MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS VOLUME 2 NOTES FOR GUIDANCE ON THE SPECIFICATION FOR HIGHWAY WORKS

SERIES NG 000 INTRODUCTION

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INTRODUCTION

NG 000 (05/14) Introduction

(05/14) **General**

- 1 (05/14) The Notes for Guidance on the Specification for Highway Works are published as Volume 2 of the Manual of Contract Documents for Highway Works and divided into Series corresponding to those in the Specification. The NG Clauses directly relate to Clauses in the Specification, however not all Specification Clauses have corresponding NG Clauses. Guidance on the Lettered Appendices is given in Clause NG 003.
- 2 (05/14) Throughout the Notes for Guidance the term "compiler" has been used to refer to the individual or organisation responsible for the preparation of Contract-specific information and requirements.

(05/14) Incorporation of the Specification into the Contract

3 (05/14) The Specification for Highway Works (SHW) will be incorporated into a contract by reference. It will be supplemented by contract specific specification which will need to be prepared by the compiler. It is not necessary to reproduce the SHW in whole or part. The contract specific specification will consist of the Numbered Appendices.

The Contract will require a Preamble to the Specification. A standard Preamble to the Specification is included in this Series. This references the SHW and allows for the inclusion of definitions of specific roles and responsibilities as discussed below. The standard Preamble to the Specification text should be reproduced unaltered, except for the inclusion of information as indicated, and bound in the Contract documents with the contract specific Numbered Appendices.

The SHW has been drafted to allow its use with a wide range of procurement methods and forms of contract. The use of terms specific to any particular form of contract have thus been avoided and in particular no references to approvals and/or directions by parties specific to a particular form of contract are included.

Directions or approvals that are used refer to the Overseeing Organisation. This term will need defining in each particular Contract to suit the specific roles and responsibilities of the parties to the Contract and the responsibilities of the parties involved in the construction, maintenance and operation of the Works. The Preamble to the Specification contains statements which should be used to ascribe the roles and functions of the Overseeing Organisation to particular parties to the Contract.

4 (05/14) The Contract will also require the incorporation of a Schedule of Pages and Relevant Publication Dates listing the publication date of each page of the SHW applicable to the Contract. The current Schedule of Pages and Relevant Publication Dates is included in Series 000 of the SHW. It should be bound into the Contract documents following the Preamble to the Specification with the contract specific Numbered Appendices.

In summary the contract specification must therefore consist of the following:

• Preamble to the Specification	Using the standard Preamble given in this series.
• SHW	Brought in by reference in the Preamble to the Specification.
• Schedule of Pages and Relevant Publication Dates	Using the schedule included in SHW Series 000 applicable to the contract.
• Contract Specific Numbered Appendices	Using the NG Sample Contract Specific Numbered Appendices as applicable to the contract. (These are required to be listed in contract specific Appendix 0/3 as described below.)

(05/14) Proprietary Work, Goods or Materials

5 (05/14) Proprietary work, goods or materials must not be specified unless their function cannot be described in any other way using specifications which are sufficiently precise and easily understood. Where the specification of proprietary work, goods or materials cannot be avoided, European law requires that the brand name or type be followed by the words 'or equivalent', reference should also be made to Clause 104. Contractors may propose equivalent work, goods or materials and where these are assessed as equivalent they should be permitted for use in the works. Guidance on the assessment of equivalence is given in Clause NG 104. Where products are covered by the Construction Products Regulation (EU) No. 305/2011 (CPR) these must be described in terms of their essential characteristics as defined by CPR and the relevant harmonised standard, or an ETA, without the use of brand names or types.

(05/14) Use of the Specification for Highway Works

- 6 (05/14) The use of the SHW is mandatory for contracts involving works to trunk roads, including motorways, in England, Scotland, Wales and Northern Ireland where the Contract client and/or the Overseeing Organisation is the Highways Agency, Transport Scotland, the Welsh Government or the Department for Regional Development, a department of the Northern Ireland Executive. (In Northern Ireland, the documents will be applicable to those roads designated by the Overseeing Organisation).
- 7 (05/14) The SHW has been widely drawn to cover all highway contracts from the provision of new to the improvement, reconstruction and maintenance of existing roads and bridges. It also covers such schemes as the installation of road lighting, traffic signals or other traffic signing schemes on existing highways.
- **8** (05/14) The contract specific specification details required to be included in the contract specific Numbered Appendices are identified in one of two ways:
 - (i) Specific requirements referred to in the national requirements, i.e. contract specific requirements directly referred to in the SHW Clauses:
 - These are generally indicated in the Specification Clauses by the words "as described/stated in Appendix -/-".
 - (ii) Alternatives to national requirements i.e. where the SHW Clauses give options for different requirements to be stated:
 - These are generally indicated in the Clauses by the words "unless otherwise described in Appendix -/-".
- 9 (05/14) The SHW should be used as it stands wherever possible but when alterations to Clauses, Tables or Figures are considered necessary these are Departures from Standard and shall be agreed with the Overseeing Organisation. Refer to GD 01 'Introduction to the Design Manual for Roads and Bridges' (DMRB 0.1.2) for details of the Overseeing Organisations' requirements regarding Departures from Standards. Such alterations will need to be submitted to the Overseeing Organisation in good time with justification and identification of changes to existing text, in drafts of contract specific Appendices 0/1 and 0/2 prepared in accordance with the requirements set out below for incorporation in the Contract. Under no circumstances should replacement pages be produced to incorporate contract specific alterations. Contract specific Numbered Appendices, other than Appendices 0/1 and 0/2, must not be used for alterations, see sub-Clause NG 003.6.
- **10** (05/14) The information contained in the contract specific Numbered Appendices 0/1 to 0/5 and 1/1 onwards should be bound either in one volume or more as appropriate. Each volume should be clearly titled as to the content.
- 11 (05/14) The compiler's attention is drawn to the requirements of the Construction (Design and Management) Regulations and in particular the need for pre-construction health and safety information to be prepared and provided at the same time as the tender documents. In particular the compiler should ensure consistency between information referred to in the above health and safety information and the detailed information included in contract specific Appendices to the Specification. Contract specific Appendices likely to be referred to, include but are not confined to:

