.16 Report of Incidence of Damage to Crown Property – Parapet and upload copy of the report into the

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APMS no later than ten (10) Working Days after a parapet of a Structure of the Unit has been damaged.

## **5 Network Operations – Traffic Scotland**

### **5.1 Introduction**

5.1.1 Traffic Scotland includes the provision of a number of traffic, travel information and on-road customer support services, all of which are aimed at improving the operational efficiency and journey time reliability of the Unit.

These services are delivered on behalf of the Director by the Traffic Scotland Operations and Infrastructure Services Contractor and the Traffic Scotland Systems Contractor, named in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.1 Contact List of Network Operations Service Providers. They are collectively referred to within this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland as Network Operations Service Providers.

5.1.2 The Operating Company shall support the Director and the Network Operations Service Providers in the delivery of such services and in accordance with this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland.

5.1.3 The Traffic Scotland Operations and Infrastructure Services Contractor delivers the Traffic Scotland Service from the Traffic Scotland National Control Centre. The duties carried out by the Traffic Scotland Operations and Infrastructure Services Contractor include;

- (a) Traffic Scotland frontline operations on a twenty four (24) hour, seven (7) days a week basis,
- (b) the maintenance of Traffic Scotland Equipment including cabling and ducting arrangements,
- (c) the traffic data service and web system,
- (d) facility management of Traffic Scotland's National Control Centre, and
- (e) the design, installation and commissioning of new Traffic Scotland Equipment infrastructure.

5.1.4 The name, address and contact numbers of the Traffic Scotland Operations and Infrastructure Services Contractor and Traffic Scotland System Contractor are detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.1 Contact List of Network Operations Service Providers or as otherwise notified to the Operating Company in writing by the Director.

The Director will notify the Operating Company in writing of any changes made to the identity and or role of the Traffic Scotland Operations and Infrastructure Services Contractor and Traffic Scotland System Contractor.

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5.1.5 Prior to the Commencement of Service Date, the Director will issue to the Operating Company in electronic format, an up-to-date Inventory of all Traffic Scotland Equipment located on the Trunk Road network on and or near to the Unit.

The Director will issue a revised inventory to the Operating Company on a quarterly basis from the Commencement of Service Date.

5.1.6 The Operating Company shall take a proactive and collaborative approach in liaison and coordination with the Network Operations Service Providers regarding planned Operations, Incidents, Severe Weather, events and conditions on any Route at the relevant time that impact on the journey time reliability of the Unit.

5.1.7 The Operating Company shall provide access (such being unrestricted except for any Operating Company procedures with which others must comply whilst on the Unit), and shall accompany the Network Operations Service Providers to any Traffic Scotland Equipment on the Unit for the purposes of the inspection and maintenance of such Traffic Scotland Equipment.

5.1.8 The Operating Company shall consult, liaise, coordinate with and notify to the Director and the Network Operations Service Providers as detailed in this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland.

5.1.9 Where the Unit or a Trunk Road is not operating within its normal operational conditions, including situations where delays exceed the limits defined in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.2 Coding for Estimated Traffic Delays or an Incident has occurred, the Operating Company shall continually share its knowledge with, and report such conditions and the status of Incidents on the Unit to the Network Operations Service Providers and the Director. The delay and Incident status knowledge transfer shall be delivered in a continual and consistent manner and the Operating Company shall;

- (a) ensure that all its Contract Personnel both internal and external are aware of the requirement of this knowledge transfer and are able to undertake such communications, and
- (b) prepare documentation and tool box talks to ensure that delay and Incident status knowledge transfer becomes part of the operational culture of the Operating Company.

5.1.10 The Operating Company shall attend at least one (1) meeting with the Director and each of the Network Operations Service Providers during the Mobilisation Period.

Thereafter the Operating Company shall meet at least quarterly with the Network Operations Service Providers to provide feedback, learning and improvements in support of achieving

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the Purpose and Objectives of the Contract and provide continual improvement in the delivery of duties and obligations set out in the following sections of Schedule 2 Scope;

- (a) Section 5 Network Operations – Traffic Scotland,
- (b) Section 6 Network Operations – Winter Service,
- (c) Section 7 Network Operations – Disruption Risk Management,

The Director may require the Operating Company to attend meetings more frequently than quarterly and the Operating Company shall comply with any such request.

5.1.11 The Director has appointed a number of Network Operations Service Providers to undertake routine maintenance and emergency repair of Network Operations Equipment and to undertake the design and construction of new Network Operations Equipment.

The Operating Company shall liaise and coordinate regularly with all Network Operations Service Providers to minimise the impact of Operations or work on the Network Operations Equipment and journey time reliability of the Unit. The Operating Company shall facilitate Network Operations Service Providers' access to its planned maintenance schedules so that Network Operations Service Providers can plan work to coordinate with planned Operations.

### **5.2 Work Affecting or Damage to Traffic Scotland Infrastructure**

5.2.1 When;

- (a) the Operating Company proposes to carry out Operations including the supervision of a Works Contract within or adjacent to locations containing Network Operations Equipment, or
- (b) the Operating Company becomes aware of authorised contractors, Undertakers or others proposing to carry out work within or adjacent to locations containing Network Operations Equipment,

the Operating Company shall communicate with the Director and the appropriate Network Operations Service Providers as if the Network Operations Service Provider was an Undertaker as defined in the New Roads And Street Works Act 1991, amended by the Transport (Scotland) Act 2005.

5.2.2 When;

- (a) the Operating Company proposes to undertake any Operations including the supervision of a Works Contract that may have a physical effect on any Network Operations Equipment, or

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- (b) the Operating Company becomes aware of authorised contractors, Undertakers or others proposing to carry out work that may have a physical effect on any Network Operations equipment

the Operating Company shall notify the appropriate Network Operations Service Provider by completing and submitting the form provided at Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.3 Notification of Planned Operations, Works Contract & Work in the Vicinity of Network Operations Equipment via e-mail at least fifteen (15) Working Days prior to the Operations, Works Contract or work commencing.

The completion and submission of the form shall be in addition to all planning of relocation, design of relocation and consultation with the Director that the Operating Company shall undertake when it commences any planning of Operations, Works Contract or work that will impact on Network Operations Equipment, as detailed in Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, 5.2 Work Affecting or Damage or Damage to Traffic Scotland Infrastructure, 5.2.5.

- 5.2.3 Where the Operating Company deems that such Operations, Works Contracts or work shall have no physical effect on any Network Operations Equipment, the form shall be submitted to show a nil return.

- 5.2.4 Where Operations or Works Contracts undertaken by the Operating Company involve the submission of a Statement of Intent and or a Value for Money Assessment, these shall include reference to any work required at a Network Operations Equipment Site.

Where a Statement of Intent and or Value for Money Assessment identifies that Network Operations Equipment may be affected, a copy of the Statement of Intent and or Value for Money Assessment shall be issued simultaneously to the appropriate Network Operations Service Provider and the Director.

- 5.2.5 The Operating Company shall consult and liaise with the Director and the appropriate Network Operations Service Provider regarding the nature of the Operations or Works Contract and, subject to Section 5 Network Operations, 5.2 Work Affecting of Damage to Traffic Scotland Infrastructure, 5.2.6, shall make arrangements for the affected Network Operations Equipment to be relocated, replaced or renewed. Such arrangements shall include as a minimum detailed planning and design of works to accommodate the diversion and relocation of Network Operations Equipment.
- 5.2.6 The Operating Company shall only undertake the planning, design, diversion, relocation and renewal of the Network Operations Equipment where it demonstrates to the satisfaction of

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the Director that it has the skills and competence to undertake such work and the Director has consented in writing to the Operating Company undertaking such Operations.

Where such consent has been received the Operating Company shall undertake and complete these Operations as an integral part of the Operations including a Works Contract and shall;

- (a) complete the planning and Design of the diversion, relocation or renewal of Network Operations Equipment as part of the planning and design of the Operations including a Works Contract in consultation with the Director and the relevant Network Operations Service Provider,
- (b) complete any diversion and relocation of Network Operations Equipment in advance of, or during, the Operations including a Works Contract as appropriate,
- (c) when the Operations include road surfacing, ensure that Network Operations surface detection equipment is replaced and operational as part of the Operations or Works Contract or, if consented to in writing by the Director, within seven (7) Working Days of the surface course being laid, and
- (d) undertake all relevant and statutory testing of Network Operations Equipment and the provision of Records to enable the Director and the Network Operations service providers to maintain the relevant Health and Safety File and New Roads and Street Works Act 1991, as amended by the Transport (Scotland) Act 2005, records.

Testing shall take place as an integral part of the Operations including a Works Contract and the Records shall be provided within ten (10) Working Days of the completion of Operations or Works Contract adjacent to the Network Operations Equipment. If the Operating Company fails to provide the necessary Records within twenty-five (25) Working Days of such completion, the Director will arrange for the relevant Network Operations Service Provider to undertake any tests and investigations necessary to prepare and provide all such Records.

Any additional costs incurred by either the Network Operations Service Provider and or the Director in having to undertake such tests and investigations shall be borne by the Operating Company. Such costs shall be deducted from the next payment or any subsequent payment due to the Operating Company pursuant to the other provisions of this Contract or, at the option of the Director, shall be recoverable from the Operating Company as a debt due to the Scottish Ministers.

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- 5.2.7 The Operating Company shall ensure that any affected Network Operations Equipment is replaced as part of the Operations including a Works Contract in accordance with the Specifications supplied by the Director.
- 5.2.8 Where the Director does not consent to the Operating Company undertaking the diversion, relocation or replacement of the Network Operations Equipment or any part of the work required, the Operating Company shall liaise with the Director and the relevant Network Operations Service Provider in the planning of the work to ensure that the completion of such work complies with the timescales agreed as part of the planning of the work and any other timescale as referred to in this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland.
- 5.2.9 When Works that affect or may affect Network Operations equipment are to be undertaken under a Works Contract, the Operating Company shall include within the Works Contract a requirement for;
- (a) the Works Contractor to give notice in accordance with the timescales referred to in this Section 5 Network Operations – Traffic Scotland, and
  - (b) the Network Operations Equipment to be diverted, relocated or replaced as part of the Works Contract within the previously planned timescales provided that the relevant Works Contractor can demonstrate to the Director that it has the skills and competence to undertake such work and the Director has consented in writing to the relevant Works Contractor undertaking such work.
- 5.2.10 When work that affects or may affect Network Operations Equipment is to be undertaken by authorised contractors, Undertakers or others, the Operating Company shall;
- (a) on receiving notice of the work from the authorised contractor, Undertaker or others, notify the Director and the appropriate Network Operations Service Provider in writing of the proposed work, and
  - (b) make arrangements with the authorised contractor, Undertaker or others for the Network Operations Equipment to be diverted, relocated or replaced as part of the work within the previously planned timescales.

In such circumstances, the Director reserves the right to nominate Network Operations Service Providers to undertake the diversion, relocation or replacement of the Network Operations Equipment.

- 5.2.11 Where the Operating Company proposes a location for any new Network Operations Equipment that may be required for the Unit, the Operating Company shall complete the form

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provided at Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.4 Notification of Proposed New Network Operations Service Site in accordance with the requirements of Schedule 5 Specification and Drawings, 071AR Creation, Maintenance and Submission of Documents and Other Media and submit it to the Director who will either consent to the proposed location or suggest revisions to the Operation Company. The Operating Company shall liaise and consult further until the Director consents to the revised location.

Where the Network Operations Service Provider agrees to the Operating Company undertaking the installation of the new Network Operations equipment, the Operating Company shall undertake this work as part of the Operations in accordance with the requirements of this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland and the specification provided by the Director.

Where the Director does not consent to the Operating Company undertaking this installation work, the Director will arrange for the Network Operations Service Provider(s) to undertake such work and the Operating Company shall provide any information and support requested by the Director to the Network Operations Service Provider(s).

5.2.12 The Operating Company shall ensure that it is aware of situations where Network Operations Equipment is or may be susceptible to damage from Operations including a Works Contracts and shall ensure that all suitable precautions are taken to prevent damage to Network Operations Equipment. Such situations shall include as a minimum edge drainage works where the wiring from detector loops to cabinets may be damaged.

5.2.13 Where the Operating Company causes damage, suspects that it, or its subcontractors or a Works Contractor may have caused damage, or becomes aware of any external activities that may have caused damage to Network Operations Equipment, it shall immediately inform the appropriate Network Operations Service Provider by telephone, providing an indication of what damage has occurred.

The Operating Company shall subsequently complete the form provided at Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.5 Notice to Network Operations Service Provider to Damage or Suspected Damage to Network Operations Equipment in accordance with the requirements of Schedule 5 Specification and Drawings, 071AR Creation, Maintenance and Submission of Documents and Other Media and submit it to the Network Operations Service Provider via e-mail within twenty four (24) hours of the damage being caused or identified.

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5.2.14 When instructed by the Director, either the Operating Company or Network Operations Service Provider shall undertake repair of the damage to Network Operations Equipment at the earliest possible time.

When such a repair is temporary, the Operating Company shall liaise with the Director and the relevant Network Operations Service Provider regarding the nature of the damage and make arrangements for the Network Operations Equipment to be repaired or replaced by either the Network Operations Service Provider or the Operating Company.

When such a repair is permanent, the Operating Company shall undertake the permanent repair in accordance with Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, 5.2 Work Affecting or Damage to Traffic Scotland Infrastructure. The timescales for completion of the permanent repair shall be agreed with the Director but shall usually be within twenty-five (25) Working Days to seventy five (75) Working Days from the date of the initial damage.

If the Operating Company fails to complete the permanent repair within the agreed timescales, the Director will arrange for the Network Operations Service Provider to undertake the repair.

All costs associated with such repair shall be borne by the Operating Company. Such costs shall be deducted from the next payment or any subsequent payment due to the Operating Company pursuant to the other provisions of this Contract or, at the option of the Director, shall be recoverable from the Operating Company as a debt due to the Scottish Ministers.

### **5.3 Journey Time Reliability Coordinator**

5.3.1 The Operating Company shall appoint a suitably qualified person(s) in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People to perform the function of the Journey Time Reliability Coordinator between 06.30 hrs and 18.30 hrs, seven (7) days a week.

The Operating Company may, subject to the written consent of the Director, delegate the actions and responsibilities of the Journey Time Reliability Coordinator to an Incident Liaison Officer for holiday cover and out of Normal Working Hours.

The Operating Company shall submit to the Director and the Network Operations Service Provider once (1) every week a rota, including the names and contact details of all Journey Time Reliability Coordinator(s) and the members of the Core Management Teams, who can be contacted by the Director and the Network Operations Service Provider should an Incident occur outside of Normal Working Hours.

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- 5.3.2 The Journey Time Reliability Coordinator shall be responsible for supporting the Network Manager and Incident Liaison Officers in the delivery of the coordination, liaison and management requirements of the Operating Company specified within this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, to ensure that the journey time reliability of the Unit is maintained at its optimum level.
- 5.3.3 The Journey Time Reliability Coordinator shall be the first point of contact within the Operating Company for all roadworks undertaken by the Operating Company and events occurring on or near the Unit. The Journey Time Reliability Coordinator shall be contactable on dedicated landline and mobile phone numbers.
- 5.3.4 The Journey Time Reliability Coordinator shall be proactive in gathering relevant information and continuously monitoring;
- (a) the Roadworks Module,
  - (b) the Scottish Road Works Register,
  - (c) the Traffic Scotland Service website and
  - (d) other relevant systems
- to ensure complete knowledge of all roadworks, Special Events, events and Incidents occurring on or near the Unit during road works.
- 5.3.5 The Journey Time Reliability Coordinator shall undertake periodic site visits to assess the implementation and impact of Operations including Incidents occurring on or near the Unit during roadworks. Such visits shall be used to assess how improvements in journey time reliability can be made when similar Operations including Incidents and Special Events take place in the future.
- 5.3.6 The Journey Time Reliability Coordinator shall;
- (a) liaise and communicate with relevant Operational Partners, including as a minimum;
    - (i) the dissemination of accurate and timely information to assist in the effective delivery and coordination of all Operations including Incidents and Special Events occurring on or near the Unit during roadworks,
    - (ii) supporting the Network Manager in ensuring representation by Operating Company Contract Personnel at all liaison meetings with the Operational Partners and attend Transport Scotland's Special Event resilience meetings,
    - (iii) supporting the Network Manager in ensuring representation by the Operating Company at seminars or working groups related to improving the methods by

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- which Unit management and maintenance activities are carried out, when required by the Director,
- (iv) ensuring that the minutes of all liaison meetings arranged by the Operating Company are prepared and copies issued to the Director via the Network Manager and relevant Operational Partners, within five (5) Working Days of the meeting taking place, and
  - (v) ensuring that the issues arising from the liaison meetings are managed in accordance with the requirements of this Contract and any actions required from the Operating Company are completed within the agreed or required timescales,
- (b) providing the Monthly Journey Time Reliability Report listed in Schedule 3 Contract Management, Appendix 1 Introduction Attachment 1.2 Report & Submissions – Other to the Director no later than the fifteenth (15) day of each calendar month until the Service End Date on;
- (i) liaison meetings held,
  - (ii) issues arising from such liaison meetings,
  - (iii) actions taken or to be taken arising from such liaison meetings,
  - (iv) action plans agreed between the Operating Company and the Director and or Operational Partner, and
  - (v) the impacts of the Operating Company's activities on the journey time reliability of the Unit with recommendations for proposed improvements,
- (c) providing the Annual Journey Time Reliability Report listed in Schedule 3 Contract Management, Appendix 1 Introduction Attachment 1.2 Report & Submissions – Other to the Director, detailing the impacts of all the Operating Company's activities on the journey time reliability of the Unit including as a minimum any proposed improvements and mitigation measures,
- (d) ownership and management of the Roadworks Module ensuring that it is fully functional and kept updated at all times,
- (e) ensuring that all parties requiring the use of the Traffic Scotland Service are provided with a unique roadworks reference from the Roadworks Module to quote when contacting the Traffic Scotland Operations and Network Operations Service Providers,

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- (f) ensuring the necessary temporary traffic regulation order is in place before requesting the Network Operations Service Providers to implement roadworks settings to support the roadworks,
- (g) when the appropriate functionality becomes available in the Roadworks Module , entering the temporary traffic regulation order reference,
- (h) coordinating, monitoring and controlling all roadworks or events to minimise road closures, potential impacts and conflicts and maximising the capacity of the Unit, using the Roadworks Module and Scottish Road Works Register as appropriate,
- (i) disseminating accurate and timely information to Operational Partners via the Roadworks Module, emails, regular meetings and telephone calls to assist in the effective coordination of their activities,
- (j) implementing escalation procedures for Operations including Incidents and Special Events that exceed allowable delay thresholds,
- (k) liaising with the Incident Liaison Officers and relevant Operational Partners in dealing with Incidents occurring during roadworks including as a minimum coordination of the activation and implementation of Standard Incident Diversion Routes and managing the cancellation of roadworks if such cancellation will improve the capacity of the Unit when an Incident is taking place,
- (l) utilising and managing support Contract Personnel on specific tasks relating to the planning and implementation of Operations including Incidents and Special Events including as a minimum ensuring such Contract Personnel are provided with adequate communications equipment, coordinating, mobilising, deploying and supervising traffic management arrangements and evaluating their impacts,
- (m) notifying the Director via the Network Manager promptly and no later than one (1) Working Day of first becoming aware in writing of operational conflicts that may impact on the journey time reliability of the Unit network and coordinating the implementation of any corrective action consented to by the Director with the Network Operations Service Providers,
- (n) coordinating the programming, planning and installation of traffic management and traffic control equipment in relation to the Operations undertaken by the Operating Company to ensure the safety of Contract Personnel and Trunk Road users including motorists and pedestrians,

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- (o) maintaining a record of all traffic management installations, including as a minimum mobile Lane Closures on the Unit for each day of each Annual Period on a central database maintained by the Operating Company and ensuring that all updates are completed by 09:30hrs on the following Working Day,
- (p) managing and disseminating information required by the Operating Company and others for the preparation of Temporary Traffic Regulation Orders for roadworks and Special Events in accordance with the Specification, and
- (q) liaising with relevant Operational Partners to ensure the Operating Company's procedures and working practices when carrying out Operations on the Unit are fully compatible with the Network Operations Service Providers operational procedures for the public transport corridor.

### 5.4 Roadworks Module

5.4.1 The Network Operations Service Providers requires complete knowledge of;

- (a) all planned and emergency Operations, works, traffic management, Lane Closures and occupations of Lanes, which for the purposes of this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland only shall be called 'roadworks', whether such roadworks are undertaken by the Operating Company, Works Contractor, Undertaker, authorised contractor or others, and
- (b) all Special Events expected to attract a minimum of 3,000 attendees, such including as a minimum, concerts, sporting events and seasonal events that are likely to generate significant traffic.

5.4.2 The Operating Company shall use the Roadworks Module for providing information to the Network Operations Service Providers when;

- (a) the Operating Company proposes to undertake any Operations including a Works Contracts, or
- (b) the Operating Company becomes aware of authorised contractors, Undertakers or others proposing to carry out any work on the Unit.

5.4.3 The Operating Company shall be responsible for ensuring that all information held in the Roadworks Module is accurate, complete and up to date at all times to enable the Network Operations Service Providers to deliver reliable information to customers of Traffic Scotland who use the Unit for travel purposes.

5.4.4 The Operating Company shall monitor both the Roadworks Module and the Scottish Road Works Register to determine if there are any other roadworks scheduled or in progress by

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any Works Contractor, Undertaker, authorised contractor or others that may impact on the implementation of any proposed roadworks. Where other roadworks are identified as having such a potential impact, the Operating Company shall coordinate these roadworks to minimise potential impacts or mitigate against conflicts with the proposed implementation programme.

- 5.4.5 No later than twenty-five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall provide and maintain at the Central Office a broadband internet connection for access to the Roadworks Module.
- 5.4.6 Prior to ordering this connection, the Operating Company shall contact the Director to confirm the Director's exact requirements for access to the Roadworks Module.
- 5.4.7 The Operating Company shall ensure that details of all roadworks undertaken on the Unit are logged onto the Roadworks Module and kept updated at all times. Each item logged shall be allocated a unique referencing number that shall be quoted by the Operating Company in all communications with the Network Operations Service Providers, within its own organisation and by its contractors, sub-contractors and or suppliers of any tier.
- 5.4.8 The information supplied by the Operating Company via the Roadworks Module shall allow the Network Operations Service Providers to create messages on the Traffic Scotland variable message signs, informing road users of potential delays and of alternative Routes where applicable.
- 5.4.9 The Traffic Scotland Service includes a web system which serves as the single, reliable source for information on all Operations, Incidents and Special Events. The Operating Company shall ensure that the Traffic Scotland Service web system is monitored on a daily basis to obtain information on forthcoming Operations and Special Events that need to be incorporated into the planning of Operations or Works Contracts.
- 5.4.10 The Operating Company shall ensure that details of Special Events expected to attract fewer than 3,000 attendees, but deemed by the Operating Company to have potential to cause significant delays, are logged on the Roadworks Module and kept updated at all times.

The Operating Company shall use the network access form set out in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.6 Network Access Form to request roadworks information from Works Contractors, authorised contractors, Undertakers and others with a right to work on the Unit, to ensure accurate and consistent information is utilised to meet the obligations set out in this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland. This information shall then be logged on the roadworks diary of the Roadworks Module for each roadworks Operation.

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- 5.4.11 The Operating Company shall ensure all details logged into the Roadworks Module are reviewed and updated no later than 09:30hrs daily. Where the Operating Company becomes aware of any significant change to such details, it shall ensure the Roadworks Module is updated within one (1) hour of becoming aware of any such change.
- 5.4.12 The Director will make arrangements to provide access to closed circuit television cameras (CCTV) to the Operating Company at the locations agreed between the Director and the Operating Company. The Operating Company shall ensure that all Contract Personnel with access to Network Operations Equipment including CCTV are subject to the disclosure, qualifications, licenses and other requirements of Scottish Government in accordance with Schedule 3 Contract Management, Section 2 Key People, 2.5 Disclosure and Licenses for Public Space Surveillance (CCTV).

### **5.5 Assessment, Notification, Monitoring and Evaluation of Network Delays**

- 5.5.1 Roadworks or any other activity being undertaken by the Operating Company or authorised contractors, Undertakers or others that reduce the operational capacity of the Unit shall require an assessment by the Operating Company prior to commencement to assess the impact of the reduction in capacity.

To assist the Operating Company in carrying out assessments the Director will provide the delay modelling tool described in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.7 Overview of Delay Modelling Tool. Where the Operating Company or the Director are of the opinion that a particular scenario cannot be accurately assessed by the delay modelling tool then the Operating Company shall carry out a more detailed analysis. The Operating Company shall obtain the Director's consent to the method and more detailed analysis to be used.

- 5.5.2 The Operating Company shall undertake reduction in capacity assessments for the full duration of any activity that reduces the operational capacity of the Unit and each assessment shall include the unique reference number as described in Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, 5.4 Roadworks Module, 5.4.7.
- 5.5.3 The Operating Company shall assess roadworks relating to emergency repairs of Category 1a Defects and Category 1b Defects prior to commencement and shall assess the impact of such emergency repair roadworks on the next Working Day after implementation.
- 5.5.4 Where Operations that reduce the operational capacity of the Unit are proposed by the Operating Company and have been assessed as likely to cause traffic delays below the acceptable delay thresholds detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland Attachments 5.2 Coding for Estimated Traffic Delays, the Operating Company shall not start

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or perform the Operations unless the normal notification procedure has been followed and the consent of the Director has been obtained.

5.5.5 The Operating Company shall record each delay assessment in the Roadworks Module.

5.5.6 Where activities that reduce operational capacity are proposed that have been assessed as likely to cause traffic delays greater than the acceptable delay threshold of twelve (12) minutes as detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays, the Operating Company shall implement such activities only following receipt of consent from the Director.

To allow the Director to determine if consent can be given, the Operating Company shall prepare a Delay Management Report detailing justification for implementing activities that will cause delay greater than the acceptable delay threshold of twelve (12) minutes. The delay management report shall include as a minimum;

- (a) activity location and description,
- (b) result of initial impact assessment,
- (c) data collection and modelling approach where modelling beyond the use of the delay modelling tool has been consented to by the Director, and
- (d) description of existing and expected operational condition of that part of the Unit affected by the proposed activity, with a summary of recommendations for measures to be applied to reduce delay.

5.5.7 The Operating Company shall notify the Network Operations Service Provider at least twenty-five (25) Working Days prior to the commencement of the activity when the estimated delay is greater than eight (8) minutes.

5.5.8 Complex roadworks refer to situations where specific work activities and time periods may make it impossible to meet the delay thresholds detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays. Conditions where this may occur include as a minimum;

- (a) roadworks located in areas where the existing Trunk Road is operating at or near capacity but where the existing traffic flow is relatively stable. At such locations, a slight reduction in capacity resulting from roadworks activities could have a significant impact on road users,
- (b) roadworks where Lane Closures are required to preserve the safety of road users and Operating Company personnel or for environmental reasons, and

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- (c) roadworks being undertaken during periods of high traffic volume related to seasonal traffic, holidays and Special Events.

For activities that may cause delay beyond the twelve (12) minute delay threshold detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays, the Operating Company may propose the use of microscopic simulation models for the Director's consent.

- 5.5.9 When the Operating Company identifies an implementation option that reduces predicted delays below the twelve (12) minute delay thresholds detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays, this implementation option shall be used by the Operating Company.
- 5.5.10 Where roadworks are being undertaken that have been assessed as likely to cause traffic delays in excess of thresholds detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays, or that involve the closure of an off-slip or on-slip road, the Operating Company shall keep the Network Operations Service Providers notified of traffic delays via regular telephone calls, quoting the unique Roadworks Module reference number for the Site, at the following intervals;
  - (a) at code 3 and 4 delays, fifteen (15) minutes prior to traffic management commencing at a roadworks location,
  - (b) immediately when delays to traffic, assessed using the delay modelling tool, exceed ten (10) minutes,
  - (c) thereafter at no more than thirty (30) minutes intervals or when delay changes of five (5) minutes or more occur, giving details of the delay times until they have ceased to exceed ten (10) minutes, and
  - (d) immediately once the traffic management has been removed from a roadworks location.
- 5.5.11 The Operating Company shall notify the Network Operations Service Providers by telephone and update the Roadworks Module within one (1) hour of becoming aware of changed circumstances that would significantly affect movement of traffic, including as a minimum;
  - (a) when roadworks that were coded 1 to 2 in accordance with 'Coding for estimated traffic delays' detailed in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays are causing traffic delays in excess of ten (10) minutes,

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- (b) when planned roadworks are cancelled at short notice and the cancellation has not yet been entered into the Roadworks Module,
- (c) Incidents that have been notified to, or identified by, the Operating Company, and
- (d) when Lane Closures or Lane Occupations have been, or are likely to be, put in place.

- 5.5.12 To facilitate learning and feedback from the implementation of roadworks, the Operating Company shall monitor and evaluate predicted and actual delays. If the actual delay exceeds the predicted delay by any period greater than five (5) minutes, the Operating Company shall include within the Roadworks Module actual delays for all Code 4 works and for all codes of works designated in accordance with the 'Coding for estimated traffic delays' provided in Schedule 2 Scope, Appendix 5 Traffic Scotland, Attachment 5.2 Coding for Estimated Traffic Delays.
- 5.5.13 If necessary, the Operating Company shall utilise equipment that can automatically determine traffic delays through roadworks and disseminate appropriate messages to the Network Operations Service Providers. Where the Operating Company considers the use of automatic traffic delay monitoring equipment necessary, it shall submit written proposals for the deployment of such equipment to the Director for consent. Where the Operating Company considers the use of automatic traffic delay monitoring equipment is not feasible, it shall instead deploy sufficient operational Contract Personnel to monitor traffic delays.
- 5.5.14 Where the actual traffic delays exceed the predicted traffic delays by any period greater than fifteen (15) minutes, the Operating Company shall immediately notify the Network Operations Service Providers and the Director. The Operating Company's Network Manager shall provide details of the discrepancy between the predicted and actual delays and propose suitable on Site corrective actions and keep the Director and Network Operations Service Providers briefed on the status of such roadworks.
- 5.5.15 The Director may require the Operating Company to implement proposed corrective actions or suspend the implementation of Operations including roadworks in order to reduce traffic delays that he considers unacceptable. Where the suspension of Operations including roadworks due to unacceptable travel delays would have a negative impact on the safety of road users, the Director may allow the implementation of Operations including roadworks to continue until the Operating Company has resolved the negative impact by taking the necessary corrective actions. The Operating Company shall notify and liaise with the Network Operations Service Providers continuously in either situation.

**5.6 Vehicle Activated & Mobile Variable Messaging Signs**

- 5.6.1 The Operating Company shall provide and use vehicle activated signs during roadworks where such use will address safety issues relating to inappropriate speeds, subject to obtaining the Director's consent to the usage of such. The Operating Company's requests for consent to the use of vehicle activated signs shall be made in writing to the Director.
- 5.6.2 Vehicle activated signs shall only be deployed in addition to regulatory signs as a response to excessive speed and in accordance with the following requirements;
- (a) the Traffic Signs Regulations and General Directions 2016 and other relevant United Kingdom and European Union guidance and standards as advised by the Director. Departures shall not be permitted unless specifically consented to by the Director,
  - (b) be of a type consented to by the Director for use on the Unit, and shall utilise only the legends consented to by the Director,
  - (c) not be deployed where the works are located within those sections of the Unit that already have Lane control signalling,
  - (d) where both directions within the roadworks area meet the criteria of this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, 5.6 Vehicle Activated & Mobile Variable Messaging Signs, one vehicle activated sign shall be deployed in each direction, and
  - (e) be deployed where detailed accident investigation or risk assessment confirms that vehicle activated signs are an appropriate remedial measure.
- 5.6.3 Speed monitoring detectors shall be installed accurately by the Operating Company to minimise errors in speed measurement.
- 5.6.4 When the signs are activated, the displays shall provide appropriate warning to motorists when the assigned speed limit is exceeded and shall not interfere with the visibility and general effectiveness of any other signs in the area.
- 5.6.5 Traffic Scotland Equipment includes a network of permanently located variable message signs positioned at key locations throughout the Unit. These signs facilitate the provision of real time information to motorists travelling on the Unit.
- 5.6.6 The Scottish Ministers own a number of mobile variable message signs. These shall be utilised when available for use by the Operating Company in advance of, or during, any major works or Operations in areas that are out with the coverage of the permanent variable message sign system forming part of the Traffic Scotland Equipment.

