

# APPENDIX H

## QUALITY RECORDS

(05/01) The quality records required by this specification, particularly arising from sub-Clause 104.8, shall be submitted to the Overseeing Organisation as indicated below:

- 1 Category A: Records required in advance of commencement of a construction activity. These records will be considered by the Overseeing Organisation prior to granting approval. Approval of such records constitutes an Overseeing Organisation's hold point.\*
  - Category B: Records required during the course of an activity to demonstrate compliance. Submission of these records constitutes a Contractor's hold point.
  - Category C: Certificates required from third parties, suppliers, and specialist manufacturers. These certificates shall be provided before a product is deemed to have been received.
  - Category D: Records required on completion of an activity.
- 2 Where Category C certificates are required and the format has not been approved by the relevant controlling body, the Contractor shall ensure they contain the following information as a minimum:
    - The supplier's name, address and telephone number
    - Serial number and date of the certificate
    - Reference to the order placed, including purchaser's order number and date placed
    - Detailed description of the product supplied, including identification marks, batch numbers and quantity
    - Any agreed concessions/non-conformities
    - Identification of test results and testing laboratory
    - The following statement, signed by the person nominated by the supplier as responsible for quality control, or his deputy -

"I certify that the supplies detailed hereon have been inspected in accordance with the conditions and requirements of the contract and unless otherwise noted below, conform in all aspects to the Specification relevant thereto".

- 3 (05/04) All recycled aggregates, including concrete containing recycled aggregate, shall comply with the 'Quality Control - Production of Re-cycled Aggregates' published by Waste and Resources Action Programme is available from WRAP, The Old Academy, 21 Horse Fair, Banbury, OX16 0AH. The document is also available on the WRAP website, <http://www.wrap.org.uk/>, to which reference is made in Clause 710.

\* These are additional to the other "hold points" required by the Contract, such as specific approvals and for "covering up".

### PRELIMINARIES

CAT.

A	104.2	Quality Assurance - submit. (05/01)
C	104.4	Quality management scheme or product certification scheme - submit certificates of conformity.
C	104.6	Organisation's Quality Plans - submit. (11/03)
C	104.7, 8	Quality records - make available copies of records. (05/01)
C	104.9	British Board of Agrément certificates - submit certificates.
A	104.11	Traffic signs requiring statutory type approval - submit written evidence of approval.
A, C	104.13	Type approval/registration - submit type approval/registration certificates.
A, C	104.16, 18	Provision of information - submit information and certificates.

A	105.1	Suppliers of materials - submit list. Goods or materials - give details of choice. (05/01)
B, D	105.2	Sampling and testing - supply test results and test certificates.
A	106.2	Structures designed by the Contractor - submit Approval in Principle form.
A	106.3	Structures designed by the Contractor - submit copies of completed design certificates and drawings.
A	106.4	Structural elements and other features designed by the Contractor - submit proposals.
A	117.3	Traffic safety and management - submit proposals. (05/01)
A	118.4	Temporary diversions for traffic specified by the Overseeing Organisation - submit proposals. (05/01)
B	120.6	Submit copies of relevant insurance certificates to the Overseeing Organisation not less than 14 days prior to the commencement of recovery operations and within 14 days of policy renewal thereafter. (11/05)
B	120.9	Submit copies of relevant training certificates for vehicle recovery technicians not less than 14 days before the commencement of recovery operations. (11/05)
B	120.10	Report findings on checking the validity of the certificates/cards, including checking that the photograph matches with the card holder's image, at intervals not exceeding 6 months. (11/05)
B	120.11	Report findings on checking that all operatives involved with vehicle recovery are suitable to work with 'vulnerable' motorists not less than 14 days prior to the commencement of recovery operations and at regular intervals thereafter not exceeding 12 months. (11/05)
B	120.12	Submit copies of all driving licences for operatives not less than 14 days prior to commencement of recovery operations. Carry out regular 6 monthly checks on driving licences and report his findings to the Overseeing Organisation. (11/05)
B	120.13	Submit copies identity cards prior for technicians involved with vehicle recovery prior to the commencement of the operative working. (11/05)
B	120.26	Submit weekly - (11/05) (i) Duplicate completed information sheets logging the assistance given by the recovery vehicles; and (ii) Duplicate completed log sheets which record daily checks made on each recovery vehicle.
B	120.32	Submit copies of all current goods vehicle test certificate or MOT certificate or other certificate of roadworthiness issued by a Vehicle and Operator Services Agency (VOSA) approved testing station, and also weigh bridge certificate stating individual axle and gross vehicle loadings not less than 14 days prior to the commencement of recovery operations using the vehicle concerned. (11/05) Submit renewed certificates on the due anniversary of the inspection and new certificates shall be provided immediately following the inspection. (11/05)
B	120.35	Submit photographs of each vehicle, clearly showing vehicle registration number, not less than 14 days prior to the commencement of recovery operations using the vehicle concerned. (11/05)

