

# APPENDIX A

## QUALITY MANAGEMENT SCHEMES

### PART 1 (05/04): Accepted Quality Management Schemes

National Sector Schemes for Quality Management in Highway Works (National QMSS) are being progressively developed in the UK by Technical Advisory Committees having representation from Highway Authorities, relevant Trade Associations, Certification Bodies and training organisations to provide a consistent standard for each sector scheme. Such schemes will be identified separately within the scope of accreditation of each certification body accredited by the United Kingdom Accreditation Service (UKAS) or equivalent European Accreditation Organisation, which is party to a multi-lateral agreement with UKAS. (The scopes of UK accredited certification bodies are available on the UKAS web site ([www.ukas.com](http://www.ukas.com)).) Only current certificates of assessment to the relevant National QMSS, which have been issued to suppliers by these UKAS accredited certification bodies, will be acceptable to the Overseeing Organisation. Such certificates should include reference to the particular sector scheme document (SSD).

Currently, 14 of the quality management schemes listed in this Appendix have been implemented as National QMSS. Table A/2 identifies these and other accepted schemes and it lists known certification bodies who are believed to have obtained accreditation against National QMSS and other certification body quality management schemes that have been accepted by the Overseeing Organisations. Copies of sector scheme documents are available from UKAS Publication Sales. They can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)). Alternatively, where a Supplier wishes to become registered to a National QMSS they can be obtained from certification bodies having accreditation from UKAS for the relevant sector scheme.

Full details of the accepted quality management schemes referred to in Clause 104 are given in Part 2. Table A/1 provides a matrix of these schemes against Specification Series.

**TABLE A/1: (02/04) Matrix of Specification Series against Accepted Quality Management Schemes Referred to in Clause 104**

Series	Quality Management Scheme Number(s) which apply (See Part 2 for full Scheme details)																
	1	2	3	4	5 (N) †	6	7	8	9	10	11	12	13	14	15	16 N ††	17 N ††
100												✓					✓
300	✓	✓	✓	✓													
400	✓	✓	✓		✓												
500			✓														
900													✓	✓	✓	✓	
1200							✓	✓	✓	✓							
1300			✓			✓											
1400										✓							
1700											✓						
1800			✓														
2500	✓	✓	✓														

Notes: 1. N† indicates that these schemes shall be implemented by January 2005 as two separate national Scheme 5A (The Manufacture of Parapets for Road Restraint Systems) and 5B (The Installation of Parapets for Road Restraint Systems).  
2. N†† indicates that these national sector schemes have not been implemented: Scheme 16 for the laying of asphalt mixes is programmed for implementation from July 2005 and Scheme 17 for vehicle recovery removal at construction sites is planned for implementation from January 2005.

**TABLE A/2: (05/04) Matrix of Certification Bodies against Accepted Quality Management Schemes including National QMSS for which specific accreditation is granted by UKAS**

Certification Body (See Part 2 for full details)	Quality Management Scheme Number (N = National QMSS)																				
	1	2A N**	2B N	3	4 N	5 N†	6 N	7 N	8 N***	9	9B N****	10 N***	11	12A N	12B N	12C N	13 N*****	14 N	15 N	16 N****	17 N****
<b>BM TRADA</b>	*	*	*	*	*	*		*		*		*		*	*	*	*	*			
<b>BSI</b>	*	*	*	*	*	*		*		*		*		*	*	*	*	*	*		
<b>BVQI</b>		*																			
<b>EQA</b>		*																			
<b>ISOQAR</b>												*			*						
<b>LRQA</b>	*	*	*	*	*	*	*	*	*	*	*	*		*	*	*	*	*	*	*	*
<b>NQA</b>		*	*			*	*	*	*	*	*	*		*	*	*	*				
<b>Moody International</b>								*													
<b>QA International</b>														*	*	*		*			
<b>SGS United Kingdom</b>		*	*	*				*	*	*		*		*	*	*	*	*	*		
<b>CARES</b>														*							

**Table A/2 continued**

The numbered references above identify those Quality Sector Scheme Documents generated and administered by the certification bodies. Where the National QMSS applies, references are for historic and record purposes only.