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- 5.6.7 Where the Operating Company requires the use of the mobile variable message signs, the Operating Company shall apply in writing to the Traffic Scotland Operations and Infrastructure Services Contractor for written consent to use these, giving as much notice as possible and at least ten (10) Working Days. The Traffic Scotland Operations and Infrastructure Services Contractor shall have absolute discretion to decide when the use of the mobile variable message signs is allowed, based on the perceived benefits to road users.
- 5.6.8 Where the Traffic Scotland Operations and Infrastructure Services Contractor gives written consent to the use of mobile variable message signs, the responsibilities of the Operating Company shall be as specified within the Use Of Mobile Variable Message Signs On The Trunk Road Network guidance.
- 5.6.9 In accordance with this guidance, the Transport Scotland mobile variable message signs shall be used by the Operating Company to cover situations including;
- (a) the signing of major roadworks where there are currently no permanent variable message signs,
  - (b) gauging driver reaction to the potential benefits of permanently locating a variable message sign at that position on the Unit,
  - (c) providing weather related information during the Winter Service Period, such as snowfalls that have the potential to require road closures or seriously affect traffic travelling on the Unit, and
  - (d) signing for Special Events that generate abnormally high levels of traffic in otherwise quiet areas for short periods..
- 5.6.10 The Operating Company shall be responsible for;
- (a) the collection and return of the signs in good working order by arrangement with the Traffic Scotland Operations and Infrastructure Services Contractor, and
  - (b) the provision of suitable locations for the signs, which shall include as a minimum;
    - (i) hard standing, including adequate maintenance access to the sign once deployed,
    - (ii) protection for the signs by an existing permanent barrier or by a temporary barrier, including assessment of the Site to ensure compliance with TD19 Requirements for Road Restraint Systems of the Design Manual for Roads and Bridges, and any other road safety related matters,

- (iii) a 230 volts, 50Hz power supply facility complete with appropriate methods of connecting to the mobile variable message signs, including provision of certification to B S 7671:2018 Requirements for Electrical Installations IET Wiring Requirements, which shall be provided prior to connection of the sign,
- (iv) where it is not possible to provide a mains power supply facility, the provision of a suitable generator, including the supply of fuel, maintenance, security and all necessary servicing when using signs with a generator, and
- (v) visual inspection of the sign and its immediate environs and reporting of any Defects to the appropriate parties during their operation.

## **5.7 Before and After Traffic Counts**

### **5.7.1 Certain road improvement Schemes require a before and after traffic counts.**

When the Operating Company proposes the location of any new traffic counting Site required for undertaking before-and-after traffic count studies, the Operating Company shall complete the form provided at Schedule 2 Scope, Appendix 5 Traffic Scotland Attachment 5.4 Notification of Proposed New Network Operations Service Site in accordance with the requirements of Section 5 Specification & Drawings, 071AR Creation, Maintenance & Submission of Documents & Other Media and submit it to the Director and the Network Operations Service Providers via e-mail. The Operating Company shall obtain the written consent of the Director before such before and after studies are undertaken.

### **5.7.2 Where the Director consents to the Operating Company undertaking the deployment of the proposed new traffic counting equipment, the Operating Company shall undertake this work as an integral part of the Operations or Works Contract in accordance with the requirements of this Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland and the specification provided by the Director.**

Where the Director does not consent to the Operating Company undertaking this installation work, the Director will arrange for the Network Operations Service Provider(s) to undertake such work and the Operating Company shall provide any information and support requested by the Director to the Network Operations Service Provider(s).

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### **6 Network Operations – Winter Service**

#### **6.1 Planning, execution, monitoring & reporting**

- 6.1.1 The Operating Company shall appoint a Severe Weather and Winter Service Duty Officers in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People.
- 6.1.2 During the Winter Service Period, the Operating Company shall prevent snow or ice from forming and remaining on all Trunk Roads of the Unit in accordance with the requirements of this Schedule 2 Scope, Section 6 Network Operations – Winter Service and Attachment 6.11 De-icing Material Spread Rates, Table 6.11.1 Decision Matrix for Winter Service.
- 6.1.3 The Operating Company shall provide all resources, including depots (except where stated elsewhere in this Contract), materials, labour and Winter Service Plant to meet all winter weather conditions and deliver the level of Winter Service required to fulfil the Operating Company's obligations under this Contract.
- 6.1.4 The Operating Company shall provide and maintain the Winter Service if winter conditions occur outwith the Winter Service Period.
- 6.1.5 The Director shall identify circumstances in which it considers the Operating Company should execute Winter Service Operations as Mutual Aid. The Director will issue an Order(s) to provide Mutual Aid in respect of these or any other circumstances.
- 6.1.6 All documents to be submitted by the Operating Company to the Director and all Records and the like to be maintained by the Operating Company in accordance with this Section 6 Network Operations – Winter Service shall meet the requirements of Section 5 Specification & Drawings, A71AR Creation, Maintenance & Submission of Documents & Other Media.
- 6.1.7 The Winter Service Plan shall comprise the Operating Company's proposals and approach for delivering the Winter Service in any Winter Service Period to meet the requirements of this Contract.
- 6.1.8 The Winter Service Plan shall comply with the requirements of Transport Scotland's Manual for the Management of the Risk of Unplanned Network Disruption and be included within the Operating Company's Disruption Risk Management Plan as stated in Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management.
- 6.1.9 The Operating Company shall prepare the Winter Service Plan in accordance with the structure in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.2 Winter Service Plan and include the details required by Schedule 2 Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan.

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6.1.10 The Operating Company shall include the following details in the Winter Service Plan as a minimum;

- (a) liaison arrangements with Operational Partners, Relevant Organisations, Statutory Authorities to ensure the coordination of Winter Service Operations at the boundaries of the Unit,
- (b) Mutual Aid arrangements with other operating companies or local authorities,
- (c) the Operating Company's response times for mobilising Winter Service Plant and such other resources as shall be required to meet the requirements of this Section 6 Network Operations – Winter Service,
- (d) rosters detailing the availability of all Contract Personnel required to provide the Winter Service throughout the Winter Service Period. The rosters shall include names, addresses and telephone numbers of the Contract Personnel listed,
- (e) proposed arrangements for a proactive approach to preventing snow and ice from forming and remaining on Trunk Roads including the safe clearing of all carriageways, pedestrian and cycle facilities (as described in Schedule 2 Scope, Section 3 Inspection & Maintenance – Roads Including Landscape) of the Unit when they are covered in snow or ice,

the proposed arrangements include complying with Operating Company requirements in undertaking the Winter Service on the Trunk Roads of the Unit in accordance with the snow plans of a Design Build Finance and Operate (DBFO) Contract Providers on the relevant part of the Trunk Roads of the Unit.

- (a) proposed arrangements for dealing with freezing rain/rain falling on extremely cold surfaces,
- (b) the type, location and procedures for the operation of snow gates in each Winter Service Plan,
- (c) the arrangements for re-opening roads and snow gates within the Winter Service Plan,
- (d) processes and procedures for deciding when it is unsafe to continue with, or commence, clearing Operations,
- (e) arrangements and mitigation measures for dealing with Vulnerable Locations, and
- (f) arrangements for controlling access to Routes in Severe Weather.

## Scottish Trunk Road Network Management Contract South West Unit

6.1.11 When preparing the Winter Service Plan, the Operating Company shall consult the Emergency Services, other Operational Partners including adjacent local authorities and their agents, other operating companies, Network Rail and other interested parties.

The Operating Company shall include, in an appendix to the Winter Service Plan, copies of all minutes of all 'consultation meetings' and consultation Certificates in the form set out in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedure to demonstrate consultations have taken place with Operational Partners during the production of the Winter Service Plan and all subsequent revisions of the Winter Service Plan.

6.1.12 Not later than the timescale prior to the Commencement of Service Date set out in Schedule 1 Conditions of Contract, Clause 4 Quality Management, 4.8 Operating Company Management System, the Operating Company shall prepare and submit to the Director for his written consent, the Winter Service Plan for the period between the Commencement of Service Date and 00:00hrs on 15 May that first follows the Commencement of Service Date in the event that the Commencement of Service Date falls between 31 August and 15 May.

6.1.13 Prior to 31 July of each Annual Period, the Operating Company shall prepare and submit to the Director for written consent the Winter Service Plan for the forthcoming Winter Service Period.

6.1.14 Once consented to by the Director, the Winter Service Plan shall be incorporated into the Operating Company's Management System.

6.1.15 The Operating Company shall ensure the Winter Service Plan is kept under review prior to and during the Winter Service Period. The Operating Company shall submit any amendments to the Winter Service Plan to the Director for his prior written consent. When consented to, the amended Winter Service Plan shall be incorporated into the Operating Company's Management System.

6.1.16 Prior to the commencement of each Winter Service Period, the Operating Company shall provide one Electronic Copy of each approved Winter Service Plan to;

- (a) the Director,
- (b) the Performance Audit Group,
- (c) the Emergency Services,
- (d) adjacent local authorities and their agents,
- (e) Design Build Finance & Operate (DBFO) Contract Providers,

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- (f) other operating companies, and
- (g) Any other Operational Partners and Relevant Organisations confirmed in writing by the Director.

6.1.17 The Operating Company shall support the Director in the operation of the Scottish Salt Group as required. For the purposes of this Section 6 Network Operations – Winter Service, the "Scottish Salt Group" includes;

- (a) representatives from the Society of Local Authority Chief Executives (SOLACE),
- (b) the Society of Chief Officers of Transportation in Scotland (SCOTS),
- (c) Convention of Scottish Local Authorities (COSLA) and
- (d) Transport Scotland.

The function of the Scottish Salt Group is to ;

- (e) Co-ordinate and share information for the reconciliation of salt stocks in Scotland;
- (f) Liaise with suppliers and track supplies of salt stocks;
- (g) Liaise with the Department for Transport (DfT) Winter Road Network Salt Group and share information;
- (h) Provide guidance on salt conservation and other relevant technical guidance, and
- (i) Manage the strategic salt stock supply and consider requests for Mutual Aid

6.1.18 The Operating Company shall provide the Director with the following reports during the Winter Service Period;

- (a) Monthly salt stock monitoring provided no later than 17:00hrs on the first Working Day of each month for the months of September, October, April and May,
- (b) Weekly salt stock monitoring provided no later than 17:00hrs on the first Working Day of each week for the months November, December, January, February and March,
- (c) Daily salt stock monitoring provided no later than four (4) hours from a request received from the Director,
- (d) Weather forecast accuracy provided weekly no later than 12:00hrs on the first Working Day or as instructed by the Director, and
- (e) Daily operational status of fleet including: Front Line, reserve, additional and loading Winter Service Plant.

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Such relevant reports shall detail salt stocks held, supply arrangements for the Unit, salt usage and salt on order. The salt stock monitoring report shall be in accordance with the structure shown in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.3 Salt Stock Monitoring Report.

6.1.19 No later than 31 May in each Annual Period, the Operating Company shall prepare a Winter Service Report on the Winter Service Plan and Winter Service Operations for the previous Winter Service Period, for review by the Director and the Performance Audit Group.

The Winter Service Report shall be in accordance with the structure shown in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.4 Winter Service Report.

6.1.20 An annual review meeting between the Operating Company and the Director shall take place within fifteen (15) Working Days after each annual Winter Service Report has been submitted to the Director, to consider the findings.

6.1.21 During the Winter Service Period, the Operating Company shall produce Daily Action Plans on planned treatments for the following twenty four (24) hour period and actual treatments for the previous twenty four (24) hour period for each precautionary treatment Route and each Winter Service Patrol Route.

These reports shall be recorded in an electronic format and shall include as a minimum;

- (a) summary forecast and actual weather data,
- (b) planned and actual treatment,
- (c) planned and actual commencement times,
- (d) completion times, amount of de-icing material spread and the cumulative amount spread by weight including percentage target weight achieved for the Route during the relevant Winter Service Period,
- (e) plough usage,
- (f) number of resilience days (capability) of each depot based on two treatments per Route per day at forty (40) grams per square metre for pre wetted salt and three (3) treatments per Route per day at 0.0156 litres per square metre for potassium acetate,
- (g) the weather forecast accuracy, and
- (h) any other relevant information.

6.1.22 In addition to the provisions of Section 6 Network Operations – Winter Service, 6.1 Planning, Execution, Monitoring & Reporting, 6.1.21, the Operating Company shall upload a Daily

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Action Plan on planned treatments for the following 24 hour period onto the Traffic Scotland Service website by 15:00 hrs each day during the Winter Service Period.

- 6.1.23 The Operating Company shall support the Director with updated fleet information with regards any change in Winter Service Plan during the Winter Service Period. This shall include providing the names of spreaders within their Winter Service Plan submission and support in the development of names for other spreaders through local school competitions, campaigns and events.

The Operating Company shall consult with the Director and the Transport Scotland communication team before arranging any local school competitions, campaigns and or events and obtain the approval of the Director in writing for the proposed names of spreaders before names are registered on the Trunk Road Gritter Tracker and or publicly available.

- 6.1.24 Operatives of Winter Service Plant shall at all times hold valid and up to date UK industry recognised qualifications and shall have the skills and experience to operate such Winter Service Plant safely.
- 6.1.25 The Operating Company shall ensure that, throughout each Winter Service Period, sufficient trained operatives are available for each item of Front Line and reserve Winter Service Plant and each item of loading Winter Service Plant to be able to undertake Winter Service Operations continuously during a period of Severe Weather.
- 6.1.26 The Operating Company shall ensure that, throughout the Winter Service Period, sufficient resources are available to minimise disruption to Winter Service Operations caused by breakdown or any other similar circumstance and that Winter Service Operations are not delayed.

All Front Line and or reserve Winter Service Plant in the Winter Service Plan shall be dedicated for use in this Unit and must not be included in the winter service plan for another unit.

- 6.1.27 The Operating Company shall arrange for any necessary repairs to the Front Line Winter Service Plant to be carried out without delay. Where such repair compromises delivery of the Winter Service the Operating Company shall mobilise the reserve Winter Service Plant to meet the required response times set out in the Contract. The Operating Company shall ensure that repairs are carried out to the Front Line Winter Service Plant without delay while the reserve fleet is operational.

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6.1.28 A system that allows spoken communication with other Winter Service Plant operatives and the Winter Service Duty Officers shall be fitted in all Winter Service Plant. Such system shall be effective;

- (a) at all times operational when Winter Service Plant are stationary and in transit; and
- (b) for all parts of the Unit including the location of each of the Winter Service Duty Officers.

6.1.29 Prior to 1 October in each Annual Period, the Operating Company shall;

- (a) ensure the Contract Personnel who operate Winter Service Plant will drive the whole length of each precautionary treatment Route in the Winter Service Plant to be used for the precautionary treatment of such Route at speeds not exceeding those required for such precautionary treatment,
- (b) fit and remove the plough to all Winter Service Plant so equipped,
- (c) take any other measures necessary, and
- (d) keep Records of the Contract Personnel who performed these preparations for Winter Service Operations,

in order to ensure that the Operating Company's Contract Personnel are familiar with the Route and Winter Service Plant to be used.

6.1.30 Records of the requirements of Section 6 Network Operations – Winter Service, 6.1 Planning, Execution, Monitoring & Reporting, 6.1.30 including as a minimum details of;

- (a) time taken from depot to start of treatment Route,
- (b) time taken to travel the Route,
- (c) time taken to travel the treated Route,
- (d) Route efficiency,
- (e) time taken to fit the plough,
- (f) any problems encountered and actions taken to resolve them,
- (g) proposed longer term solutions to prevent recurrence of such problems, and
- (h) any other relevant information,

shall be held electronically by the Operating Company and in accordance with the documented procedures in the Operating Company's Management System.

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### 6.2 Management

6.2.1 The Operating Company shall provide the following to predict trends in weather, road conditions and provide advance warning of Severe Weather;

- (a) an Expert Weather Forecasting Service,
- (b) Computerised Road Weather Information System which shall include the hardware, software and telecommunication links required to obtain, interpret and display as a minimum;
  - (i) road sensor data (forecast and actual),
  - (ii) weather data,
  - (iii) weather camera images,
  - (iv) Front Line Winter Service Plant sensor data (including air, road surface temperature, road surface state and spreading rates) in real time,
  - (v) audible warnings and alarms for winter duty Contract Personnel and confirmation of acceptance of the warning alarm by the Winter Service Duty Officer, and
  - (vi) other relevant information,

twenty four (24) hours a day seven (7) days a week during the Winter Service Periods until the Service End Date.

6.2.2 The Computerised Road Weather Information System shall be accessible to the Expert Weather Forecasting Service provider and shall be able to accept road sensors, mobile road sensors, alarms and action logs additional to those listed in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.5 Location of Winter Service Infrastructure.

The Operating Company shall be responsible for the provision of everything within the Computerised Road Weather Information System with the exception of road sensors and weather cameras.

No later than twenty five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall submit the proposed Expert Weather Forecasting Service and Computerised Road Weather Information System to the Director for his written consent. If consent is not given, the Operating Company shall submit a revised Expert Weather Forecasting Service and or Computerised Road Weather Information System for approval within ten (10) Working Days of consent being refused.

6.2.3 The Computerised Road Weather Information System shall have suitable computer terminals and software for the display of weather related radar information from the Expert Weather

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Forecasting Service provider. Such information shall be accessible to the Operating Company at all times during the Winter Service Period to assist in the Winter Service decision making process.

- 6.2.4 The Operating Company shall provide the Director and the Performance Audit Group with real time access to the Computerised Road Weather Information System and arrange for access to the expert weather forecaster's website to allow remote monitoring of proposed daily actions.
- 6.2.5 The Operating Company shall provide and maintain all telecommunication links to meet the requirements of this Section 6 Network Operations – Winter Service.
- 6.2.6 All road sensors and weather prediction equipment shall use an open protocol based upon the Department for Transport TR2020C protocol and Traffic Scotland Datex II.
- Updated protocols may be used, but only where open access of the protocol is available to the Director to enable access to such protocol to other providers of equipment or service.
- For new and replacement weather stations, open protocol shall be provided at outstation level to ensure full functionality is available to other providers of equipment or service.
- 6.2.7 To obtain regular updates of road conditions, weather stations shall be polled by the Operating Company at intervals of ten (10) minutes at all times from the Commencement of Service Date until the Service End Date. All collected weather station data shall be delivered to the Traffic Scotland Service website in a format agreed with the Director.
- 6.2.8 The Operating Company shall ensure that all cameras are operational at all times from the Commencement of Service Date until the Service End Date and as a minimum weather camera images shall be updated every ten (10) minutes until Service End Date.
- These images shall be communicated to the Traffic Scotland Service Website in a format agreed with the Director until the Service End Date.
- 6.2.9 The Operating Company shall hold welfare kits and shall distribute these in the event of a Critical Incident that involves stranded vehicles. The welfare kits shall be carried by each Winter Service Plant and shall, as a minimum, include;
- (a) 24 emergency blankets,
  - (b) 24 bottles of water, and
  - (c) 24 energy bars (or equivalent) all of which must be within the manufacturer's expiry date.

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6.2.10 The Winter Service Duty Officers shall be solely authorised by the Operating Company to take decisions and to issue instructions on behalf of the Operating Company for implementing and directing the Winter Service and shall take such decisions and issue such instructions as are required. Unless agreed in writing by the Director no other Contract Personnel shall take decisions and or issue instructions on behalf of the Operating Company in relation to the Winter Service.

The Winter Service Duty Officers shall be located and on duty in the control room of the Central Office during the Winter Service Period when the road surface temperature are forecast to be below plus (+) three (3) degrees Celsius. The Winter Service Duty Officers shall keep all Records relating to each decision made.

6.2.11 During the Mobilisation Period, if available, the Director will provide weather station data and historical thermal maps, where available, to the Operating Company.

6.2.12 During the Winter Service Period, the Operating Company shall monitor and interpret;

- (a) weather forecasts,
- (b) Trunk Road conditions,
- (c) data from mobile road sensors,
- (d) the Computerised Road Weather Information System,
- (e) weather station and Traffic Scotland closed circuit television cameras, and
- (f) Media coverage (Including social media) of weather related articles in connection with the Unit

to ensure that the Winter Service Duty Officers receive and monitor climatic and road information to assist in the decision making process and in taking appropriate actions.

6.2.13 Following any precautionary treatment undertaken by the Operating Company, the Winter Service Duty Officers shall continue to monitor the weather forecasts and the actual weather conditions, including reports from Winter Service Patrols and data from the Computerised Road Weather Information System and social media channels, to determine the ongoing effectiveness of the treatment and to instruct further treatment when this shall be required.

This shall be particularly important;

- (a) where precipitation is forecast or has occurred that may reduce the effectiveness of a treatment, or
- (b) where the trend data from the Computerised Road Weather Information System changes from that predicted, or

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(c) on all bridge decks.

Where the information available to the Winter Service Duty Officers requires a review of the ongoing effectiveness of any precautionary treatment that has been undertaken, the Winter Service Duty Officers shall arrange for further precautionary treatment to be carried out, if necessary.

6.2.14 The Operating Company shall carry out Winter Service "snow desk" exercises prior to 1 November in each Winter Service Period. Such exercises shall be based on scenarios provided by the Director and shall serve to test the effectiveness of the Operating Company's proposed Winter Service Contract Personnel.

6.2.15 During the Winter Service Period, the Operating Company shall report the known effects and impacts of adverse weather conditions to Traffic Scotland. The Operating Company shall liaise closely with;

- (a) Transport Scotland,
- (b) Police Scotland,
- (c) the Traffic Scotland Operations and Infrastructure Services Contractor and Traffic Scotland Systems Contractor,
- (d) adjacent local road and road authorities,
- (e) adjacent Trunk Road operators, and
- (f) Network Rail

to monitor adverse winter weather and travelling conditions and ensure that the Winter Service Plan for provision of Winter Service at boundary interfaces is implemented. The Operating Company shall submit reports on the condition of the Trunk Roads of the Units every hour to Traffic Scotland during periods of Severe Weather forecasted by the United Kingdom Met Office.

6.2.16 When Winter Service Operations are planned, the Operating Company shall notify electronically Traffic Scotland, to inform them of such Operations and, when appropriate, to request that messages be displayed on all relevant electronic warning systems and variable message signs.

6.2.17 From 1 November to 30 April inclusive, the Operating Company shall carry out Winter Service Patrols on those sections of Trunk Roads identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.6 Winter Service Patrols.

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- 6.2.18 Category A Winter Service Patrols and Category B Winter Service Patrols are identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.6 Winter Service Patrols.
- 6.2.19 All Winter Service Patrol vehicles shall have the full functionality that meets the requirements of the Schedule 5 Specification & Drawings including being fitted with;
- (a) A pre-wet spreader with a minimum capacity of six (6) cubic metres,
  - (b) Mobile road condition monitoring equipment that relays live road condition information including images from the vehicle to the control room of the Central Office and Traffic Scotland National Control Centre, and
  - (c) Cameras in accordance with Schedule 5 Specification & Drawings, 179AR Dash Cams.
- 6.2.20 When the road surface temperature for any climatic area within a Winter Service Patrol Route is forecast at any time to be less than, or equal to, three (3) degrees centigrade (during the period 1<sup>st</sup> November to 30<sup>th</sup> April), a Winter Service Patrol shall be enacted in accordance with the requirements of Section 6 Network Operations – Winter Service, 6.2 Management, 6.2.25 and Section 6.2 Management 6.2.26.
- 6.2.21 Winter Service Patrols shall;
- (a) patrol all carriageways of Trunk Roads of the Unit, excluding slip roads,
  - (b) report on road conditions encountered to, and take instruction on treatments from, the Winter Service Duty Officers,
  - (c) provide an immediate response when instructed to carry out treatments or other de-icing Operations by the Winter Service Duty Officers,
  - (d) deal with any situation on the Winter Service Patrol Route requiring immediate attention,
  - (e) pay particular attention to the areas identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.7 Location of Known Vulnerable Locations ,
  - (f) undertake short stops for minor maintenance activities such as clearing grips and removing debris, and
  - (g) provide daily reports in the format indicated in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.1 appendices for Winter Service Plan, Table 6.1.1 Winter Service Patrol Report Record.

Where any situation on the Winter Service Patrol Route cannot be resolved by any of the actions described in this Section 6 Network Operations – Winter Service, 6.2.23, the

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Operating Company shall deploy additional resources to perform the Winter Service. Where any Incident occurs on the Unit, but out with the Winter Service Patrol Route, the Operating Company shall deploy additional resources to manage the Incident.

- 6.2.22 The Operating Company shall monitor the operation of Winter Service Patrols and take any action necessary to ensure that they comply with the requirements of this Section 6 Network Operations – Winter Service.
- 6.2.23 Winter Service Plant for Winter Service Patrols shall be fully loaded with de-icing material at the commencement of the Winter Service Patrol.
- 6.2.24 Category A Winter Service Patrols shall operate from 02:00hrs to 10:00hrs at two hourly intervals as described in Section 6 Network Operations – Winter Service, 6.2 Management, 6.2.28 when during this period the road surface temperature for any climatic domain within a Winter Service Patrol Route is forecast at any time to be less than, or equal to three (3) degrees centigrade.

Winter Service Patrol Routes shall be designed such that each Winter Service Patrol alternates between a one (1) hour patrol and a one (1) hour standby on each Winter Service Patrol Route. All Winter Service Patrol Routes shall be designed such that patrols are completed within one (1) hour of commencement allowing for typical morning peak traffic flows.

Winter Service Patrol Routes for motorways, dual carriageways and other connecting roads shall be designed such that the Winter Service Patrol vehicle, when working, is able to attend any location on its Winter Service Patrol Route within thirty (30) minutes of receiving a call from any of the Winter Service Duty Officers.

- 6.2.25 Operating periods for Category A Winter Service Patrols shall be between;
- (a) 02:00 hrs and 04:00 hrs,
  - (b) 04:00 hrs and 06:00 hrs,
  - (c) 06:00 hrs and 08:00 hrs and
  - (d) 08:00 hrs and 10:00 hrs.

The Winter Service Patrol Route shall be covered in the same direction in each period.

- 6.2.26 Operating periods for Category B Winter Service Patrols shall be between;
- (a) 00:00 hrs and 03:00 hrs,
  - (b) 03:00 hrs and 06:00 hrs and

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(c) 06:00 hrs and 09:00 hrs.

The Winter Service Patrol route shall be covered in the same direction in each period.

- 6.2.27 Winter Service Patrols shall allow for rest periods, patrolling both sides of single, dual carriageways and motorways and all actions required in accordance with Section 6 Network Operations – Winter Service, 6.2 Management, 6.2.21.
- 6.2.28 Winter Service Plant for Winter Service Patrols shall not be used by the Operating Company for undertaking precautionary treatments.
- 6.2.29 Category A Winter Service Patrols and Category B Winter Service Patrols shall operate out with the times specified in Section 6 Network Operations – Winter Service, 6.2 Management, 6.2.24 when forecasts indicate any snow accumulations on a Route.
- 6.2.30 Category A Winter Service Patrols and Category B Winter Service Patrols shall use Airwave in accordance with the requirements of Schedule 2 Scope, Section 7 Network Operations - Disruption Risk Management. The Operating Company shall utilise this equipment as a dedicated communication system between Winter Service Patrol personnel, the Traffic Scotland National Control Centre, the Winter Service Duty Officers and Police Scotland.
- 6.2.31 Vulnerable Locations are described in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.7 Location of Known Vulnerable Locations and are areas where frost or ice is prone to occur, where water run-off is likely to happen or where the gradient is likely to affect the traction of vehicles.

When the Operating Company's Expert Weather Forecasting Service forecasts any snow accumulations in a Vulnerable Location which includes a gradient, the Operating Company shall mobilise to and locate no less than one (1) reserve Winter Service Plant at a Vulnerable Location, in advance of snowfall for the purposes of Winter Service Operations including commencing snow clearing Operations.

- 6.2.32 The Operating Company shall review the Vulnerable Locations referred to in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.6 Location of Known Vulnerable Locations at least once in each Annual Period and obtain the Director's consent to amend the list. The Operating Company shall not remove any Vulnerable Location without receiving written consent from the Director.

Immediately following any Critical Incident resulting from a closure of a carriageway due to snow or ice the Operating Company shall obtain the Director's consent to amend the list of Vulnerable Locations to include that location as a Vulnerable Location or as otherwise instructed by the Director.

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6.2.33 Police Scotland is responsible for taking decisions to close roads during periods of Severe Weather.

When Police Scotland, in consultation with the Operating Company, consider that the road is unsafe for vehicular traffic, the Operating Company shall arrange with Police Scotland to close the road(s) and, if applicable, snow gates listed in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.5 Location of Winter Service Infrastructure considered necessary following such consultation.

6.2.34 The Operating Company shall liaise with Police Scotland to establish and carry out procedures for the operation of snow gates, including checking that no vehicles or pedestrians are trapped on sections of Trunk Road between closed snow gates. The procedures shall include;

- (a) manning the gates until a Police Scotland search of the road between the gates has been undertaken,
- (b) securing the gates, having ascertained that no-one has been trapped between them,
- (c) withdrawing all Operating Company Contract Personnel except those involved in the clearing of snow, and
- (d) agreeing the method of securing snow gates.

The Operating Company shall liaise and agree with Police Scotland a standard type of padlock with a number code for the snow gates on the Unit.

Each padlock number code shall be recorded and held at the depot nearest to each snow gate. The Winter Service Duty Officers shall ensure that the padlock number codes are kept safely at all times and are made available to Police Scotland.

The Operating Company shall include the type, location and procedures for the operation of snow gates in each Winter Service Plan.

The Operating Company shall advise Police Scotland when it considers that the road can be re-opened safely and shall arrange with Police Scotland to re-open the Trunk Road. The Operating Company shall document the arrangements for re-opening roads and snow gates within the Winter Service Plan.

6.2.35 When a snow gate is intended to be closed, the Operating Company shall immediately notify the Traffic Scotland Operations and Infrastructure Services Contractor by telephone.

