

Appendix P

Summaries for Section 7 of the General Specification for Civil Engineering Works

Table P1 - Summary of Current British Standard References and Replacement Eurocodes

BS Status	Relevant Updated Code for Citation	ID No.	Page no.	Existing Content of Technical Guidance Document	General Comments to define Scope of Updating / Specific Clauses in EN (s) / UK NA(s)	Scope of Updating
Technical Clauses in Report						
4. BS 65:1991 Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings						
Confirmed, Current	BS 65:1991	GS:65-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1991; Normative; GS:65-2; The reference is current. No change required.	1
9. BS 410:1986 Specification for test sieves						
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-2	7.33	7.86: (1) Soil-cement shall consist of PC, sand and inorganic soil in the proportions 1:3:12 by mass unless otherwise stated. The mix proportion of soil-cement is 1:3:40 by mass when it is applied to the top layer (maximum 300 mm thick) or other areas as directed or agreed by the Engineer. (2) PC shall comply with BS EN 197-1. (3) Sand shall comply with BS 1200. (4) Inorganic soil shall be free of organic matter and shall contain not more than 30% of soil particles passing a 63 µm BS test sieve.	1986a; Normative; GS:410-2; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-3	7.56	7.160: (2) Sand for grout shall be clean dry sand complying with BS 1200 and shall have a particle size distribution such that 100% passes a 2 mm BS test sieve and not more than 30% passes a 0.2 mm BS test sieve.	1986a; Normative; GS:410-3; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-4	7.56	7.160: (2) Sand for grout shall be clean dry sand complying with BS 1200 and shall have a particle size distribution such that 100% passes a 2 mm BS test sieve and not more than 30% passes a 0.2 mm BS test sieve.	1986a; Normative; GS:410-4; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-5	7.67	7.200: (2) Fill material passing a 425µm BS test sieve shall be non-plastic.	1986a; Normative; GS:410-5; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-6	7.67	In Table 7.2: Percentage by mass passing BS test sieve	1986a; Normative; GS:410-6; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-7	7.79	7.247: (1) Each sample of fill material for trench drains shall be tested to determine the particle size distribution. Fill material passing a 425 µm BS test sieve shall also be tested to determine the plasticity index.	1986a; Normative; GS:410-7; The standard for the test sieve is not stated. Amend the text to make reference to BS 410-1. The reference in Section 1 requires updating to BS 410-1:2000, ISO 3310-1:2000.	4b
15. BS 534:1990 Specification for steel pipes, joints and specials for water and sewage						
Superseded, Withdrawn	BS EN 10311:2005 BS EN 10224:2002	GS:534-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1990d; Normative; GS:534-2; The reference has been superseded. The citation should be updated to BS EN 10311 and BS EN 10224. The reference in Section 1 should be amended to BS EN 10311:2005 and BS EN 10224:2002.	4b
19. BS 812-102:1989 Methods for sampling						
Superseded, Withdrawn	BS EN 932-1:1997	GS:812-2	7.78	7.242: (3) The size of each sample taken as stated in Clause 7.242(1) shall be 10 kg. The method of sampling shall be in accordance with BS 812: Part 102.	1989; Normative; GS:812-2; The reference has been superseded in UK practice be BS EN 932-1. In HK practice, however, the specification of aggregates has been set out in Construction Standard 3, published under the authority of the Standing Committee on Concrete Technology in May 2013. Consequently it is appropriate to change the reference to CS3. The reference in Section 1 will also require amendment.	4a