The reader should confirm these accreditation details with UKAS.

1. N† indicates that these schemes shall be implemented by January 2005 as two separate national Scheme 5A (The Manufacture of Parapets for Road Restraint Systems) and 5B (The Installation of Parapets for Road Restraint Systems).
2. N\*\* Scheme 2A will be split into 2 parts, a new part (2C) dealing specifically with “Environmental Barriers (Structural)” is under development and should be available on the UKAS web site from April 2004. Implementation of this scheme will be 12 months from the date of availability.
3. (11/04) N\*\*\* A national scheme combining the requirements of both scheme 8 and 10 has been prepared and is available from May 2004; implementation of the schemes will be 12 months from the date of availability on the UKAS web site.
4. N\*\*\*\* National schemes are in preparation for Installation of Traffic Signs (scheme 9B), Asphalt Laying (scheme 16) and Vehicle Removal at Construction Sites (scheme 17). The anticipated dates of availability are May 2004, June 2004 and April 2004 respectively and the relevant implementation dates of these schemes are June 2005, July 2005 and January 2005 respectively.
5. N\*\*\*\*\* Scheme 13B was available in January 2004; the effective implementation date is January 2005.

1 - QSS 32042	5 - QSS 015	9 - QAR 154	13 - SFSS5
2 - QGN 3204.2/194	6 - BN 164/D	10 - QSS 620/2	14 - CARES schedules PT2 (a)i and PT2a (iv)
3 - QSS 32043	7 - 28.HW.001	11 - QSS 014	
4 - QAS 3433/287	8 - QAS 3480/376	12 - BN 183D	

**PART 2 (05/01): List of Accepted Quality Management Schemes**

The following is the list of accepted quality management schemes referred to in Clause 104:

**Scheme 1: Manufacture of Fencing Components**

Specification: (05/04) Fencing components shall be in accordance with Series 300 and 2500 of the Specification and the Drawings referred to in the Contract.

(05/04) Road Restraint Systems shall be in accordance with Series 400 of the Specification and the Drawings referred to in the Contract.

**Scheme 2: (05/04) Supply and Installation of Fences**

**Scheme 2A: The Design and/or Supply, Installation and Repair of Fences**  
(National Scheme applies)

Certification Bodies: (05/04) Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Design and/or Supply, Installation and Repair of Fences published by UKAS on behalf of the Sector Scheme Advisory Committee for Fencing are listed in Table A/2.

Specification: General fencing shall be in accordance with Series 300 and 2500 of the Specification and the following British Standard:

BS 1722 Fences  
All Current Parts

Notes 1 Environmental barrier design is included within this SSD. Attention is drawn to the requirement within SHW for technical approvals to be obtained for these structures in accordance with the Technical Approval Scheme adopted by the Overseeing Organisation.

2 (05/04) The National QMSS requires training on an approved course administered by the Lantra Awards (formerly National Fencing Training Authority (NFTA)). All fencing erectors and lead erectors are required to carry registration/skill cards indicating what types of fencing they have been trained to erect.

3 Confirmation of the accreditation status of certification bodies should be checked with UKAS.

4 (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

5 (11/03) A Register of Assessed Companies is available from, and maintained by, Lantra Awards (formerly NFTA) on behalf of the advisory committee. A small charge will be made for the document.

**Scheme 2: (05/04) Supply and Installation of Fences**

**Scheme 2B: Vehicle Restraint Systems**

(05/04) (National Scheme applies)

Certification Bodies: (05/04) Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Supply, Installation and Repair of Vehicle Restraint Systems published by UKAS on behalf of the Vehicle Restraint Systems Sector Scheme Advisory Committee are listed in Table A/2.

Specification: Vehicle Restraint Systems shall be in accordance with Series 400 of the Specification, the Drawings referred to in the Contract and BS 7669 Part 3. The scheme incorporates training for the use of Temporary Vertical Concrete Barriers (TVCB) and proprietary Temporary Steel Vehicle Restraint Systems.