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- 6.2.36 The Operating Company shall provide hourly updates to the Traffic Scotland Operations and Infrastructure Services Contractor by telephone and e-mail of progress on clearing the closed section of road and the expected and actual time of re-opening of the Trunk Road to traffic.
- 6.2.37 Following the closure of snow gates, snow clearing Operations shall continue on the section of Trunk Road between the gates as weather conditions permit, to allow the earliest possible re-opening of the Trunk Road.
- 6.2.38 The Operating Company shall inspect snow gates annually prior to the commencement of the Winter Service Period and shall, undertake Operations to ensure they are functional and of effective appearance throughout the Winter Service Period.
- 6.2.39 The locations of existing snow fences and snow poles are provided in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.5 Location of Winter Service Infrastructure.
- 6.2.40 During the first Annual Period, the Operating Company shall review the need for snow fences, shelter belts and snow poles on the Unit and, where it considers that alterations to existing provisions are necessary, the Operating Company shall make recommendations in writing for the Director's consent as part of a Bid.
- 6.2.41 The Operating Company's recommendations for erection of additional snow fences, creation of shelter belts and erection of additional snow poles shall be included in each Winter Service Report.
- 6.2.42 The Operating Company shall Design and erect snow fences in accordance with the recommendations set out in Transport and Road Research Laboratory Report LR 362 Snow Fences by L E Hogbin dated January 1970, unless otherwise consented to in writing by the Director.
- 6.2.43 The Operating Company shall supply and erect snow poles. The Operating Company shall inspect existing snow fences and snow poles annually prior to the commencement of the Winter Service Period and shall undertake Operations to ensure they are functional and of effective appearance throughout the Winter Service Period.
- 6.2.44 During the Mobilisation Period, the Operating Company shall review the current locations of salt bins on the Unit and shall make proposals as to the provision and location of salt bins for the Director's consent. The Operating Company shall;
- (a) keep the need for salt bins under review,
  - (b) consider provision of additional locations of salt bins to improve the Winter Service, and
  - (c) make appropriate recommendations regarding salt bins in each Winter Service Report.

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- 6.2.45 By 30 September in each Annual Period, salt bins shall be provided and placed by the Operating Company at the locations identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.5 Location of Winter Service Infrastructure. Throughout the Winter Service Period the Operating Company shall;
- (a) replenish the salt bins with salt to ensure that a sufficient supply is always available for public use,
  - (b) replace damaged, vandalised or missing salt bins within forty eight (48) hours of the damage, vandalism or absence becoming known by the Operating Company, and
  - (c) at the end of each Winter Service Period, collect and take all salt bins to the Operating Company's depots for storage.

Before storage, the Operating Company shall empty and wash the salt bins and grease their hinges.

- 6.2.46 Hidden message signs are provided at the locations referred to in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.5 Location of Winter Service Infrastructure.
- 6.2.47 The Operating Company shall open, or erect and open, snow or ice hidden message signs before the start of each Winter Service Period, or as conditions require, to provide information for weather and road conditions during the Winter Service Period.
- 6.2.48 The Operating Company shall liaise with Police Scotland to coordinate the activation of relevant signs when closing roads.
- 6.2.49 The Operating Company shall complete and keep daily Records for Winter Service requirements as referred to in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.8 Records Relating to Winter Service.

The Records shall be held electronically and have a remote access facility available to both the Director and the Performance Audit Group. The format of these Records shall be as approved by the Director in accordance with the documented procedure in the Operating Company's Management System as it relates to the Winter Service. Data transmitted from the Winter Service Plant shall be received and stored in accordance with Schedule 5 Specification & Drawings, 2804AR Winter Service Plant Data Receiving, Storing, Archiving & Web Based System.

### **6.3 Treatments**

- 6.3.1 In this Section 6 Network Operations – Winter Service, 6.3 Treatments, footways includes those footways that are situated on bridge decks.

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- 6.3.2 The Operating Company shall undertake such precautionary treatment as is required.
- 6.3.3 The Winter Service Duty Officers shall instruct the commencement time and the spread rates for precautionary treatment Operations.
- 6.3.4 The total width of carriageway areas including;
- (a) slip roads,
  - (b) hard shoulders,
  - (c) hard strips,
  - (d) turning Lanes,
  - (e) central reserve crossovers,
  - (f) contiguous lay-bys,
  - (g) bus bays,
  - (h) car parks,
  - (i) cycle lanes, and
  - (j) hatched areas,
- shall receive precautionary treatments.
- 6.3.5 The Operating Company shall provide precautionary treatment for carriageways in the Unit when road surface temperatures fall, or are forecast to fall, to less than, or equal to, plus (+) one (1) degree centigrade and or when snow conditions are forecast.
- 6.3.6 During precautionary treatments, all Winter Service Plant shall be driven in a manner appropriate to the prevailing weather conditions, and within the speed limit, but not exceeding forty (40) miles per hour.
- 6.3.7 Roads with temporary traffic management, including contra-flow running, shall require the Operating Company to amend a treatment Route as required to comply with the requirement to complete the treatment of all Routes in no more than two (2) hours.
- Particular care shall be taken by the Operating Company to ensure that all Lanes and contra-flow crossovers are adequately treated with de-icing material prior to removal of temporary traffic management and reopening to traffic.
- 6.3.8 Potassium acetate shall be applied at the locations specified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.9 Potassium Acetate Treatment.

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- 6.3.9 Precautionary treatment Routes shall be designed to enable completion of treatment Routes within two (2) hours of commencement of the treatment in a single pass.
- 6.3.10 Precautionary treatments shall be carried out on all footways, footbridges and cycling facilities at locations identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements when road surface temperatures are forecast to fall to less than, or equal to, plus (+) one (1) degree centigrade or when snow conditions are expected.
- 6.3.11 Precautionary treatment for all footways, footbridges and cycling facilities identified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements shall be carried out as a separate Operation from carriageway precautionary treatments, utilising equipment suitable for the purpose.
- 6.3.12 The total width of all footways, footbridges, cycling facilities and service roads on bridges shall be treated.
- 6.3.13 The minimum spread rate for anti-icing materials for precautionary treatments to footways, footbridges, cycling facilities and service roads on bridges shall be twenty (20) millilitres per square metre of brine with a minimum concentration of twenty (20) percent . Actual treatment levels shall be discussed and agreed with the relevant local authorities.
- 6.3.14 The Operating Company shall use pre-wetted salt in accordance with the Specification for precautionary de-icing treatments on all carriageway treatment Routes in the Unit. Details of the Operating Company's proposals for such use shall be provided as shown in the following tables of Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan and in each Winter Service Plan;
- (a) Table 6.1.2 Precautionary Treatment Routes Determined by Operating Company (20 gram Routes) 2 Carriageway Route, 1 Footpath Route,
  - (b) Table 6.1.3 Precautionary Treatment Routes Determined by Operating Company (40 gram Routes) 2 Carriageway Route, 1 Footpath Route.

The Operating Company shall obtain the approval of the Director to use dry salt in accordance with the requirements of Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.2 Spreading Rates for Precautionary Treatments Matrix to enable the effective de-icing of carriageway and footway treatment Routes during certain weather conditions.

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6.3.15 Notwithstanding the requirements of Section 6 Network Operations – Winter Service, 6.2 Management, 6.2.15 to 6.2.28, when an immediate response is required for snow or ice clearance or other de-icing Operations, the Operating Company shall mobilise and commence treatment at the beginning of the Route within one (1) hour of being informed by the Expert Weather Forecasting Service snow and or ice is forecast to accumulate on a Route.

6.3.16 When a planned response is required for precautionary treatment, the Operating Company shall mobilise and commence precautionary treatments at the beginning of the Route to ensure completion before snow or ice conditions are predicted to occur, as indicated by the Expert Weather Forecasting Service.

When the Operating Company's Expert Weather Forecasting Service forecasts any snow accumulations on a Route, the Operating Company shall mobilise Front Line and reserve Winter Service Plant onto the Route no later than one (1) hour before snowfall for the purposes of Winter Service Operations including snow clearance Operations.

6.3.17 For immediate or planned responses, the Operating Company shall complete treatment within two (2) hours from the commencement of the treatment.

6.3.18 Cycling facilities within urban areas shall be considered footways. The Operating Company shall identify such cycling facilities in each Winter Service Plan.

Category B footways, footbridges and cycle ways are those not listed as being in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements, Table 6.10.3 Footways, Footbridges & Cycle Facilities of the Unit and shall receive treatment when required by the Director. The Operating Company shall identify Category B facilities in each Winter Service Plan.

6.3.19 Design of the ploughing Routes shall be in accordance with the requirements of Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.12 Snow Clearance.

6.3.20 The Operating Company shall provide details in the Winter Service Plan of its ploughing Routes in the form shown in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan, Table 6.1.4 Ploughing Routes Determined by Operating Company.

6.3.21 The plough blade shall be set to fully contact the carriageway surface to ensure full removal of snow. The Operating Company shall ensure that the design of the plough blade allows for such use while preventing damage to the road surface, other equipment on the road surface

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and the plough blade. The hydraulic circuit which powers the snow plough should have the ability to 'float' ensuring optimal snow clearing performance when travelling over undulating surfaces.

- 6.3.22 The total width of carriageway as described in Schedule 2 Scope, Section 6 Network Operations – Winter Service, 6.3 Treatments, 6.3.4 shall be cleared of snow or ice.
- 6.3.23 In the event that treatment is required to lay-bys and car parks that are remote from the carriageway, this shall be undertaken after all other parts of the network are operating satisfactorily and resources can be deployed to these locations.
- 6.3.24 When planning and carrying out snow or ice clearance, the Operating Company shall pay particular attention to the layout of the carriageway in terms of the overall number of Lanes and the location of entrance and exit slip Lanes.

Snow or ice clearance of slip roads shall be coordinated with main carriageway clearance.

A clear path shall be kept open between those entry and exit points where frequent Lane changes are necessary.

- 6.3.25 On dual carriageway and multi-Lane motorway Trunk Roads including bridge decks;
- (a) the Operating Company shall use echelon ploughing to clear the carriageway,
  - (b) echelon ploughing shall be undertaken by two or more vehicles, a minimum of one of which shall be Front Line Winter Service Plant, all moving in convoy, on adjacent Lanes,
  - (c) only the right hand Lane may be ploughed towards the central reservation unless an alternative method is necessary due to physical constraints, provides improvements in the Winter Service and is approved by the Director,
  - (d) the Operating Company shall avoid irregular windrows caused by ploughing passes, especially those that weave from one Lane to another,
  - (e) Lanes shall be completely cleared and the windrows of snow remaining shall form a smooth and continuous line without sudden encroachments into the cleared path,
  - (f) windrows may be temporarily left on hard shoulders but these shall be cleared as soon as road surface conditions on running Lanes are safe, and
  - (g) clearance work shall proceed continuously until no snow remains on the carriageway.

During and after prolonged snowfall, ploughing shall be used continuously from the start of snowfall to prevent snow build up and compaction by traffic and to ensure the snow clearance of parts of the Unit.

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Such ploughing shall be supplemented by simultaneous de-icing treatment at a minimum spread rate of forty (40) grams per square metre. For all bridge decks, potassium acetate shall be used at the spread rate in accordance with Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.3 Precautionary Treatment Potassium Acetate Spreading Rates.

- 6.3.26 If the road surface temperature continues to fall and the need for ploughing continues, or hard packed snow or ice has formed, the spread rate shall be increased as necessary in accordance with the requirements in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.2 Spreading Rates for Precautionary Treatments Matrix.

Treatment of all bridge decks shall be in accordance with the requirements of Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.3 Precautionary Treatment Potassium Acetate Spreading Rates.

- 6.3.27 Where conventional ploughing is not possible, for example;

- (a) in exceptional circumstances when the snow on the road is deep and cannot be removed by ploughing,
- (b) when de-icing treatment over packed snow is likely to provide an unacceptable surface,
- (c) when the traffic is insufficient to disperse the snow,
- (d) through certain traffic management conditions, or
- (e) on bridge decks and bridge footways/service roads

the Operating Company shall carry out Operations to lift, remove and dispose of snow or ice, or utilise snow blowers with the snow being directed onto trucks or onto adjacent land where the Operating Company has obtained the prior agreement of the landowner and the Scottish Environment Protection Agency.

Such Operations shall be followed by de-icing treatment.

- 6.3.28 Where there is a formation of hard packed snow or ice not exceeding twenty (20) mm thickness and the air temperature is above minus (-) five (5) degrees centigrade, removal shall be achieved by using successive spreading of de-icing material in accordance with Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.2 Spreading Rates for Precautionary Treatments Matrix. Consideration shall be given to alternative de-icing materials in accordance with Schedule 2 Scope, Section 6 Network Operations – Winter Service, 6.4 De-Icing Materials, 6.4.17 to 6.4.20.

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The Scottish Ministers own two icebreakers (Raiko K14 model). These shall be shared by the Operating Company with the other operating companies on other parts of the Trunk Road network on a priority basis as determined by the Director.

The Operating Company shall make all necessary arrangements with the other operating companies on other parts of the Trunk Road network for the safe storage and sharing of this equipment. The Operating Company shall ensure that Front Line Winter Service Plant includes two vehicles capable of being fitted with and operating either icebreaker in accordance with the manufacturer's recommendations.

6.3.29 Where there is a formation of hard packed snow or ice;

- (a) not exceeding twenty (20) mm thickness and air temperature is less than, or equal to, minus (-) five (5) degrees centigrade, or
- (b) exceeding twenty (20) mm thickness,

the addition of abrasive aggregates shall be considered in accordance with Schedule 2 Scope, Section 6 Network Operations – Winter Service, 6.4 De-Icing Materials, 6.4.21. Application of the initial treatment technique should be resumed as soon as possible since abrasives contribute little to the removal of snow or ice and may block drains and gullies upon thawing. Abrasives shall not be used on Structures where there is any danger of blockage to drains.

Abrasive aggregates may be used by the Operating Company as a supplement in urban areas where de-icing material alone would provide an unacceptably slippery surface.

6.3.30 Footways, footbridges and cycleway categories and the response times and clearance requirements are provided in the following tables of Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements ;

- (a) Table 6.10.1 Footways, Footbridges & Cycling Facilities Response Times & Clearance Requirements for Ice,
- (b) Table 6.10.2 Footways, Footbridges & Cycling Facilities Response Times & Clearance Requirements Snow & Ice Occurring Together,

Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements, Table 6.10.3 Footways, Footbridges & Cycle Facilities of the Unit provides details of such Structures of the Unit.

The Operating Company shall ensure Appendix 6 Winter Service Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements, Table 6.10.3

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Footways, Footbridges & Cycle Facilities of the Unit is kept up to date until the Service End Date and shall make written proposals for the inclusion and treatment of additional footways, footbridges and cycleways for the Director's consent.

- 6.3.31 Following clearance of snow or ice from footways, footbridges and cycling facilities, de-icing material shall be spread in accordance with Section 6 Operations Roads – Winter Service, 6.3 Treatments, 6.3.12. Where snow or ice remains on footways, footbridges and cycling facilities after treatment, de-icing material shall be spread at a minimum spread rate of twenty (20) grams per square metre, or as specified in Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.2 Spreading Rates for Precautionary Treatments Matrix as appropriate, to prevent ice formation on the cleared surfaces.

The full width of the footways, footbridges and cycling facilities shall be treated.

- 6.3.32 The Operating Company shall, in discussion with Network Rail or any successor organisation, ensure that appropriate safety precautions are taken when snow ploughing vehicles are negotiating railway level crossings.

When snowploughing or snow blowing Operations are undertaken, the Operating Company shall ensure that snow or ice does not build up across or against;

- (a) railway tracks,
- (b) gates,
- (c) bridge parapets,
- (d) fences,
- (e) walls, and
- (f) other boundaries.

Where snow or ice clearance is carried out adjacent to railway overhead electricity cables, the Operating Company shall take special care to ensure snow does not cause electrical short circuits or other damage to the property of Network Rail and any other Operational Partners.

The Operating Company shall consult with Network Rail no later than four (4) weeks before the start of every Winter Service Period to ensure the requirements of Network Rail in relation to the Winter Service and the interface between the Trunk Road of the Unit and the railway network are agreed.

The Operating Company shall provide the Director with a copy of the minutes of all consulting meetings between the Operating Company and Network Rail to demonstrate the

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Operating Company has consulted with Network Rail every year before the start of every Winter Service Period no later than five (5) Working Days after the consulting meeting has taken place.

- 6.3.33 Lifting and removal of snow or ice from multi-level and grade separated interchanges and other locations shall be undertaken where necessary.

Sites for the disposal of snow or ice arising from such Operations shall comply with the requirement of the Scottish Environment Protection Agency.

The Operating Company shall provide temporary traffic management, including road closures, where required for these Operations.

- 6.3.34 When ploughing to the nearside, other vehicles (unless stationary or on the hard shoulder) shall not be overtaken. Snow or ice shall not be thrown over bridge parapets onto the road beneath. When ploughing to the central reservation, the speed used shall prevent the throwing of snow or ice into the path of traffic on the opposite carriageway.

- 6.3.35 In the event of moderate or heavy snow and snow showers (as defined by the United Kingdom Met Office) forecasted by the Expert Weather Forecasting Service, the Operating Company shall deploy all Front Line, reserve and additional Winter Service Plant on affected Routes for the purposes of Winter Service Operations including snow clearance. .

- 6.3.36 When machine snow clearance is not suitable (including clearance around carriageway obstructions) hand snow clearance and salting shall be carried out by the Operating Company.

- 6.3.37 Snow or ice shall be cleared by the Operating Company in a manner that prevents it from landing on adjacent or underlying paved surfaces.

- 6.3.38 The Operating Company shall provide in the Winter Service Plan the Operating Company's proposals for dealing with freezing rain/rain falling on extremely cold surfaces including advance planning, operational arrangements and hazard mitigation measures.

When preparing the Winter Service Plan, the Operating Company shall take into account the guidance related to dealing with freezing rain contained in Part 5 of the Highways Agency Network Management Manual.

### **6.4 De-icing materials**

- 6.4.1 The Operating Company shall procure and provide the salt and other de-icing materials necessary to comply with the Winter Service requirements.

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6.4.2 The Operating Company shall provide the minimum operational stock levels at the start of the Winter Service Period as detailed in Schedule 2 Scope, Appendix Winter Service Attachment 6.1 Appendices for Winter Service Plan, Table 6.1.5 Operational Salt Stock Levels.

If stocks have reduced to ninety (90) percent or less of the minimum operational stock levels on 21 December in any Winter Service Period, the Operating Company shall restock to one hundred (100) percent of the full pre-season stocks or if greater, the highest annual actual usage of salt and other de-icing materials since the Commencement of Service Date 1, within a period to be consented to by the Director.

6.4.3 Salt for de-icing shall be six point three (6.3) millimetre grading particle size complying with BS 3247: 2011 + A1: 2016 Specification for Salt for Spreading on Highways for Winter Maintenance and treated with an anti-caking agent.

6.4.4 The method of salt storage at loading points shall ensure that the moisture content of the stored salt does not exceed four (4) percent. Should the moisture content of salt exceed four (4) percent, the Operating Company shall take all measures necessary to ensure compliance with the requirements of this Section 6 Network Operations – Winter Service, 6.4 De-Icing Materials.

Where moisture content is deliberately increased to deal with low humidity conditions, the spread rate shall not be increased. No arising's from the production of brine shall be disposed of into salt stock piles.

6.4.5 Within ten (10) Working Days of each delivery, salt shall be tested by the Operating Company at loading points in accordance with BS 3247: 2011 + A1: 2016 Specification for Salt for Spreading on Highways for Winter Maintenance and results recorded to ascertain;

- (a) moisture content (one (1) test per five hundred (500) tonnes),
- (b) particle size distribution (one (1) test per five hundred (500) tonnes),
- (c) chloride content (one (1) test per one thousand five hundred (1500) tonnes), and
- (d) soluble sulphate compounds (one (1) test per one thousand, five hundred (1,500) tonnes).

6.4.6 Salt stocks shall be tested by the Operating Company for salt moisture content at monthly intervals throughout each Winter Service Period and the results shall be recorded. As a minimum, the salt should be tested at the base of the stockpile.

6.4.7 The Operating Company shall store materials test data of de-icing materials on an electronic database contained in the Operating Company's Management System.

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- 6.4.8 Potassium Acetate used for de-icing Operations at the locations specified in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.9 Potassium Acetate Treatment, Table 6.9.1 Potassium Acetate Treatment on the Unit shall comply with the AMS 1435D: Liquid Runway De-Icing / Anti Icing Product unless otherwise consented to in writing by the Director.
- 6.4.9 The Director intends to maintain a stock of Strategic Salt to enable the provision of Mutual Aid.
- 6.4.10 Subject to an Order, the Operating Company shall supply and or transfer Strategic Salt when instructed by the Director and when undertaking this requirement shall:
- (a) Obtain prices from three (3) or more salt suppliers and or haulage companies,
  - (b) Arrange for the transfer of Strategic Salt from one location to another,
  - (c) Retain all records including the procurement of the supply and or transfer of Strategic Salt and upload this information into APMS no later than ten (10) Working Days after the delivery of Strategic Salt, and
  - (d) Prepare and send invoices, on behalf of the Scottish Ministers, to the Operational Partners who have received Strategic Salt so the Scottish Ministers can recover the cost of the Strategic Salt from the Operational Partners.
- 6.4.11 Salt for de-icing material as part of pre-wetted salt Operations to be used in producing brine shall be marine salt in accordance with and BS 3247: 2011 + A1: 2016 Specification for Salt for Spreading on Highways for Winter Maintenance and suitable for such production.
- 6.4.12 For pre-wetted salt spreading Operations, the spread rates set out in Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.11 De-Icing Material Spread Rates, Table 6.11.2 Spreading Rates for Precautionary Treatments Matrix shall represent the total weight of the spread material.
- 6.4.13 Brine added to salt during spreading Operations shall be marine brine in accordance with and BS 3247: 2011 + A1: 2016 Specification for Salt for Spreading on Highways for Winter Maintenance and comprise thirty (30) percent of the total spread material by weight, giving a seventy (70) percent salt and thirty (30) percent brine solution and be produced using automated brine production equipment.
- 6.4.14 Brine solution with a concentration of twenty three (23) percent dissolved sodium chloride shall be used as the pre-wetting agent and be produced using automated brine production equipment.

Where air temperatures are forecast to fall below minus fifteen (-15) degrees centigrade, the brine shall be diluted by the addition of five (5) percent to ten (10) percent water to prevent

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re-crystallisation of the salt. The addition of water shall be undertaken in a manner that ensures that the water and brine is thoroughly mixed to produce a consistent concentration of brine.

- 6.4.15 The Operating Company shall arrange for sufficient brine to be stored at each depot to treat simultaneously, at a maximum spread rate, all precautionary treatment Routes serviced from that depot. An additional quantity of twenty (20) percent brine above the minimum shall be held in reserve.

The brine within the storage facilities shall be replenished within two (2) hours of being depleted and be produced using automated brine production equipment.

- 6.4.16 Sensors with digital read outs shall be fitted to the Operating Company's Salt Storage Facilities to measure the salt concentration of the brine automatically.

Daily checks shall be carried out by the Operating Company using a saturation meter and the results shall be stored electronically. Water supplies to saturator units shall be protected from freezing by appropriate measures. Saturators shall have an alarm facility when brine is outside tolerances and be capable of being accessed remotely by the Operating Company, the Director and the Performance Audit Group.

- 6.4.17 In conditions when sodium chloride is not effective, the Operating Company shall use alternative de-icing materials in accordance with guidance on use of such materials. Such alternative de-icing material shall be described in the Winter Service Plan.

- 6.4.18 The Operating Company shall provide in the Winter Service Plan the Operating Company's proposals for using the alternative de-icer material in accordance with published guidance, including the UK Roads Board Publication Treatments for Extreme Cold and TRL publication Guidance on the use in Scotland of Five Alternative De-icers to Salt Suitable for use in Lower Temperatures.

- 6.4.19 The Operating Company shall provide and store a minimum of fifty thousand (50,000) litres, or equivalent, of alternative de-icing material on the Unit to deliver the requirements of this Schedule 2 Scope, Section 6 Network Operations – Winter Service.

- 6.4.20 The Operating Company shall replenish the original alternative de-icer stock when the quantity has reduced to a minimum of thirty thousand (30,000) litres in no later than seven (7) days.

- 6.4.21 A single sized abrasive aggregate with particle size of six (6) mm, or five (5) mm sharp sand having low fines content, shall be added to the salt in a fifty (50) percent salt and fifty (50)

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percent abrasive aggregate or sand mixture in accordance with the requirements of this Section 6 Network Operations – Winter Service.

6.4.22 Salt and other de-icing materials shall be strictly stored inside a Salt Storage Facility of a type in accordance with Schedule 2 Scope, Appendix 6 Winter Service, Attachment 6.13 Salt Storage Facility within the Operating Company's depots to ensure compliance with the requirements of this Section 6 Network Operations – Winter Service and the supplier's written instructions in the case of additives, potassium acetate and any other de-icing materials.

For the avoidance of doubt the Operating Company shall not store any salt and or other de-icing materials outside under cover and or outside unprotected.

6.4.23 The Operating Company shall satisfy itself that arrangements for storage, handling and loading of de-icing materials at the loading points are adequate to achieve the specified response times set out in the Contract.

6.4.24 Where there is no provision for a Salt Storage Facility at the Commencement of Service Date, the Operating Company shall provide such storage no later than six (6) months after the Commencement of Service Date. Prior to the provision of such storage, all salt stored externally shall be covered in protective sheeting in a manner that prevents the ingress of moisture into the material as far as is practicable.

6.4.25 The Operating Company shall safeguard and manage all de-icing material stock and the Salt Storage Facility.

6.4.26 The Operating Company shall ensure that de-icing material stock does not;

- (a) become contaminated with matter likely to cause damage to Winter Service Plant;
- (b) cause the de-icing material to fail to comply with the requirements of this Section 6 Network Operations – Winter Service; or
- (c) adversely affect road users.

6.4.27 The Operating Company shall procure the services of a specialist surveyor organisation, independent of the Operating Company to survey, using computerised electronic data measuring equipment, and calculate the quantities of all de-icing materials (including salt and strategic salt) no later than;

- (a) Seven (7) days before start of every Winter Service Period, and
- (b) Five (5) Working Days before the 7<sup>th</sup> December during every Winter Service Period.

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The Operating Company shall provide the Director with a copy of a survey report including all calculations no later than one (1) Working Day after receiving a copy of the survey report from the independent surveyor organisation.

### **6.5 Front Line, Reserve, Additional & Loading Winter Service Plant**

6.5.1 Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan, Table 6.1.6 Winter Service Plant for all Winter Service Patrols details the minimum Winter Service Plant to be used in connection with the Winter Service. The Operating Company shall procure and ensure that the Winter Service Plant listed in Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan, Table 6.1.6 Winter Service Plant for all Winter Service Patrols is available as necessary for the Winter Service.

6.5.2 The Operating Company shall ensure that the Winter Service Plant is maintained in accordance with manufacturers' recommendations.

In the event of a breakdown on any of the Operating Company's Front Line Winter Service Plant;

- (a) the Operating Company shall provide details of the cause, time and location of the breakdown and any other relevant information; this shall be recorded using an appropriate Computerised Road Weather Information System (to be approved by the Director) no later than one (1) hour of the breakdown actually occurring,
- (b) the operator shall, if possible, return the vehicle to the nearest depot in order to minimise blockages and further disruption on the Unit, and
- (c) the Operating Company shall make immediate arrangements for reserve Winter Service Plant to be made available in order to comply with the requirements of this Section 6 Network Operations – Winter Service.

The Front Line and reserve Winter Service Plant shall be fitted with a communication system that enables all Winter Service Plant Contract Personnel to communicate with the Winter Service Duty Officer on matters relating to Operations.

6.5.3 When used on the Trunk Roads for operative training and maintenance runs, the spinner disc at the rear of the Operating Company's Winter Service Plant shall be covered in such a way that damage caused by sharp edges in the event of an accident is reduced to a minimum.

6.5.4 All Winter Service Plant shall be fitted with on-board electronic data loggers in accordance with the requirements of Schedule 5 Specification & Drawings, 2803 AR Winter Service Vehicle Data Logging & Transmitting Equipment.

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6.5.5 The on-board electronic data loggers shall be capable of transmitting their data in near real time to a web accessible database in accordance with the requirements of Schedule 5 Specification & Drawings, 2804AR Winter Service Plant Data Receiving, Storing, Archiving & Web Based Systems.

In the event of an on-board electronic data logger malfunction, the Operating Company shall prepare a similar written Record within twelve (12) hours of the malfunction occurring.

The Operating Company shall record any malfunction of an on-board electronic data logger as a Non-Conformance immediately after a malfunction occurring and notify the Director and the Performance Audit Group no later than twenty four (24) hours of the Non-Conformance being recorded in the Operating Company's Management System.

6.5.6 The Operating Company shall measure and record the weight of de-icing material spread on each occasion on each precautionary treatment Route. Such apparatus shall either be fitted to Winter Service Plant or located at depots and shall be additional to the data loggers.

6.5.7 In September and January of each Annual Period, the Operating Company shall calibrate all equipment for spreading de-icing material;

- (a) in accordance with the requirements of BS 1622:1989 Specification for Spreaders for Winter Maintenance, or
- (b) where BS 1622:1989 Specification for Spreaders for Winter Maintenance does not provide for the calibration of any de-icing spreading equipment, in a manner proposed in writing by the Operating Company and consented to in writing by the Director. As a minimum the Operating Company shall provide details of the Winter Service Plant supplier's calibration method to the Director for his consent, and
- (c) in accordance with the requirements of the specific material being used.

6.5.8 September calibration and testing shall comply with the requirements of tests 'A' and 'B' and January calibration and testing shall comply with the requirements of test 'B', all of BS 1622:1989 Specification for Spreaders for Winter Maintenance.

6.5.9 Re-calibration and testing shall be carried out after repairs to the spreading equipment and at other times when necessary to ensure the accuracy of de-icing material spreading.

All calibration and re-calibration shall be independently carried out and certified. Calibration Certificates shall be held in accordance with the requirements of the Winter Service Plan and the Operating Company's Management System.

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6.5.10 The Winter Service Plant that is used for spreading de-icing materials on the roads of the Unit shall be of sufficient capacity to enable the Operating Company to fulfil the obligations for Winter Service Operations.

6.5.11 Winter Service Plant used for spreading pre-wetted salt shall;

- (a) be capable of delivering a constant supply of brine of the appropriate concentration in accordance with Schedule 2 Scope, Section 6 Network Operations – Winter Service, 6.4 De-Icing Materials, 6.4.14,
- (b) comply with the requirements of this Section 6 Network Operations – Winter Service where such requirements are not inconsistent with the spreading of pre-wetted salt, and
- (c) comply with any other requirements to ensure the effective distribution of pre-wetted salt to comply with the requirements of this Section 6 Network Operations – Winter Service.

The Operating Company shall demonstrate to the Director that the brine delivery system of the Winter Service Plant used for spreading pre-wetted salt meets all the requirements of this Section 6 Network Operations– Winter Service and the Operating Company shall provide in writing to the Director the automated method that will be employed to ensure that the quantity of the brine being applied during each Route treatment is correct.

6.5.12 Winter Service Plant used shall comply with the requirements of this Section 6 Network Operations – Winter Service to ensure the effective distribution of potassium acetate and other de-icing materials.

6.5.13 The Operating Company shall provide a range of snowploughs or other Winter Service Plant that is capable of clearing all snow conditions on all carriageway Routes, footways (including those on bridge decks), footbridges and cycleways of the Unit in accordance with the other provisions of this Section 6 Network Operations – Winter Service.

6.5.14 Snow blowers for carriageways shall as a minimum;

- (a) be capable of blowing up to six hundred (600) tonnes of snow per hour,
- (b) have a width of cutter head of at least one point eight (1.8) metres,
- (c) be capable of operating in up to four (4) metres depth of snow,
- (d) be fitted with lights to permit effective operation during poor visibility and the hours of darkness,

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- (e) be attached to Winter Service Plant, the primary function of which is to blow snow. For the avoidance of doubt a snow blower shall not be attached to Winter Service plant, the primary function of which is to plough snow, and
- (f) for the avoidance of doubt, all snow blowing Winter Service Plant in the Winter Service Plan shall be dedicated for use in this Unit and must not be included in the winter service plan for another unit.