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BS Status	Relevant Updated Code for Citation	ID No.	Page no.	Existing Content of Technical Guidance Document	General Comments to define Scope of Updating / Specific Clauses in EN (s) / UK NA(s)	Scope of Updating
32. BS 1052:1999 Specification for mild steel wire for general engineering purposes (actual year is 1980)						
Confirmed, Current	BS 1052:1980	GS:1052-2	7.33	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102:1990 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052: (1999) . Galvanized coating on wires shall comply with BS EN 10244-2:2001. The tolerance on the opening of mesh shall comply with BS EN 10223-2:1998.	1999b; Normative; GS:1052-2; The reference is current, however the date is incorrect. The current standard, BS 1052:1980, should be placed in Section 1 and the date removed from the citation.	3a
33. BS 1200:1976 Specification for building sands from natural sources (Should be BS 1199 and 2000:1976)						
Current, Obsolescent, Superseded	BS 1199 and 1200:1976	GS:1200-2	7.33	7.84: (1) Cement mortar for in-filling joints in rock faces, for bedding rock for masonry infilling and for surfacing slopes shall consist of Portland Cement (PC) and sand in the proportions 1:3 by volume. (2) PC shall comply with BS EN 197-1. (3) Sand shall be natural sand or crushed natural stone complying with BS 1200 .	1976a; Normative; GS:1200-2; The reference is current, however the citation is incomplete. Amend the citation to read 'BS 1199 and 1200'.	3a
Current, Obsolescent, Superseded	BS 1199 and 1200:1976	GS:1200-3	7.33	7.86: (1) Soil-cement shall consist of PC, sand and inorganic soil in the proportions 1:3:12 by mass unless otherwise stated. The mix proportion of soil-cement is 1:3:40 by mass when it is applied to the top layer (maximum 300 mm thick) or other areas as directed or agreed by the Engineer. (2) PC shall comply with BS EN 197-1. (3) Sand shall comply with BS 1200 . (4) Inorganic soil shall be free of organic matter and shall contain not more than 30% of soil particles passing a 63 µm BS test sieve.	1976a; Normative; GS:1200-3; The reference is current, however the citation is incomplete. Amend the citation to read 'BS 1199 and 1200'.	3a
Current, Obsolescent, Superseded	BS 1199 and 1200:1976	GS:1200-4	7.56	7.160: (2) Sand for grout shall be clean dry sand complying with BS 1200 and shall have a particle size distribution such that 100% passes a 2 mm BS test sieve and not more than 30% passes a 0.2 mm BS test sieve.	1976a; Normative; GS:1200-4; The reference is current, however the citation is incomplete. Amend the citation to read 'BS 1199 and 1200'.	3a
44. BS 1377:1990 Methods of test for soils for civil engineering purposes						
Confirmed, Current, Partially replaced	BS EN ISO 22476-3:2005+A1:2011	GS:1377-2	7.24	7.68: (1) The apparatus and procedure for standard penetration tests shall comply with BS 1377:1990 (Part 9, Test 3.3) , amended by this Clause as necessary. The drive hammer shall be a type incorporating an automatic trip mechanism to ensure free fall. The steel anvil of the drive assembly shall have a diameter of 145 ± 5 mm. The guide rod arrangement that permits the hammer to drop with minimal resistance shall have an outer diameter of at least 3 mm smaller than the diameter of the central hole of the hammer.	1990a; Normative; GS:1377-2; The reference has been superseded. The citation should be updated to BS EN ISO 22476-3. The reference in Section 1 should be amended to BS EN ISO 22476-3:2005+A1:2011. It should be noted, however, that Geoguide 2 introduces local modifications to the published standard and these should be included in the General Specification.	4a
Confirmed, Current, Partially	BS 1377-9:1990	GS:1377-3	7.26	7.70: (1) Vane shear tests shall be carried out as specified in BS 1377:1990 (Part 9, Test No. 4.4) , amended by this Clause.	1990a; Normative; GS:1377-3; The reference is current, however the date should be removed from the citation.	3a
45. BS 1387:1990 Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads (actual year is 1985)						
Superseded, Withdrawn	BS EN 10255:2004	GS:1387-2	7.57	7.161: Unless otherwise approved by the Engineer standpipes for grouting shall be standard black metal pipe complying with BS 1387 . With the permission of the Engineer, non-metallic grout pipe may be used for grouting rock dowels, rock bolts and soil nails. Where metal standpipes are used for grouting rock dowels, rock bolts and soil nails, they shall be extracted from drillholes as grouting proceeds.	1990b; Normative; GS:1387-2; The reference has been superseded. The citation should be updated to BS EN 10255. The reference in Section 1 should be amended to BS EN 10255:2004.	4a
55. BS 1924:1990 Stabilized materials for civil engineering purposes (actual standard is in two parts)						
Superseded, Withdrawn	BS 1377-4:1990	GS:1924-2	7.53	7.142: The maximum dry density and optimum moisture content of soil-cement fill shall be as stated in Section 6 except that the method of testing shall be the Vibrating Hammer Test Method in accordance with BS 1924 .	1990c; Normative; GS:1924-2; The reference was recently withdrawn by BSI with no replacement standard yet issued. BS1924 contains two methods of testing using the Vibrating Hammer Test Method i) the definitive method using a special apparatus, and ii) a subsidiary method using a CBR mould. BS1377-4 contains only one method, based on the use of a CBR mould and is effectively the same test method as the subsidiary method in BS1924. Given that BS1924 has been withdrawn, and in the context of the GS clause the test method contained in BS1377-4:1990 is effectively the same the citation should be amended to BS 1377-4.	4b