- Notes:
- 1 (05/04) This Scheme requires training on an approved course administered by the Lantra Awards (formerly the National Fencing Training Authority (NFTA)). All Vehicle Restraint Systems lead erectors are required to carry registration/skill cards indicating what types of fencing they have been trained to erect.
  - 2 Confirmation of the accreditation status of certification bodies should be checked with UKAS.
  - 3 (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  - 4 (11/03) A Register of Assessed Companies is available from, and maintained by, Lantra Awards (formerly NFTA) on behalf of the advisory committee. A small charge will be made for the document.

(05/04) **Scheme 2: Supply and Installation of Fences**

**Scheme 2C The Design, Supply, Installation and Repair of Environmental Barriers (Structural)**  
(National Scheme applies)

Certification Bodies: Initially Certification Bodies which have been accredited by UKAS to issue certificates against Sector Scheme Document (SSD) 2A for the Design and/or Supply, Installation and Repair of Fences published by UKAS on behalf of the Sector Scheme Advisory Committee for Fencing. These are listed in Table A/2. Within 12 months of the availability of the scheme on the UKAS web site Certification Bodies shall be required to have obtained additional accreditation against this scheme.

Specification: Environmental Barriers (Structural) shall be in accordance with Series 300 and 2500 of the Specification and the following British Standards:

- BS EN 1793 Road Traffic Noise Reducing Devices - Test Method for determining acoustic performance
- BS EN 1794 Road Traffic Noise Reducing Devices - non acoustic performance

- Notes
1. Attention is drawn to the requirement within SHW for technical approvals to be obtained for these structures in accordance with the Technical Approval Scheme adopted by the Overseeing Organisation.
  2. The National QMSS requires operatives to reach appropriate levels of competency and receive training on an approved course administered by the Lantra Awards (formerly National Fencing Training Authority (NFTA)). All fencing installers and lead installers are required to carry registration/skill cards indicating what types of fencing they are qualified/competent to install.
  3. Confirmation of the accreditation status of certification bodies should be checked with UKAS.
  4. Copies of the SSD will be available from UKAS Publications or on request from accredited certification bodies with which the Supplier is registered after the scheme is posted on the UKAS web site. It will also be accessible from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  5. A Register of Assessed Companies is available from, and maintained by, Lantra Awards on behalf of the advisory committee. A small charge will be made for the document.

- 6 The scheme will be implemented 12 months after posting on the UKAS web site. During this period, the scheme will run concurrently with SSD 2A; Companies that install environmental barriers (structural) and are registered to sector scheme 2A will be required to obtain registration to this scheme within this period.

**Scheme 3: Manufacture of Industrial Fasteners and Associated Items**

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates in respect of the manufacture of industrial fasteners and associated items.

**Specification:** (05/04) Nuts, bolts and fixings shall be in accordance with Series 300, 400, 500, 1300, 1800 and 2500 of the Specification and shall be manufactured to the requirements of the following Standards:

BS 3410	Specification for metal washers for general engineering purposes;
BS 4320	Specification for metal washers for general engineering purposes Metric series;
BS 4395	Specification for high strength friction grip bolts and associated nuts and washers for structural engineering;
BS 4933	Specification for ISO metric black cup and countersunk head bolts and screws with hexagon nuts.
BS EN ISO 898	Mechanical properties of fasteners
BS EN ISO 4014	Hexagon head bolts Product grades A and B (11/03)
BS EN ISO 4016	Hexagon head bolts Product grade C (11/03)
BS EN ISO 4017	Hexagon head screws Product grades A and B (11/03)
BS EN ISO 4018	Hexagon head screws Product grade C (11/03)
BS EN ISO 4032	Hexagon nuts, style 1 Product grades A and B (11/03)
BS EN ISO 4034	Hexagon nuts Product grade C (11/03)

Alternatively nuts, bolts and fixings shall be manufactured to the dimensions and tolerances of the Standards listed above, using materials to the following Standards:

BS EN ISO 3506	Mechanical properties of corrosion-resistant stainless steel fasteners (11/03)
BS EN ISO 3506-1	Part 1: Bolts, screws and studs (11/03)
BS EN ISO 3506-2	Part 2: Nuts (11/03)
ASTM A325-02	Specification for high strength bolts for structural steel joints. (02/03)
JSS II-09-1996	Society of Steel Construction of Japan (02/03)