6.5.15 Snow blowers for footways/bridge service roads shall as a minimum;

- (a) be capable of blowing up to thirty five (35) tonnes of snow per hour,
- (b) have a width of cutter head of at least zero point five (0.5) metres,
- (c) be capable of operating in up to zero point five (0.5) metres depth of snow, and
- (d) be fitted with lights to permit effective operation during periods of poor visibility and the hours of darkness.

6.5.16 All Winter Service Plant used for Winter Service Operations shall;

- (a) comply with the requirements of this Section 6 Network Operations – Winter Service,
- (b) be fitted with a snowplough, and
- (c) have a minimum of two (2) additional headlamps fitted to permit forward visibility when a snow plough is fitted.

6.5.17 Front Line Winter Service Plant comprises vehicles and equipment permanently available on the Unit that are required for;

- (a) precautionary treatments,
- (b) snow or ice clearance,, but excluding Winter Service Plant not required to be capable of spreading whilst echelon ploughing,
- (c) Winter Service Patrols, and
- (d) compliance with the requirements of this Section 6 Network Operations – Winter Service.

6.5.18 The Front Line and reserve Winter Service Plant for carriageways shall comprise;

- (a) four (4) snow blowers.

Compliance with these requirements does not relieve the Operating Company of any other obligations or requirements under this Contract.

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- 6.5.19 The Operating Company's minimum Front Line, reserve and additional Winter Service Plant available for the Winter Service shall be in accordance the following tables set out Schedule 2 Scope, Appendix 6 Winter Service attachment 6.1 Appendices for Winter Service Plan;
- (a) Table 6.1.7 Front Line Winter Service Plant Permanently Available & Located in the Unit for Carriageways,
  - (b) Table 6.1.8 Front Line winter Service Plant Permanently Available & Located in the Unit for Bridge Service Roads, Footways, Footbridges & Cycling Facilities,
  - (c) Table 6.1.9 Reserve Winter Service Plant Permanently Available & Located in the Unit for Carriageways, Bridge Service Roads, Footways, Footbridges & Cycling Facilities,
  - (a) Table 6.1.10 Additional Winter Service Plant
- The Operating Company shall provide a minimum of one (1) reserve Winter Service Plant permanently available and located on the Unit, for carriageways, bridge service roads, footways, footbridges & cycling facilities, for every three (3) corresponding Front Line Winter Service Plant undertaking Operations during the Winter Service Period.
- 6.5.20 The minimum loading Winter Service Plant available for the Unit for loading Front Line, reserve and additional Winter Service Plant shall be in accordance with Schedule 2 Scope, Appendix 6 Winter Service Attachment 6.1 Appendices for Winter Service Plan, Table 6.1.11 Loading Winter Service Plant Permanently Available & Located in the Unit at Each Loading Point.
- 6.5.21 All Front Line Winter Service Plant shall be fitted with measuring devices for air temperature and road surface temperature that shall be capable of transmitting data to the on-board data logger system for remote real time display on the Computerised Road Weather Information System.
- 6.5.22 Front Line Winter Service Plant shall, as a minimum, have the ability to;
- (a) carry out precautionary treatment to all Routes simultaneously,
  - (b) carry out Winter Service Patrols to clear ice and snow,
  - (c) spread pre-wetted salt using a pre-wet spreader with a minimum capacity of 6 cubic metres, and
  - (d) apply potassium acetate on all bridge decks, bridge service roads and footways.
- 6.5.23 The Operating Company's reserve Winter Service Plant shall be that part of the Winter Service Plant permanently available for the Unit to supplement Front Line Winter Service Plant for the Winter Service in situations;

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- (a) when such Front Line Winter Service Plant may not be available for whatever reason for the Winter Service, or
- (b) to clear snow or ice in accordance with the requirements of this Schedule 2 Scope, Section 6 Network Operations – Winter Service.

6.5.24 The additional Winter Service Plant shall be that part of the Winter Service Plant that is available for the Winter Service, to deal with;

- (a) Moderate or heavy snow and snow showers as defined by the United Kingdom Met Office,
- (b) Pre-deploying at Vulnerable Locations to supplement reserve Winter Service Plant when any snow accumulations are forecast, and
- (c) any other winter weather conditions that cannot be managed by Front Line or reserve Winter Service Plant.

## **7 Network Operations – Disruption Risk Management**

### **7.1 Introduction**

- 7.1.1 The Operating Company shall develop and implement disruption risk management Operations in accordance with this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management including Transport Scotland's Manual for the Management of the Risk of Unplanned Network Disruption to;
- (a) establish and implement Disruption Risk Management Plans that remove unplanned disruption on the Unit,
  - (b) gather network disruption data and record this data in the APMS,
  - (c) identify Disruption Risk Sites with a pattern of and potential for Incidents,
  - (d) perform risk assessment of each Disruption Risk Site using a standard and recognised methodology provided by the Director,
  - (e) develop actions to mitigate risk at Disruption Risk Sites and prepare Bids in an attempt to secure funding to execute Operations to improve journey time reliability, and
  - (f) review, update and improve the effectiveness of Disruption Risk Management Plans as part of the Operating Company Management
- 7.1.2 The Operating Company shall attend to all Incidents in a prompt and efficient manner through the planned and coordinated use of its Incident Response Resources.
- 7.1.3 The Operating Company's Incident Response planning activities shall include the development and use of management plans, processes and systems. The Operating Company shall undertake such activities to improve response to, and minimise the duration of Incidents on the Unit.
- 7.1.4 The Operating Company's Incident Response Operations shall commence immediately after it has been notified of an Incident. Such Operations shall include;
- (a) responding to all Incidents within the response times stated in the Specification,
  - (b) providing sufficient Incident Response Resources in order to execute Incident Response Operations,
  - (c) undertaking repair work to restore safe access and use of the Trunk Road for all users, and
  - (d) undertaking recovery operations to restore the Unit to normal operation.

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The Operating Company shall undertake its Incident Response planning and Incident Response Operations in accordance with the Incident Response Plan. This plan shall be prepared and maintained by the Operating Company as stated in this Schedule 2 Scope, Section 7 Network Operations - Disruption Risk Management, 7.4 Incident Response.

- 7.1.5 The Operating Company's Incident mitigation activities shall seek to minimise or eliminate the risks associated with Incidents that impact on the operation and use of the Unit. Such mitigation activities shall include;
- (a) Disruption Risk Management activities relating to Incidents that cause disruption of the operation of the network. The Operating Company shall undertake such activities in accordance with the Disruption Risk Management Plan which shall be prepared and maintained by the Operating Company in accordance with Transport Scotland's Manual for the Management of the Risk of Unplanned Network Disruption and as stated in this Section 7 Network Operations - Disruption Risk Management, and
  - (b) activities relating to Incidents that do not cause disruption to the operation and use of the Unit.
- 7.1.6 The Operating Company shall ensure that all Contract Personnel involved in Incident Response Operations are suitably trained and vehicles are sufficiently equipped to deal with all Incidents.
- 7.1.7 The Operating Company shall use the APMS for recording Incidents on the Unit.
- 7.1.8 The Records referred to in this Section 7 Network Operations - Disruption Risk Management shall be held electronically and have remote access facility available to both the Director and the Performance Audit Group.
- 7.1.9 The Operating Company's Trunk Road Incident Support Service and Incident Support Units shall attend to all Incidents in accordance with the response times stated in Specification.
- 7.1.10 For the purposes of this Section 7 Disruption Risk Management, the Multi-Agency Response Team comprises partner organisations and Operational Partners working with Transport Scotland in the deployment of resources to manage Incidents or events that are deemed by the Director to;
- (a) have a high risk of severe disruption to road or rail journeys with potential safety risks for the travelling public,
  - (b) have a significant potential impact for large parts of the strategic transport network, and
  - (c) require a multi-agency response.

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- 7.1.11 The need to deploy the Multi-Agency Response Team will be considered by the Director in dialogue with the Multi-Agency Response Team partner organisations and Operational Partners. The decision making will be based on professional judgement and use the best intelligence available to the group. Participation by and deployment of the Multi-Agency Response Team will be proportionate and defined by the nature, scale and potential impact of the Incident or event.
- 7.1.12 The Operating Company shall maintain a list of suitably trained and experienced Contract Personnel who are able to work in the Multi-Agency Response Team when it is in operation. These nominated individuals shall be available at short notice, able to attend the Traffic Scotland Control Centre when required and have a full understanding of the objectives of the Multi-Agency Response Team and their role in its operation. Such Contract Personnel shall be available to attend any training events that may be organised in relation to Multi-Agency Response Team operations.
- 7.1.13 The Operating Company nominated individuals to work in the Multi-Agency Response Team shall not be a member of the Core Management Team or in a Key Staff role, with exception of Incident Liaison Officers and Winter Service Duty Officers not on duty within their own control rooms.
- 7.1.14 During a Met Office amber, red or severe weather warning for snow, the Multi-Agency Response Team shall be resourced by a member of the Core Management Team.
- 7.1.15 No later than 30 Days prior to the Commencement of Service Date, the Operating Company shall produce and maintain throughout the Contract Period its own Multi-Agency Response Team information folder which shall contain key information such as contacts, record logs and the like, which shall be kept up to date and handed over at each shift change when the Multi-Agency Response Team is in operation.
- 7.1.16 The Multi-Agency Response Team organisational partners will vary over the lifetime of this Contract and are likely to include;
- (a) Transport Scotland,
  - (b) the Traffic Scotland Operations and Infrastructure Contractor and Traffic Scotland Systems Contractor,
  - (c) other operating companies,
  - (d) Network Rail or their successors,
  - (e) ScotRail,
  - (f) the Meteorological Office, and

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(g) the Association of Chief Police Officers in Scotland.

### **7.2 Classification of Incident**

- 7.2.1 The Police and other Category 1 Responders are responsible for declaring a Major Incident and shall immediately notify the Director and the Traffic Scotland Operations and Infrastructure Service Contractor when a Major Incident has been declared.
- 7.2.2 When requested by the Director, the Operating Company shall support Category 1 Responders with dealing with Major Incidents.
- 7.2.3 The Operating Company shall declare an Incident to be a Critical Incident for its own and the Director's management purposes. The Operating Company shall populate the APMS within fifteen (15) minutes of the Incident start time with the classification and initial incident details.
- 7.2.4 The Operating Company's notification requirements for Critical Incidents are stated in Schedule 2 Scope, Appendix 7 Disruption Risk Management Attachment 7.1 Notification of Incidents.
- 7.2.5 Where the Operating Company considers Critical Incidents to have escalated, or are likely to escalate, to a Major Incident, the Operating Company shall notify the appropriate Category 1 Responder, the Director and the Traffic Scotland Operations and Infrastructure Service Contractor in accordance with Appendix 7 Disruption Risk Management Attachment 7.1 Notification of Incidents.
- 7.2.6 The Operating Company shall enter the Incident completion time in the APMS within thirty (30) minutes of it declaring the Incident as complete.
- 7.2.7 Where appropriate, the Operating Company shall declare an Incident to be a Minor Incident for its own and the Director's management purposes.
- 7.2.8 The Director will change the classification of a Minor Incident to a Critical Incident where other information that is available to the Director indicates that such a classification change is required. When notified of such a change the Operating Company shall comply with the requirements set out in Schedule 2 Scope, Section 7 Network Operations - Disruption Risk Management, 7.2 Classification of Incidents.

### **7.3 Disruption Risk Management Plan**

- 7.3.1 The Operating Company's Disruption Risk Management Plan for the Unit shall contain details of its arrangements for implementing its disruption risk management activities.
- 7.3.2 The Disruption Risk Management Plan shall combine the details and requirements of other management plans and Records required by this Contract that contribute to the management

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of disruption risk as set out in figure 7.3.2 – Disruption Risk Management Plan which shall include as a minimum;

- (a) the Incident Response Plan,
- (b) the Winter Service Plan,
- (c) the Trunk Road Incident Support Service Plan (TRISS Plan),
- (d) Incident Support Unit Plan (ISU Plan),
- (e) Standard Incident Diversion Routes (SIDR),
- (f) Wind Management Plans,
- (g) Flood Management Plans,
- (h) Landslide Management Plans,
- (i) Incident Records,
- (j) Register of Disruption Risk Sites,
- (k) the Statement of Intent requests for risk management action, and
- (l) any other management plans and risk records related to potential disruption risk.



Figure 7.3.2 – Disruption Risk Management Plan

7.3.3 No less than twenty-five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall submit to the Director for consent, a draft Disruption Risk

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Management Plan covering the full extent of the Unit. The Disruption Risk Management Plan shall be developed in accordance with Transport Scotland's Manual for the Management of the Risk of Unplanned Network Disruption and utilise all relevant historic data supplied by the Director.

- 7.3.4 The Operating Company shall keep the Disruption Risk Management Plan under review as required and will at intervals not exceeding three (3) months, either update the Disruption Risk Management Plan and re-issue it, or issue a statement that the Disruption Risk Management has been reviewed and that no update is required no later than ten (10) Working Days after each review.

### **7.4 Incident Response**

- 7.4.1 No later than the timescale prior to the Commencement of Service Date set out in Schedule 1 Conditions of Contract, Clause 4 Quality Management, 4.8 Operating Company Management System, the Operating Company shall submit an Incident Response Plan to the Director for his written consent.
- 7.4.2 The Operating Company's Incident Response Plan shall ensure a prompt and efficient response to Incidents including as a minimum;
- (a) road traffic collisions,
  - (b) vehicle breakdowns,
  - (c) deposit and spillage of debris, waste or animal carcasses,
  - (d) damaged infrastructure on the Unit,
  - (e) flooding and scour of roads and Structures,
  - (f) incidents other than vehicle damage that put Structures at risk,
  - (g) spillage of fuels, chemicals, noxious substances, body fluids and other sensitive material,
  - (h) landslips and rock falls,
  - (i) subsidence,
  - (j) damaged electrical apparatus including where live elements may be exposed. For the avoidance of doubt this includes all roadside electrical assets fixed on the Trunk Roads of the Unit which are the responsibility of a third party, Operational Partner or a Relevant Organisation,

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- (k) Severe Weather events affecting any part of the Unit excluding the clearance of ice and snow in accordance with the Winter Service Plan, and
- (l) any other circumstances involving an Incident.

7.4.3 The Operating Company's Incident Response Plan shall demonstrate the adequacy and availability of its Incident Response Resources and arrangements to implement all necessary Incident Response Operations and meet the response times referred to in the Schedule 5 Specification & Drawings, 32/1 Incident Response.

7.4.4 The Incident Response Plan shall include the;

- (a) management arrangements including the named resources of the Operating Company and other relevant organisations,
- (b) management arrangements to ensure the provision of out of hours Incident Response as referred in the Schedule 5 Specification & Drawings, 32/1 Incident Response,
- (c) management communication and instruction arrangements to provide the response referred to in this Section 7 Network Operations – Disruption Risk Management,
- (d) arrangements for notifying the Emergency Services of the contact details for the Incident Liaison Officer,
- (e) arrangements with operating companies in other Units for the use of additional Incident Response Resources in exceptional circumstances,
- (f) communication methods including a dedicated direct telephone number available to the Emergency Services to contact the Operating Company and the Operating Company's method of informing the Emergency Services of the direct telephone number and any changes to it,
- (g) communication resilience arrangements for ensuring availability of communications in the event of failure of electricity supplies, mobile telephone services and landline telephone services, radio communication services or any other service on which the Incident Response Operations depend,
- (h) communication systems, technologies and arrangements between Operating Company vehicles, offices, depots, sites of Incidents, Emergency Services and other Operational Partners,
- (i) availability of Operating Company and other resources and their locations, supply chain management arrangements, emergency contact details and mobilisation

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- arrangements for labour, plant and materials to implement all potential Incident Response Operations,
- (j) management arrangements for Incidents other than vehicle damage that put Structures at risk,
  - (k) arrangements for the provision of Mutual Aid,
  - (l) management arrangements for the availability of the Journey Time Reliability Coordinator and the Incident Liaison Officer both during and outwith Normal Working Hours,
  - (m) arrangements for post Incident debriefing and reporting to the Director of Critical or Major Incidents, Incidents involving spillage or deposit of hazardous or sensitive materials, Incidents involving Structures and any Incident where the requirements of this Contract have not been satisfied,
  - (n) arrangements for liaison with all appropriate organisations referred to in this Section 7 Network Operations – Disruption Risk Management,
  - (o) arrangements for coordination with other Category 1 Responders referred to in this Section 7 Network Operations – Disruption Risk Management,
  - (p) arrangements for dealing with spillage and deposit of hazardous or sensitive material referred to in this Section 7 Network Operations – Disruption Risk Management,
  - (q) arrangements for dealing with Structures including unsafe or potentially unsafe Structures referred to in this Section 7 Network Operations – Disruption Risk Management,
  - (r) the management process for obtaining specialist advice to determine the safety and stability of damaged or at risk Structures and the Design for temporary works, remedial and strengthening measures for Structures,
  - (s) arrangements for complying with the liaison requirements of Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland,
  - (t) the arrangements for facilitating the placing and removal of floral tributes at the scene of a road death Incident in accordance with the Society of Chief Officers of Transport in Scotland, Roadside Memorials and Floral Tributes, and
  - (u) management arrangements for Incidents including hazards, Defects and failures of roadside electrical assets fixed on the Trunk Roads of the Unit which are the responsibility of a third party, Operational Partner or Relevant Organisation that are

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likely to harm the safety and or welfare of road users, the public (including their pet animals) or those working on or close to the Unit.

- 7.4.5 In developing its Incident Response Plan, the Operating Company shall;
- (a) identify all relevant Operational Partners that have involvement in dealing with an Incident,
  - (b) agree the communication arrangements between Operating Company and the relevant Operational Partners in the event of an Incident, and
  - (c) ensure mutual understanding of the roles and responsibilities of the Operating Company and the relevant Operational Partners in the event of an Incident.

Details of all relevant Operational Partners, the agreed communication arrangements and the roles and responsibilities for dealing with Incidents shall be set out in the Incident Response Plan.

- 7.4.6 The Operating Company shall maintain close working relationships with all relevant Operational Partners through regular meetings to review and update the communication arrangements and enable the integration of communication systems and technology for the purposes of performing Incident Response.

- 7.4.7 The Emergency Services, in conjunction with local authorities and central government departments, undertake regular contingency planning and Incident planning meetings and conduct contingency and Incident exercises.

The Operating Company shall participate in all meetings and exercises to which it is invited by such parties, including meetings of all local contingency planning forums whose areas cover any part of the Unit.

- 7.4.8 The Operating Company shall ensure all Emergency Services, Statutory Authorities, and other relevant Operational Partners are advised of its arrangements for initiating Incident Response Operations.

- 7.4.9 The Operating Company shall provide all relevant Operational Partners with one Electronic Copy and one controlled paper copy of each version of the Incident Response Plan.

- 7.4.10 The Operating Company shall keep the Incident Response Plan under continuous review and at intervals of no more than three (3) months;
- (a) update and re-issue such plan to the Director for consent, or
  - (b) issue a statement to the Director declaring that the Incident Response Plan has been reviewed and that no update is required.

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- 7.4.11 The continuous review shall include the adequacy and availability of the Incident Response Resources to implement all necessary Incident Response Operations, and where required, proposed changes to the arrangements identified through Incident de-briefings. The Operating Company's review procedures shall also ensure the accuracy of contact and information details contained in the Incident Response are up to date and current.
- 7.4.12 Notwithstanding the requirements above, the Incident Response Plan shall be re-issued to the Director not later than ten (10) Working Days prior to the end of each Annual Period.
- 7.4.13 The Operating Company shall not make amendments to the arrangements set out in the Incident Response Plan without the prior written consent of the Director, with the exception of changes to contact details which shall always be kept up to date and current by the Operating Company.
- 7.4.14 When consented to by the Director, the Operating Company shall immediately notify any amendments to the Incident Response Plan to all holders of controlled copies of the Incident Response Plan and shall provide the Director with a controlled copy of the change within one (1) Working Day.
- 7.4.15 Incident Response Resources shall be classified as;
- (a) initial,
  - (b) secondary or
  - (c) back-up Incident Response Resources.
- 7.4.16 The Operating Company shall ensure that;
- (a) initial and secondary Incident Response Resources are available during and outwith Normal Working Hours to comply with the response times for attendance at an Incident, as stated in the Schedule 5 Specification & Drawings, 32/1 Incident Response,
  - (b) arrangements are established such that the Operating Company can deliver the back-up Incident Response Resources to the Incident location to comply with the response for attendance at an Incident, as stated in Schedule 5 Specification & Drawings, 32/1 Incident Response from the time when the need for the back-up Incident Response Resources has been identified.
- 7.4.17 The Incident Response Resources identified in the Schedule 5 Specification & Drawings, 32/1 Incident Response are the minimum provision and shall not be construed as being all the resources required by the Operating Company to fulfil its obligations for Incident Response Operations.

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7.4.18 The Operating Company shall appoint suitably qualified Contract Personnel to undertake the role of Incident Liaison Officer in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People.

No later than twenty-five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall notify in writing to the Director the names, contact information and back up mobile telephone contact numbers for all Incident Liaison Officers. The Operating Company shall include details of the cover arrangements during periods of absences or unavailability.

7.4.19 The Incident Liaison Officer shall be responsible for the planning, executing, monitoring and reporting Incident Response and shall have the information and the authority to perform Incident Response. The Incident Liaison Officer shall be available during and outwith Normal Working Hours and be based within the Operating Company's office(s).

7.4.20 The Incident Liaison Officer shall act as the first point of contact within the Operating Company for all Incidents on or near the Trunk Road Unit. When requested by the Director, the Incident Liaison Officer shall undertake duties from the Traffic Scotland Control Centre.

7.4.21 The Incident Liaison Officer shall be available to receive notification of an Incident from;

- (a) the Traffic Customer Care Line Operator,
- (b) the Emergency Services,
- (c) the Traffic Scotland Operations & Infrastructure Contractor, Traffic Scotland Systems Contractor and any other Network Operations Services Provider,
- (d) local authorities,
- (e) the public,
- (f) the Operating Company's Personnel, and
- (g) any other Operational Partners and or Relevant Organisations sources.

7.4.22 The duties of the Incident Liaison Officer include, notwithstanding those identified elsewhere;

- (a) notifying the Emergency Services, the Traffic Scotland Operations and Infrastructure Service Contractor and the Director of Incidents in accordance with the requirements specified in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.1 Notification of Incidents,
- (b) mobilising the initial Incident Response Resources,

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- (c) managing and coordinating the execution of Incident Response Operations including facilitating the placing and removal of floral tributes at the scene of a road death Incident in accordance with the Society of Chief Officers of Transport in Scotland Roadside Memorials and Floral Tributes,
- (d) managing the Trunk Road Incident Support Service to meet the requirements of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management,
- (e) maintaining contact with and keeping informed the Emergency Services, the Traffic Scotland Operations Infrastructure Contractor and any other Network Services Provider, local authorities and other affected parties as necessary during the Incident,
- (f) when necessary, providing the required support to the Emergency Services,
- (g) determining the need for secondary and back-up Incident Response and mobilising where necessary,
- (h) subject to an Order, the provision of Mutual Aid,
- (i) determining the need for obtaining specialist advice from the Bridges Manager and making contact as appropriate if an Incident involves a Structure,
- (j) ensuring all Standard Incident Diversion Routes supplied by the Director are reviewed prior to the Commencement of Service Date,
- (k) the review and update of existing Standard Incident Diversion Routes in full consultation with relevant Operational Partners,
- (l) developing new Standard Incident Diversion Routes in accordance with Transport Scotland's 'Development Procedures for Operating Companies',
- (m) making an initial assessment as to whether the Incident is already, or has the potential to escalate to, a Critical or Major Incident,
- (n) preparing Incident reports for submission to the Director in accordance with requirements of Section 7 Network Operations – Disruption Risk Management, 7.9 Incident Reporting, Debriefing & Data,

7.4.23 The Operating Company shall provide all necessary resources needed by the Incident Liaison Officer to coordinate, mobilise, deploy and supervise Incident Response Resources and Operations in response to an Incident.

7.4.24 Incident Response cover shall be available both during and outwith Normal Working Hours from the Commencement of Service Date to the Contract Expiry Date.

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7.4.25 The Operating Company shall prepare rotas of trained operatives able to attend Incidents and implement appropriate measures or actions. The Operating Company shall prepare such rotas at least twenty-five (25) Work Days prior to the Commencement of Service Date and thereafter at least ten (10) Working Days prior to 1 April and 1 October in each Annual Period.

The rotas shall detail the availability of the Journey Time Reliability Coordinator Incident Liaison Officers and Incident Response Contract Personnel for each six (6) month period commencing 1 April and 1 October in each Annual Period. Such rotas shall be issued to the Director and all relevant Operational Partners.

The rotas shall include a list of named Contract Personnel with relevant contact information including line management details. The rotas shall be updated when the Contract Personnel identified on the rotas cease to be available or when changes are proposed by the Operating Company. The Director and all relevant Operational Partners shall be notified immediately of any changes to issued rotas.

7.4.26 The Operating Company shall train and supervise all personnel who may be involved in any aspect of Incident Response to ensure they are familiar with the types of Incident that may occur, including any special procedures to be followed outwith Normal Working Hours.

The Operating Company shall submit a schedule of all training to be conducted in relation to Incident Response in each Annual Period to the Director for consent, no later than twenty (20) Working Days before the beginning of each Annual Period.

7.4.27 The Operating Company's Incident Response Resources shall be contactable both during and outwith Normal Working Hours throughout the duration of each Annual Period.

7.4.28 For all Incidents the Incident Liaison Officer shall mobilise and deploy;

- (a) initial Incident Response Resources as soon as possible to meet the response times stated in the Schedule 5 Specification & Drawings, 32/1 Incident Response,
- (b) secondary Incident Response Resources as soon as possible to meet the response times stated in the Schedule 5 Specification & Drawings, 32/1 Incident Response whenever the need for them is identified, and
- (c) back-up Incident Response Resources as soon as possible and no later than the response time stated in Schedule 5 Specification & Drawings, 32/1 Incident Response from when the need for them is identified.

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- 7.4.29 The Operating Company shall make available offices and depots as stated in the Schedule 3 Contract Management, Section 3 Office, Depots & Other Infrastructure Including Plant & Technology to provide support for the provision of the Incident Response Operations.
- 7.4.30 The Operating Company shall ensure that adequate communication is maintained with Operational Partners at all times.
- 7.4.31 Within ten (10) minutes of receipt of information relating to an Incident, the Operating Company shall communicate such information to relevant Operational Partners.
- 7.4.32 The Operating Company shall undertake Incident Response Operations as Core Operations where the value of the Incident Response Operations at each Incident is less than or equal to fifty thousand Great British Pounds (£50,000) estimated in accordance with Schedule 4 Measurement, Rates & Prices.
- 7.4.33 The Operating Company shall undertake Incident Response Operations where the value of the Incident Response Operations at each Incident is above fifty thousand Great British Pounds (£50,000) estimated in accordance with Schedule 4 Measurement, Rates & Prices. Such Incident Response Operations shall be subject to a retrospective Order.

For the avoidance of doubt the value of the Incident Response Operation at each Incident estimated to be less than or equal to fifty thousand Great British Pounds (£50,000) cannot be aggregated together for any reason whatsoever including Severe Weather that creates more than one Incident at more than one individual location on or near the Unit.

- 7.4.34 Incident Response Operations include;
- (a) providing assistance to the Emergency Services,
  - (b) traffic management for hard shoulder closures, lane closures, road closures and other closures instructed within the carriageway including traffic management to facilitate the placing and removal of floral tributes at the scene of a road death Incident in accordance with the Society of Chief Officers of Transport in Scotland Roadside Memorials and Floral Tributes,
  - (c) arranging for and implementing traffic diversions including those necessary for carriageways, footways, cycleways and rights of way,
  - (d) making safe and protecting any part of the Unit infrastructure,
  - (e) making safe and protecting infrastructure located on or adjacent to the Unit that is not the property of the Scottish Ministers and arranging with the owner of such infrastructure for its repair or replacement. For the avoidance of doubt this includes all

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- roadside electrical assets fixed on the Trunk Roads of the Unit which are the responsibility of a third party, Operational Partner or a Relevant Organisation,
- (f) making safe, protecting and when necessary removing unsafe and fallen trees and branches,
  - (g) cleaning and sweeping,
  - (h) removal and disposal of general debris, animal carcasses and other obstructions in the road,
  - (i) containment, removal and disposal of debris and waste including chemicals, noxious substances, body fluids and other hazardous and sensitive material,
  - (j) repairing and replacing any part of the Trunk Road infrastructure where necessary or where otherwise determined by the Director for a particular Incident as part of the Incident Response Operations,
  - (k) alleviating and averting flooding,
  - (l) checking and making safe any electrical apparatus involved in an Incident,
  - (m) where required, the initial assessment of a Structure involved in an Incident to determine its continued safe use,
  - (n) lifting and propping bridges, other Structures and other parts of the Trunk Road infrastructure in order to make safe,
  - (o) making safe and protecting over-spanning bridge decks, supports at bridges and other Structures that are unsafe due to failure or are damaged due to any cause and, where possible, enabling such bridges and Structures to remain in service,
  - (p) removal and disposal of debris arising from landslips and rock falls,
  - (q) dealing with subsidence,
  - (r) dealing with Severe Weather events,
  - (s) subject to an Order, the provision of Mutual Aid,
  - (t) providing regular Incident status updates to relevant Operational Partners in addition to complying with the liaison requirements of Schedule 2 Scope, Section 5 Network Operations – Traffic Scotland, and
  - (u) the collection and disposal of floral tributes at the scene of a road death Incident in accordance with the Society of Chief Officers of Transport in Scotland Roadside Memorials and Floral Tributes.

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- 7.4.35 The Operating Company shall execute the management and implementation of all existing Standard Incident Diversion Routes and related Incident Response Operations.
- 7.4.36 The Operating Company shall ensure that signing on all Standard Incident Diversion Routes is installed to current standards and is maintained as required throughout the duration of the Incident. At the conclusion of the Incident, all such signing shall be immediately removed and returned to storage.
- 7.4.37 The Operating Company shall review a Standard Incident Diversion Route to identify changes or potential improvements. This review shall be undertaken in full consultation with relevant Operational Partners.
- 7.4.38 Where the Operating Company undertakes a review of any Standard Incident Diversion Route to identify changes or potential improvements, it shall;
- (a) produce revised documentation in both hard copy and electronic format,
  - (b) maintain Records of amendments and distribution, and
  - (c) submit final documentation to the Director for approval and distribution via the Traffic Scotland Operations and Infrastructure Service Contractor.

### **7.5 Severe Weather**

- 7.5.1 The Operating Company shall provide the following to predict trends in weather, road conditions and provide advance warning of Severe Weather:
- (a) An Expert Weather Forecasting Service, and
  - (b) A Computerised Road Weather Information System

Twenty four (24) hours a day, seven (7) days a week from the Commencement of Service Date until the Service End Date.

- 7.5.2 The Expert Weather Forecasting Service and the Computerised Road Weather Information System required under this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management, 7.5 Severe Weather shall be integrated with the Expert Weather Forecasting Service and the Computerised Road Weather Information System required under Section 6 Network Operations – Winter Service.
- 7.5.3 No later than twenty-five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall submit to the Director for written consent, details of its proposed Expert Weather Forecasting Service and the Computerised Weather Information System for Severe Weather.