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66. BS 2760:1973 Specification for pitch-impregnated fibre pipes and fittings for below and above ground drainage						
Withdrawn	No replacement	GS:2760-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1973; Normative; GS:2760-2; The reference standard has been withdrawn and not replaced. It is recommended that the use of this product is reviewed and the standard either replaced or removed as appropriate.	5
83. BS 3506:1969 Specification for unplasticized PVC pipe for industrial uses						
Confirmed, Current	BS 3506:1969	GS:3506-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1969b; Normative; GS:3506-2; The reference is current. No change required.	1
96. BS 4019:1993 Rotary core drilling equipment						
Current	BS 4019-3:1993, ISO 3551-1:1992 BS 4019-4:1993, ISO 3551-2:1992	GS:4019-2	7.34	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15. Bearing plates shall be of Grade 43A steel plate and comply with BS 4360:1986. Permanent casings shall comply with BS4019:1974 . Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461:1999.	1993; Normative; GS:4019-2; The reference is current, however the incorrect date (1974) is stated with the citation. For general internal consistency of the General Specification, the date should be removed from the citation. The present reference in Section 1 fails to state that the standard is actually two documents, both of which apply to this citation.	3a
102. BS 4102:1990 Specification for steel wire for general fencing purposes						
Revised, Withdrawn	BS 4102:1998	GS:4102-2	7.33	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102:1990 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052: (1999). Galvanized coating on wires shall comply with BS EN 10244-2:2001. The tolerance on the opening of mesh shall comply with BS EN 10223-2:1998.	1990e; Normative; GS:4102-2; The reference has been updated. The current standard, BS 4102:1998, should be placed in Section 1 and the date removed from the citation.	3a
105. BS 4190:2001 Specification for ISO metric black hexagon bolts, screws and nuts						
Confirmed, Current	BS 4190:2001	GS:4190-2	7.34	7.90: (3) Nuts for rock bolts shall be of grade 4 steel and comply with BS 4190:2001 . Connectors shall comply with Section 15 of this GS. Bearing plates shall be of grade 43A steel plate and comply with BS 4360. Holes in steel plates for rock bolt heads shall be drilled perpendicular to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All nuts, connectors and bearing plates shall be galvanized to BS EN ISO 1461:1999. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer. Grease shall comply with Table 1 of Geospec 1.	2001b; Normative; GS:4190-2; The reference is current, however the date should be removed from the citation.	3a
Confirmed, Current	BS 4190:2001	GS:4190-3	7.34	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190:2001 . Connectors shall comply with Section 15. Bearing plates shall be of Grade 43A steel plate and comply with BS 4360:1986. Permanent casings shall comply with BS4019:1974. Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461:1999.	2001b; Normative; GS:4190-3; The reference is current, however the date should be removed from the citation.	3a