B	120.39	Submit copies of valid proof loading certificates for chains, wire ropes, tow poles and shackles not less than 14 days prior to the commencement of recovery operations using the vehicle concerned. (11/05)
A, B	120.45	Provide method statements for Heavy and Light Recovery. (11/05)
A	126.1	Timber and products containing wood supplied under the Contract - documentary evidence that the timber and wood supplied or used is from a legal and sustainable source. (05/04)

(05/04) **ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN)**

C	402.6 (v) and 408	Destructive testing of welds - provide copies of certified reports for earlier contracts. (05/04)
C	402.10	Provide evidence of tensile tests. (05/04)
A	403.15 and 407.2	Anchorage and attachment systems in drilled holes - provide evidence of capability. (11/06)
B, D	403.7	Crash cushion installations - records and reports of monitoring. (11/06)
B, D	404.4	Post foundation tests - submit test results. (05/04)

**DRAINAGE AND SERVICE DUCTS**

D	501.3	Pipes for drainage - provide a schedule.
A, B, C	503.3	When recycled coarse aggregate or recycled concrete aggregate is used, provide the results required in Clause 710. (05/04)
D	506.1	Connecting to existing drains - record positions and submit records.
D	509.5	Foul and filter drains - supply recording of survey by CCTV (excluding fin and narrow filter drains). (11/04)
C	514.12	Fin drains - supply consignment details.
C	515.8	Narrow filter drains - supply consignment details.
A	516.2	Combined drainage and kerb systems - provide evidence of suitability of application. (11/04)
A	517.2	Linear drainage channel systems - provide evidence of suitability. (11/04)
A	518.2	Thermoplastics structured wall pipes and fittings - submit complete information sheets. (05/01)
B	520.3, 11, 13, 17, 21	The cleaning of existing drainage systems - report any localised blockages, obstructions and any damage and defects and defects to the bridge drainage system. (11/03)
B	521.14	Jetting of piped drainage systems - report presence of any perforated pipes and porous concrete pipes. (11/03)

**EARTHWORKS**

A, B, C	601.18	Pulverised-fuel ash - make available to the Overseeing Organisation a record of the type and source of the material and the name of the power station from which it was obtained and a certificate of results of tests showing that the material complies with the requirements of Table 6/1. (11/04)
A	609.2	Geotextiles - provide evidence of durability.
A	613.5	Capping - provide test records substantiating compliance with criteria.
B, D	629.2	Instrumentation - supply results of monitoring.
B	630.6	Vibrated stone columns - report if ground conditions differ from those expected.

- A | 637.3 | In situ resistivity tests - give notice of date, time and location. (11/04)
- A | 638.4 | In situ redox potential tests - give notice of testing arrangements.

**ROAD PAVEMENTS - GENERAL**

- A | 709.7 | Cold milling extensive areas - programme to be notified in advance. (05/01)
- B | 709.11 | Location and depth of objects - report within 6 hours. (11/03)
- A, B, C | 710 | When recycled coarse aggregate or recycled concrete aggregate is used, provide the results required in Clause 710. (05/04)
- B | 711.6 | Installation and quality control procedures - make available results from BBA surveillance visits. (05/01)
- B | 715.9 | Saw-cutting of concrete pavement - submit report within 18 hours of saw-cut failure. (05/01)
- B | 716 | Required crack pattern - report within two hours if pattern is not established. (05/01)

**ROAD PAVEMENTS - (11/04) UNBOUND, CEMENT AND OTHER HYDRAULICALLY BOUND MIXTURES**

- A, C | 802.12 | Submit construction proposals for trafficking trials for review and acceptance five days in advance of construction. (11/05)
- A, C | 802.18 | Report on the Trafficking Trial, to the Overseeing Organisation, stating how the use of the unbound mixture was validated. Overseeing Organisation to accept or otherwise within two working days of receiving the Trafficking Trial area report. (11/05)
- A | 810.5 | Provide the Overseeing Organisation with the information detailed in the 'Designation and Description' clause of the relevant BS EN for the selected HBM. (11/05)
- A, C | 813.3, 817.1, 817.4 | Provide, at least 10 days ahead, a method statement and a demonstration area (800 m<sup>2</sup>) for the production and construction of HMB. (11/05)
- A | 824.2 | Submit details of design mix. (05/05)
- A | 824.10 | Submit details of plant, etc. (05/05)
- A | 824.43 | Mixture design and characterisation submitted at least one week prior to commencement of the recycling works. (05/05)