- Notes:
1. Where the Contractor can demonstrate that the fastener required is made by fewer than three firms within this Scheme, the requirement to comply with the Scheme shall not apply.
  2. Where the Contractor obtains fasteners from a stockist, the stockist shall be registered under Part 1 of the BSI Registered Stockist System, or equivalent. The System requirement shall be 'Level A, Quality Assured Material with Lot Traceability' (P00012). Where the Contractor can demonstrate that the fastener required is supplied by fewer than three stockists within this System, the requirement to comply with the System shall not apply.

**Scheme 4: Preservative Treatment of Timber (BWPDA Guidance Note QGN -2)**  
(National Scheme applies)

**Certification Bodies:** (05/04) Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Preservative Treatment of Timber published by UKAS on behalf of the Natural & Confirmed Durability of Timber Sector Scheme Advisory Committee are listed in Table A/2.

**Specification:** Chemicals used, and timber preservative treatment to be carried out, shall comply with Clause 311 of the Specification.

- Notes:**
1. Timber used for general fencing shall be treated by firms registered by these bodies, and firms shall only obtain chemical products used in treatment from a registered source.
  2. The National Scheme for the Preservative Treatment of Timber incorporates BWPDA Guidance Note QGN 2 which superseded BSI's Quality Assessment Schedule QAS 4620/290.
  3. The National Scheme requires plant operators to obtain NVQs.
  4. (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the supplier is registered. It can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

(05/04) **Scheme 5: Bridge Parapets  
Fabrication and Installation of Bridge Parapets and Cradle Anchorages (Certification Bodies Schemes)**

**Specification:** The supply and installation of metal bridge parapets shall comply with Series 400 of the Specification and the Interim Requirements for Road Restraint Systems (IRRRS).

- Notes:**
1. The scheme covers the act of off-site fabrication and installation. Suppliers may be certificated for either or both.
  2. Cradle anchorages are required to have a BBA HAPAS Roads and Bridges certificate of conformity.
  3. This scheme incorporates, where relevant, the requirements of Series 400.
  4. These schemes will be phased out with the introduction of the national Schemes 5A and 5B which are to be fully implemented by January 2005.

(05/04) **Scheme 5: Bridge Parapets**

**Scheme 5A The Manufacture of Parapets for Road Restraint Systems**  
(National Scheme Applies)

**Specification** The production of metal bridge parapets shall comply with the requirements of the Specification for Highway Works, Series 400 and the relevant parts of BS EN 1317.

- Notes:**
1. This scheme is an interim document which provides guidance to producers of parapets until BS EN 1317-5 becomes available, after which it will continue to provide guidance on best practice where appropriate.
  2. The scheme will run concurrent with existing certification body schemes until acceptance of the latter is withdrawn at the end of 2004. This period of time should permit manufacturers and certification/provisional notified bodies time to manage the transition from the existing schemes to the national scheme.
  3. Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

(05/04) **Scheme 5: Bridge Parapets**

**Scheme 5B The Installation of Parapets for Road Restraint Systems**  
(National Scheme Applies)

Specification: The installation of metal bridge parapets shall comply with the requirements of the Specification for Highway Works, Series 400 and the relevant parts of BS EN 1317.

- Notes:
- 1 Chemical and cradle anchorages are required to have a BBA HAPAS Roads and Bridges certificate of conformity.
  - 2 The scheme will run concurrent with existing certification body schemes until acceptance of the latter is withdrawn at the end of 2004. This period of time should permit manufacturers and certification/provisional notified bodies time to manage the transition from the existing schemes to the national scheme
  - 3 Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

**Scheme 6: The Manufacture, Supply and Verification of Lighting Columns and Bracket Arms**  
(National Scheme applies)

Certification Bodies: (05/04) Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Manufacture, Supply and Verification of Lighting Columns and Bracket Arms published by UKAS on behalf of the Lighting Column Sector Scheme Technical Advisory Committee are listed in Table A/2.