- Appendix 1/7 Site extent and limits of use
- Appendix 1/9 Control of noise and vibration
- Appendix 1/13 Programme of works
- Appendix 1/16 Privately and publicly owned services and supplies
- Appendix 1/17 Traffic safety and management
- Appendix 1/18 Temporary highways for traffic
- Appendix 1/19 Routeing of vehicles
- Appendix 1/23 Risks to health and safety

NG 002 (05/14) Terms and Abbreviations

- 1 (05/14) Terms and abbreviations used in Additional, and Substitute Clauses and in minor alterations made by 'delete and insert' methods must be consistent with those described in Clause 002 and those used in the relevant parts of the Specification.
- 2 (05/14) The Specification is based on the Highways Agency (HA) requirements and where possible those of the Transport Scotland (TS), the Welsh Government (WG) and the Department for Regional Development, a department of the Northern Ireland Executive (DRDNI). The Standards issued by HA, TS, WG or DRDNI, and forming part of Volume 0 of the Manual of Contract Documents for Highway Works, give implementing and other instructions on the use of the Specification and related procedures within their geographical areas. In addition, the Standards issued by TS, WG or DRDNI, will contain any special national alterations to be included in contract specific Appendix 0/5.

NG 003 (05/14) Appendices

(05/14) Lettered Appendices

- 1 (05/14) All lettered Appendices are national requirements and are intended to be used without alteration, except for Appendix F (see sub-Clause 3).
- 2 (05/14) Appendices A to F comprise lists of quality management schemes, product certification schemes, other approval information, and publications referred to in the Specification. Appendix H contains requirements relating to Quality Records.
- 3 (05/14) Appendix F lists all the normative and informative publications referred to in the Specification. When Additional, Substitute or minor alterations to Clauses are required, or references to publications are made in the contract specific Numbered Appendices, the list of publications contained in Appendix F is to be checked. Any resulting additional publications are to be included in contract specific Appendix 0/2 (see below).

(05/14) Contract Specific Numbered Appendices - General

- 4 (05/14) The contract specific Numbered Appendices to the Specification are to be drawn up for the Contract by the compiler and included in the documents. Cross reference should be made in the contract specific Numbered Appendix to the corresponding relevant drawing number(s) as appropriate.
- 5 (05/14) The contract specific Numbered Appendices are to be compiled using advice given in the Notes for Guidance Clauses and in the NG Sample Contract Specific Appendices given at the end of each Notes for Guidance Series. Their content should be agreed with the Overseeing Organisation. Some contract specific Numbered Appendices are to be completed by the Tenderer or the Contractor.
- 6 (05/14) The contract specific Numbered Appendices 1/1 onwards should only be used to extend the information in Specification Clauses, Tables or Figures and NOT to change them, they must not be used to alter the SHW Clauses. Where the Contract requires new methods or special requirements these are Departures from Standard and should only be introduced by Additional or Substitute Clauses as described in sub-Clause NG 000.9 above in contract specific Appendix 0/1 or by minor alterations in contract specific Appendix 0/2.

7 (05/14) New contract specific Numbered Appendices can be used to extend contract specific alterations included in contract specific Appendices 0/1 and 0/2, but see NG Sample Contract Specific Appendix 0/3 regarding numbering of additional contract specific Numbered Appendices.

(05/14) Contract Specific Numbered Appendices - 0/1 to 0/5

- **8** (05/14) The 'Zero' Series of contract specific Numbered Appendices(0/1 to 0/5) should be compiled in accordance with the Samples following and as explained below.
- 9 (05/14) The contract specific alterations to the Specification for Highway Works (having prior approval, see sub-Clause NG 000.9 above) should be described in contract specific Appendices 0/1 and 0/2 taking account of the following:
 - (i) Requirements relating to Clauses equally apply to Tables and Figures.
 - (ii) Care should be taken to ensure compatibility between Clauses and any associated Tables and Figures which are altered.
 - (iii) Text which duplicates the provisions of the Conditions of Contract is to be avoided.
- **10** (05/14) Contract specific Appendix 0/1 is for incorporation of contract specific alterations to the Specification for Highway Works as follows:
 - (i) Additional Clause written in Appendix 0/1 with suffix 'AR' added to the Clause number.
 - (ii) Substitute Clause rewritten in Appendix 0/1 in full with existing Clause number and with suffix 'SR'.
 - (iii) Cancelled Clause Clause number with suffix 'CR' followed by its title written in Appendix 0/1, with the word 'Cancelled' alongside it.

If there are no Additional, Substitute or Cancelled Clauses to be included in the Contract write 'NONE' in Appendix 0/1.