**ROAD PAVEMENTS - BITUMINOUS BOUND MATERIALS**

- A | 901.5 | Bituminous pavement mixtures - seek approval for "flakiness category". (11/08)
- A | 901.6 | Resistance to fragmentation - present evidence of previous satisfactory use. (11/08)
- A | 901.16 | Polymer modified binder - seek approval of the Overseeing Organisation if British Board of Agrément HAPAS Certificates have not been issued. (11/08)
- A | 902.2 | Reclaimed asphalt - seek approval for use of other recycled materials in bituminous mixtures. (11/08)
- A | 902.5 | Mixed materials containing more than 25% reclaimed asphalt - agree frequency of testing. (11/08)
- A | 903.3 | Placing and compaction of bituminous mixtures - agree permitted traffic to run on surface to be overlaid. (11/08)
- A | 903.3 | Placing and compaction of bituminous mixtures - submit method statement. (11/08)
- A | 910.1 | Hot rolled asphalt recipe mixtures - notification prior to use. (11/08)

A	918.2	Slurry surfacing incorporating microsurfacing - provide design proposal and quality plan. (11/08)
A	918.4	The system - provide Data Sheet. (11/08)
A	918.5	Mixture tests - Appendix 7/7. (11/08)
A	918.7	Binder - provide binder data sheet and rheological product identification data. (11/08)
A	918.8	Coloured material - seek approval. (11/08)
A	918.10	Health and safety - provide H & S information and safe handling guidance. (11/08)
A	918.12	Preparation - agree prior remedial works. (11/08)
A	918.14	Preparation - seek approval to dispense with bond coat. (11/08)
A	918.22	Application - agree mist water spray. (11/08)
B, D	918.25	Application - records of amount and area of slurry used. (11/08)
D	918.30	Provide 'As Built' manual within 30 days. (11/08)
A	919.1	Surface dressing; Recipe specification - provide a quality plan. (11/08)
A	919.2	Binder - seek approval for fluxed and cut-back binders. (11/08)
A	919.3	Binder - provide Binder Data Sheet, rheological product identification data and health and safety information. (11/08)
A	919.4	Binder sprayer - provide test certificate prior to spraying. (11/08)
A	919.5	Chippings - provide source, characteristics and coating. (11/08)
A	919.6	Chipping spreader - provide test certificates before use. (11/08)
A	919.7	Preparation - agree prior remedial works. (11/08)
B	919.12	Binder and chipping tests - report results verbally within 24 hours and in writing within 7 days. (11/08)
D	919.18	Provide 'As Built' Manual within 30 days. (11/08)
A	920.2, 920.4	Bond coats and bituminous sprays - seek approval of the Overseeing Organisation if British Board of Agrément HAPAS Certificates have not been issued. (11/08)
A	920.5	Bond coats, tack coats and bituminous sprays - copy of completed binder data sheet prior to the application of the product. (11/08)
A	920.7	Application - seek approval application by hand held sprayer. (11/08)
A	920.9	Accuracy of application - provide test certificate for spraying device. (11/08)
B	920.9	Accuracy of application - report rate of spread verbally within 24 hours and in writing within 7 days. (11/08)
A	920.11	Overlaying concrete surfaces - submit evidence of suitability of the bond or tack coats prior to the commencement of work. (11/08)
A	922.2	Surface dressing: Design - provide design proposal and quality plan. (11/08)
A	922.4	The system - provide a Data Sheet giving details of the properties of each system proposed. (11/08)
A	922.5	Binder - seek approval for fluxed and cut-back binders. (11/08)
A	922.6	Binder - provide Binder Data Sheet, rheological product identification data and health and safety information. (11/08)
A	922.7	Binder sprayer - provide test certificate prior to spraying. (11/08)
A	922.9	Chipping spreader - provide test certificate for rate and accuracy of spread. (11/08)