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- 7.5.4 The Operating Company shall provide suitably trained designated Contract Personnel who are able to receive, continuously monitor and interpret information provided by its Expert Weather Forecasting Service for Severe Weather. Such personnel shall be authorised to make decisions on the implementation of the Incident Response Operations relating to Severe Weather.
- 7.5.5 No later than twenty-five (25) Working Days prior to the Commencement of Service Date, the Operating Company shall;
- (a) identify all Operational Partners that have involvement in dealing with Severe Weather,
  - (b) agree the communication arrangements between itself, the Traffic Scotland Operations and Infrastructure Service Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Providers and other relevant Operational Partners during Severe Weather, and
  - (c) ensure a mutual understanding of the roles and responsibilities of the Operating Company and the relevant Operational Partners during Severe Weather.
- 7.5.6 The Operating Company's procedures contained within the Operating Company's Management System shall include as a minimum;
- (a) details of all relevant Operational Partners,
  - (b) the arrangements for disseminating accurate, timely and relevant Severe Weather information to the Traffic Scotland Operations and Infrastructure Service Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Providers and other Operational Partners,
  - (c) the communication arrangements between the Operating Company, the Traffic Scotland Operations and Infrastructure Service Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Providers and other relevant Operational Partners to be followed in advance of, during and following Severe Weather, and
  - (d) the roles and responsibilities of the Operating Company and all relevant Operational Partners for dealing with Severe Weather.
- 7.5.7 The Operating Company shall be responsible for the production of the following Severe Weather Management Plans as a part of the Incident Response Plan which are to be submitted to the Director for approval;
- (a) Wind Management Plans including individual site specific Wind Management Plans for each Structure with Particular Requirements,

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(b) Flood Management Plans, and

(c) Landslide Management Plans

- 7.5.8 The Operating Company shall review and update all Severe Weather Management Plans including those at new Disruption Risk Sites at the same time as undertaking the review and update of the Incident Response Plan. The Operating Company shall submit such plans to the Director for written consent.
- 7.5.9 All Severe Weather Management Plans shall contain details of the arrangements for Incident Response Operations and mitigation activities at the Disruption Risk Sites where Severe Weather has been identified as a cause of disruption. Such plans shall include actions for dealing with high winds, flooding and landslides.
- 7.5.10 The Operating Company shall develop and implement individual Wind Management Plans for each Disruption Risk Sites and each Structure with Particular Requirements where high winds have been identified as a cause, or potential cause, of disruption to the operation of the Unit.
- 7.5.11 The Operating Company shall ensure that all Wind Management Plans;
- (a) are produced in accordance with Transport Scotland's High Winds Strategy and National Winds Management Guidelines, and
  - (b) take account of other relevant Operational Partners' wind management strategies.
- 7.5.12 Each Wind Management Plan shall contain the arrangements for implementing Incident Response Operations and mitigation activities for any wind related Severe Weather that occurs or is predicted to occur at the Disruption Risk Site.
- 7.5.13 The Operating Company's Expert Weather Forecasting Service for Severe Weather shall provide real-time wind speed data at all Sites that are subject to a Wind Management Plan. Such data shall be made available to the Director and the Traffic Scotland Operations and Infrastructure Service Contractor.
- 7.5.14 The Operating Company shall review and update all Wind Management Plans at the same time as undertaking the review and update of the Incident Response Plan and submit any proposed revisions to the Director for their written consent.
- 7.5.15 The Operating Company shall develop Flood Management Plans at Disruption Risk Sites where flooding has been identified as a cause, or potential cause, of disruption to the operation of the Unit.

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7.5.16 Each Flood Management Plan shall detail arrangements for implementing the Incident Response Operations and mitigation activities for any flooding related Severe Weather that occurs or is predicted to occur at the Disruption Risk Site.

7.5.17 The Operating Company shall use its Expert Weather Forecasting Service for Severe Weather to assist in the planning and implementation of its programme for inspections and patrols of Disruption Risk Sites where flooding has been identified as a cause of the disruption.

Such inspections and patrols shall be undertaken in accordance with the requirements of Schedule 2 Scope, Section 3 Inspection & Maintenance -- Roads Including Landscape and Section 4 Inspection & Maintenance - Structures.

7.5.18 The Operating Company shall review and update all Flood Management Plans at the same time as undertaking the review and update of the Incident Response Plan and submit any proposed revisions to the Director for consent.

7.5.19 The Operating Company shall review and update all Landslide Management Plans at the same time as undertaking the review and update of the Incident Response Plan and submit any proposed revisions to the Director for consent.

7.5.20 When rainfall that could initiate landslides is forecast, the Operating Company shall use information provided by its Expert Weather Forecasting Service to assist in the planning and execution of additional inspections and patrols in areas identified as being prone to landslides.

7.5.21 The Operating Company shall develop Landslide Management Plans for new Disruption Risk Sites where landslides have been identified as a cause, or potential cause, of disruption to the operation of parts of the Unit, including those identified in Transport Scotland's Landslide Study Report. The Operating Company shall ensure all Landslide Management Plans take account of other relevant Operational Partners' landslide management strategies.

7.5.22 Each Landslide Management Plan shall detail arrangements for implementing the Operating Company's Incident Response Operations and mitigation activities for any landslide related Severe Weather that occurs or is predicted to occur at the Disruption Risk Site.

When the Operating Company becomes aware of Severe Weather occurring or predicted to occur affecting parts of the Unit, it shall commence the Incident Response Operations in accordance with the requirements of Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management and implement the arrangements stated in the relevant Severe Weather Management Plan.

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### **7.6 Trunk Road Incident Support Service**

- 7.6.1 The Trunk Road Incident Support Service shall patrol designated strategic Routes of the Unit to detect and respond to Incidents. The Trunk Road Incident Support Service shall be integrated with the Traffic Scotland Control Centre as stated in this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management.
- 7.6.2 The Operating Company's Trunk Road Incident Support Service shall be fully operational from the Commencement of Service Date.
- 7.6.3 The Traffic Scotland Operations and Infrastructure Services Contractor will coordinate and control the dispatch of the Trunk Road Incident Support Service, including the dispatching of Trunk Road Incident Support Service resources to respond to Incidents and the real time monitoring of the location and deployment status of all Trunk Road Incident Support Service vehicles.
- 7.6.4 The Operating Company shall ensure that all Trunk Road Incident Support Service personnel comply with the requirements of Disclosure Scotland clearance as stated in Schedule 3 Contract Management, Section 2 Key People, 2.5 Disclosure.
- 7.6.5 The primary functions which shall be undertaken by the Operating Company in performing the Trunk Road Incident Support Service are:
- (a) responding to notifications of Incidents received from the Traffic Scotland Operations & Infrastructure Contractor. The Operating Company shall also respond to Incidents reported by the Police and other Operational Partners after first notifying the Traffic Scotland Operations & Infrastructure Contractor,
  - (b) making Incidents safe through the application of temporary traffic management,
  - (c) relieving congestion and removing hazards by the clearance of debris from traffic lanes and hard shoulders,
  - (d) arranging for immediate repairs where the Trunk Road infrastructure is damaged as a result of an Incident,
  - (e) assessing the scene and securing the attendance of additional or specialist resources where the scope of the Incident is beyond the Trunk Road Incident Support team's capabilities,
  - (f) providing a communications link between the Site, the Traffic Scotland Operations & Infrastructure Contractor and the Operating Company's Incident Liaison Officer which meets the requirements of the Director,

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- (g) reporting abandoned or broken down vehicles to the Operating Company's Incident Liaison Officer,
- (h) offering assistance to broken down vehicles, including assisting in removing them to safe locations and offering fuel,
- (i) providing high visibility patrols on the Routes,
- (j) monitoring and reporting unusual or unexpected activity, disruption and or congestion on the Unit caused by Incidents and special events to the Traffic Scotland Operations & Infrastructure Services Contractor and the Operating Company's Incident Liaison Officer
- (k) providing Incident Response Operations, subject to support being available, to Incidents on the Routes,
- (l) liaising with the Traffic Scotland Operations & Infrastructure Services Contractor and Police control rooms. Liaison with the Police control rooms shall be via the Traffic Scotland Operations & Infrastructure Services Contractor and the Emergency Services at Incidents as required,
- (m) participating in and contributing to the Trunk Road Incident Support Service working groups, and
- (n) Safety Patrols, Safety Inspections and making safe or repairing Category 1a Defects and Category 1b Defects in accordance with the requirements of Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspections.

7.6.6 The Operating Company shall not utilise Trunk Road Incident Support Service resource for other additional secondary functions without the prior approval of the Director.

7.6.7 Due to the high profile and service oriented nature of the Trunk Road Incident Support Service, Trunk Road Incident Support Service Contract Personnel shall not engage in any behaviour that may compromise the image and or reputation of the Trunk Road Incident Support Service and Scottish Ministers.

7.6.8 The Trunk Road Incident Support Service resource shall utilise the Trunk Road Incident Support Service vehicles to patrol designated Routes systematically in accordance with the provisions of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management between 06.30 hrs and 18.30 hrs, seven (7) days a week.

Shift patterns shall allow for handover time between shifts, appropriate time for breaks and administration tasks at either end of the operational day.

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The Operating Company shall ensure at least one (1) Trunk Road Incident Support Service vehicle is operational during any change of working shifts and the Trunk Road Incident Support Service is performed strictly and uninterrupted for any reason whatsoever on all designated strategic Routes detailed in Schedule 2 Scope, Appendix 7 Disruption Risk Management attachment 7.2 Designated Trunk Road Incident Support Services Routes during the following periods:

- (a) Between 06.30 hrs and 09.00 hrs, and
- (b) Between 16.00 hrs and 18.30 hrs

- 7.6.9 Trunk Road Incident Support Service vehicles shall patrol the designated strategic Routes detailed in Schedule 2 Scope, Appendix 7 Disruption Risk Management Attachment 7.2 Designated Trunk Road Incident Support Services Routes. The response time for each Route or part thereof are stated in the Schedule 5 Specification & Drawings, 32/1 Incident Response.
- 7.6.10 Where the Trunk Road Incident Support Service patrols are required to cover a secondary Route, the response time for such Routes shall be as stated in the Schedule 5 Specification & Drawings, 32/1 Incident Response.
- 7.6.11 Where the Trunk Road Incident Support Service patrols are required by the Transport Scotland Operations & Infrastructure Service Contractor to attend Incidents outside their designated patrol routes or Unit in order to provide assistance to the Police and other operating companies, the Trunk Road Incident Support Service patrols shall respond in accordance with the requirements of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management.

The Operating Company shall accommodate Trunk Road Incident Support Service patrols from other units. Such Operations shall be recorded and excluded from the relevant key performance indicators.

- 7.6.12 Where Trunk Road Incident Support Service patrols are unable to respond to an Incident, both within and outwith the Operating Company's own Unit, the Operating Company shall immediately notify the Traffic Scotland Operations & Infrastructure Services Contractor, and Director of such circumstances.

The Operating Company shall perform the Trunk Road Incident Support Service using a minimum of two (2) Contract Personnel in each Trunk Road Incident Support Service vehicle.

- 7.6.13 Sufficient, suitably qualified and experienced Contract Personnel shall be available seven (7) days a week, during the hours of operation, to undertake the Trunk Road Incident Support

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Service and maintain the high public profile and integrity of the Trunk Road Incident Support Service.

7.6.14 The Trunk Road Incident Support Service Contract Personnel shall possess appropriate qualifications in road maintenance and traffic management.

7.6.15 Prior to commencing any Trunk Road Incident Support Service Operations, all Trunk Road Incident Support Service Contract Personnel shall be suitably trained in appropriate areas, including;

- (a) driver training,
- (b) vehicle and equipment checks and vehicle familiarisation,
- (c) network and Route familiarisation,
- (d) understanding of the all-purpose Trunk Road and motorway network,
- (e) roles and responsibilities of the Traffic Scotland Operations & Infrastructure Services Contractor, Emergency Services, Trunk Road Incident Support Service and Incident Support Units,
- (f) legal responsibilities and powers,
- (g) Airwave communication,
- (h) emergency traffic management,
- (i) knowledge of hazardous materials
- (j) what to do at road traffic collisions,
- (k) how to undertake carriageway clearance,
- (l) Safety Patrols,
- (m) scene preservation and Incident management,
- (n) broken down and abandoned vehicles – vehicle recovery service,
- (o) administrative procedures,
- (p) preparation of health and safety risk assessments and dynamic risk assessments,
- (q) communication skills,
- (r) holding a current and relevant first aid qualification that should be obtained from attendance at a three day course, delivered by a regulated training provider which includes the treatment of child casualties and use of Automated External Defibrillator, and

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(s) conflict resolution.

The scope and provision of such training shall be agreed in writing by the Director prior to the Commencement of Services Date and shall be in line with the standards agreed by the Director.

- 7.6.16 The Trunk Road Incident Support Service patrol Contract Personnel shall participate in joint training exercises with relevant Operational Partners.
- 7.6.17 Trunk Road Incident Support Service personnel shall carry at all times photographic identification cards provided by the Operating Company, the details of which shall be subject to the written consent of the Director. The cards shall display as a minimum full name, company, position and employee number.
- 7.6.18 Trunk Road Incident Support Service Contract Personnel shall be professionally attired including the wearing of appropriately badged, uniform style clothing which shall be subject to the written consent of the Director in accordance with Schedule 5 Specification & Drawings, 176AR Incident Support Unit & Trunk Road Incident Support Service.
- 7.6.19 The type of vehicles to be provided by the Operating Company and their equipment shall be as stated in the Schedule 5 Specification & Drawings, 175AR Operating Company Vehicle.
- 7.6.20 Trunk Road Incident Support Service vehicles shall have;
- (a) a global positioning system that provides the Operation Company's Incident Liaison Officer with a "live" location and identification facility to enable the effective tasking of resources and monitoring of Operations,
  - (b) Closed-circuit television (CCTV) capable of record and relaying images of Incidents and Trunk Road Incident Support Service in accordance with Schedule 5 Specification & Drawings, 177AR Trunk Road Incident Support Service Vehicle Mobile CCTV System,
  - (c) Cameras in accordance with Schedule 5 Specification & Drawings, 179AR Dash Cams
  - (d) A communication and technology system that enables all Trunk Road Incident Support Service patrols to communicate with each other, all Incident Support Unit Patrols and Incident Liaison Officers on matters relating to Operations

The Operating Company shall provide the relevant Network Operations Service Provider with a live feed to this data and all necessary supporting information to allow this live feed to be integrated into the Traffic Scotland Service systems.

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- 7.6.21 Trunk Road Incident Support Service vehicles shall use the Trunk Road Incident Support Service Type 1 vehicle requirement as detailed in the Schedule 5 Specification & Drawings, 175 AR Operating Company Vehicle. Any temporary vehicles engaged for the service shall be clearly identified as such by the use of temporary markings complying with the Type 2 vehicle requirement as detailed in the Schedule 5 Specification & Drawings, 175 AR Operating Company Vehicle.
- 7.6.22 The Operating Company shall provide a communications link between the Trunk Road Incident Support Service personnel, the Traffic Scotland Operations & Infrastructure Services Contractor, Traffic Scotland Systems Contractor, the Police and the Incident Liaison Officer which provides a reliable means for the notification of Incidents in accordance with Schedule 2 Scope, Appendix 7 Disruption Risk Management Attachment 7.1 Notification of Incidents.
- 7.6.23 The Trunk Road Incident Support Service shall use an encrypted digital radio communications system known as Airwave. The Operating Company shall utilise this equipment as a dedicated communication system between Trunk Road Incident Support Service Contract Personnel, the Traffic Scotland Control Centre, the Incident Liaison Officer and the Police.
- 7.6.24 The Operating Company shall apply for, acquire and operate a TETRA Encryption Algorithm 2 sub-user licence for use with this communication system. The Operating Company shall be solely responsible for the procurement of, and conforming to any conditions of, this licence for the purposes of performing Incident Response and Incident Response Operations.
- 7.6.25 The Operating Company shall comply with the various codes of practice that apply to this licence. These codes, guidance on the Airwave sharers list and TETRA Encryption Algorithm 2 licensing are available from the Ofcom.
- 7.6.26 No later than twenty-five (25) Working Days prior to Commencement of Service Date the Operating Company shall develop an approved code of practice for Airwave in compliance with Traffic Scotland Airwave Users Guide/Operating Protocols and Procedures.
- 7.6.27 The Operating Company shall indemnify the Director and Scottish Ministers against any claims arising as a result of negligence or any other action on its part, relating to the use, storage and compliance of Airwave equipment and the Operating Company's TETRA Encryption Algorithm 2 licence.
- 7.6.28 The Operating Company shall prepare and submit a Trunk Road Incident Support Service Plan to the Director as part of and in accordance with the timescales associated with the Incident Response Plan.

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The Operating Company's procedures and method statements contained within its Management System shall cover;

- (a) traffic management,
- (b) traffic delay monitoring and reduction,
- (c) assistance in the removal of vehicles and provision of fuel for stranded vehicles,
- (d) repair of Defects, and
- (e) removal of objects and debris causing a hazard.

7.6.29 The Trunk Road Incident Support Service Plan shall be separate from, and integrated with, the Incident Response Plan and be cross referenced where required with the procedures contained in the Incident Response Plan. The plan shall include the following;

- (a) Operating Company management structure,
- (b) Communication and technology systems,
- (c) Police and Traffic Scotland Operations & Infrastructure Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Provider liaison and key contacts,
- (d) schedule of resources and staff rotas,
- (e) vehicle and equipment log including locations,
- (f) resource training and performance appraisal, and
- (g) reporting and evaluation.

The Operating Company shall continuously review its Trunk Road Incident Support Service Plan and at intervals not exceeding three (3) months, shall submit the plan to the Director for written consent.

7.6.30 On reaching the location of an Incident, the Trunk Road Incident Support Service patrol shall report the time of arrival, the nature of Incident and its estimated duration to the Traffic Scotland Control Centre and Incident Liaison Officer.

7.6.31 Once the Incident is cleared, the patrol shall report the time of departure off-task and confirm the nature of the Incident to the Traffic Scotland Control Centre and Incident Liaison Officer.

7.6.32 If the Incident is expected to last more than thirty (30) minutes, the Trunk Road Incident Support Service patrol shall provide regular updates to the Traffic Scotland Control Centre, the relevant Police control rooms and Incident Liaison Officer. Such information shall be supplied within ten (10) minutes of receipt of information.

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### 7.7 Incident Support Units

- 7.7.1 The Incident Support Units shall be managed and operated by the Operating Company to provide Incident Response Operations;
- (a) on all sections of the Unit outwith the designated Routes of the Trunk Road Incident Support Service,
  - (b) on all Trunk Road Incident Support Service Routes out-with the hours stated in Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management, 7.6 Trunk Road Incident Support Service, 7.6.8 using Trunk Road Incident Support Service vehicles when practicable, and
  - (c) on all Trunk Road Incident Support Service Routes during its normal operational hours when required.
- 7.7.2 The primary functions of Incident Support Units are;
- (a) under Police instruction, making Incidents safe through the application of temporary traffic management,
  - (b) relieving congestion and removing hazards to safety by clearance of debris from traffic lanes and hard shoulders,
  - (c) where Trunk Road infrastructure is damaged as a result of an Incident, undertaking immediate repairs in accordance with the requirements of Schedule 2 Scope;
    - (i) Section 2 Defects, Hazard Notices & Observations Resulting From Inspections,
    - (ii) Section 3 Inspections & Maintenance – Roads Including Landscape, and
    - (iii) Section 4 Inspection & Maintenance - Structures
  - (d) assessing the scene and securing the attendance of additional or specialist resources where the scope is beyond the Incident support team's capabilities,
  - (e) providing a communications link between the Incident Site and the Operating Company's Incident Liaison Officer,
  - (f) reporting abandoned or broken down vehicles to the Operating Company's Incident Liaison Officer,
  - (g) offering assistance to broken down vehicles including assisting in removing broken down vehicles to safe locations and offering fuel, and
  - (h) liaising with the following at Incidents;
    - (i) Incident Liaison Officer,

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- (ii) Police control rooms.
- (iii) Traffic Scotland Operations & Infrastructure Service Contractor, and
- (iv) individual Police officers

7.7.3 Subject to there being no impact on the provision of the primary functions, the Incident Support Units may undertake secondary functions as part of the Operating Company's operations including;

- (a) Safety Patrols,
- (b) maintenance Operations such as cleaning signs, drainage clearance and litter picking, and
- (c) making safe or repairing Category 1a Defects and Category 1b Defects

in accordance with the requirements of Schedule 2 Scope, Section 2 Defects, Hazard Notices & Observations Resulting from Inspection, 3 Inspections & Maintenance – Roads Including Landscape and 4 Inspection & Maintenance - Structures.

7.7.4 When the Operating Company's Incident Support Units are required to attend Incidents outside the Unit in order to render assistance to the Police, other operating companies and Trunk Road Incident Support Service, the Incident Support Units shall respond in accordance with the requirements of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management.

7.7.5 The Incident Liaison Officer shall keep Records of all occasions where incident support units from other units respond to Incidents on this Unit. Such Incidents shall be excluded from all relevant Performance Indicators.

The Incident Liaison Officer shall ensure instances are recorded where Incident Support Units are not able to attend Incidents out with the Unit.

7.7.6 Where the Incident Support Units are unable to respond to an Incident, both within and out with the Operating Company's own Unit, the Operating Company shall immediately notify the Traffic Scotland Operations & Infrastructure Service Contractor and Director of such circumstances.

7.7.7 Sufficient, suitably qualified and experienced Contract Personnel shall be available at all times to carry out the Incident Support Units' duties.

The Operating Company shall perform the Incident Support Unit Operations using a minimum of two (2) Contract Personnel in each Incident Support Unit vehicle.

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7.7.8 The Incident Support Units' Contract Personnel shall possess appropriate qualifications in road maintenance and traffic management.

7.7.9 Prior to commencing any Incident Support Unit Operations, the Operating Company shall provide sufficient training for Incident Support Units Contract Personnel on its plans and procedures for delivery of the requirements of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management. Such training shall cover;

- (a) driver training,
- (b) vehicle and equipment checks and vehicle familiarisation,
- (c) network familiarisation,
- (d) understanding of the all-purpose Trunk Road and motorway network,
- (e) roles, responsibilities and scope of Incident Support Units service,
- (f) roles and responsibilities of relevant Operational Partners including the Traffic Scotland Operations and Infrastructure Service Contractor, Emergency Services, Trunk Road Incident Support Service, including legal responsibilities and powers,
- (g) Airwave communication,
- (h) emergency traffic management,
- (i) hazardous materials training,
- (j) operational response strategies and scenarios,
- (k) road traffic collisions training,
- (l) carriageway clearance training,
- (m) Safety Patrols,
- (n) scene preservation and incident management,
- (o) broken down and abandoned vehicles – vehicle recovery service,
- (p) administrative procedures,
- (q) preparation of health and safety risk assessments and dynamic risk assessments,
- (r) communication skills,
- (s) holding a current and relevant first aid qualification that should be obtained from attendance at a three day course, delivered by a regulated training provider which includes the treatment of child casualties and use of Automated External Defibrillator, and

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- (t) conflict resolution, and
- (u) general maintenance Operations and procedures.

The scope and provision of such training shall be agreed to in writing by the Director prior to the Commencement of Service Date and shall be in line with the standards agreed by the Director.

7.7.10 The Incident Support Unit Contract Personnel shall participate in joint training exercises with relevant Operational Partners.

7.7.11 Incident Support Unit Contract Personnel shall carry at all times photographic identification cards provided by the Operating Company. The cards shall display as a minimum full name, company, position and employee number.

7.7.12 The Incident Support Unit vehicles and the equipment to be provided within them by the Operating Company shall be as stated in the Schedule 5 Specifications & Drawings, 175AR Operating Company Vehicle.

7.7.13 Incident Support Unit vehicles shall have a;

- (a) global positioning system that provides the Operation Company's Incident Liaison Officer with a "live" location and identification facility to enable the effective tasking of resources and monitoring of Operations.
- (b) Cameras in accordance with Schedule 5 Specification & Drawings, 179AR Dash Cams
- (c) A communication and technology system that enables all Incident Support Unit Patrols to communicate with each other, all Trunk Road Incident Support Service patrols and Incident Liaison Officers on matters relating to Operations.

The Operating Company shall provide the relevant Network Operations Service Provider, Traffic Scotland Operations and Infrastructure Services Contractor, Traffic Scotland Systems Contractor with a live feed to this data and all necessary supporting information to allow this live feed to be integrated into the Traffic Scotland Service systems.

7.7.14 Incident Support Unit vehicles shall use the Trunk Road Incident Support Service Type 1 vehicle requirements as detailed in the Schedule 5 Specification and Drawings, 175AR Operating Company Vehicle.

Any temporary vehicles engaged for the service shall be clearly identified as such by the use of temporary markings complying with the Type 2 vehicle requirements as detailed in the Schedule 5 Specification and Drawings, 175AR Operating Company Vehicle.

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7.7.15 The Operating Company shall submit to the Director an Incident Support Units Plan which shall be part of and in accordance with the timescales associated with the Incident Response Plan.

The Operating Company's procedures and method statements contained within its Management System shall cover;

- (a) traffic management,
- (b) traffic delay monitoring and reduction,
- (c) assistance in the removal of vehicles and provision of fuel,
- (d) repair of Defects, and
- (e) removal of objects and debris.

7.7.16 The Incident Support Units Plan shall be separate from, and integrated with, the Incident Response Plan and be cross referenced where required with the procedures contained in the Incident Response Plan. The Incident Support Units Plan shall include the following;

- (a) Operating Company management structure,
- (b) communication and technology systems,
- (c) Police and Traffic Scotland Operations & Infrastructure Services Contractor, Traffic Scotland Systems Contractor, any other Network Operations Services Provider liaison and key contacts,
- (d) schedule of resources and staff rotas,
- (e) vehicle and equipment log including locations,
- (f) resource training and performance appraisal, and
- (g) reporting and evaluation.

The Operating Company shall continuously review its Incident Support Units Plan and at intervals not exceeding three (3) months, shall submit the plan to the Director for written consent.

7.7.17 On reaching the location of an Incident, the Incident Support Unit shall report the time of arrival, the nature of Incident and its estimated duration to the Incident Liaison Officer.

7.7.18 Once the Incident is cleared, the patrol shall report the time of departure off-task and confirm the nature of the Incident to the Incident Liaison Officer.

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7.7.19 If the Incident is expected to last more than thirty (30) minutes, the Incident support Unit patrol shall provide regular updates to the Incident Liaison Officer. Such information shall be supplied to the relevant Operational Partners within ten (10) minutes of receipt of information.

**7.8 Hazardous, Sensitive Materials & Structures**

- 7.8.1 The following allocation of responsibilities applies to all Incidents involving the spillage or deposit of hazardous or sensitive material;
- (a) the Emergency Services have the primary responsibility for establishing a safe situation at an Incident site involving the deposit of hazardous or sensitive materials,
  - (b) the Emergency Services shall have primary responsibility for co-ordinating the removal of body parts,
  - (c) the Emergency Services will have the primary responsibility for identification of chemicals, noxious substances and other hazardous or sensitive material to ensure the safety of the public and the Contract Personnel dealing with the Incident. If the Emergency Services consider the Incident site to be low risk due to the nature, quantity and location of such spillages or deposits, the Operating Company shall undertake the identification and safe removal of any chemicals, noxious substances and other hazardous or sensitive material under the supervision of the Emergency Services including any body fluids not removed by the Emergency Services,
  - (d) the Operating Company shall not enter an area containing chemicals, noxious substances, body fluids, body parts and other hazardous or sensitive material until such time as the Emergency Services have confirmed that they require assistance and that it is safe to do so,
  - (e) the Operating Company shall deploy suitably trained resources to deal with spillages or deposit of chemicals, noxious substances, body fluids or other hazardous or sensitive materials onto the Unit,
  - (f) the Operating Company's Incident Response Resources shall include facilities for the identification, management, removal and disposal of chemicals, noxious substances, body fluids and other hazardous and sensitive material,
  - (g) the Operating Company shall liaise as necessary with the Scottish Environment Protection Agency to ensure that identification, management, removal and disposal of waste materials is undertaken in accordance with current best practice guidance to minimise risk to the environment, and

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(h) the Operating Company shall ensure pollution control measures in accordance with Pollution Prevention Guideline 22 issued by the Scottish Environment Protection Agency are available for use.

7.8.2 For any Incident affecting Structures out-with the responsibility of the Director, the Operating Company shall liaise with and, subject to an Order provide support to, relevant Operational Partners.

7.8.3 The Operating Company's Incident Response Operations relating to Incidents involving Structures shall, in accordance with the Specification, include as a minimum as part of back up Incident Response Resources;

- (a) temporary props,
- (b) supports,
- (c) barriers,
- (d) diversion signs,
- (e) trench crossing units, and
- (f) steel plates.

7.8.4 The Operating Company shall liaise with Transport Scotland and the Traffic Scotland Operations & Infrastructure Services Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Providers as detailed in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.1 Notification of Incidents.

7.8.5 The Operating Company shall provide the following Incident Response Resources, if necessary, for the purposes of Incident Response Operations, without delay and as soon as reasonably practicable:

- (a) Temporary bridges,
- (b) Temporary bridges propping,
- (c) Heavy cranes,
- (d) Demolition equipment and machinery,
- (e) Drones,
- (f) Access platforms, and
- (g) Divers

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all other Incident Response Resources not listed above and required in addition to the primary and secondary Incident Response Resources listed in Schedule 5 Specification & Drawings, 32/1 Incident Responses shall be provided no later than the maximum back up response times set out in 32/1 Incident Responses unless otherwise relaxed at the absolute discretion of the Director and confirmed in writing.

- 7.8.6 Following the provision of primary and secondary Incident Response Resources, the Operating Company shall provide back-up Incident Response Resources in respect of Structures to;
- (a) assess the safety and stability of a damaged Structure,
  - (b) assess whether its use or stability is put at risk and if the safety of the public is endangered,
  - (c) arrange and implement footway and cycleway diversions,
  - (d) make safe damaged parapets and barriers,
  - (e) clear detached non-structural elements where there is a risk of them falling to the carriageway or navigable watercourse below,
  - (f) install traffic barriers to prevent vehicular access to and across Structures following a Critical or Major Incident that renders the Structure potentially unsafe,
  - (g) make safe electrical supplies to Structures including damaged signs, gantries, high mast lights and other Structures,
  - (h) fence in order to prevent public access to damaged Structures,
  - (i) fence off damaged parapets and walls,
  - (j) install temporary barriers to achieve the appropriate containment following damage to parapets and safety fence,
  - (k) provide special access to investigate damaged or unsafe Structures,
  - (l) implement weight or traffic restrictions to certain vehicle types on Structures,
  - (m) set up signing for short or long term diversion Routes, and
  - (n) alleviate and avert flooding to Structures and take measures to prevent further damage due to scour.

7.8.7 Where Incidents require;

- (a) Design for remedial measures,

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- (b) the assessment of damage, its effect on load carrying capacity and the ability to remain in service, and
- (c) Design of temporary works for existing Structures

these Operations shall be subject to an Order except where such Operations are Core Operations as set out in Schedule 1 Conditions of Contract.

**7.9 Incident Reporting, Debriefing & Data**

7.9.1 The names, contact telephone numbers and e-mail details of the Director's, Traffic Scotland Operations & Infrastructure Service Contractor, Traffic Scotland Systems Contractor, any other Network Operations Service Provider and Performance Audit Group staff to be contacted will be notified to the Operating Company in writing by the Director during the Mobilisation Period and will include outwith Normal Working Hours telephone numbers where applicable.

7.9.2 On becoming aware of a Critical or Major Incident the Incident Liaison Officer shall first take such actions as are necessary to arrange the response to such Incident and then immediately contact the Traffic Scotland Operations & Infrastructure Service Contractor and the appropriate Director's staff member(s) as stated in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.1 Notification of Incidents.

The Operating Company shall provide sufficient information to enable the Traffic Scotland Operations and Infrastructure Service Contractor and Director's staff member(s) to be able to brief the Scottish Ministers and the media with as full an account of events as quickly as possible.