Specification: (05/04) The manufacture, supply and verification of lighting columns and bracket arms shall comply with Series 1300 of the Specification, Standard BD 26 (DMRB 2.2.1) and the Technical Approval Scheme adopted by the Overseeing Organisation.

- Note:
1. (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

**Scheme 7: Application of Road Marking Materials and Road Studs to Road Surfaces**  
(National Scheme applies)

Certification Bodies: Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Application of Road Marking Materials and Road Studs to Road Surfaces published by UKAS on behalf of the Road Marking Sector Scheme Technical Advisory Committee are listed in Table A/2.

Specification: Road marking materials shall be in accordance with Series 1200 of the Specification and shall be manufactured to comply with all of the appropriate requirements of one of the following British Standards:

- |              |   |
|--------------|---|
| BS EN 1423   | Road marking materials - Drop on materials - Glass beads, antiskid aggregates and mixtures of the two |
| BS EN 1424   | Road Marking Materials - Premix glass beads   |
| BS EN 1436   | Road marking materials - Road marking performance for road users;                                     |
| BS EN 1463-1 | Road marking materials - Retroreflecting road studs - Part 1. Initial performance                     |
| BS EN 1463-2 | Road marking materials - Retroreflecting road studs - Part 2. Road test performance specifications    |
| BS EN 1790   | Road marking materials - Preformed road markings  |
| BS EN 1824   | Road marking materials - Road trials  |
| BS EN 1871   | Road marking materials - Physical properties  |

- Notes:
1. (05/04) The scheme requires operatives to have successfully undergone a course of approved training currently managed by RSMA in conjunction with NERO and the Local Government National Training Organisation (formerly Local Government Management Board) and/or have achieved NVQ level 2 in Road Marking. All road marking operatives are required to carry a registration/skill card indicating what types of marking they are qualified to apply.
  2. Confirmation of the accreditation status of certification bodies can be obtained from UKAS.
  3. (05/04) Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It can also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  4. (05/04) The manufacture of road marking materials to BS EN 1423, BS EN 1424, BS EN 1436, BS EN 1790 and BS EN 1824 is subject to product certification requirements (see Appendix B - Marked Schemes).

**Scheme 8: Installation and Maintenance of Traffic Signals**  
(05/04) (Certification Bodies' Scheme)

Specification: All works shall be in accordance with the relevant clauses of the 1200 Series of the Specification for the installation of traffic signals. Equipment shall be manufactured to comply with all of the appropriate requirements of BS 505.

**(05/04) Schemes 8 and 10 Installation and Maintenance of Highway Electrical Equipment**  
(National Scheme applies)

Certification Bodies: Initially Certification Bodies, which have been accredited by UKAS to issue certificates against schemes 8 and 10 for the Installation and Maintenance of Traffic Signals and Installation and Maintenance of Electrical Apparatus and Cabling for Highway Lighting and Traffic Signs respectively. These are listed in Table A/2. Within 12 months of the availability of the scheme on the UKAS web site Certification Bodies shall be required to have obtained accreditation against this scheme.

Specification: Installation and Maintenance of Highway Electrical equipment shall be in accordance with Series 1200 (Scheme 8) and/or Series 1400 (Scheme 10) of the Specification for Highway Works as appropriate and the following British Standards:

- |           |  |
|-----------|--|
| BS 7671   | Requirements for Electrical Installations, IEE Wiring Regulations - Sixteenth edition        |
| BS 5489-1 | Code of practice for the design of road lighting. Lighting of roads and public amenity areas |
| BS 5489-2 | Code of practice for the design of road lighting. Lighting of tunnels                        |
| BS 5649   | Lighting Columns   |
| BS EN 40  | Lighting Columns   |

- Notes:
1. Copies of the SSD will be available from UKAS Publications or on request from accredited certification bodies with which the Supplier is registered after the scheme is posted on the UKAS web site. It will also be accessible from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  2. The National QMSS requires operatives to reach appropriate levels of competency and receive training on an approved course. All operatives are required to carry registration/skill cards indicating what types of electrical work they are qualified/competent to install and maintain
  3. Confirmation of the accreditation status of certification bodies should be checked with UKAS.