A	922.10	Preparation - agree prior remedial works. (11/08)
B	922.14	Application - report rate of spread and accuracy of application verbally within 24 hours and in writing within 7 days. (11/08)
D	922.18	Provide 'As Built' manual within 30 days. (11/08)
D	922.20	Defects – agree remedial action. (11/08)
A	924.4	High friction surfaces - provide test certificate for aggregate. (11/08)
B	924.6	System coverage - quantities, areas and coverage to be reported within 3 days. (11/08)
B	929.11 929.16	Dense base and binder course asphalt concrete (design mix) -Compaction - seek agreement for remedial lengths less than 15 m. (11/08)
B, D	929.18	Compaction - provide 2 copies of final indirect density test results within 72 hours. (11/08)
A	930.3	EME2 base and binder course asphalt concrete – seek approval for alternative paving grade bitumens or polymer modified paving grade bitumens. (11/08)
B	930.13, 930.18	Compaction Control - seek agreement for remedial lengths less than 15 m. (11/08)
B, D	930.20	Compaction - provide 2 copies of final indirect density test results within 72 hours. (11/08)
A	937.4	Stone mastic asphalt binder course and regulating course - Binder modification - provide data sheets and seek approval if British Board of Agrément HAPAS Certificates have not been issued. (11/08)
B	937.12	Compaction Control - seek agreement for remedial lengths less than 15 m. (11/08)
A	942.3	Thin surface course systems - Test certificates and material samples - provide BBA HAPAS certificate, quality plan and method statement. (11/08)
A, B	942.4	Test certificates and material samples – provide component materials and spread rates for audit purposes. (11/08)
A	942.5	Test certificates and material samples - provide test certificates stating properties of aggregate to be used. (11/08)
A	942.10	Layer thickness - provide details of material deformation resistance before. (11/08)
A	943.4	HRA surface course and binder course - Binder modification - provide data sheets and seek approval if British Board of Agrément HAPAS Certificates have not been issued. (11/08)
A	943.11	Trafficking newly laid surfaces - seek approval to open to traffic at surface temperatures in excess of 25°C. (11/08)
A	946.17	Patching and repairs to potholes and depressions - Performance requirements for patching materials - demonstrate performance at site trial and by laboratory evaluation. (11/08)
A	946.18	Performance requirements for patching materials - independently certify to show compliance. (11/08)
A	947.2	In situ cold recycled bitumen bound material - demonstrate capability of existing materials to be pulverised. (11/08)
A	947.3	Aggregates and fillers - seek approval for use of pulverised material containing 35% passing 0.063 mm sieve. (11/08)
A	947.5	Bitumen binder - seek approval for base bitumen penetration reference above 125 up to 190. (11/08)
A	947.6	Bitumen binder - seek approval for bitumen modifiers other than foaming agents. (11/08)

A	947.13	Water - seek approval for water from source other than a water company. (11/08)
A	947.14, 947.15	Pulverisation and stabilisation - seek approval and submit evidence confirming the capability of pulverization plant and the calibration of flow meters. (11/08)
B	947.16	Pulverisation and stabilisation - seek approval of lower layer stability before proceeding with overlying layers. (11/08)
A	947.29	Stabilisation process - seek approval for compaction plant. (11/08)
A	947.58	Mixture design and characterization - submit mixture design and characteristics at least one week prior to commencement of recycling works and seek approval to proposed plan area and depth of the different sections to be covered by each mixture design. (11/08)
A	948.16	Ex situ cold recycled bound material – Mixture design validation – seek approval of conditioning and testing regime. (11/08)
A	948.21	Process control – provide calibration schedules and calibration records. Provide transportation details and records of duration between mixing and completion of compaction. (11/08)
A	948.23	Laying – provide written procedure. (11/08)
A	948.25	Laying – provide method for making longitudinal and transverse joints. (11/08)
A	950.1	Surface preservation systems - seek approval if British Board of Agrément HAPAS Certificates have not been issued. (11/08)
A	953.27	Saturation Ageing Tensile Stiffness (SATS) Test - Test report - provide test report and graph, uniquely identified, with the Contractor's Proposal. (11/08)
A	956.22	Determination of complex shear modulus and phase angle of bituminous binders – Test report - provide test report and graph, uniquely identified, with the Contractor's Proposal. (11/08)
A	956.23	Test report – provide copy of data in digital format. (11/08)

#### ROAD PAVEMENTS - CONCRETE AND CEMENT BOUND MATERIALS

A, B, C	1001.6, 1001.10, 1001.11, 1001.12	When recycled aggregate is used, provide the results required in these sub-Clauses in accordance with paragraph 3 above. (05/01)
A	1028.1	Trial length - submit detailed proposals.
A	1044.2	Complete Appendix 10/1.