- 11 (05/14) Contract specific Appendix 0/2 is for incorporation of contract specific minor alterations to existing Clauses, Tables and Figures and any alterations to Appendix F. These can be described by the 'delete and insert' or 'add new sub-clause' procedure, provided they are neither extensive nor confusing. The Clause is not then a Substitute Clause and there is no need to add a suffix. These alterations are Departures from Standard and must be treated as described in sub-Clause NG 000.9 above. The instructions for these minor alterations are to be written in Appendix 0/2. If there are no minor alterations to be included in the Contract write 'NONE'.
- 12 (05/14) Contract specific Appendix 0/3 is to comprise a complete list of the contract specific Numbered Appendices included in the Contract. List A contains those referred to in the national Specification and List B contains any additional Numbered Appendices devised by the compiler associated with alterations included in contract specific Appendices 0/1 and 0/2. Those to be completed by the Tenderer/Contractor must be identified and blanks of 'pro-formas', copied from the Notes for Guidance, are to be included as appropriate. Table NG 0/1 gives a list of the contract specific Numbered Appendices referred to in the Specification for Highway Works and lists who should compile each Appendix.
- 13 (05/14) Contract specific Appendix 0/4 is to list the Drawings in the Contract (including those from the HCD, which is published as Volume 3 of the Manual of Contract Documents for Highway Works).
- **14** (05/14) Contract specific Appendix 0/5 is to include special National Alterations of the Overseeing Organisation of Scotland, Wales or Northern Ireland.

NG 004 (05/14) Normative and Informative Reference Documents

1 (05/14) The SHW uses British, European, International and other standards as reference documents. The compiler should identify a Contract Reference Document Date and state this in the Contract documentation, this is provided for in the Preamble to the Specification (see sub-Clause NG 000.3). The edition of each reference document relevant to the Contract would be the publication current at this date unless the Specification states otherwise. If a date is not given in the Preambles to the Specification the default date would be the tender invitation date.

- 2 (05/14) Any alterations to the text of SHW and NG Clauses required as a result of the publication of new Harmonised European Standards, European Standards, British Standards or amendments to Standards will be drawn up by the Overseeing Organisations and published at appropriate intervals.
- 3 (05/14) The compiler should ascertain whether any amendments or new editions of the reference documents have been issued since the last published national alteration to the SHW and where appropriate include contract specific alterations in Appendix 0/1 or 0/2 (see sub-Clause NG 000.9).
- 4 (05/14) The compiler should ensure that there are no inconsistencies between the reference documents specified in the Contract and those used in the design. Where necessary, contract specific alterations should be included in contract specific Appendix 0/1 or 0/2 to achieve consistency. Such alterations would be Departures from Standard and must be treated as such at the design stage and also, if necessary, at compilation of contract documents (see sub-Clause NG 000.9). Amendments to Harmonised European Standards are not permitted.
- 5 (05/14) The Overseeing Organisation, with or without the assistance of the compiler, should consider whether reference document amendments published after the Contract has been awarded should be incorporated unless the Contract already allows for this. Amendments, such as those issued by BSI making editorial changes to British Standards, will often have negligible cost implications and should usually be adopted.
- 6 (05/14) Standards, and other publications, referred to in the Notes for Guidance are listed in Annex 1.

NG 005 (05/14) Thickness of Material and Tolerances

1 (05/14) It is not considered necessary or desirable to specify tolerances for all dimensions. Where dictated by functional or aesthetic need, tolerances are included in the Specification for Highway Works. Other tolerances are incorporated by reference to Standards and other publications. If the compiler requires further tolerances to apply these should be given on the Drawings. Unnecessarily fine tolerances have the effect of increasing prices and should be avoided.

(05/14) Table NG 0/1 List of Numbered Appendices Referred to in the Specification for Highways works

SHW Series	Completed	Appx	Title	
No.	by	No.		
000			INTRODUCTION	
	(0/1	Contract specific Additional, Substitute and Cancelled Clauses, Tables and Figures Included in	
	(the Contract	
	(Co) (0/2	Contract specific Minor Alterations to Existing Clauses, Tables and Figures Included in the	
	(Contract	
	(0/3	List of contract specific Numbered Appendices Referred to in the Specification and Included in	
	(0/4	the Contract	
	(0/4	List of Drawings Included in the Contract	
	(0/5	Special National Alterations of the Overseeing Organisations of Scotland/Wales/Northern Ireland	
	(nerand	
100			PRELIMINARIES	
	(1/1	Temporary Accommodation and Equipment for the Overseeing Organisation	
	(1/2	Vehicles for the Overseeing Organisation	
	(1/3	Radio Communication System for the Overseeing Organisation	
	(1/4	Working and Fabrication Drawings	
	(1/5	Testing to be Carried out by the Contractor	
	(1/6	Supply and Delivery of Samples to the Overseeing Organisation	
	(1/7	Site Extent and Limitations on Use	
	(1/8	Operatives for the Overseeing Organisation	
		1/9 1/10	Control of Noise and Vibration	
		1/10	Permanent Works to be Designed by the Contractor Temporary Works Design	
		1/11	Setting Out and Existing Ground Levels	
		1/12	Programme of Works	
		1/14	Payment Applications	
	(Co) (1/15	Accommodation Works	
	(Co)(C) (1/16	Privately and Publicly Owned Services and Supplies	

(05/14) Table NG 0/1 List of Numbered Appendices Referred to in the Specification for Highways works (Continued)