4. The scheme will be implemented 12 months after posting on the UKAS web site. It is anticipated that the scheme will be implemented on 1 June 2005. During this period, the scheme will run concurrently with the current certification body Schemes 8 and 10. Companies that install and maintain electrical apparatus and are registered to either of the existing Schemes 8 and 10 will be required to obtain registration to this national scheme within this period.

**Scheme 9: Traffic Sign Manufacture**

Specification: Signs to BS 873 and to Series 1200 of the Specification for Highway Works.

**(05/04) Scheme 9B The Installation and Maintenance of Permanent Vertical Road Traffic Signs and Associated Electrical Works**  
(National Scheme applies)

Certification Bodies: Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Installation and Maintenance of Permanent Vertical Road Traffic Signs and Associated Electrical Works, which will be published by UKAS on behalf of the Sector Scheme Advisory Committee for Permanent Vertical Road Traffic Signs and Associated Electrical Works. Such bodies will be listed in Table A/2, following accreditation from UKAS.

Specification: The installation and maintenance of traffic signs shall comply with the Specification for Highway Works, in particular Series 1200.

- Notes
1. Copies of the SSD will be available from UKAS Publications or on request from accredited certification bodies with which the Supplier is registered after the scheme is posted on the UKAS web site. It will also be accessible from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  2. The National QMSS requires operatives to reach appropriate levels of competency and receive training on an approved course. All operatives are required to carry registration/skill cards indicating what types of work they are qualified/competent to install and maintain.
  3. Confirmation of the accreditation status of certification bodies should be checked with UKAS.
  4. The scheme will be implemented 12 months after posting on the UKAS web site. It is anticipated that the scheme will be implemented on 1 June 2005. Companies that install permanent vertical road traffic signs will be required to obtain registration to this scheme within this period.

**Scheme 10: Installation and Maintenance of Electrical Apparatus and Cabling for Highway Lighting and Traffic Signs**

(05/04) (Certification Bodies' Schemes)

Specification: All works shall be in accordance with Series 1400 and relevant Clauses of Series 1200 of the Specification for Highway Works.

- Note:
1. Firms may be certificated only for installation or maintenance of electrical apparatus and cabling for highway lighting and highway signs.

**Scheme 11: Supply and Installation of Post-Tensioning Systems in Concrete Structures**

Specification: Installation of ducts, tendons, anchorages and grouting of post-tensioning systems complying with the requirements of the Concrete Society Technical Report No 47: Durable Post-Tensioned Concrete Bridges.

- Note:
1. Prestressing wire strand to BS 5896, hot rolled alloy steel bars to BS 4486 and prestressing anchorages to BS 4447 are required to have product certification under this scheme (see Appendix B).

**Scheme 12: Temporary Traffic Management**

**Scheme 12A:** (11/03) **Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways for Schemes Incorporating Contraflow Operations and/or Temporary Road Markings**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document for the Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways for Schemes Incorporating Contraflow Operations and/or Temporary Road Markings published by UKAS on behalf of the Sector Scheme Advisory Committee for Traffic Management are listed in Table A/2.

**Specification:** Traffic management shall be in accordance with the 100 Series of the Specification, the Drawings referred to in the Contract and Chapter 8 of the Traffic Signs Manual: Traffic Safety Measures and Signs for Road Works and Temporary Situations.

- Notes:**
1. (05/04) This Scheme requires training and competency assessment on an approved course. All traffic management operatives are required to carry a registration/skill card indicating what types of traffic management they have been trained and assessed to carry out.
  2. (05/04) Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

**Scheme 12: Temporary Traffic Management**

**Scheme 12B:** **Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways for Schemes not Incorporating Contraflow Operations and/or Temporary Road Markings**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document for the Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways for Schemes not Incorporating Contraflow Operations and/or Temporary Road Markings published by UKAS on behalf of the Sector Scheme Advisory Committee for Traffic Management are listed in Table A/2.

**Specification:** Traffic management shall be in accordance with Series 100 of the Specification, the Drawings referred to in the Contract and Chapter 8 of the Traffic Signs Manual: Traffic Safety Measures and Signs for Road Works and Temporary Situations.