The information that is required to be provided by the Operating Company within thirty (30) minutes of a Critical or Major Incident shall include, but is not limited to;

- (a) the exact location of the Critical or Major Incident,
- (b) the type of Critical or Major Incident,
- (c) any hazards identified,
- (d) any restrictions to access,
- (e) the number and type of casualties, and
- (f) whether Emergency services are present and or required.

7.9.3 On becoming aware of a Minor Incident that has the potential to escalate to a Critical Incident, cause significant delay or cause risk to the public or Contract Personnel, the

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Operating Company shall notify the relevant Operational Partners as stated in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.1 Notification of Incidents.

- 7.9.4 In addition to the reporting requirements stated in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.1 Notification of Incidents for Major Incidents and Critical Incidents, where an Incident involves fatalities, the Incident Liaison Officer shall immediately notify the staff stated in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.3 Fatal Accident Notification, providing brief details of the Incident.
- 7.9.5 Within twenty (24) hours of any Incident that involves a fatality, the Operating Company shall submit a detailed report by electronic copy using part 1 of the fatal accident notification form detailed in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.3 Fatal Accident Notification to the appropriate Director's staff referred to in Appendix 7 Disruption Risk Management, Attachment 7.3 Fatal Accident Notification.
- 7.9.6 A joint site observation at the location shall be undertaken by the Operating Company, the Director and the Police, within twenty eight (28) days of the Incident. Within five (5) Working Days of the site visit having been carried out, the Operating Company shall submit a detailed report using part 2 of the fatal accident notification form (detailed in Appendix 7 Disruption Risk Management, Attachment 7.3 Fatal Accident Notification) to the Director. The report shall include all correspondence relating to the Incident and potential causal factors including the inspections, maintenance, historic site data, weather conditions and any other information relevant to the location of the Incident on the Unit.
- 7.9.7 In the event of a fatal accident inquiry into an Incident that involves a fatality being held, the Operating Company shall, subject to an Order;
- (a) assist the Director, provide all available information, and
  - (b) attend the inquiry to be examined on matters of fact.
- 7.9.8 For the purposes of this Schedule 2 Scope, Section Network Operations – Disruption Risk Management, a “Hot Debrief” means that the Operating Company shall take account, from its perspective, of the following points;
- (a) Record the issues and challenges during the Incident,
  - (b) What went badly during the Incident,
  - (c) What went well during the Incident,
  - (d) What Operations could be improved.

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- 7.9.9 For the purposes of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management, a “Cold Debrief” means to take account of the output from the Hot Debrief and all other subsequent records and information relating to the Incident. A Cold Debrief shall be performed by the Operating Company and facilitated by a member of the Operating Company Core Management Team.
- 7.9.10 For the purposes of this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management, an “Operational Partner Debrief” means a debrief requested by the Operating Company or an Operational Partner, combining the Hot Debrief and Cold Debrief together with relevant Operational Partner contributions. The aim of this debriefing is collaboration with Operational Partners to share lessons learned, good practice and any further actions to be progressed to improve responses to Incidents.
- 7.9.11 One (1) Working Day after each Critical or Major Incident, the Operating Company shall;
- (a) undertake a Hot Debrief of the Incident and provide a summary report to the Director the following Working Day,
  - (b) confirm the requirement for a Cold Debrief with or without the relevant Operational Partners.
- 7.9.12 When required by the Director, the Operating Company shall have a Cold Debrief within ten (10) Working Days of each Critical or Major Incident.
- 7.9.13 A Cold Debrief incident report in a format to be agreed with the Director shall be submitted by the Operating Company within five (5) Working Days of the debriefing session.
- 7.9.14 When required by the Operating Company, within ten (10) Working Days of the Cold Debrief the Operating Company shall hold and facilitate an Operational Partner Debrief at a location to be agreed with the Director.
- 7.9.15 An Operational Partner Debrief report in a format to be agreed with the Director shall be submitted by the Operating Company within five (5) Working Days of the debriefing session.
- 7.9.16 The Operating Company shall review its Disruption Risk Management Plan and propose to the Director any updates to it which have resulted from all the debriefings. The proposed updates shall be submitted to the Director within five (5) Working Days of the debriefing session.
- 7.9.17 No later than twenty-five (25) Working Days after the commencement of each Annual Period, the Operating Company shall submit an Annual Incidents Report reviewing the impact of Incidents on the Unit for the previous Annual Period. The Annual Incidents Report shall be in accordance with the following structure;

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- (a) gathering disruption data,
- (b) analysis of risk levels,
- (c) development of mitigation measures,
- (d) improvement funding,
- (e) implementation of mitigation measures, and
- (f) disruption Risk Plan Updates

7.9.18 The Incident Liaison Officer shall ensure that all data stated within this Schedule 2 Scope, Section 7 Network Operations – Disruption Risk Management is collected, maintained and updated at all times.

7.9.19 All data and other relevant information collected by the Operating Company in implementing its;

- (a) Disruption Risk Management Plan,
- (b) Incident Response Plan,
- (c) Winter Service Plan,
- (d) Trunk Road Incident Support Service Plan,
- (e) Incident Support Units Plan,
- (f) Standard Incident Diversion Routes (SIDR),
- (g) Wind Management Plans,
- (h) Flood Management Plans,
- (i) Landslide Management Plans,
- (j) Incident Records,
- (k) Register of Disruption Risk Sites,
- (l) Risk actions register,
- (m) Risk planning record,
- (n) Statement of Intent requests for risk management action,
- (o) Any other management plans and risk Records related to potential disruption risk

shall be stored within the APMS, in accordance with the APMS User Manual. Where such Records are not captured electronically, the data required shall be manually entered into the

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Asset Performance Management System within twenty four (24) hours of the data being collected by the Operating Company.

Records not required to be stored in the APMS shall be retained in accordance with the requirements Schedule 3 Contract Management, Section 4 System, Plans & Records, including the daily record sheet to be maintained by the Operating Company in the format provided in Schedule 2 Scope, Appendix 7 Disruption Risk Management, Attachment 7.4 Daily Record Sheet for both the Trunk Road Incident Support Service and the Incident Support Units activities.

**8 Design, Construction and Certification of Operations**

**8.1 Construction (Design & Management) Regulations 2015**

- 8.1.1 The Operating Company may appoint Designer(s) and contractor(s) in accordance with Schedule 1 Conditions of Contract, Clause 2 Operating Company Main Responsibilities, 2.26 The Construction (Design & Management) Regulations (CDM Regulations) during the Contract Period. This will require appropriate checks to be carried out on other organisations' competence, resources and suitability in relation to the role for which they are being considered.
- 8.1.2 Where the requirements of the CDM Regulations apply to Operations and Works Contracts, the Operating Company shall advise the Director in writing when notification to the Health and Safety Executive is required in accordance with the CDM Regulations.
- 8.1.3 The Operating Company shall undertake the client's duties in accordance with Regulation 4 of the CDM Regulations in respect of all activities under this Contract that shall be covered by the CDM Regulations.
- 8.1.4 For the purposes of this Contract the Operating Company shall appoint a named person as the Client's Representative, as a single point of contact to ensure the Operating Company fully undertakes the client's duties under the CDM Regulations.
- 8.1.5 The Client's Representative shall act independently of the Operating Company's commercial management of the Contract. The Operating Company shall respect the need for independence and ensure that the named person can act independently.
- 8.1.6 The Client's Representative may not be changed without the prior agreement of the Director. Such agreement shall be sought by the Operating Company not less than 28 days prior to the proposed date of the change.
- 8.1.7 If the Director is dissatisfied with the work of the Client's Representative, the Operating Company shall procure a replacement within 28 days of notification by the Director.
- 8.1.8 If the Operating Company fails to procure a replacement, the Director may make their own appointment and the costs of such appointment will be deducted from amounts payable to the Operating Company.
- 8.1.9 The Client's Representative key tasks are identified in Schedule 3 Contract Management, Appendix 2 Key People Attachment 2.2 Operating Company Representative, Core Management Team and Key Staff – Profiles.
- 8.1.10 The Operating Company shall be the Principal Contractor when undertaking Operations to which the CDM Regulations apply where there is more than one contractor or it is reasonably

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foreseeable that more than one contractor will be working on a Scheme at any time. This appointment shall be made in writing by the Director. The Operating Company shall ensure that any appointments made in relation to these Operations are formally recorded in writing.

- 8.1.11 The Operating Company shall be the Principal Designer when undertaking Design for Operations including Works Contracts to which the CDM Regulations apply. This appointment shall be made in writing by the Director. The Operating Company shall ensure that any appointments made in relation to these Operations including Works Contracts are formally recorded in writing.
- 8.1.12 The Operating Company shall have in place a documented procedure for ensuring compliance with the CDM Regulations as part of the Operating Company's Management System including the Quality Plan. Such procedure shall include;
- (a) details of secure storage, in a secure location, of both hard copies and Electronic Copies of all the files and other Records required by the CDM Regulations including but not limited to;
    - (i) appointments made or altered,
    - (ii) pre-construction information,
    - (iii) Operations and maintenance manuals,
    - (iv) agreements as to who shall provide the Health and Safety File,
    - (v) Health and Safety Files,
    - (vi) the Construction Phase Plan
    - (vii) survey and investigation reports,
    - (viii) notification to the Health and Safety Executive (F10 forms),
    - (ix) information obtained from the client,
    - (x) advice given and information transferred to all duty holders, and
    - (xi) advice received from all duty holders under the CDM Regulations.
  - (b) Details of methods by which the information required by the CDM Regulations will be made available by the Operating Company to duty holders.
- 8.1.13 The Operating Company shall upload all the files and other Records required by the CDM Regulations into the APMS in accordance with the timescales indicated. These files and other Records referred to shall include but not be limited to;

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- (a) operations and maintenance manuals (within thirty (30) days of Scheme Completion Date),
- (b) Health and Safety Files (to be uploaded prior to construction and revised until completion with the final Health and Safety File uploaded no later than thirty (30) days after Scheme Completion Date),
- (c) the Construction Phase Plan (to be uploaded seven (7) days prior to the construction phase),
- (d) survey and investigation reports (as surveys and investigations take place),
- (e) notifications to the Health and Safety Executive (F10 forms) (as notified),
- (f) details of resources and appointments (to be uploaded seven (7) days prior to construction and revised until completion), and
- (g) details of welfare provision (to be uploaded seven (7) days prior to construction and revised until completion).

8.1.14 The Operating Company shall prepare a CDM Scheme Register which shall contain, as a minimum, the following details for each Scheme:

- (a) Scheme identifier,
- (b) Scheme name,
- (c) Route,
- (d) Pre-construction information collated date,
- (e) Design start date,
- (f) Design end date,
- (g) Designer(s),
- (h) Principal Designer,
- (i) Principal Contractor,
- (j) Contractor(s),
- (k) F10 Notifications,
- (l) Welfare facilities (type),
- (m) Construction Phase Plan review date,
- (n) Pre-start meeting date,
- (o) Construction start date,
- (p) Initial Health and Safety File upload date, and
- (q) Final Health and Safety File upload date

The Operating Company shall populate and maintain the CDM Scheme Register, ensuring that it includes the above details for each Scheme. The Operating Company shall ensure the

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CDM Scheme Register can be remotely accessed by the Director and the Performance Audit Group at all times.

### 8.2 Investigations & Design

8.2.1 Operations executed by the Operating Company may require the Operating Company to execute Investigations and Design.

For the purposes of this Contract the following categories of Investigations and Design shall be subject to an Order if the Director requires such Design to be executed;

- (a) Investigations for Schemes with an Estimated Construction Value of more than fifty thousand Great British Pounds (£50,000),
- (b) Design for Schemes with an Estimated Construction Value of more than fifty thousand Great British Pounds (£50,000) that are undertaken by the Operating Company as Ordered Operations,
- (c) Design for Works undertaken by Works Contractors, or
- (d) Design for work undertaken by any other third party.

For the purposes of this Contract the categories of Investigations and Design included in Core Operations are set out in Schedule 1 conditions of Contract, Clause 2 Operating Company's Main Responsibilities, 2.10 Design, Design Checks & Certification.

8.2.2 The Design procedure for the categories of Design identified in Schedule 2 Scope, Section 8 Investigations, Design, Construct & Certification of Operations, 8.2.1 shall be identical up to the stage at which;

- (a) calculations have been completed,
- (b) working Drawings prepared, and
- (c) all certification for the Design has been completed and registered in the Central Office by the Operating Company.

8.2.3 The Design procedure shall not include road safety audits. Road safety audits shall be undertaken in accordance with Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.3 Road Safety Audits.

8.2.4 The figure titled "Contractual Provisions for Design Associated with Schemes" set out in Schedule 1 Conditions of Contract, Appendix 7 Flow Charts shall be used by the Operating Company to establish whether the Design for a Scheme is to be treated as Core Operations or Ordered Operations.

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- 8.2.5 Unless otherwise agreed with the Director, the Operating Company shall provide the Director with a brief for a Design that includes as a minimum;
- (a) an outline of the Design requirement,
  - (b) for Designs for all Schemes with an Estimated Construction Value over fifty thousand Great British Pounds (£50,000), the estimated cost of the Design calculated in accordance with Schedule 4 Measurement, Rates & Prices,
  - (c) the name and grade for each Operating Company Contract Personnel involved with the Design,
  - (d) a full detailed programme for the Design including all Hold Points,
  - (e) the Operating Company's method of approach to the Design,
  - (f) development of preliminary and conceptual Design options,
  - (g) recommendation of the preferred Design to the Director with justification,
  - (h) submissions and presentations,
  - (i) Accident Investigation & Prevention Report, and
  - (j) the estimated cost of the Scheme at Design brief stage.
- 8.2.6 The Director will consider the brief and at his discretion, request the Operating Company to amend and re-submit it.
- 8.2.7 For Ordered Operations with an Estimated Construction Value of more than fifty thousand Great British Pounds (£50,000) the Director will issue an Order for the Operating Company to execute a Design.
- 8.2.8 The Design shall include as a minimum;
- (a) preparation of Drawings and specifications for a Scheme or repair of Damage to Crown Property,
  - (b) engineering calculations for a Scheme or repair of Damage to Crown Property,
  - (c) reasons for choice of materials (including replacing with the same or similar materials),
  - (d) reasons for choice of equipment,
  - (e) reasons for specifying particular standards or departures therefrom,
  - (f) reasons for extent or scope of a Scheme or repair of Damage to Crown Property,
  - (g) reasons for the Design option developed including a statement from the Road Safety Manager to confirm if the Design satisfies the Safe System Approach to Road Safety,

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- (h) the Health and Safety Plans in accordance with the CDM Regulations,
- (i) The Core Operations including maintenance and the rectification of Category 2 Low Defects and Category 2 High Defects that will be included as part of and performed at the same time of the extent or scope of a Scheme or repair to Damage to Crown Property
- (j) any other requirements necessary to be included in the Design to enable the execution and completion of a Scheme or repair of Damage to Crown Property.

8.2.9 Subject to an Order, the Operating Company shall undertake additional Investigations and studies to supplement the existing historical related inspections and assessments and necessary to start related Design including;

- (a) feasibility and option studies,
- (b) ground Investigations,
- (c) Asbestos - refurbishment surveys & demolition surveys,
- (d) Route option proposals,
- (e) business impact studies,
- (f) traffic impact studies,
- (g) economic evaluation studies,
- (h) any other investigations or studies required by the Director.

8.2.10 Where a Design of any Scheme carried out by the Operating Company requires the acquisition or procurement of land, the Operating Company shall prepare land plans and schedules in accordance with the requirements of the Director.

When requested by the Director, the Operating Company shall assist the Director in carrying out negotiations for the acquisition, procurement or entry to such land.

8.2.11 The Operating Company shall ensure all Design complies with the;

- (a) Design Manual for Roads and Bridges,
- (b) the Manual of Contract Documents for Highway Works,
- (c) the Roads for All: Good Practice Guide for Roads,
- (d) Safe System Approach to Road Safety,
- (e) this Contract and
- (f) any other Design requirements issued by the Director.

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All Design shall be certified in accordance with the certification procedures specified in this Contract.

The Director is entitled to instruct the Operating Company to change and or modify any part of a Design that does not meet the requirements of the Contract.

8.2.12 Where the provisions contained within the Roads for All: Good Practice Guide for Roads conflict with those of the Design Manual for Roads and Bridges, the Operating Company shall inform the Director and make recommendations on which provisions should be used for the Design.

8.2.13 The Operating Company shall require express written consent from the Director to any departure from the;

- (a) Design Manual for Roads and Bridges,
- (b) the Manual of Contract Documents for Highway Works,
- (c) Roads for All: Good Practice Guide for Roads
- (d) Safe System Approach to Road Safety,
- (e) this Contract
- (f) any other Design requirements issued by the Director

prior to any departure being incorporated into the Design. All departures consented to by the Director shall use the departures from standards Certificate detailed in Schedule 2 Scope, Appendix 8 – Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures.

8.2.14 The Operating Company shall assess all Designs of Schemes to determine if an environmental impact assessment is required and shall notify the Director of the outcome of such assessment in a draft Record of Determination. Depending upon the scope of the Design, the draft Record of Determination shall be supported, where applicable, by either;

- (a) an environmental assessment report, or
- (b) an environmental review report,

to be held by the Operating Company at the Central Office for all Designs prior to the completion of Design or certification and uploaded into APMS.

8.2.15 The Operating Company shall hold the documents at the Central Office and shall not complete Design or certification until the Director's consent to the draft Record of

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Determination, draft environmental assessment report or draft environmental review report has been received (if applicable).

- 8.2.16 Once consented to, the Record of Determination, environmental assessment report or environmental review report shall be signed by the Director before publication of Statutory Orders and retained at the Central Office (if applicable).
- 8.2.17 When the Director determines that an environmental impact assessment is required, the Operating Company shall ensure that the relevant statutory procedures are followed and the findings of the environmental impact assessment reported in an environmental statement.
- 8.2.18 Where the Design of any Scheme requires new road orders, variations to existing road orders, environmental impact assessments and subsequent environmental statements, the Operating Company shall, as part of the Design and in accordance with the Design Manual for Roads and Bridges;
- (a) prepare the required road orders, plans, schedules, environmental impact assessments and environmental statements, and
  - (b) submit these when required to the Director.

The Director, assisted as required by the Operating Company, shall publish environmental statements and public notices of determination and make the said road orders in accordance with the procedures referred to in the Legislation.

- 8.2.19 The Operating Company shall prepare the pre-construction information in accordance with the CDM Regulations as part of any Design.
- 8.2.20 The Operating Company, as part of its Design shall develop a Site Waste Management Plan for all Schemes with an Estimated Bid Value greater than three hundred fifty thousand Great British Pounds (£350,000). The Site Waste Management Plan shall be developed in accordance with current best practice guidance, instructions issued by the Director or any amendments to the Design Manual for Roads and Bridges.

The Site Waste Management Plan shall;

- (a) provide details of the quantity and type of waste that will be produced for each Scheme and Works Contract,
- (b) provide details of how the waste produced will be minimised, reused, recycled, recovered or otherwise diverted from landfill,
- (c) provide details of how any materials that cannot be reused, recycled or recovered will be disposed of at a legitimate site,

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- (d) take account of the Scottish Government's targets for waste reduction and recycling,
- (e) include the duties of the Operating Company as set out in the Duty of Care; Code of Practice (for managing controlled waste) October 2012, and
- (f) be regularly updated during the construction process to record how all waste is managed.

The Site Waste Management Plan developed as part of the Operating Company's Design shall be completed and implemented by the Operating Company for the relevant Scheme or the Works Contractor for the relevant Works Contract.

### **8.3 Road Safety Audits**

- 8.3.1 Road safety audits shall be performed by the Operating Company in accordance with the GG 19 Road Safety Audits of the Design Manual for Roads and Bridges and unless stated to the contrary elsewhere in this Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.3 Road Safety Audits are a Core Operation.
- 8.3.2 The Operating Company shall perform road safety audits of Schemes for which it will be carrying out the Design and or supervision of the Operations or Works and the associated temporary traffic management.
- 8.3.3 The Director has the right, at his sole discretion, to instruct a third party to undertake the road safety audit, for example where an Operating Company conflict of interest is identified.
- 8.3.4 Subject to an Order, the Operating Company shall be required to carry out road safety audits on Schemes designed or constructed by others.
- 8.3.5 The requirements of road safety audits shall be managed by the Road Safety Manager whose responsibilities and duties are described in more detail in Schedule 2, Section 11 Safety & Development – Road Safety Programme.
- 8.3.6 The Operating Company shall update the Route Safety File with all Stage 1, 2, 1/2, 3 and 4 road safety audit reports performed by the Operating Company, and audits undertaken by third parties, in relation to that Route no later than ten (10) Working Days after completing the road safety reports audit reports and or being issued by the Director with a road safety audit report prepared by a third party.
- 8.3.7 All documents and the like to be submitted by the Operating Company to the Director and all Records required by this Section 8 Design, Construct & Certification of Operation, 8.3 Road Safety Audits shall meet the requirements of Schedule 5 Specifications & Drawings, 071AR Creation, Maintenance & Submission of Documents and Other Media.

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- 8.3.8 The definition of Project Sponsors and Design Organisation is in accordance with GG119 Road Safety Audits of the Design Manual for Roads and Bridges.
- 8.3.9 The Operating Company shall submit its nominated personnel for the roles of the audit team members and audit observers to the Director for written consent.
- 8.3.10 The Operating Company shall demonstrate the competence of the nominated audit team members by submitting details of their training and experience to the level required by GG 119 Road Safety Audit of Design Manual for Roads and Bridges, to the Director.
- 8.3.11 The Director must be satisfied that the team has adequate and relevant training, skills and experience for each road safety audit undertaken.
- 8.3.12 The Director shall not give consent to any proposed personnel if he considers that they lack the necessary experience and training or if their independence is in doubt. In such cases the Director shall instruct the Operating Company to submit alternative nominees for consideration.
- 8.3.13 Once consented to by the Director, the nominated individuals may be called upon to take part in road safety audits in the role for which consent has been given.
- 8.3.14 The scopes and stages of road safety audits are stated in GG 119 Road Safety Audit of the Design Manual for Roads and Bridges.
- 8.3.15 The Operating Company shall ensure that two copies of each road safety audit report, including any attachments, are sent to the Director within five (5) Working Days of being undertaken.
- 8.3.16 The Operating Company shall ensure that all issues raised by the audit team are given due consideration by the Designer organisation.
- 8.3.17 The Operating Company shall submit to the Director two copies of an exception report, when required, for any stage of a road safety audit where the Designer organisation considers the comments provided within the road safety audit report are not viable or applicable within the scope of the Scheme. The Operating Company shall ensure the exception report gives reasons and proposes alternatives for the Director's consent.
- 8.3.18 The Operating Company shall submit two copies of the audit brief to the Director for comment.
- 8.3.19 The requirements for road safety audits on Schemes that meet the criteria for audits referred to in this Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.3 Road Safety Audits are in addition to any other requirements for road safety audits stated in the Design Manual for Roads and Bridges.

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8.3.20 The preliminary Design for a Scheme shall be subjected to a stage 1 road safety audit.

The Operating Company shall ensure that the Designer organisation, in addition to meeting the requirements of the Design Manual for Roads and Bridges, submits the following information to the road safety audit team where relevant;

- (a) 1:1250 or 1:2500 scale general layout drawings showing horizontal and vertical alignment details together with visibility requirements including as a minimum details of;
  - (i) junctions,
  - (ii) drainage,
  - (iii) landscaping,
  - (iv) accesses,
  - (v) utilities,
  - (vi) lay-bys,
  - (vii) sign gantries,
  - (viii) traffic signals, and
  - (ix) street lighting.
- (b) 1:500 scale plans of special features and interfaces with existing roads,
- (c) standard details and typical cross sections including road restraint systems,
- (d) accident data including locations,
- (e) traffic flows including vehicular, pedestrian, cyclist and equestrian movements, and
- (f) details of relaxations and departures from standards as stated and defined in the Design Manual for Roads and Bridges.

8.3.21 The Operating Company shall ensure that the design organisation has addressed all matters raised in the road safety audit report before progressing to the next stage 2 road safety audit.

8.3.22 The detailed Design shall be subjected to a stage 2 road safety audit.

The Operating Company shall ensure that the Designer organisation submits to the road safety audit team any information not previously submitted, or information amended from that given at stage 1 and, where applicable, with;

- (a) 1:500 scale Scheme plans of the road layout showing all junctions including verges and extent of side slopes,

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- (b) drawings showing;
  - (i) road restraint systems,
  - (ii) pedestrian guard rails,
  - (iii) bridge parapets,
  - (iv) walls,
  - (v) other Structures,
  - (vi) signs including location, poles, arrangements and sign fascia,
  - (vii) road markings,
  - (viii) lighting, and
  - (ix) other features,
- (c) drawings showing road surface contours, drainage details and carriageway details,
- (d) traffic signal and integrated traffic systems details, and
- (e) copies of the previous road safety audit and exceptions reports.

8.3.23 The Operating Company shall ensure that all amendments to the Design required as a result of the stage 2 road safety audit shall be incorporated into the Design of a Scheme before the Operations on Site, or procurement of Works Contracts, commences.

8.3.24 The Operating Company shall give the Director at least fourteen (14) days' notice in writing when a Scheme, or any part thereof, is ready for a stage 3 road safety audit.

8.3.25 Fourteen (14) days prior to the due date of any audit, the Operating Company shall invite representatives of the Director, the design organisation, and the Police to attend all stage 3 road safety audits. These representatives do not constitute part of the road safety audit team and the responsibility for the production of the road safety audit report shall remain with the audit team leader.

8.3.26 The audit team leader shall provide immediate feedback to the representative(s) of the Director while on Site in relation to any road safety concerns raised in the stage 3 road safety audit.

8.3.27 The Operating Company shall discuss the findings on Site and any previous exception reports with the Director prior to any additional work being carried out. This feedback and discussion shall be included in the stage 3 road safety audit report.

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- 8.3.28 The Operating Company shall ensure that additional work, together with any corrective work, is incorporated into the Scheme. The Director shall issue an Order for any additional work required that has been identified in the stage 3 road safety audit report. In the case of a Works Contract, any additional and or corrective work shall be completed before a Certificate of Completion is issued under the Works Contract.
- 8.3.29 Stage 4 monitoring shall include any Scheme for which construction was completed before the Commencement of Service Date.
- The stage 4 monitoring report shall include the accident data logged in the APMS for twelve (12) months and thirty six (36) months after the Scheme becomes operational.
- 8.3.30 The Operating Company shall notify the Director no later than four (4) weeks before the due date of the twelve (12) month and thirty six (36) month stage 4 monitoring reports.
- 8.3.31 The Operating Company shall submit a stage 4 road safety audit report to the Director that provides an analysis of accidents as stipulated in the Design Manual for Roads and Bridges and provides details of any operational issues arising from the Works that were not apparent at the stage 3 road safety audit.
- 8.3.32 Where the Director procures a stage 4 road safety audit from a third party, the Operating Company shall, provide information required for the analysis of accidents and descriptions of operational difficulties to the third party.
- 8.3.33 The Operating Company shall discuss the findings of the stage 4 road safety audit report with the Director.
- 8.3.34 The Director shall issue an Order to the Operating Company to cover any additional work required as a result of the reports.
- 8.3.35 Subject to an Order, the Operating Company shall perform road safety audits on schemes located on the Unit which will be, or were, designed or constructed by others. In such cases, the Operating Company shall perform the relevant road safety audits as required by this Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations.
- 8.3.36 Schemes promoted by others, where the Designer organisation is out with the control of the Operating Company, shall be the subject of road safety audits carried out on behalf of the promoters of the schemes and the reports shall be submitted to the Director who will provide them to the Operating Company for review. Subject to an Order, the Operating Company, shall review and comment to the Director on any points of concern contained within such road safety audit reports.

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### 8.4 Certification

- 8.4.1 All Design shall be certified in accordance with the certification procedures specified in this Contract. Such certification shall be undertaken as part of the Order for the Design.
- 8.4.2 Where the Operating Company executes a Design, it shall provide certification to cover the Design or Design Element(s) where the;
- (a) Scheme(s) is subsequently executed by the Operating Company, or by a Works Contractor, or
  - (b) Work is executed by others.
- 8.4.3 The certification procedures shall apply to all Operations that constitute Design or any activity that relates to specifying Operations and to the manner in which they are executed.
- 8.4.4 The Technical Approval of Structures shall be in accordance with the Design Manual for Roads and Bridges together with any other relevant Scottish Executive and Transport Scotland addendums. Prior to the Operating Company commencing a Design for;
- (a) Structures (including temporary Structures), or
  - (b) the strengthening, structural repair or partial renewal of existing Structures,
- a Design proposal shall be submitted to the Director at the preliminary Design stage on form TA1 set out in Schedule 2 Scope, Appendix 8 – Design, Construct & Certification of Operations Attachment 8.1 Certification in Relation to Certification Procedures and shall represent a Scottish Ministers' Hold Point in the Quality Plan.
- No further Operations in respect of any such Design shall be executed until the Director returns form TA1 granting approval to the Operating Company. The Director's approval may include amendments that are required or conditions that are placed in connection with the approval.
- 8.4.5 The Director shall not accept modifications or qualifications to any of the Certificates and notices provided in Schedule 2 Scope, Appendix 8 – Design, Construct & Certification of Operations Attachment 8.1 Certification in Relation to Certification Procedures other than those consented to in advance and in writing by the Director.
- 8.4.6 The certification procedure associated with a part of a Design or Design Element shall be deemed to cover all aspects and stages of a Design or Design Element.
- 8.4.7 Where the value of the Scheme or repair of Damage to Crown Property is estimated to be less than one hundred thousand Great British Pounds (£100,000) estimated in accordance with Schedule 4 Measurement, Rates & Prices, the Operating Company shall use the

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combined Design and Design check Certificate contained in Schedule 2 Scope, Appendix 8 – Design, Construct & Certification of Operations Attachment 8.1 Certification in Relation to Certification Procedures in lieu of the other Design and check Certificates.

- 8.4.8 The Design check for all Structures shall be carried out by the Operating Company in accordance with the procedures described in Design Manual for Roads and Bridges. Prior to executing any Design checks, the Operating Company shall submit the name of the independent Checker to the Director for written consent.
- 8.4.9 Design Certificates and Design check Certificates shall be prepared by the Operating Company for all parts of a Design or Design Element(s) including where appropriate;
- (a) accommodation work,
  - (b) drainage,
  - (c) earthworks,
  - (d) environment and landscaping,
  - (e) fencing and environmental barriers,
  - (f) kerbs footways and paved areas,
  - (g) lighting and electrical work,
  - (h) piling,
  - (i) road layout,
  - (j) road pavements
  - (k) road restraint systems,
  - (l) signs and road markings,
  - (m) Structures,
  - (n) departures from standard or aspects not covered by standards, and
  - (o) any other Design element not covered above.
- 8.4.10 For any part of the Scheme that has an Estimated Bid Value of less than or equal to one million Great British Pounds (£1,000,000) estimated in accordance with Schedule 4 Measurement, Rates & Prices, the Design check for all parts of the Design or all parts of the Design Elements shall be subject to a category II Design check by a Checker. In all circumstances, the Checker shall be technically independent of the Designer in accordance with the Design Manual for Roads and Bridges.

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8.4.11 The Design check for any Operations, Works or work carried out by others with an Estimated Bid Value of more than one million Great British Pounds (£1,000,000) estimated in accordance with Schedule 4 Measurement, Rates & Prices, shall be executed by a Checker. In all circumstances, the Checker shall be technically independent of the Designer, the Operating Company and any Associated Companies.