SHW Series No.	Completed by	Appx No.	Title	
100 (cont)		1/17 1/18 1/19 1/20 1/21 1/22 1/23 1/24 1/25 1/27	Traffic Safety and Management Temporary Highways for Traffic Routeing of Vehicles Recovery Vehicles and Operation for Breakdowns Information Boards Progress Photographs Risks to Health and Safety Quality Management System Temporary Closed Circuit Television (CCTV) System for the Monitoring of Traffic Temporary Automatic Speed Camera System for the Enforcement of Mandatory Speed Limits at Road Works (TASCAR)	
200	(Co) (2/1 2/2 2/3 2/4 2/5	SITE CLEARANCE List of Buildings, etc. to be Demolished or Partially Demolished Filling of Trenches and Pipes Retention of Material Arising from Site Clearance Explosives and Blasting Hazardous Materials	
300	(Co)	3/1	FENCING Fencing, Gates and Stiles	
400	(Co) ((C) (4/1 4/2	ROAD RESTRAINT SYSTEMS (VEHICLE AND PEDESTRIAN) Road Restraint Systems (Vehicle and Pedestrian) Information Required to Demonstrate Compliance of Road Restraint Systems to BS EN 1317-1, BS EN 1317-2, BS EN 1317-3 and DD ENV 1317-4: 2002	
500	(Co) (5/1 5/2 5/3 5/4 5/5 5/6 5/7 5/8	DRAINAGE AND SERVICE DUCTS Drainage Requirements Service Duct Requirements Surface Water Channels and Drainage Channel Blocks Fin Drains and Narrow Filter Drains Combined Drainage and Kerb Systems Linear Drainage Channel Systems Thermoplastics Structural Wall Pipes and Fittings Maintenance Plans for Soakaways (02/20)	
600	(Co) ((Co) (6/1 6/2 6/3 6/4 6/5 6/6 6/7 6/8 6/9 6/10 6/11 6/12 6/13 6/14	EARTHWORKS Requirements for Acceptability and Testing etc. of Earthworks Materials Requirements for Dealing with Class U1B and Class U2 Unacceptable Materials (11/04) Requirements for Excavation, Deposition, Compaction (Other than Dynamic Compaction) Requirements for Class 3 Material Geotextiles Used to Separate Earthworks Materials Fill to Structures and Fill Above Structural Foundations Sub-formation and Capping and Preparation and Surface Treatment of Formation Topsoiling Earthwork Environmental Bunds, Landscape Areas, Strengthened Embankments Ground Anchorages, Crib Walling and Gabions Swallow Holes and Other Naturally Occurring Cavities and Disused Mine Workings Instrumentation and Monitoring Ground Improvement Limiting Values for Pollution of Controlled Waters (11/06) Limiting Values for Harm to Human Health and the Environment (11/04)	
700	(Co) ((Co)(C)(T)(P) ((7/1# 7/2 7/3 7/4 7/5 7/6	ROAD PAVEMENTS - GENERAL Permitted Pavement Options (Schedules 1, 2, 3, 4 and 5) Excavation, Trimming and Reinstatement of Existing Surfaces Surface Dressing - Performance Specification (Sheets 1, 2 and 3) Bond Coats, Tack Coats and Other Bituminous Sprays (Sheets 1, 2 and Binder Data Sheet) In Situ Recycling - The Remix and Repave Processes Breaking Up or Perforation of Existing Pavement	

| (11/21) Table NG 0/1 List of Numbered Appendices Referred to in the Specification for Highways works (Continued)

SHW Series No.	Completed by	Appx No.	Title	
700			ROAD PAVEMENTS - GENERAL (Continued)	
(cont.)	(Co)(C)(T)(P)	7/7	Slurry Surfacing Incorporating Microsurfacing (Sheets 1, 2 and 3)	
	(7/8	Not Used	
	(7/9	Cold-Milling (Planing) of Bituminous Bound Flexible Pavement	
	(C) (7/10	Not used	
	(7/11	Overband and Inlaid Crack Sealing Systems	
	(7/12	Arrester Beds	
	(Co) (7/13	Saw-Cut Crack and Seal Bituminous Overlays on Existing Jointed Concrete Pavements	
	(7/14	Preparation of Jointed Concrete Pavements Prior to Overlaying and Saw-Cut and Seal of the	
		7/15	Bituminous Overlay Saw Cut. Creak and Sept Existing Jointed Reinforced Congrete Revenuents	
		7/15 7/16	Saw-Cut, Crack and Seat Existing Jointed Reinforced Concrete Pavements Cracking and Seating of Existing Jointed Unreinforced Concrete Pavements and CBM Bases	
	(C) (7/17	Cracking Plant and Equipment Progress Record	
	(Co) (7/18	Site Specific Details and Requirements for Cold Recycled Bitumen Bound Material	
		7/19	Site Specific Details and Requirements for Recycled Cement Bound Material	
		7/20	Not Used	
	(Co)(C)(T) (7/21	Surface Dressing - Recipe Specification (Sheets 1, 2 and Binder Data Sheet)	
		7/22	Repairs to Potholes	
	(Co) (7/23	Bay Replacement (11/21)	
	(7/24	Full Depth Repairs (11/21)	
	(7/25	Thin Bonded Repairs (11/21)	
	(7/26	Shallow Repairs – Early Strength Concrete (11/21)	
	(7/27	Shallow Repairs – Polymeric Material (11/21)	
	(7/28	Grouting Under Slabs (11/21)	
	(7/29	Crack Stitching (11/21)	
	(7/30	Longitudinal Diamond Grinding (11/21)	
	(7/31	Fine Milling (11/21)	
1000			ROAD PAVEMENTS - CONCRETE AND CEMENT BOUND MATERIALS	
	(T) (10/1	Plant and Equipment for the Construction of Exposed Aggregate Concrete Surface	
1100			KERBS, FOOTWAYS AND PAVED AREAS	
1100	(Co) (11/1	Kerbs, Footways and Paved Areas	
	(Co) (11/2#	Access Steps	
1200			•	
1200	,	12/1#	TRAFFIC SIGNS Traffic Signs: General	
	(Co) (12/1#	Traffic Signs: General Traffic Signs: Marker Posts	
	(0) (12/2	Traffic Signs: Road Markings and Studs	
]	12/3	Traffic Signs: Cones, Cylinders, FTDs and Other Traffic Delineators	
	(Co) (12/5	Traffic Signs: Traffic Signals	
	(22)	12/6	Traffic Signs: Special Sign Requirements on Gantries	
1200	Ì			
1300			ROAD LIGHTING COLUMNS AND BRACKETS, CCTV MASTS AND CANTILEVER MASTS	
	(Co) (13/1#	Information to be Provided When Specifying Lighting Columns and Brackets	
	(C)(P) (13/1#	(Specification for Highway Works) Typical Lighting Column and Bracket Data Sheets 1 and 2	
	(P) (13/3	Instructions for Completion of Lighting Column and Bracket Data Sheets	
	(Co) (13/4	Information to be Provided When Specifying CCTV Masts	
	(C)(P) (13/5	(Specification for Highway Works) Typical CCTV Mast Data Sheet	
	(P) (13/6	Instructions for Completion of CCTV Mast Sheets	
	(Co/T) (13/7#	Information to be Provided When Specifying Cantilever Masts	
	(C)(P) (13/8	(Specification for Highway Works) Typical Cantilever Masts Data Sheets 1 and 2	
	(P) (13/9	Instructions for Completion of Cantilever Masts Data Sheets	