- Notes:**
1. (05/04) This Scheme requires training and competency assessment on an approved course. All traffic management operatives are required to carry a registration/skill card indicating what types of traffic management they have been trained and assessed to carry out.
  2. (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  3. This scheme was implemented by the Highways Agency on 1 April 2001. Training and competency assessment arrangements are in place.

**Scheme 12: Temporary Traffic Management**

**Scheme 12C: Mobile Lane Closures Temporary Traffic Management on Motorways and Dual Carriageways**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document for the Mobile Lane Closures Temporary Traffic Management on Motorways and Dual Carriageways published by UKAS on behalf of the Sector Scheme Advisory Committee for Traffic Management are listed in Table A/2.

**Specification:** Traffic management shall be in accordance with the 100 Series of the Specification, the Drawings referred to in the Contract and Chapter 8 of the Traffic Signs Manual: Traffic Safety Measures and Signs for Road Works and Temporary Situations.

- Notes:**
1. (05/04) This Scheme requires training and competency assessment on an approved course. All mobile lane closures traffic management operatives are required to carry a registration/skill card indicating what types of traffic management they have been trained and assessed to carry out.
  2. (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  3. This scheme was implemented by Highways Agency on 1 January 2001. Training and competency assessment arrangements are in place.

(11/04) **Scheme 13: The Supply and Application to Road Surfaces**

**Scheme 13A: (11/04) The Supply and Application of Surface Dressings to Road Surfaces**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document for the Supply and Application of Surface Dressings to Road Surfaces published by UKAS on behalf of the Sector Scheme Advisory Committee for Surface Dressing are listed in Table A/2.

**Specification:** Surface Dressing shall be in accordance with Series 900 of the Specification and the Drawings referred to in the Contract.

- Note:**
1. (05/04) Copies of the SSD are available from UKAS Publications or on request from accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

(05/04) **Scheme 13B: The Supply and Application of Microsurfacing**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document for the Supply and Application of Microsurfacing published by UKAS on behalf of the Sector Scheme Advisory Committee for Microsurfacing. Such bodies will be listed are listed in Table A/2 following accreditation by UKAS.

**Specification:** Microsurfacing shall be in accordance with Series 900 of the Specification and the Drawings referred to in the Contract.

- Notes**
1. Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may be accessed from UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  2. The scheme was posted on the UKAS web site at the end of December 2003 and will be implemented 12 months after posting i.e. implementation is on 1 January 2005.

**Scheme 14: Production of Asphalt Mixes**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Production of Asphalt Mixes, published by UKAS on behalf of the Sector Scheme Advisory Committee for the Quality Assurance of the Production of Asphalt Mixes are listed in Table A/2.

**Specification:** (11/04) The supply of asphalt shall comply with the Specification for Highway Works, in particular Series 900. Where specified, asphalt shall be produced in accordance with the relevant British Standard. The following list, which is not comprehensive, indicates representative British Standards which are intended to be included by this scheme:

- |           |   |
|-----------|---|
| BS 594    | Hot rolled asphalt for roads and other paved areas.<br>Part 1. Specification for constituent materials and asphalt mixtures.<br>Part 2. Specification for the transport, laying and compaction of rolled asphalt.                             |
| BS 598    | Sampling and examination of bituminous mixtures for roads and other paved areas<br>Part 100. Methods for sampling for analysis.<br>Part 101. Methods for preparatory treatment of samples for analysis.<br>Part 102. Analytical test methods. |
| BS 4987   | (11/03) Coated macadam (asphalt concrete) for roads and other paved areas   |
| BS 4987-1 | Part 1. Specification for constituent materials and for mixtures  |
| BS 4987-2 | Part 2. Specification for transport, laying and compaction  |
- Note: 1. (05/04) Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).

(11/02) **Scheme 15: Supply of Paving Grade Bitumen**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Supply of Paving Grade Bitumen, published by UKAS on behalf of the Sector Scheme Advisory Committee for the Quality Assurance of the Supply of Paving Grade Bitumen are listed in Table A/2.