8.4.12 The Design check for all Structures Design requiring category III Design checks and for all earthworks Design shall be executed by a Checker. In all circumstances, the Checker shall be technically independent of the Designer's organisation, the Operating Company and their Associated Companies.

When parts of a Structure are designed by more than one Designer, a Category III Design check for the whole Structure shall be carried out by a single Checker.

8.4.13 Separate Design Certificates and Design check Certificates shall be prepared by the Operating Company for each Structure Design.

8.4.14 Construction of any part of the Operations, Works or work carried out by others that requires a Certificate in accordance with requirements of this Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.4 Certification shall not commence until the completed Certificate with all associated information has been recorded and contained within the Design register or Design check register.

8.4.15 The Operating Company shall comply with the requirements for earthworks certification as stated in the Design Manual for Roads and Bridges except where such requirements have been amended or modified as stated within this Contract.

A copy of the factual report as referred to in the Design Manual for Roads and Bridges shall be forwarded to the relevant Scottish branch office of the British Geological Survey on completion of the Design.

8.4.16 All Operations including Works involving earthworks shall be subject to a ground investigation in accordance with the Design Manual for Roads and Bridges and the Manual of Contract Documents for Highway Works.

Subject to an Order, the Operating Company may procure ground investigations services by way of a framework agreement of the Scottish Ministers for ground investigation services or as required by the Order. The Scottish Ministers shall remain the Employer for all said agreements. The Director shall decide how the ground investigation services are procured and shall advise the Operating Company of his decision.

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- 8.4.17 Subject to an Order, the Operating Company shall act as Engineer for any such ground investigations. The duties of the Engineer shall include preparing work orders, issuing instructions and supervision as required to permit the particular ground investigation service provider to execute and complete the investigation.
- 8.4.18 Prior to an Order being issued and when requested by the Director, the Operating Company shall provide for the Director's consent, a draft Design brief for ground investigations which shall include;
- (a) principal technical details,
  - (b) principal delivery dates and programme,
  - (c) preferred method of procurement for ground investigation services with full justification for the preference including a Value for Money Assessment as if for a Bid,
  - (d) schedule of plant and resources including cost estimates,
  - (e) conflicts of interest,
  - (f) access to land,
  - (g) details of geotechnical certification route to be followed, and
  - (h) any other information required by the Director.
- 8.4.19 A geotechnical design report, compiled in accordance with the Design Manual for Roads and Bridges, shall be prepared and incorporated into the Design by the Designer for all earthworks including piling.
- The Design check of the earthworks Design including the Design check of the geotechnical design report shall be carried out by a Checker. Prior to executing any Design checks, the Operating Company shall submit the name of the independent Checker to the Director for written consent.
- Where, in accordance with Design Manual for Roads and Bridges the ground investigation is categorised as requiring an independent check, the independent check shall be carried out by the Director's appointed independent geotechnical Checker. Such independent check shall be completed prior to completion of a Scheme Design and prior to tendering of a Works Contract.
- The Operating Company shall forward a copy of the independent check Certificate to the Director upon receiving sign off from the independent geotechnical Checker.
- 8.4.20 The parts of a Design or Design Element(s) that require Design Certificates and Design check Certificates may each be phased in order to;

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- (a) accommodate the Operating Company's phasing of the Design or the phasing of the Operations, Works or work carried out by others, and
- (b) enable construction of a phased Design or Design Element(s) to proceed.

8.4.21 When a phased method of certification is adopted by the Designer, the following procedure shall apply;

- (a) for each phase of a Design or Design Element, the Operating Company shall produce a schedule of the further divided parts of a Design or Design Element that it proposes to certify. Any such schedules shall have the written consent of the Designer and the Checker before being implemented and incorporated into the Design register,
- (b) the Operating Company shall provide and maintain within the Design register the status of all Design interim Certificates and Design check interim Certificates for each phase of the Design or Design Element,
- (c) each Design interim Certificate for each further phase of the Design or Design Element shall be signed and dated by the Designer and the Operating Company. Each Design check interim Certificate shall be signed and dated by the Checker and the Operating Company with original signatures,
- (d) the Design register shall also contain all required completed interim Certificates and include cross-references to locations where all information referred to within the Design interim Certificate is stored,
- (e) construction of any part of the Operations, Works or works for each phase of the Design or Design Element requiring certification shall not commence until the completed Design interim Certificates with all associated information is recorded and contained within the Design register.

8.4.22 Once all Design interim Certificates and Design check interim Certificates for a part of a Design or Design Element have been completed, the Operating Company shall complete a Design Certificate and Design check Certificate.

8.4.23 The Operating Company shall record and maintain in the Design register, the original signed and dated Design Certificates and Design check Certificates for each part of the Design or Design Element with original signatures, along with one copy of all relevant Drawings, schedules and numbered appendices.

The Design register shall also contain all;

- (a) Design interim Certificates,

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- (b) Design Certificates,
- (c) completed Design and Design check Certificates including cross-references to locations where all information referred to within the Certificates is stored, and
- (d) Records kept and maintained including relevant Drawings, schedules and numbers appendices and any other relevant documents.

The Design register shall be stored at the Central Office.

8.4.24 The Operating Company shall ensure the scale of any plans, sections and other Drawings are relevant to the part of a Design being certified and show the true disposition of all features that may influence a Design or Design Element including where appropriate;

- (a) for fencing and environmental barriers, road restraint systems, drainage, earthworks, road pavement, kerbs, footways and paved areas, signs and road markings, lighting and electrical work, environmental and landscaping, and accommodation work;
  - (i) plans showing the layout and extent of the certified part of the Design or Design Element,
  - (ii) Drawings showing typical and or specific cross-sections, and
  - (iii) any other schedule or supporting information associated with the part of the Design or Design Element that is listed in the numbered appendices within the specification used in the Works Contract.
- (b) for road layout;
  - (i) plans of the road layout to a scale of not less than 1:1250 showing road intersections Structures and road interchanges,
  - (ii) longitudinal sections of the Trunk Road and, where relevant, side roads, and
  - (iii) any other schedules or supporting information (including signed off departures from standard) associated with the part of the Design or Design Element that are listed in the numbered appendices within the specification of a Works Contract, Operations Instructions or Site Operations Instructions,
- (c) for Structures;
  - (i) all Drawings and schedules issued for construction of the Structures.

8.4.25 The Operating Company shall complete and sign each construction Certificate detailed in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures within five (5) Working Days of

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completion of the Site construction of the identified part of the Design or Design Element. For the purposes of this Certificate, completion shall be the completion of the Operations excluding the Defects Correction Period, as relevant for the particular Scheme.

- 8.4.26 The Operating Company shall complete and sign the required construction completion Certificates detailed in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures within five (5) Working Days of completion of the Operations or Works.
- 8.4.27 The Operating Company shall complete and sign the Design Defects correction Certificate detailed in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures within five (5) Working Days of completion of a correction of a Defect or Non-Conformance relating to a Design or Design Element.
- 8.4.28 The Operating Company shall consult and comply with the requirements of affected third parties including where appropriate public bodies, Undertakers, authorities and other relevant companies during the execution of this Contract. Upon obtaining written consent from the relevant third party, the Operating Company shall prepare and sign consultation Certificates countersigned by the appropriate third party.
- The Operating Company shall retain all correspondence with such parties confirming such consultations in the Central Office.
- 8.4.29 The Operating Company shall not commence or procure the commencement of any Operations including Works Contracts that could affect the interests of any third party until this consultation procedure has been completed.
- 8.4.30 When a road safety audit is required, a road safety audit certificate as provided in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures shall be completed and appended to the Design or combined Design and check Certificate as relevant by the Operating Company.
- 8.4.31 The Operating Company shall complete a road safety audit Certificate at the completion of each road safety audit and submit such Certificate to the Director within five Working Days of the road safety audit being undertaken. The Certificate shall be in the form shown in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment 8.1 Certificates in Relation to Certification Procedures.
- 8.4.32 The Operating Company shall complete and the maintenance Certificate detailed in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations Attachment

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8.1 Certificates in Relation to Certification Procedures within five (5) Working Days of the completion of the maintenance period of the Operations or Works Contract.

8.4.33 The Operating Company shall not incorporate any departure from the requirements stated in the Design Manual for Roads and Bridges, the Manual of Contract Documents for Highway Works and the Roads for All: Good Practice Guide for Roads into a Design, Operations, Works Contract or work until;

- (a) written consent has been obtained from the Director, and
- (b) a signed copy of the departures from standard form in Schedule 2 Scope, Appendix 8 Design, Construct & Certification of Operations, Attachment 8.1 Certificates in Relation to Certification Procedure has been received from the Director.

### **8.5 Control of Asbestos Regulations (as amended)**

8.5.1 In addition to the responsibilities as an employer under Legislation the Operating Company shall undertake the role of the 'duty holder' under the Control of Asbestos Regulations 2012, as amended by Personal Protective Equipment (Enforcement) Regulations 2018.

8.5.2 For the purposes of the Contract the Operating Company shall appoint no later than the Commencement of Service Date, a member of the Core Management Team, as a single point of responsibility to ensure the Operating Company performs all Operations in accordance with the Control of Asbestos Regulations 2012 as amended by Personal Protective Equipment (Enforcement) Regulations 2018 and the following;

- (a) Design Manual for Roads and Bridges, General Principles and Scheme Governance Information, GG 105 Asbestos management, and
- (b) Health & Safety Executive, Approved Code of Practice & Guidance, Managing and Working with Asbestos, Control of Asbestos Regulations.

8.5.3 The Operating Company shall prepare an Asbestos Management Plan which sets out the means (including resources, processes, programmes) by which the Operating company will deliver the requirements of Schedule 2 Scope, Section 8 Design, Construct & Certification of Operations, 8.5 Control of Asbestos Regulations (as amended) and submit it to the Director for comment and or consent no later than two (2) months before the Commencement of Service Date.

The Director will provide comments and or consent no later than one (1) month before the Commencement of Service Date on the Asbestos Management Plan.

8.5.4 The Operating Company shall keep the Asbestos Management Plan under review as required and shall at intervals not exceeding twelve (12) months, either update the Asbestos

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Management Plan and reissue it to the Director or issue a statement to the Director that the Asbestos Management Plan has been reviewed and no update is required, no later than ten (10) Working Days after each review and or update.

The Director will provide comments and or consent no later than one (1) month after an updated Asbestos Management Plan has been issued by the Operating Company.

- 8.5.5 For the avoidance of doubt a refurbishment survey and demolition survey related to asbestos is an Investigation, will be subject to an Order and a management survey related to asbestos is a Core Operation.

### **8.6 The Water Environment (Controlled Activities) (Scotland) Regulations**

- 8.6.1 Where the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017) apply to Operations and Works Contracts the Operating Company shall advise the Director in writing when “an application” is required by “SEPA”.
- 8.6.2 The Operating Company shall submit “an application” to the “responsible person” for comment and or approval before it is submitted to “SEPA” unless otherwise instructed by the Director.
- 8.6.3 The Operating Company shall not submit “an application” to SEPA without obtaining comment and or approval in writing from the “responsible person” unless otherwise instructed by the Director.
- 8.6.4 For the purposes of this Contract the Operating Company shall appoint a member of the Key Staff with single point of responsibility for ensuring the Operating Company secures compliance with the terms of all “water use licenses” obtained under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017).
- 8.6.5 The member of the Key Staff may not be changed without the prior agreement of the Director. Such agreement shall be sought by the Operating Company no less than twenty eight (28) days prior to the proposed date of change.
- 8.6.6 If the director is dissatisfied with the work of the member of the Key Staff, the Operating Company shall procure a replacement within twenty eight (28) days of notification by the Director.
- 8.6.7 If the Operating Company fails to procure a replacement, the Director may make an appointment and the costs of such an appointment will be deducted from amounts payable to the Operating Company in accordance with Schedule 1 Conditions of Contract, Clause 5 Payment.

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- 8.6.8 The Operating Company shall have in place a documented procedure to ensure compliance with the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017) as part of the Operating Company Management System described in more detail in Schedule 3 Contract Management, Section 4 Systems, Plans and Records. Such a procedure shall include details of:
- (a) Secure storage, secure location, of both hard copies and Electronic Copies of all the files and other Records required by the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017), and
  - (b) Methods by which information required by the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017) will be made available by the Operating Company to Scottish Ministers, Director, “responsible person”, “SEPA” and or Performance Audit Group.
- 8.6.9 The Operating Company shall no later than thirty (30) days prior to the Commencement of Service Date submit a copy of a Controlled Activities Regulations Register to the Director which shall contain as a minimum:
- (a) List of “water use licenses” obtained by the previous operating company from “SEPA” under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017),
  - (b) Date of “an application”,
  - (c) Date of “authorisation”,
  - (d) Name of “responsible person”
  - (e) Location(s) and Route(s) to which a “water use license” relates, and
  - (f) A summary of the key terms of a “water use license” including the Operations to be performed by the Operating Company to ensure compliance with a “water use license” granted by “SEPA” under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017),
- 8.6.10 The Operating Company shall no later than fifteen (15) days after obtaining a “water use license” from SEPA for any Operations update the Controlled Activities Regulations Register with the details set out above and upload the Controlled Activities Regulations Register together with all the files and records required by the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017) into the APMS.

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8.6.11 The Scottish Ministers shall pay all fees in connection with “water use licenses” obtained by the previous operating company from “SEPA” under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (Including amendments 2013 and 2017).

**9 Abnormal Loads**

**9.1 Routing and Coordination**

- 9.1.1 Movement of abnormal indivisible loads and abnormal vehicles is regulated and controlled by;
- (a) The Road Vehicles (Construction and Use) Regulations 1986 (SI 1986 No 1078) as amended by The Road Vehicles (Construction and Use) (Amendment) Regulations 1986 (SI 1986 No 1597),
  - (b) The Road Vehicles (Authorised Weight) Regulations 1998 (SI 1998 No 3111) as amended by The Road Vehicles (Authorised Weight) (Amendment) Regulations 2000 (SI 2000 No 3224 and The Road Vehicles (Authorised Weight) (Amendment) Regulations 2001 (SI 2001 No 1125),
  - (c) The Road Vehicles (Authorisation of Special Types) (General) Order 2003/1998 hereinafter referred to as Special Types General Order 2003, and
  - (d) Section 44 of The Road Traffic Act 1988 as amended by The Road Traffic Act 1991 (Schedule 4, paragraph 51).
- 9.1.2 The Operating Company shall, on behalf of the Director, act as the main contact for all communication and correspondence relating to the routing and movement of abnormal indivisible loads on the Unit.
- 9.1.3 Movement of certain abnormal indivisible loads (Special Order and VR1's) requires authorisation from the Department for Transport. Hauliers and companies are required to obtain authorisation for movements of abnormal indivisible loads with dimensions or weights as described in parts B and C of Schedule 2 Scope, Appendix 9 – Abnormal Load Attachment 9.1 A Guide to Notification & Authorisation of Abnormal Load Routing.
- Hauliers and companies moving all abnormal indivisible loads are required to give notice to Police Scotland and all road and bridge authorities who have responsibility for the proposed Route in accordance with the timescales specified in parts B and C of Schedule 2 Scope, Appendix 9 – Abnormal Load Attachment 9.1 A Guide to Notification & Authorisation of Abnormal Load Routing..
- 9.1.4 The Operating Company shall inform and make recommendations to the Director regarding all proposed movements of Special Orders and VR1's abnormal indivisible loads on the Unit within the following timescale;
- (a) Four (4) weeks for a Special Order load, and

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(b) Five (5) days for VR 1 load.

These timescales are required in order to allow authorisation by the Department for Transport on behalf of the Director. The Director will issue a copy of the authorisation from the Department for Transport to the Operating Company.

9.1.5 The Operating Company shall immediately check all notifications from hauliers and companies within the timescales (one (1) or four (4) days for two (2) and five (5) day notifications) specified in Parts B and C of Schedule 2 Scope, Appendix 9 Abnormal Load Attachments 9.1 A Guide to Notification & Authorisation of Abnormal Load Routing after checking, bring any discrepancies immediately to the attention of the appropriate haulier or company.

9.1.6 Movement of certain loads require an escort. Hauliers are permitted to undertake the self-escorting of abnormal indivisible loads and abnormal vehicles within certain limits.

The Operating Company shall inform all hauliers and companies intending to undertake the self-escorting of an abnormal indivisible load of the need to comply with the guidance available from the Highways England and the Police Scotland websites. . The Operating Company shall comply with this guidance when executing any Operations that may involve self-escorting of abnormal indivisible loads and abnormal vehicles.

9.1.7 Police Scotland has published forms and guidance for hauliers wishing to self-escort any abnormal indivisible loads on roads in Scotland. Police Scotland will require all Special Order and VR 1 loads to be moved under police escort unless agreed otherwise.

The Operating Company shall bring this guidance to the attention of all hauliers and companies seeking the routeing and movement of abnormal indivisible loads on the Unit and direct hauliers and companies to the Police Scotland Abnormal Loads & Agricultural section of the Police Scotland website.

9.1.8 The Operating Company shall develop, implement and maintain documented procedures for the effective management of abnormal indivisible load routeing within the Management System, including the Quality Plan.

The Abnormal Load Routeing Manager shall supervise and co-ordinate the duties to be undertaken by the Operating Company specified in this Schedule 2 Scope, Section 9 Abnormal Loads.

9.1.9 The Scottish Ministers have a duty to provide a statutory abnormal indivisible load routeing and co-ordination service throughout Scotland to hauliers and companies on behalf of the

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Department of Transport. The Operating Company shall provide advice on the routeing of abnormal indivisible loads to the Director, and on behalf of the Director, when required.

- 9.1.10 The Operating Company shall provide a routeing and co-ordination service for hauliers and industry for abnormal indivisible loads movements that takes place on the Unit and in accordance with TSI A 45 Rev 1 Management of Abnormal Indivisible Loads.

The Operating Company shall liaise with the relevant Operational Partners and other concerned organisations as required, in order to advise on or identify a suitable Route for the movement of abnormal indivisible loads and abnormal vehicles on the Unit in accordance with TSI A 45 Rev 1 Management of Abnormal Indivisible Loads.

- 9.1.11 When any such movement requires statutory authorisation, the Operating Company shall advise the haulier or company accordingly. No later than three (3) Working Days after advising the haulier or company of the need for statutory authorisation, the Operating Company shall seek prior authorisation from the Director.

The Operating Company shall include the application or enquiry received from the haulier or company when seeking such authorisation, together with a suggested abnormal indivisible load Route.

- 9.1.12 Any advice that the Operating Company gives to hauliers or companies shall be based on such Records as the Operating Company may possess or to which the Operating Company has access. The Operating Company shall inform hauliers and companies that by advising or commenting on a proposed abnormal indivisible load Route;
- (a) neither the Operating Company nor the Scottish Ministers or Director assume responsibility of any kind in connection with the movement of the relevant abnormal indivisible load or abnormal vehicle, and
  - (b) in following any advice provided, the owner and the operator of the vehicle shall not be relieved of any of obligations or liabilities under the relevant Legislation.

## **9.2 Management & Records**

- 9.2.1 The Operating Company shall use the APMS, as referred to in Schedule 2 Scope, Section 4 Inspection & Maintenance – Structures and described in further detail in Schedule 3 Contract Management, Section 4 Systems, Plans & Records, and follow the procedures set out in the APMS User Manual to identify Structures that may be affected by the movement of an abnormal indivisible load.
- 9.2.2 The Operating Company shall update the data held within the APMS in accordance with the requirements of Schedule 2 Scope, Section 4 Inspection & Maintenance - Structures.

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9.2.3 In undertaking a Route assessment, the Operating Company shall take account of the guidance contained in the APMS (including TS IA45 Rev 1 Management of Abnormal Indivisible Loads) on the effects of heavy load movements across over-bridges, under-bridges and Structures of the Unit.

The Operating Company shall record in the APMS, data on the vehicles used in the movement of abnormal indivisible loads.

9.2.4 The Operating Company shall keep Records of the assessment of abnormal vehicle movements and the approved abnormal indivisible load Route for each abnormal indivisible load. The Operating Company is advised that, whilst the findings of a given assessment and the vehicles checked along an approved abnormal indivisible load Route are retained within the APMS, the Route is not.

9.2.5 The Operating Company shall, on behalf of the Director, request indemnification, in the format specified in the Specification of the Special Types General Order 2003, from any haulier or company whose abnormal indivisible loads are expected to travel on the Unit.

9.2.6 The Operating Company shall immediately notify the Director if it has not received any requested indemnity in advance of any movement of abnormal indivisible loads.

9.2.7 The Operating Company shall keep the indemnity forms received at its Central Office and shall prepare and maintain a list of hauliers and companies for whom indemnity forms are held. Indemnity forms shall be kept for a minimum period of twelve (12) months after the indemnified movement has taken place. Should the twelve (12) month period extend beyond the Termination Date, any indemnity forms held by the Operating Company shall be passed to any incoming operating company.

### **9.3 Roads & Structures**

9.3.1 In accordance with TS IA45 Rev 1 Management of Abnormal Indivisible Loads, the Operating Company shall assess the proposed movement of vehicles with heavy, wide, long or high abnormal indivisible loads to determine the suitability of Structures, Trunk Roads and the Unit to accommodate such vehicles.

9.3.2 The Operating Company shall examine the Records available in the APMS or other such documents or databases available to the Operating Company.

The Records in the APMS provide an HB or SV rating for the Structure and record what abnormal loads have previously crossed the Structure and as such provide the Operating Company with a basis on which to commence its assessment of the proposed movement.

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9.3.3 The Operating Company shall not carry out structural assessments as part of its duties under this Schedule 2 Scope, Section 9 Abnormal Loads. When it is identified that a Structure may require further structural assessment to establish its capability to carry the proposed load, the Operating Company shall bring this to the immediate attention of the Director.

The use of specialist tools for the assessment of custom defined vehicle configurations shall be permitted only with the written consent of the Director. The Operating Company shall submit a request for the use of such tools to the Director no later than one hundred twenty (120) days prior to the respective Commencement of Service Date for the Structure in question.

9.3.4 Subject to the haulier or company reaching agreement with the Director on a further structural assessment, the Operating Company shall provide assistance to the haulier or company or its agent by giving access to relevant Drawings, calculations and other appropriate Records held by the Operating Company.

### **9.4 High Loads**

9.4.1 The Operating Company shall provide advice to the Director, hauliers and the industry on the passage of high loads. In order that the maximum possible use is made of the Trunk Road network, except where signed height restrictions are in force, the overall laden height of a vehicle should not exceed 4.95 metres (16'3").

9.4.2 No later than twenty eight (28) days before the Commencement of Service Date, the Director will provide to the Operating Company a grid of high load Routes within Scotland. These high load Routes shall be for load heights up to 5.48 metres (18ft), with further information provided on Routes that can accommodate 6.09 metres (20ft) high loads.

The High Load Grid is a strategic national network of trunk and non-trunk routes with protected headroom clearances greater than the UK standard of 5.03 metres (16ft 6 inches). The routes listed are considered suitable for vehicles with a travelling height equal to or less than those stated, provided that all other laden dimensions and weights comply with The Road Vehicle (Construction & Use) Regulations and other relevant legislation. The High Load Grid document August 2020 is made available to OC's to enable them to discharge their obligations with respect to high load routing enquiries by hauliers.

9.4.3 The Operating Company shall immediately notify the Director of any changes that need to be made to existing height clearances and the abnormal load pinch point grid of high load Routes.

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9.4.4 The Operating Company shall ensure that no activity for which it is responsible reduces the existing height clearances available on Trunk Roads of the Unit unless consented to in writing by the Director.

**9.5 Electronic Service Delivery of Abnormal Loads (ESDAL)**

9.5.1 The Operating Company shall use the 'Electronic Service Delivery for Abnormal Loads (ESDAL)' system available from Highways England to plot the Route of hauliers transporting abnormal loads.

9.5.2 The Operating Company shall;

- (a) Use ESDAL in accordance with the documented procedures contained within the Operating Company Management System,
- (b) use ESDAL until the Service End Date,
- (c) update data used in indicative capacity appraisals to identify potential problem Structures, and
- (d) add information to ESDAL about any constraints that may impact on an abnormal indivisible load Route.

**10 Safety & Developments – Developments**

**10.1 Consultations with Scottish Ministers**

10.1.1 Planning authorities are required to consult with the Scottish Ministers under regulation 25 and any direction given under regulation 30 and Schedule 5 paragraph 5 of the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2013 before determining an application for planning permission for a development.

10.1.2 An electronic planning system has been introduced nationally for planning in Scotland with applications being logged via an online portal. Transport Scotland has developed a parallel electronic online system to record, review, respond and monitor all planning applications. This system is the APMS.

**10.2 Notice to Consider & Assistance With Response**

10.2.1 A planning authority is required to give the Scottish Ministers not less than fourteen (14) days' notice of its intention to consider and determine a planning application.

10.2.2 The Operating Company shall, no later than the Commencement of Service Date, appoint a Third Party Development Manager in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People who shall;

- (a) Assist the Director in responding to planning authorities on any planning application within the timescales stated in this Schedule 2 Scope, Section 10 Safety & Developments - Developments
- (b) Provide coordinated integrated response from all relevant Contract Personnel (including the Road Safety Manager who will confirm if a planning application satisfies the Safe System Approach to Road Safety),
- (c) Ensure there are documented processes within the Operating Company's Management System for executing the obligations of the Operating Company set out in this Section 10 Safety & Developments – Developments and they are followed by Contract Personnel performing these obligations,
- (d) Co-ordinate the execution and control of all Contract Personnel involved in performing the obligations of the Operating Company set out in this Section 10 Safety & Developments – Developments in relation to the pre-application, design and construction of third party schemes on the Unit,
- (e) Inform the Director of any failure by a developer to comply with the terms and conditions imposed on them in relation to the requirements set out in this Section 10 Safety & Developments – Developments,

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- (f) Liaise with third party developer on the preparation of minutes of agreement to support both the advice provided in response to any planning application and the subsequent design and construction of a third party scheme on the Unit, and
- (g) Ensure any monitoring and road safety audit of a third party scheme is performed and reported in accordance with the requirements of the Director

### 10.3 Systems for Processing Planning Applications

10.3.1 The Operating Company shall comply with the APMS for processing planning applications described in Schedule 2 Scope, Section 10 Safety & Development – Developments, 10.3.2.

10.3.2 The procedure for processing of planning applications is;

- (a) the Operating Company shall comply with the APMS to complete its responses online within five (5) Working Days of receipt of all documentation relating to the planning application, for the Director's consideration,
- (b) planning applications, including details and enclosures (such as plans), are uploaded by the planning authority onto the national online planning system on the planning authorities' web pages and an electronic notification is issued to the Director and the Operating Company,
- (c) the APMS will prompt the Operating Company to complete its relevant actions in the required timescale in order to assist in the process of responding to the planning application, and
- (d) the Operating Company shall inform the Director immediately, via email, if an applicant for planning permission has any relationship with the Operating Company or any of its members or Associated Company, including;
  - (i) advisers,
  - (ii) agents,
  - (iii) representatives,
  - (iv) contractors,
  - (v) sub-contractors,
  - (vi) Sub-consultants'
  - (vii) suppliers of any tier, and
  - (viii) any parent company or local authority partner of the Operating Company that might cause a conflict of interest.

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The Director will inform the Operating Company, via email, should he consider it inappropriate for the Operating Company to consider the planning application further. The Director will then appoint others to deal with such applications,

- (e) the Director will ensure that the planning authority has provided all the information required to allow the planning application to be properly assessed. Should the Operating Company identify that incorrect or insufficient information is provided such that the Operating Company cannot process the application, the Operating Company shall highlight this via the APMS within one (1) Working Day of receiving the information.

The APMS will then generate a request to the planning authority to supply the required information as soon as possible. The APMS will indicate that all the information is not available to the Operating Company. The time for the Operating Company to make the response shall be extended automatically by the APMS until all the required information is available,

- (f) the APMS will reference applications geographically in order that they can be displayed on a digital map to which the Director and the Performance Audit Group have access at all times.

Where historical information is available, the Operating Company shall use this information to advise the Director of any previous planning applications in the vicinity of any new planning application. The Operating Company shall take into account any advice relating to historical planning applications that is relevant to the vicinity of the new planning application.

Where historical information on planning applications is not held by the Operating Company, the Director will arrange for any available information to be passed to the Operating Company as an Electronic Copy and the Operating Company shall upload the information into the APMS,

- (g) the Operating Company shall inspect the Trunk Road in the vicinity of a location relevant to all planning application, no later than three (3) Working Days following a request by the Director to complete its actions, and consider any potential implications in relation to the planning application in order to assist in the process of responding to a planning application.

The Operating Company shall submit an inspection report, via the APMS , to the Director that shall include relevant details such as;

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- (i) visibility,
- (ii) traffic flow,
- (iii) accident record, as recorded on the Director's accident database,
- (iv) speed limit,
- (v) any other relevant considerations E.G. the gradient back from a junction, and
- (vi) Potential impact on the Unit and how the infrastructure created as part of a planning application will be incorporated into the Operations

The Operating Company shall make comments and recommendations on the application to the Director, via the APMS, taking into account all the details available from the inspection and Records.

The Operating Company's recommendations to the Director shall adopt, where appropriate, the standard planning consultation responses referred to in Scottish Executive Circular 4/1998 – The Use of Conditions in Planning Permissions,

- (h) on receipt of the planning application, the Operating Company shall review the Equality Act database and advise the Director of any barriers to accessibility in the vicinity of the planning application via the APMS, and
- (i) the Operating Company shall take photographs in the vicinity of the site of the planning application during the inspection required under Schedule 2 Scope, Section 10 Safety & Developments – Developments, 10.3 Systems for Processing Planning Applications, 10.3.2 (g).

The photographs shall be taken in a sufficiently competent manner and be of sufficient scope and quality to assist the Director in coming to a recommendation. Particular attention shall be given to the quality of the photographs provided during the winter months when the daylight hours are restricted. For the avoidance of doubt historical photographs or pictures available on the world wide web are not acceptable.

The Operating Company shall upload the photographs in the correct file size and format specified by the APMS, and

- (j) the Operating Company shall provide a statement containing conclusions and recommendations in relation to a planning application, including if the road infrastructure proposed satisfies the Safe System Approach to Road Safety

10.3.3 The advice to the planning authority on each planning application will be issued by the Director via the APMS and will take into account the comments and recommendations of the

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Operating Company. The advice given by the Director to the planning authority will be available to the Operating Company via the APMS.

### **10.4 Transportation Assessments**

10.4.1 The Operating Company shall notify the Director, via the APMS, within one (1) Working Day of receipt of any planning applications that require a transportation appraisal or assessment, as referred to in the Development Planning and Management Transport Appraisal Guidance published by Transport Scotland.

The audit of a transportation appraisal or assessment submitted by the developer will usually be carried out on behalf of the Director by the Development Management Branch of the Transport Scotland Roads Directorate.

The Director will manage such planning applications but the Operating Company shall be required to complete the necessary responses and comments and take the necessary photographs in accordance with Schedule 2 Scope, Section 10 Safety & Developments – Developments, 10.3 Systems for Processing Planning Applications.

### **10.5 Local Planning Public Enquiries and Local Development Plans**

10.5.1 From time to time, planning applications may result in local planning public inquiries being held. Assistance for these will normally be provided by term consultants directly employed by the Director and the Scottish Minister. However, where assistance is required from the Operating Company, this shall be subject to an Order.

Similar arrangements shall be followed regarding assistance for consultation on local development plans.

### **10.6 Pre-Application Advice**

10.6.1 Pre-applications will be registered on the APMS and when prompted to do so by the Director, the Operating Company shall provide information or advice in relation to them.