| (11/21) Table NG 0/1 List of Numbered Appendices Referred to in the Specification for Highways works (Continued)

SHW Series No.	Completed by	Appx No.	Title	
1400			ELECTRICAL WORK FOR ROAD LIGHTING AND TRAFFIC SIGNS	
	(14/1	Site Records	
	(Co) (14/2	Location of Lighting Units and Feeder Pillars	
	(14/3	Temporary Lighting	
	(Co/C)	14/4	Electrical Equipment for Road Lighting	
		14/5	Electrical Equipment for Traffic Signs	
1500			MOTORWAY COMMUNICATIONS	
	(Co)	15/1	Motorway Communications	
		15/2	Cable Duct Requirements	
1600			PILING AND EMBEDDED RETAINING WALLS	
	(16/1	General Requirements for Piling and Embedded Retaining Walls	
	(16/2	Precast Reinforced and Prestressed Concrete Piles and Precast Reinforced Concrete Segmental	
	(Piles	
	(16/3	Bored Cast-in Place Piles	
	(16/4	Bored Piles Constructed using Continuous Flight Augers and Concrete or Grout Injection through Hollow Auger Stems	
	(16/5	Driven Cast-in-Place Piles	
	(Co) (16/6	Steel Bearing Piles	
	(00) (16/7	Reduction of Friction on Piles	
	(16/8	Non-Destructive Methods for Testing Piles	
	(16/9	Static Load Testing of Piles	
	(16/10	Diaphragm Walls	
	(16/11	Hard/Hard Secant Pile Walls	
	(16/12	Hard/Soft Secant Pile Walls	
	(Co) (16/13	Contiguous Bored Pile Walls	
	(16/14	King Post Walls	
	(16/15	Steel Sheet Piles	
	(Co) (16/16 16/17	Integrity Testing of Wall Elements Instrumentation for Piles and Embedded Walls	
	(0) (16/17	Support Fluid	
1700				
1700	(Ca) (17/1	STRUCTURAL CONCRETE Schedule for the Specification of Designed Concrete	
	(Co) (17/1	Concrete – Surface Protection Systems (03/20)	
		17/3	Concrete – Surface Finishes	
	(17/4	Concrete – General	
	(17/5	Buried Concrete	
	Ì	17/6	Grouting and Duct Systems for Post-tensioned Tendons	
	(17/7	Precast Concrete Products	
	(17/8	Post-installed Anchors and Reinforcing Bar Connections (03/20)	
1800			STRUCTURAL STEELWORK	
	(Co)	18/1	Requirements for Structural Steelwork	
1900			PROTECTION OF STEELWORK AGAINST CORROSION	
1900	(C)(P) (19/1	(Specification for Highway Works) Form HA/P1 (New Works) Paint System Sheet	
	(C)(P) ($(C)(P)$ ($(C)(P)$ ($(C)(P)$ ($(C)(P)$ ($(C)(P)$ ($(C)(P)$	19/1	Requirements for Other Work	
	(C)(P) (19/3	(Specification for Highway Works) Form HA/P2 Paint Data Sheet	
	(C)(P) (19/4#	(Specification for Highway Works) Form HA/P3 Paint Sample Despatch List: Sheets 1 and 2	
	(Co) (19/5	General Requirements	
2000			WATERPROOFING FOR CONCRETE STRUCTURES	
2000	(Co) (20/1		
2000	(Co) (20/1	Waterproofing for Concrete Structures Waterproofing for Concrete Structures	

| (11/21) Table NG 0/1 List of Numbered Appendices Referred to in the Specification for Highways works (Continued)