**Specification:** The supply of paving grade bitumen shall comply with the Specification for Highway Works, in particular Series 900 and the following British Standards:

- |             |  |
|-------------|--|
| BS EN 12591 | Bitumen and bituminous binders - Specifications for paving grade bitumens. |
|-------------|--|
- Notes: 1. (05/04) Copies of the SSD are available from UKAS Publications or on request from the accredited certification bodies with whom the Supplier is registered. It may also be accessed from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
2. (05/04) This National QMSS was introduced in April 2003. Certification bodies and suppliers will require a period of time to align their systems with the criteria of the scheme before registration. The Sector Scheme Committee has concluded that suppliers should obtain registration to this scheme by July 2004.

(05/04) **Scheme 16: The Laying of Asphalt Mixes**  
(National Scheme applies)

**Certification Bodies:** Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Laying of Asphalt Mixes, which will be published by UKAS on behalf of the Sector Scheme Advisory Committee for the Quality Assurance of the Laying of Asphalt Mixes. Such bodies will be listed in Table A/2 following accreditation from UKAS.

- Specification: The laying of asphalt shall comply with the Specification for Highway Works, in particular Series 900 and the following British Standards:
- BS 594 Hot rolled asphalt for roads and other paved areas  
Part 1. Specification for constituent materials and asphalt mixtures  
Part 2. Specification for the transport, laying and compaction of rolled asphalt
- BS 4987 Coated macadam (asphalt concrete) for roads and other paved areas  
Part 1. Specification for constituent materials and for mixtures  
Part 2. Specification for transport, laying and compaction
- Notes
1. Copies of the SSD will be available from UKAS Publications or on request from accredited certification bodies with which the Supplier is registered after the scheme is posted on the UKAS web site. It will also be accessible from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp)).
  2. The scheme will be implemented 12 months after posting on the UKAS web site. At the present time it is anticipated that the scheme will be implemented on 1 July 2005.

(05/04) **Scheme 17: Vehicle Recovery at Highway Construction Sites**  
(National Scheme applies)

Certification Bodies: Certification bodies which have been accredited by UKAS to issue certificates against the Sector Scheme Document (SSD) for the Vehicle Recovery at Highway Construction Sites, which will be published by UKAS on behalf of the Sector Scheme Advisory Committee for the Vehicle Recovery at Highway Construction Sites. Such bodies will be listed in Table A/2 following accreditation from UKAS.

Specification: Vehicle recovery at highway construction sites shall comply with the Specification for Highway Works, in particular Series 100 and PAS 43 "Safe working of vehicle breakdown and recovery operators".

- Notes
1. Copies of the SSD will be available from UKAS Publications or on request from accredited certification bodies with which the Supplier is registered after the scheme is posted on the UKAS web site. It will also be accessible from the UKAS web site ([http://www.ukas.com/information\\_centre/publications.asp](http://www.ukas.com/information_centre/publications.asp))
  2. The scheme will be implemented 12 months after posting on the UKAS web site. At the present time it is anticipated that the scheme will be implemented on 1 January 2005.

**Address of United Kingdom Accreditation Service (UKAS) from whom details of SSDs can be obtained:**

**United Kingdom Accreditation Service (UKAS)**

21 - 47 High Street  
Feltham  
Middlesex  
TW13 4UN

Telephone: +44 (0) 20 8917 8400  
Facsimile: +44 (0) 20 8917 8500

**Addresses of Certification Bodies:**

(11/03) **BM TRADA Certification Limited**

Stocking Lane  
Hughenden Valley  
High Wycombe  
Buckinghamshire  
HP14 4NR

Telephone: +44 (0) 1494 569700  
Facsimile: +44 (0) 1494 565487  
E Mail: enquiries@bmtrada.com

**British Standards Institution**

389 Chiswick High Road  
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W4 4AL

Telephone: +44 (0) 20 8996 9000  
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E Mail: info@bsi.org.uk

(11/03) **Bureau Veritas Quality International (BVQI) Ltd**

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(11/03) **Lloyd's Register Quality Assurance (LRQA) Ltd**

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(11/03) **Moody International Certification Ltd**

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(11/03) **SGS United Kingdom Ltd**

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