10.6.2 Where the Operating Company is asked to provide information or advice on pre-applications, the Operating Company's response to the applicant shall be recorded on the APMS

Where site measurements or checks are required in response to a pre-application in accordance with Schedule 2 Scope, Section 10 Safety & Development – Development, 10.3 Systems for Processing Planning Applications 10.3.2 (g), the Director will notify the Operating Company via email and the Operating Company shall record the relevant measurement or check information.

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10.6.3 At no time shall the Operating Company confirm that a proposal is acceptable to an applicant or its agent, although it may acknowledge the suitability or otherwise of any technical standards. The draft response to the applicant shall be communicated to the Director via the APMS and qualified as appropriate.

**10.7 Work Within Trunk Roads**

10.7.1 The Director's advice on the APMS allows;

- (a) for the inclusion of advice that any planning consent does not carry with it the right to carry out work within a Trunk Road, and
- (b) that the applicant will consult with the Operating Company on terms and conditions under roads Legislation, to be agreed between the developer and the Director, before approval is given to the developer to undertake work within a Trunk Road.

10.7.2 Whether planning consent is required or not, where a developer requires to execute work on the Unit, the developer is required to liaise with the Director (and copy to the Operating Company), to obtain authorisation for such work before its commencement. Subject to an Order, the Operating Company shall check the developer's proposals and authorise work if acceptable.

10.7.3 Before authorisation is given to a developer to carry out work within the Unit, the Operating Company shall ensure that any plans and detailed proposals of the work have been submitted in sufficient detail for it to satisfy itself that all terms and conditions relating to the design, construction and temporary traffic management of the work and legislative requirements of the Equality Act 2010 have been complied with to allow it to authorise such work.

10.7.4 The Operating Company shall undertake whatever inspections and Site supervision are necessary to ensure the work;

- (a) does not cause unnecessary inconvenience to Operational Partners including all categories of road user, motorists, pedestrians, cyclists, motorcyclists and equestrians,
- (b) is undertaken and meets the required standards of design, construction, temporary traffic management,
- (c) is constructed in accordance with the planning consent, and
- (d) Satisfies the Safe System Approach for Road Safety

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- 10.7.5 The Operating Company shall update the network referencing when appropriate in accordance with the requirements of Schedule 3 Contract Management, Section 4 Systems, Plans & Records.
- 10.7.6 The Operating Company's duties, responsibilities and powers, as referred to in Schedule 2 Scope, Section 10 Safety & Developments – Developments, 10.7 Work within Trunk Roads, 10.7.1 to 10.7.5, are contained in the relevant sections of the Roads (Scotland) Act 1984 and are Statutory Functions delegated to the Operating Company under this Contract.
- 10.7.7 The Operating Company shall advise the Director via the APMS in the event of any failure by a developer to comply with the terms and conditions imposed in relation to its work as referred to in this Schedule 2 Scope, Section 10 Safety & Developments – Developments .
- 10.7.8 For certain work on a Trunk Road required as a result of a planning application, developers may be required by the Director to enter into a minute or letter of agreement with the Scottish Ministers that specifies conditions relating to approvals and consents for any such work and for adoption of the completed work within the Unit.
- 10.7.9 Subject to an Order, the Operating Company shall assist the Director in drawing up and administering such minutes or letters of agreement, including providing technical and programming advice on the proposals submitted by a developer as part of a planning application within the Unit.

### **10.8 Trading Within the Trunk Road Boundary**

- 10.8.1 During each Annual Period, the Operating Company shall check at intervals not exceeding six (6) months, that anyone trading from a lay-by on a Trunk Road of the Unit, or any other location that is within fifteen (15) metres of such Trunk Road, has a permit issued by Transport Scotland granting permission to trade at that location, and that they are abiding by all conditions pertaining to that permission.
- 10.8.2 If the Operating Company finds that a person is trading from a Trunk Road lay-by without the relevant permissions, the Operating Company shall notify its Third Party Development Manager immediately.

The Third Party Development Manager shall inform the Director within five (5) Working Days of such notification and agree actions to be executed by the Operating Company.

**11 Safety & Development – Road Safety Programme**

**11.1 Road Safety & Route Safety Files**

11.1.1 The Operating Company shall support the Director in delivering the Scottish Government's Scotland's Road Safety Framework to 2020 and Transport Scotland's Strategic Road Safety Plan 2016 including any successor Reference Documents issued by the Director.

In undertaking its obligations in relation to this Schedule 2 Scope, Section 11 Safety & Development – Road Safety Programme the Operating Company shall liaise closely and cooperate with the Director, Statutory Authorities, Relevant Organisations, Operational Partners and other stakeholders, including as a minimum local authorities, Emergency Services and safety camera partnerships.

11.1.2 The Operating Company shall appoint a Road Safety Manager in accordance with the requirements of Schedule 3 Contract Management, Section 2 Key People who shall be responsible for the management of all road safety and accident Investigation and prevention related Operations.

The Road Safety Manager shall;

- (a) have detailed knowledge and experience of Safe System Approach to Road Safety,
- (b) train all the Core Management Team and Key Staff in the Safe System Approach to Road Safety by no later than the end of the Mobilisation Period and hold at least one formal training session for all Core Management Team and Key Staff every year until six (6) months before the Service End Date,
- (c) ensure all the Core Management Team and Key Staff who have been trained in the Safe System Approach to Road Safety hold at least one (1) formal and recorded 'toolbox talk' briefing session on the subject of Safe System Approach to Road Safety with all Contract Personnel every three (3) months until six (3) months before the Service End Date,
- (d) ensure the Safe System Approach to Road Safety is incorporated into the Operating Company Management System no later than the end of the Mobilisation Period and during Core Operations and Ordered Operations,
- (e) provide as part of the coordinated integrated response to all planning applications by the Third Party Development Manager, confirmation if a planning application satisfies the Safe System Approach to Road Safety.

11.1.3 The Director will provide Route Safety Files prepared by any previous operating company for the Unit and or historic Route safety data to the Operating.

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- 11.1.4 The Operating Company shall update, develop and prepare Route Safety Files for each Trunk Road within the Unit (using as a basis the template for a Route Safety File provided in Schedule 2 Scope, Appendix 11 Road Safety Attachment 11.1 Example Route Safety File Contents) to aid decision making and help prioritise Schemes that investigate the cause of accidents and minimise the same accidents occurring again on the Unit.
- 11.1.5 The Operating Company shall develop each individual Route Safety File;
- (a) In an electronic format that can be read, copied and recorded,
  - (b) To include an map using a geographical information system that allows the Operating Company, Director and the Performance Audit Group to access each individual Route Safety File by clicking on or selecting the corresponding Trunk Road,
  - (c) Contains hyperlinks to data sets relevant to the overall safety performance of each Trunk Road within the Unit, and
  - (d) Be structured in a way that allows Operational Partners and the general public to access specific information contained within a Route Safety File as required by the Director,
- 11.1.6 The Operating Company shall use Route Safety Files to;
- (a) inform future road safety strategies,
  - (b) enable effective monitoring of the safety performance of each Route of the Unit to be considered against the performance of other Routes of the Unit,
  - (c) allow road safety targets to be set for that Route.
  - (d) Coordinate with all relevant Core Operations and Ordered Operations to aid decision making including improved road side protection through barrier provision, removal of roadside strike hazards, wider use of passive safety technology and risk management to identify accident locations, and
  - (e) Further the objectives of active travel including enhanced provision of footways, cycle ways, crossings and other infrastructure that reduces road safety risks to Operational Partners.
- 11.1.7 The Operating Company shall continually update and maintain such Route Safety Files when new and related Route Safety File information becomes available and upload all new versions of each individual Route Safety Files into APMS no later than ten (10) Working Days after new and related Route Safety File becomes available.

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11.1.8 The Operating Company shall provide fully updated Route Safety Files to the Director annually on 15 November in accordance with the requirements of Schedule 1 Conditions of Contract, Clause 1 General, 1.10 Provision of Documents for the Director's consent and shall immediately, after receiving any amendments that the Director deems necessary, amend and resubmit the same for the Director's consent.

11.1.9 The Road Safety Manager shall assist the Director in the continuing development and arrangement of Route Safety Groups to consider the performance of individual Routes and encourage;

- (a) increased safety and more innovation to help improve the safety of Unit,
- (b) development of joint road safety initiatives nationally and in the local area, and
- (c) a proactive approach to safety engineering.

The Road Safety Manager shall organise a Route Safety Group meeting in each Annual Period, for each route, at which the relevant Route Safety File shall be presented to Operational Partners and other stakeholders to obtain feedback on how the safety of the Unit can be improved.

### **11.2 Annual Road Safety Review Report**

11.2.1 The Director will provide the Operating Company in June each year with a list of accident cluster sites and higher than national average accident rate sections, or other such relevant information that is made available by an Operational Partner or the Director, on the Unit that warrant investigation. The lists will consider accidents in the period 1 January to 31 December in the preceding three (3) years and will include sites or sections investigated or treated previously.

The list provided will not be exhaustive and the Operating Company shall develop liaison procedures with the Operational Partners including Emergency Services, local authorities and safety camera partnerships to identify and discuss additional sites or sections that may warrant further investigation.

11.2.2 The Operating Company shall investigate the Sites and sections listed and provide an Annual Road Safety Review Report in accordance with the requirements of Schedule 1 Conditions of Contract, Clause 1 General, 1.10 Provision of Documents to the Director by 15 August each year.

The Annual Road Safety Review Report shall detail;

- (a) the reasons for selecting, or not selecting, sites and sections for further Investigation, and

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(b) shall highlight where sites and sections have already been treated or were previously considered unsuitable for further investigation or treatment.

11.2.3 The Operating Company shall develop from the Annual Road Safety Review Report a programme of road safety initiatives that support safe system outcomes and will deliver;

- (a) safer road design,
- (b) improved speed management,
- (c) better provision for vulnerable road users, and
- (d) reduce the frequency and severity of personal injury accidents,

to contribute to achieving the Scottish Governments' casualty reduction targets.

The Annual Road Safety Review Report shall consider both accident and risk reduction and include as a minimum;

- (a) accident cluster site treatment,
- (b) Route improvements,
- (c) prioritised Mass Action Programmes to address known accident types that have been evidenced through the lists of accidents or identified within the Route Safety Files, and
- (d) Proactive risk removal by way of a number of means including improved roadside protection through barrier through barrier provision, removal of roadside strike hazards, wider use of passive safety technology, improved drainage, lining and signs, and
- (e) a coordinated approach to asset performance and risk management using information contained in the APMS.

11.2.4 The Annual Road Safety Review Report shall demonstrate how the sites identified for further investigation will support the Scottish Government in delivering the 2020 casualty reduction targets detailed in the Scottish Government's Scotland's Road Safety Framework to 2020 and Transport Scotland's Strategic Road Safety Plan 2016 including any successor Reference Documents issued by the Director.

11.2.5 The Annual Road Safety Review Report shall also include summary and detailed narratives explaining how Core Operations, Ordered Operations and proposed programmes of Schemes support safe system outcomes

11.2.6 The Annual Road Safety Review Report shall consider the performance of all road safety improvements during the three (3) years after their implementation.

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This shall include details of before and after accident data (including the first twelve (12) months and thirty six (36) months after accident data when it becomes available) and assessments of the relative performance of the different mitigation measures implemented in previous years. This shall include those road safety improvements implemented by the previous operating company.

11.2.7 The Annual Road Safety Review Report shall;

- (a) demonstrate how road safety Schemes from the previous year contributed to the casualty reduction targets set in the Scottish Government's Scotland's Road Safety Framework to 2020, Transport Scotland's Strategic Road Safety Plan 2016 including any successor Reference Documents issued by the Director,
- (b) Report the actual Schemes completed under Ordered Operations compared to the Schemes planned and contained in the previous one (1) year programme,
- (c) detail any innovative Operations implemented in the previous year that could be used in the future to contribute to casualty reduction targets and improvements to road safety, and
- (d) recommend ways to work in collaboration with Operational Partners and communicate to road users, including motorists, pedestrians, cyclists, equestrians and disabled users, how Schemes from the previous year contributed to casualty reduction targets and improvements to road safety

11.2.8 Based on the findings of the Annual Road Safety Review Report, the Operating Company shall submit to the Director a draft one (1) year and three (3) years programme of Schemes aimed at improving the safety of the Unit as described in Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations , 7.2 Annual Process.

### **11.3 Accident Investigation and Prevention**

11.3.1 Subject to an Order, the Operating Company shall provide an Accident Investigation and Prevention Report in accordance with the requirements of Schedule 1 Conditions of Contract, Clause 1 General, 1.10 Provision of Documents for the Director's consent.

The Operating Company's Accident Investigation and Prevention Report shall set out;

- (a) nature and cause of accidents, and
- (b) propose remedial work to help remove identified causes of and prevent accidents occurring again.

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The proposed remedial work shall be backed by relevant evidence showing an expected accident reduction factor for that type of mitigation measure. The Operating Company shall propose risk reduction measures to improve the overall safety performance of the Routes. Risk reduction work shall be qualified with evidence to demonstrate value for money.

The Operating Company shall develop a Route Accident Reduction Plan for each Route in discussion and consultation with all affected parties via relevant Route Safety Groups.

11.3.2 The Accident Investigation and Prevention Report shall provide sufficient detail including;

- (a) plans,
- (b) stick diagrams,
- (c) tables of accident data,
- (d) additional accident data,
- (e) accident causation factors,
- (f) estimated costs of mitigation measures,
- (g) collision reduction factors for mitigation measures and
- (h) an estimated first year rate of return

in a form which enables the Director to consider and review the proposals. When preparing the Accident Investigation and Prevention Report and where relevant, the Operating Company shall make arrangements with the appropriate Operational Partners including Emergency Services to gain access to plain text information.

The Accident Investigation and Prevention Report shall be prefaced by a Project Plan; a template for which is provided at Schedule 2 Scope, Appendix 11 Road Safety Attachment 11.2 Strategic Road Safety Project Plan Template.

The Operating Company shall submit the Accident Investigation and Prevention Report to the Director within twenty-five (25) Working Days of receiving an Order or within another timescale specified by the Director in an Order.

### 11.4 Road Safety Schemes

11.4.1 The Director will consider and review the Accident Investigation and Prevention Report. Should the Director decide to proceed with a Scheme, the Director will;

- (a) issue an Order to the Operating Company to undertake the Investigations and or detailed Design, or,
- (b) issue an Order to the Operating Company to undertake construction, or

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- (c) require the Operating Company to submit draft one (1) year and three (3) year programmes of Schemes aimed at improving the safety of the Unit as described in Schedule 3 Contract Management, Section 7 Control of Core & Ordered Operations , 7.2 Annual Process.

### **11.5 Road Safety & The Operating Company Senior Management**

- 11.5.1 The Operating Company shall confirm to the Director no later than the end of the Mobilisation Period the director who is a member of the board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports) and is responsible for the overall safety performance of all Routes on the Unit.
- 11.5.2 The Operating Company Representative shall be responsible for and ensure the Safe System Approach to Road Safety is integrated and coordinated across all functions (or equivalent) of the Operational Company that perform Core Operations and Ordered Operations.  
  
This responsibility includes preparing formal guidance on how to achieve the Safe System Approach to Road Safety during Core Operations and Ordered Operations including the one year programme of Schemes,
- 11.5.3 The Operating Company Representative with support from the Road Safety Manager will present the road safety performance of the Unit during every meeting of the board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports) and what, by way of Core Operations and Ordered Operations, the Operating Company is doing to improve the road safety performance of the Unit.
- 11.5.4 The board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports) shall formally approve the contents of each Annual Road Safety Review Report before it is submitted to the Director in accordance with this Schedule 2 Scope, Section 11 Safety & Development – Road Safety Programme.
- 11.5.5 The Road Safety Manager and the director who is a member of the board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports) to the Director shall formally approve the contents of each Accident Investigation & Prevention Report before it is submitted to the Director in accordance with this Schedule 2 Scope, Section 11 Safety & Development – Road Safety Programme.
- 11.5.6 The Operating Company shall submit copies of all the minutes of meetings of board of directors of the Operating Company (or equivalent senior management team to whom the

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Core Management Team reports) no later than ten (10) Working Days after each meeting of the board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports to) recording;

- (a) The road safety performance of the Unit,
- (b) The actions agreed by the board of directors of the Operating Company (or equivalent senior management team to whom the Core Management Team reports to) in relation to what, by way of Core Operations and Ordered Operations, the Operating Company is doing to improve the road safety performance of the Unit.

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### 12 Signs Requiring Authorisation

#### 12.1 Introduction

12.1.1 To ensure a consistent national approach, the authorisation of all signs on the Unit is responsibility of the Director, except where otherwise expressly stated in this Schedule 2 Scope, Section 12 Signs Requiring Authorisation as the responsibility of the Operating Company.

The Operating Company shall provide advice and recommendations to the Director on the suitability or otherwise of all signing proposals and applications which are;

- (a) submitted directly to the Operating Company, or
- (b) referred to the Operating Company by the Director.

Such advice and recommendations shall be provided to the Director within ten (10) Working Days of the Operating Company's receipt of any such proposals and applications.

12.1.2 The Operating Company shall keep an electronic register as part of the Operating Company Management System of all sign proposals and applications received, all in accordance with the requirements of Schedule 5 Specification & Drawings, 071AR Creation, Maintenance & Submission of Documents & Other Media and shall categorise the entries in the register as;

- (a) tourist signposting,
- (b) temporary traffic signs to Special Events,
- (c) temporary signing for other purposes,
- (d) permanent signing (including as a minimum traffic signs Legislation and general directions signs and any signs approved by the appropriate planning authority), or
- (e) truck stop signposting.

12.1.3 For each proposal and application the electronic register shall contain, as a minimum, the following information for each entry;

- (a) the applicant and owner,
- (b) the location of the signs, (including whether on public or private land),
- (c) the decision to consent to or reject the application,
- (d) the terms of the agreement, and
- (e) all relevant dates.

All Records shall be cross-referenced to the register entry.

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12.1.4 No later than twenty-five (25) Work Days before the Commencement of Service Date, the Operating Company shall add to the electronic register all incomplete proposals and applications received from the previous operating company. Each entry in the register shall include the relevant Ordnance Survey grid reference to at least 12 figures.

The Operating Company shall process and complete any incomplete proposals and applications in accordance with the requirements of this Schedule 2 Scope, Section 12 Signs Requiring Authorisation as if the proposal had been made directly to the Operating Company.

12.1.5 The Operating Company shall provide the Director and Performance Audit Group with direct remote access to the electronic register and Records referred to in this Schedule 2 Scope, Section 12 Signs Requiring Authorisation at all times.

12.1.6 The Operating Company shall designate a member of the Core Management Team to deal with each proposal and application in the register, including all correspondence associated with each proposal or application.

### **12.2 Tourist Sign Posting**

12.2.1 The Operating Company shall comply with the Director's policy on tourist signposting set out in Transport Scotland's Trunk Road and Motorway Tourist Signposting Policy.

12.2.2 The Operating Company shall undertake the duties set out in Transport Scotland's Trunk Road and Motorway Tourist Signposting. Policy, including as a minimum and or in addition;

- (a) acting as Home Traffic Authority (as defined in Transport Scotland's Trunk Road and Motorway Tourist Signposting Policy and Guidance) where access is direct from a Trunk Road,
- (b) providing full advice on each application under the following headings;
  - (i) road safety aspects of proposed signing including as a minimum visibility, protection measures, post type etc.,
  - (ii) whether it is practical for additional tourist signing to be provided,
  - (iii) sign clutter and environmental impact of proposed signing,
  - (iv) size of lettering on the signs and acceptable legend,
  - (v) number and location of signs,
  - (vi) continuity signing on the local road network,
  - (vii) brown tourist signage,

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- (viii) clarity of Route to identify means of access back to the Trunk Road from the Special Event and or attraction, and
  - (ix) other advice as necessary,
  - (c) considering the relevant local authority's tourist signposting policy and ensuring that the Operating Company complies with this, when making recommendations to the Director on applications,
  - (d) communicating and liaising with VisitScotland to confirm that tourist operators are eligible for brown tourism signage and have received a signposting accreditation letter from VisitScotland; such communication and liaison shall include as a minimum inspection and recording of the tourist operator's accreditation letter (and supporting documentation) from VisitScotland in respect of tourist signing applications,
  - (e) advising VisitScotland of tourist operators which are given tourist signs (brown or otherwise),
  - (f) advising the Director when tourist signs are at the end of their serviceable life and identifying their locations,
  - (g) when notified by VisitScotland, advising the Director of signs which no longer have accreditation from VisitScotland,
  - (h) the operation of flaps and covers on existing and new signs.
- 12.2.3 The Operating Company shall implement the process for Trunk Road and motorway tourist signing applications as set out in Transport Scotland's Trunk Road and Motorway Tourist Signposting Policy.
- 12.2.4 When responding to applicants the Operating Company shall use the appropriate model letter, together with the relevant schedule, as set out in Transport Scotland's Trunk Road and Motorway Tourist Signposting Policy.
- The Operating Company shall issue to the Director a copy of the signed letter of agreement duly completed by the applicant.
- 12.2.5 The Operating Company shall procure and ensure the details of each sign and associated road restraint system are identified and recorded in the APMS.

### **12.3 Temporary Traffic Signs to Special Events**

- 12.3.1 The Operating Company shall undertake the authorisation of temporary traffic signs to any Special Event.

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- 12.3.2 Where a Special Event requires a carriageway or road closure, the Operating Company shall follow the procedures referred to in the Specification.
- 12.3.3 The Operating Company shall notify the Director immediately of the details of each request for authorisation for temporary traffic signs to Special Events.
- 12.3.4 When making a decision on authorisation of temporary traffic signs, the Operating Company shall follow the;
- (a) document TAL 04/11 Provision of Traffic Signs to Special Events issued by the Department for Transport in October 2011, and
  - (b) advice issued by the Director.
- 12.3.5 A decision on each application shall be given to the applicant within ten (10) Working Days of receipt of the application, except where expressly agreed otherwise by the Director.
- 12.3.6 The Operating Company shall ensure that temporary traffic signing is erected for a limited period to guide traffic to and from Special Events.
- 12.3.7 The Operating Company shall ensure that temporary traffic signs are removed as soon as practicable after conclusion of the Special Event to which they relate and no later than forty eight (48) hours after the conclusion of the Special Event.

If such signs are not removed within this timescale, they shall be treated as unauthorised signs in accordance with Schedule 2 Scope, Section 12 Signs Requiring Authorisation, 12.4 Unauthorised Signs.

### **12.4 Unauthorised Signs**

- 12.4.1 The Operating Company shall identify and advise the Director of any unauthorised signs that may cause a distraction to road users on the Unit in order for the Director to notify the local planning authority responsible for authorising such signs of this hazard.
- 12.4.2 The Operating Company shall identify and advise the Director of any unauthorised signs that are placed on the Unit. The Operating Company shall take all reasonable steps to determine the ownership of any such unauthorised signs.
- 12.4.3 Where an unauthorised sign is located on the Unit and the ownership of the sign is known, the Operating Company shall comply with the requirements of this Schedule 2 Scope, Section 12 Signs Requiring Authorisation, 12.4 Unauthorised Signs or such other action that the Director requires. The Operating Company shall remove the unauthorised sign immediately to safe temporary storage and notify the owner;
- (a) of the temporary storage location of the relevant unauthorised sign,

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- (b) of a prescribed date, not less than twenty (20) Working Days from the date of notification, by which time the owner is to collect the unauthorised sign, and
- (c) that the Operating Company may dispose of the relevant unauthorised sign if it is not collected by the owner by the prescribed date.

Should the unauthorised sign not be collected by the prescribed date stated in the notification, the Operating Company shall remove and dispose of the relevant unauthorised sign and inform the owner in writing.

12.4.4 Where ownership of the unauthorised sign cannot be determined, the Operating Company shall remove the sign as soon as practicable to a suitable storage area provided by the Operating Company where it shall be held for twenty (20) Working Days before being disposed of by the Operating Company.

Should the owner identify themselves during the twenty (20) Working Day period following removal of the sign, the Operating Company shall;

- (a) advise the owner of the location where the unauthorised sign can be collected, and
- (b) agree a suitable time to allow the owner to collect the unauthorised sign.

12.4.5 The Operating Company shall keep Records of all actions and transactions related to the requirements of Schedule 2 Scope, Section 12 Signs Requiring Authorisation, 12.4 Unauthorised Signs.

### **12.5 Election Advertisements on Trunk Roads**

12.5.1 The placing of election advertisements on the Unit is not permitted in accordance with the policy of the Scottish Government. Any registered political party, registered third party or election candidate who approaches the Operating Company seeking authorisation for election advertisements shall be informed of this policy of the Scottish Government.

12.5.2 Should the Operating Company become aware of any election advertisements placed on the Unit, the Operating Company shall;

- (a) immediately remove the election advertisements to a suitable storage area provided by the Operating Company for collection by the owner,
- (b) notify the owner in writing that the election advertisements have been removed and the location where they can be collected by a prescribed date, not less than ten (10) Working Days from the date of the notification, and
- (c) dispose of any election advertisements not collected by the owner by the prescribed date.

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12.5.3 The Operating Company shall keep Records of all actions related to the requirements of Schedule 2 Scope, Section 12 Signs Requiring Authorisation, 12.5 Election Advertisements on Trunk Roads.

**12.6 Truck Stop Sign Posting**

12.6.1 The Operating Company shall adhere to the Director's policy on truck stop facilities signposting as contained within Transport Scotland's Signposting of Truck stop Facilities from Motorways and Other Trunk Roads – Policy and Guidance and other associated documentation

12.6.2 The Operating Company shall follow the evaluation process defined within part II of Transport Scotland's Signposting of Truck stop Facilities from Motorways and Other Trunk Roads - Policy and Guidance.

12.6.3 The Operating Company shall liaise with the local road authority and the applicant as necessary for the implementation of approved signing schemes.

12.6.4 The Operating Company shall provide the Director with the application together with its assessment and report required in accordance with Transport Scotland's Signposting of Truck stop Facilities from Motorways and other Trunk Roads - Policy and Guidance and other associated documentation.

12.6.5 The Operating Company shall;

- (a) consider the relevant local authority's signposting policy when making recommendations to the Director on applications,
- (b) advise the Director when truck stop signs are at the end of their serviceable life and identify their locations, and
- (c) consult with the Director and following receipt of his consent, remove signs which are agreed not to be required due to the truck stop facility no longer being in operation or as a result of a failure on the part of the truck stop facility provider to comply with its agreement with Transport Scotland.

12.6.6 The Operating Company shall ensure the details of each sign and associated road restraint system are identified and recorded in the APMS.

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**Appendix 1 – Introduction Attachments**

Attachment 1.1 Scottish Trunk Road Map

Attachment 1.2 Trunk Roads Inside Boundaries of Unit at Commencement of Service Date 1

Attachment 1.3 Trunk Road Boundaries

Attachment 1.4 Trunk Roads Outside Boundaries of Unit at Commencement of Service Date 1

Attachment 1.5 Trunk Roads of the Design Build Finance Operate (DBFO) Contract Provider at  
Commencement of Service Date 2

Attachment 1.6 Trunk Roads Excluded from Unit

Attachment 1.7 Statutory Functions Delegated to the Operating Company

Attachment 1.8 Statutory Functions Retained by the Scottish Ministers

Attachment 1.9 Local Requirements in Relation to Transfer and Suspension of Operating Company  
Responsibilities

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**Appendix 2 – Defects & Hazards Attachments**

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**Appendix 3 – Roads Attachments**

Attachment 3.1 Additional Local Requirements Including Geotechnical Asset Monitoring

Attachment 3.2 Tree Management Strategy & Tree Management Plan

Attachment 3.3 Grassland Report

Attachment 3.4 Invasive or Injurious Species Management Plan

Attachment 3.5 Deer Management Plan

Attachment 3.6 Procedure for Accessing, Maintaining, Inspecting & Testing of Shared Electrical Assets

**Appendix 4 – Structures Attachments**

Attachment 4.1 Structures Bearing Shelf Maintenance Frequency

Attachment 4.2 List of Structures Requiring Principal Inspections

Attachment 4.3 List of Structures Over or Carrying Water Courses That Have Been Subject to Stage 1 Scour Assessments

Attachment 4.4 List of Structures Over or Carrying Water Courses That Have Subject to Stage 2 Scour Assessments

Attachment 4.5 Structures Maintenance Schedule Pro Forma Example

Attachment 4.6 List of agreements with third Parties That Affect Existing and Future Management, Maintenance & Replacement of Structures

Attachment 4.7 List of Structures Subject to Assessment and Upgrading of Vehicle Parapets to Transport Scotland Interim Amendment No. 25

Attachment 4.8 List of Structures to Identification of 'Particularly at Risk' Supports to Transport Scotland Interim Amendment No. 29

Attachment 4.9 Technical Approval Procedures for Assessment of Structures in Scotland

Attachment 4.10 List of Sub-Standard Structures with Structural Assessments in Progress

Attachment 4.11 List of Sub-Standard Structures

Attachment 4.12 List of Structures with Known Defects Requiring Monitoring that are Sub-Standard

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Attachment 4.13 List of Structures with Known Defects Requiring Monitoring that are Not Sub-Standard

Attachment 4.14 Strengthening & Replacement Programme for the Sub-Standard Structures

Attachment 4.15 Structures with Particular Requirements

Attachment 4.16 Documents for Structures with Particular Requirements

Attachment 4.17 Structures with Bridge Access Gantries & Or Runway Beams

Attachment 4.18 List of Bridges with Signed Low Headroom

Attachment 4.19 List of Structures Subject to Bridge Strikes (Between 2009 & December 2018)

**Appendix 5 – Traffic Scotland Attachments**

Attachment 5.1 Contact List of Network Operations Service Providers

Attachment 5.2 Coding for Estimated Traffic Delays

Attachment 5.3 Notification of Planned Operations, Works Contracts & Work in Vicinity of Network Operations Equipment

Attachment 5.4 Notification of Proposed New Network Operations Service Site

Attachment 5.5 Notice to Network Operations Service Provider to Damage or Suspected Damage to Network Operations Equipment

Attachment 5.6 Network Access Form

Attachment 5.7 Overview of Delay Modelling Tool

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**Appendix 6 – Winter Service Attachments**

Attachment 6.1 Appendices for Winter Service Plan

Attachment 6.2 Winter Service Plan

Attachment 6.3 Salt Stock Monitoring Report

Attachment 6.4 Winter Service Report

Attachment 6.5 Location of Winter Service Infrastructure

Attachment 6.6 Winter Service Patrols

Attachment 6.7 Location of Known Vulnerable Locations

Attachment 6.8 Records Relating to Winter Service

Attachment 6.9 Potassium Acetate Treatment

Attachment 6.10 Footways, Footbridges & Cycle Facilities, Response Times and Clearance Requirements

Attachment 6.11 De-Icing Material Spread Rates

Attachment 6.12 Snow Clearance

Attachment 6.13 Salt Storage Facility

**Appendix 7 – Disruption Risk Management Attachments**

Attachment 7.1 Notification of Incidents

Attachment 7.2 Designated Trunk Road Incident Support Service Routes

Attachment 7.3 Fatal Accident Notification

Attachment 7.4 Daily Record Sheets

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**Appendix 8 – Design, Construct & Certification of Operations Attachments**

Attachment 8.1 Certificates in Relation to Certification Procedures

**Appendix 9 – Abnormal Load Attachments**

Attachment 9.1 A Guide to Notification & Authorisation of Abnormal Load Routing

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**Appendix 10 – Developments Attachments**

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**Appendix 11 – Road Safety Attachments**

Attachment 11.1 Example Route Safety File Contents

Attachment 11.2 Strategic Road Safety Project Plan Template

**Appendix 12 – Signs Requiring Authorisation Attachments**

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