SHW Series No.	Completed by	Appx No.	Title			
2100			BRIDGE BEARINGS			
	(Co) (21/1	Bridge Bearing Schedule			
	(Co) (22/1	Not Used		Not Used	
2300	(Co) (Co)	23/1 23/2	BRIDGE EXPANSION JOINTS AND SEALING OF GAPS Bridge Deck Expansion Joints Schedule Sealing of Gaps Schedule (Other than in Bridge Deck Expansion Joints)			
2400	(Co)	24/1	BRICKWORK, BLOCKWORK AND STONEWORK Brickwork, Blockwork and Stonework			
2500	(Co) (((Co) (25/1 25/2 25/3 25/4	SPECIAL STRUCTURES Requirements for Corrugated Steel Buried Structures Requirements for Reinforced Soil and Anchored Earth Structures Requirements for Pocket - Type and Grouted - Cavity Reinforced Brickwork Retaining Wall Structures Environmental Barriers			
2600	(25/5	Requirements for Buried Rigid Pipes for Drainage Structures			
	(26/1 26/2 26/3 26/4 to 26/7	MISCELLANEOUS Ancillary Concrete Bedding Mortar Cored Thermoplastic Node Markers Not Used			
3000	(Co) (26/8	Foamed Concrete for Structures (03/20)			
3000	(Co)(C)(P) (30/1 30/2	LANDSCAPE AND ECOLOGY General, sheets 1, 2 and 3 Weed Control			
	(Co) (30/3 30/4	Control of Rabbits and Deer Ground Preparation			
	(Co) (30/5	Grass Seeding, Wildflower Seeding and Turfing			
	(Co)(C)(P) ((Co) (30/6 30/7	Planting, sheets 1 and 2 Grass, Bulbs and Wildflower Maintenance			
	(0) (30/8	Watering			
	(Cr)	30/9	Establishment Maintenance for Planting			
	(Co) (30/10 30/11	Maintenance of Established Trees and Shrubs Management of Waterbodies			
5000	(30/12	Special Ecological Measures			
3000	(C)(P) ((C)(P) (50/1 50/2	MAINTENANCE PAINTING OF STEELWORK (Specification for Highway Works) Form HA/P1 (Maintenance) Paint System Sheet Requirements for Other Work			
	(C)(P) (50/3	(Specification for Highway Works) Form HA/P2 Paint Data Sheet			
	(C)(P) (50/4#	(Specification for Highway Works) Form HA/P3 Paint Samle Despatch List: Sheets 1 and 2			
5700	(Co) (50/5	General Requirements			
	(Co) ((57/1 57/2 57/3 57/4	CONCRETE REPAIRS (02/20) Repair Product – Requirements Requirements for Reinforcement Execution of Concrete Repairs Sprayed Concrete Concrete Line (1997)			
	(57/5 57/6	Concrete Injection Contractor Investigation of Concrete Condition			
	(57/7	Requirements for Galvanic Anodes			

Key & Guide to types of contract specific Numbered Appendices - who compiles/completes

Numbered Appendix to be compiled and/or completed by:

- (Co) Compiler compiles: Identified in the Notes for Guidance examples by the term 'Sample' included in their title
- (Co/C) Compiler partially compiles and Contractor completes and returns to Overseeing Organisation
- (Co/T) Compiler partially compiles and Tenderer completes and returns with Tender
- (C) Contractor completes and returns to Overseeing Organisation
- (P) This indicates the Appendix is a national pro forma and format must not be altered

(05/14) PREAMBLE TO THE SPECIFICATION

[Note to compiler: the Preamble to the Specification and the Schedule of Pages and Relevant Publication Dates should be reproduced unaltered, except for the inclusion of information as indicated, and bound in the Specification with the contract specific Numbered Appendices. A revised Schedule of Pages and Relevant Publication Dates will be included in each published national alteration to the Specification for Highway Works.]

- 1 The Specification referred to in the Tender shall be the 'Specification for Highway Works', published by the Stationery Office (formerly HMSO) as Volume 1 of the Manual of Contract Documents for Highway Works, as modified and extended by the following contract specific items:
 - (i) Appendix 0/1: Contract specific Additional, Substitute and Cancelled Clauses, Tables and Figures;
 - (ii) Appendix 0/2: Contract specific minor alterations to existing Clauses, Tables and Figures;
 - (iii) The contract specific Numbered Appendices listed in Appendix 0/3;
 - (iv) Appendix 0/5: Special National Alterations of the Overseeing Organisation of Scotland, Wales or Northern Ireland.

Appendix 0/4 contains a list of the Drawings.