#### TRAFFIC SIGNS

A	1202.5	Fabrication of traffic signs - submit fabrication drawings etc.
A	1212.18	Removal of road marking - submit details. (05/01)
A	1213.4	Retroreflecting road studs - submit details. (05/01)
C	1214.19	Flat traffic delineators - submit test certificate.
C	1214.21	Temporary cones, cylinders, FTD and other delineators - submit certification. (05/01)

#### ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS (11/03)

A	1302.1	Lighting columns and brackets, CCTV masts, cantilever masts and foundations - submit design and check certificates. (11/03)
A	1302.2	Lighting columns and luminaires, CCTV masts and cantilever masts - submit designs for aesthetic approval. (11/03)
A	1303.1	Data sheets - provide triplicate copies for each type of column and bracket, CCTV masts and cantilever masts. (11/03)
A	1305.10	Anchorage in drilled holes - provide evidence of capability.

A, C	1310.1, 1310.2	Destructive testing of welds - provide copies of reports for earlier contracts. (05/01)
A	1313.7	Materials for GFRP laminates - fillers and pigments incorporated in the resin subject to acceptance.

### ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS

A	1401.1	Competent Persons Authorisation Certificate. (05/01)
B	1401.1	Work Allocation Record. (05/01)
A	1401.5	Electrical installations - provision of dedicated feeder pillars and agreement to need for isolation pillars.
D	1402.1	Electrical work - drawings, test certificates and manuals.
D	1402.4	As-built drawings for traffic signs - supply copies on completion.
B	1421.1	Underground and ducted cables - evidence of testing.
A	1424.2	Inspection and testing - supply schedule.
C	1424.6	Testing - provide certificate verifying compliance within BS 7671.

### MOTORWAY COMMUNICATIONS

D	1504.1, 3	Site records - provide daily records on drawings.
A	1506.3	Cables - provide quality inspection certificates and results of sheath integrity tests.
D	1513.12	CJE - supply schedule of tests.
D	1518.4	Cable testing - supply test results.
A, B	1518.12	Armoured cable testing - report damaged sheath, advance notice of repair operation.
D	1526.1	Electrical installations - submit inspection and completion certificates.
D	1533.4	Cable ducts - submit register of mandrel and air test certificates.

### (05/01) STRUCTURAL CONCRETE

A, C	1709.2, 1709.6	Surface impregnation - Certificate of Compliance and method statement accepted by the Overseeing Organisation before commencing.
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### (05/01) STRUCTURAL STEELWORK

B	1803(3.1.6)	Steel supplier - supply inspection documents. (05/01)
C	1803(4.7.1)	Welding - provide certificate verifying welders approved to BS EN 287-1, BS EN 1418 and BS EN ISO 9606-2. (11/05)

### (05/01) PROTECTION OF STEELWORK

C	1911.2	Paints permitted for use by the Overseeing Organisation in the Works - provide a current BBA HAPAS Roads and Bridges Certificate or equivalent. (11/05)
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### WATERPROOFING FOR CONCRETE STRUCTURES

A	2003.1	Proprietary waterproofing systems - provide BBA Roads and Bridges Agrément Certificate appropriate to the work to be undertaken. (05/01)
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### SPECIAL STRUCTURES

A, C	2504.6	Compliance with Clause 304. Sustainable sourcing of timber. (11/04)
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A	2504.15	Environmental barriers - submit design for aesthetic approval. - submit design calculations - submit details of materials and components - submit details of gates - submit details of fixing.
D	2505.6	Drainage Structures - upon completion provide a schedule showing details of all pipe types used, including quality, joints and name of manufacturer. (05/01)

(05/01) **LANDSCAPE AND ECOLOGY**

A	3000.1	Give at least 48 hours notice - Appendix 30/1.
A	3000.4	Evidence of competency.
B	3000.12	Pesticide record - Appendix 30/1.
B	3000.14	Inspection reports in connection with pesticides - Appendix 30/1
A	3003.2	Evidence of formal training of operatives.
B	3003.4	Record of badger setts and fox earths locations.
C	3005.6	Supply certificates.
A	3005.15	Source of turf.
A	3006.6, 3006.7, 3006.69	Evidence relating to planting - Appendix 30/6.
A	3007.28	Sample Area treatment for wild flower colonisation - Appendix 30/7.
A	3009.25(ix), 3010.33(vii)	Report defects of individual trees in urban streets.
A, B	3011.3, 7	Condition report of inlet and outlet of water bodies - Appendix 30/11.
A, B	3011.9	Condition report of reed beds and marginal plants - Appendix 30/11.
A, B	3011.10	Report any presence of protected or rare species.
	3012.5	Condition report of tunnels, fencing and underpasses for wildlife - Appendix 30/12.

(05/03) **MAINTENANCE PAINTING OF STEELWORK**

C	5007.2	Paints permitted for use by the Overseeing Organisation in the Works - provide a current BBA HAPAS Roads and Bridges Certificate or equivalent. (11/05)
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