- 2 The relevant publication date of each page of the Specification for Highway Works is given in the Schedule of Pages and Relevant Publication Dates.
- 3 An Additional Clause as indicated by a suffix 'A' in Appendix 0/5 is an alteration originating from the Overseeing Organisation of Scotland, Wales or Northern Ireland. An Additional Clause as indicated by a suffix 'AR' in Appendix 0/1 is a contract specific alteration.
- 4 A Substitute Clause, as indicated by the suffix 'S' in Appendix 0/5 is an alteration originating from the Overseeing Organisation of Scotland, Wales or Northern Ireland. A Substitute Clause as indicated by a suffix 'SR' in Appendix 0/1 is a contract specific alteration.
- 5 A Cancelled Clause as indicated by a suffix 'C' in Appendix 0/5 is an alteration originating from the Overseeing Organisation of Scotland, Wales or Northern Ireland. A Cancelled Clause indicated by a suffix 'CR' in Appendix 0/1 is a contract specific alteration.
- 6 Insofar as any of the contract specific Numbered Appendices may conflict or be inconsistent with any provision of the Specification for Highway Works the Numbered Appendices shall always prevail. Additionally, Numbered Appendices 0/1 and 0/2 shall take precedence over Numbered Appendix 0/5.
- Any reference in the Contract to a Clause number or contract specific Appendix shall be deemed to refer to the corresponding Substitute Clause number or contract specific Appendix listed in Appendix 0/1, 0/2 or 0/5.
- **8** Where a Clause is altered any original Table/Figure referred to in the Clause shall apply unless the Table/Figure is also altered. Where a Table/Figure is altered any reference in a Clause to the original Table/Figure shall apply to the altered Table/Figure.
- **9** Where a Clause in the Specification relates to work goods or materials which are not required for the Works it shall be deemed not to apply.
- 10 Any Appendix referred to in the Specification which is not used shall be deemed not to apply.
- 11 Where a Clause in the Specification is prefixed by an # this indicates that this particular Clause has a substitute National Alteration for one or more of the Overseeing Organisations of Scotland, Wales or Northern Ireland. Substitute or additional National Clauses shall be used within countries to which they specifically apply and they are deemed to replace corresponding Clauses in the main text of the Specification as appropriate. The substitute National Clauses are located at the end of the relevant Series together with the additional National Clauses of the Overseeing Organisations.

- 13 If the Specification is used in conjunction with a Contract under which the Contractor is responsible for the design of any part of the Permanent Works, the delegation of the roles and functions of the Overseeing Organisation as stated in paragraph 12 above shall be further amended as follows:

 - (ii) Where the Specification provides for the Overseeing Organisation to require a test, waive the requirement for a test or alter testing frequency, the party to whom the Overseeing Organisation's roles and functions have been ascribed by paragraph 12 above shall exercise such decisions in accordance with the Secretary of State's requirements stated in the Contract.⁴
- Insert Engineer: Project Manager: Designer etc as drawn from the Conditions of Contract.
- Delete as appropriate.
- Insert Employer's Agent: Employer's Representative: Department's Agent etc as drawn from the Conditions of Contract.
- ⁴ Construction Requirements/Employer's Requirements/Works Information.
- ⁵ Insert reference date

[Note to compiler: Alterations relating to Bills of Quantities for Highway Works are included in a corresponding amendment to Volume 4 of the Manual of Contract Documents for Highway Works.]

following

(etc.)

(05/14) NG SAMPLE CONTRACT SPECIFIC APPENDIX 0/1: CONTRACT SPECIFIC ADDITIONAL, SUBSTITUTE AND CANCELLED CLAUSES, TABLES AND FIGURES **INCLUDED IN THE CONTRACT**

(05/14) PART A: VOLUME 1 SPECIFICATION

[Note to compiler: See NG 000 regarding approval of contents of Appendix 0/1]

(05/14) List of Additional Clauses, Tables and Figures

Clause No. (etc.)	Title	Written on Page No. following			
[Note to compiler: List here contract specific Additional Clauses, Tables and Figures suffixed by the letters A and preferably commencing with the 70th Clause, etc. of the respective Series]					
05/14) List of Substitute Clauses, Tables and Figures					
Clause No.	Title	Written on Page No.			

[Note to compiler: List here contract specific Substitute Clauses, Tables and Figures suffixed by the letters SR]

(05/14) List of Cancelled Clauses, Tables and Figures

Clause No.	Title
(etc.)	
Mote to compil	lar. List have contract specific Cancelled Clauses Tables and Figures suffixed by the letters CPI

[Note to compiler: List here contract specific Cancelled Clauses, Tables and Figures suffixed by the letters CR]

(05/14) Additional Clauses, Tables and Figures

Clause No.	Title and written text
(etc.)	
Note to compil	lar: Write have the Additional Clause etc. listed abovel

[Note to compiler: Write here the Additional Clause etc. listed above]

(05/14) Substitute Clauses, Tables and Figures

Clause No.	Title and rewritten text
(etc.)	
[Note to compil	er: Rewrite here the Substitute Clause etc. listed above!

[Note to compiler: Rewrite here the Substitute Clause etc. listed above]

(05/14) PART B: VOLUME 2 NOTES FOR GUIDANCE ON THE SPECIFICATION FOR HIGHWAY WORKS

[Note to compiler: This is to be used only in circumstances where the Notes for Guidance on the Specification for Highway Works are brought into the Contract.]

(05/14) List of Additional Clauses, Tables and Figures

Clause No.	Title	Written on Page No.
(etc.)		following

[Note to compiler: List here contract specific Additional Clauses, Tables and Figures suffixed by the letters AR corresponding to the numbers used in Part A and preferably commencing with the 70th Clause, etc. of the respective Series]

(05/14) List of Substitute Clauses, Tables and Figures

Clause No.	Title	Written on Page No.
(etc.)		following
[Note to compil	er: List here contract specific Substitute Clauses, Tables and Figure	s suffixed by the letters SR]

(05/14) List of Cancelled Clauses, Tables and Figures

Clause No	Title
Clause 110.	Title
(etc.)	
<u> </u>	J

[Note to compiler: List here contract specific Cancelled Clauses, Tables and Figures suffixed by the letters CR]

(05/14) Additional Clauses, Tables and Figures

Clause No. (etc.)	Title and written text				
[Note to compiler: Write here the Additional Clause etc. listed above]					

(05/14) Substitute Clauses, Tables and Figures

Clause No.	Title and rewritten text
(etc.)	

[Note to compiler: Rewrite here the Substitute Clause etc. listed above]

(05/14) NG SAMPLE CONTRACT SPECIFIC APPENDIX 0/2: CONTRACT SPECIFIC MINOR ALTERATIONS TO EXISTING CLAUSES, TABLES AND FIGURES INCLUDED IN THE CONTRACT

(05/14) PART A: VOLUME 1 SPECIFICATION

[Note to compiler: See NG 000 regarding approval of contents of Appendix 0/2]

Clause No.	Alterations to be made
(etc.)	
[Note to compil	ler: Write here the minor alteration using 'delete and insert' or 'add at end of Clause' techniques]

(05/14) PART B: VOLUME 2 NOTES FOR GUIDANCE ON THE SPECIFICATION FOR HIGHWAY WORKS

[Note to compiler: 1. See NG 000 regarding approval of contents of Appendix 0/2.

2. This is to be used only in circumstances where the Notes for Guidance on the Specification

for Highway Works are brought into the Contract.]

١	Clause No. (etc.)					A	Iterations	to be r	nade				
ı	FNT	1	TT7 · . 1	. 1	1.	 	(11.	1.		(11 .	1 ((1)	1. 1.	

[Note to compiler: Write here the minor alteration using 'delete and insert' or 'add at end of Clause' techniques]

(05/14) NG SAMPLE CONTRACT SPECIFIC APPENDIX 0/3: LIST OF CONTRACT SPECIFIC NUMBERED APPENDICES REFERRED TO IN THE SPECIFICATION AND INCLUDED IN THE CONTRACT

[Note to compiler: Include the following explanatory statements relating to List A and List B]

(05/14) Appendix 0/3 is comprised of two lists, A and B, of contract specific Numbered Appendices as follows:

(05/14) List 'A': Contract Specific Numbered Appendices Referred to in the Specification for Highway Works and Included in the Contract

Volume No.	Completed by	Appx No.	Title
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[Note to compiler: produce here the list of contract specific Numbered Appendices included in the Contract, adding Volume No. where each is located within the documents. Include details of which Appendices are to be completed by the Tenderer and/or Contractor; ensure the 'Instructions for Tendering' correspond. Include a key to the symbols that are used.]

(05/14) List 'B' Contract Specific Numbered Appendices devised for the Contract.

[Note to compiler: Preferably commence the numbering of these contract specific Numbered Appendices at the 70th Appendix of the respective Series (eg. 1/70) to avoid conflict with future national Additional Numbered Appendices.]

Volume No.	Appendix No.	Appendix Title

(05/14) NG SAMPLE CONTRACT SPECIFIC APPENDIX 0/4: LIST OF DRAWINGS INCLUDED IN THE CONTRACT

1 (05/14) Contract Specific Drawings Supplied to Each Tenderer

Drawing No.

Title

[Note to compiler: List here all drawings especially drafted for the Contract. Also include re-numbered HCD which have contract specific amendments. See Notes to compiler on HCD below.]

т:41.

2 (05/14) Standard Drawings

2(i) (05/14) **Supplied to Each Tenderer**

Drawing No.	Title	volume No.					
[Note to compiler: List here any Standard Drawings being supplied to each tenderer unless they have been renumbered and included in 1 above or are included in 2(ii) below for inspection by tenderers. Compiler can obtain copies of Standard Drawings from the Overseeing Organisation.]							
2(ii) (05/14) Inspect	ed by Tenderers						
The following draw	ings are made available for inspection by tenderers at:						
and at the following	ng dates times pplied to the Contractor.						
Drawing No.	Title	Aspect required if not whole Drawing					

2(iii) (05/14) **Brought Into the Contract by Reference**

HCD published by The Stationery Office as Volume 3 of the Manual of Contract Documents for Highway Works contains the following drawings brought into the Contract by reference. Unless otherwise stated below the whole drawing is brought into the Contract.

Drawing No.	Title	Date	Aspect/Alternative(s) required
			if not whole Drawing
[Notes to compiler	regarding HCD:		

- The drawings in the HCD are intended to be used directly in the Contract without reproducing them in the documents and without supplying them to the Contractor. The individual drawings to be included in the Contract are to be listed in 2(iii) by stating the drawing number (with amendment reference ie. A, B etc.), date, and aspect or permitted alternative(s) where the whole drawing is not required.
- Many drawings in the HCD contain more than one detail covering the same subject. Where alternatives are shown it is essential that the particular requirements or permitted alternatives are identified. These are to be stated in 2(iii).
- The intention is that the drawings in the HCD should be used without amendment but if this becomes essential approval for such Departures from Standard from the Overseeing Organisation will be necessary. A copy of the amended HCD is then to be incorporated in the documents and listed in Appendix 0/4 with a unique drawing number and new date inserted in the date panel.]

(05/14) NG SAMPLE CONTRACT SPECIFIC APPENDIX 0/5: SPECIAL NATIONAL ALTERATIONS OF THE OVERSEEING ORGANISATION OF SCOTLAND/ WALES/NORTHERN IRELAND

[delete as appropriate]

(05/14) The following Additions, Substitutions, Cancellations and minor alterations shall be made: [Notes to compiler:

- 1 Include here any Special National Alterations of the Overseeing Organisation of Scotland, Wales or Northern Ireland using the 'A' suffix for Additional Clauses, 'S' suffix for Substitute Clauses and 'C' suffix to denote Cancelled Clauses, on the same basis as Appendix 0/1. Minor alterations should be on the same basis as Appendix 0/2.
- 2 Any Additional Clauses, etc. to be included in Appendix 0/5 should commence with the 50th number of the Series, or be numbered sequentially with the National Alteration Clauses contained in the SHW.]