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114. BS 4360:1986 Specification for weldable structural steels						
Superseded, Withdrawn	BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004	GS:4360-2	7.34	7.90: (3) Nuts for rock bolts shall be of grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15 of this GS. Bearing plates shall be of grade 43A steel plate and comply with BS 4360 . Holes in steel plates for rock bolt heads shall be drilled perpendicular to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All nuts, connectors and bearing plates shall be galvanized to BS EN ISO 1461:1999. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer. Grease shall comply with Table 1 of Geospec 1.	1986b; Normative; GS:4360-2; The reference has been superseded. The replacement is in several parts, dependent on the type of steel. For the purposes of this clause the user should refer to BS EN 10025 and the grade of steel should change to S275JR. The reference in Section 1 should be expanded to cover all parts of BS EN 10025:2004.	5
Superseded, Withdrawn	BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004	GS:4360-3	7.34	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15. Bearing plates shall be of Grade 43A steel plate and comply with BS 4360:1986 . Permanent casings shall comply with BS4019:1974. Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461:1999.	1986b; Normative; GS:4360-3; The reference has been superseded. The replacement is in several parts, dependent on the type of steel. For the purposes of this clause the user should refer to BS EN 10025 and the grade of steel should change to S275JR. The reference in Section 1 should be expanded to cover all parts of BS EN 10025:2004.	5
121. BS 4483:1998 Specification for steel fabric for the reinforcement of concrete						
Revised, Withdrawn	BS 4483:2005	GS:4483-2	7.33	7.88: Unless otherwise approved by the Engineer fabric reinforcement including A393 and A252 for sprayed concrete shall comply with to BS 4483 except that the 50 mm x 50 mm x 2.7 mm (wire diameter) hot-dip galvanized steel welded mesh shall have tensile strength not less than 275N/mm ² .	1998b; Normative; GS:4483-2; The citation is undated and therefore does not require amendment, however the reference requires updating to BS 4483:2005 in Section 1.	1
136. BS 4660:2000 Specification for thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage						
Confirmed, Current, Partially replaced	BS 4660:2000	GS:4660-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	2000b; Normative; GS:4660-2; The reference is current. No change required.	1
142. BS 4772:1988 Ductile piping and fittings						
Superseded, Withdrawn	BS EN 598:2007+A1:2009	GS:4772-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1988; Normative; GS:4772-2; The reference has been superseded. The citation should be updated to BS EN 598. The reference in Section 1 should be amended to BS EN 598:2007+A1:2009. (NB The GS clause which cites BS 4772:1988 is in the 'Materials' section of Part 5: Groundwater Drainage and Control. BS EN 598:2007+A1:2009 is the standard for DI pipes for sewerage. BS EN 545:2010 is the standard for DI pipes for water supply. BS EN 969:2009 is the standard for DI pipes for gas supply. Of these three standards, only BS EN 598:2007+A1:2009 is relevant to drainage.)	4a
160. BS 5252F:1976 Framework for colour co-ordination for building purpose: colour matching fan						
Confirmed, Current	BS 5252F:1976	GS:5252F-2	7.87	7.269: Details of paint products (e.g. specification and colour samples etc.) and method statement shall be submitted for the Engineer's approval prior to painting. The colour of paint shall be "Antique" to BS 5252F:2004 colour code 10B25 or other colour as directed by the Engineer.	1976b; Normative; GS:5252F-2; The reference is current, however the date is incorrect. The current standard, BS 5252F:1976, should be placed in Section 1 and the date removed from the citation.	3a

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183. BS 5911 Precast concrete pipes, fittings and ancillary products BS 5911: Part 2:1982 Specification for inspection chambers and street gullies BS 5911: Part 3:1982 Specification for pipes and fittings with ogee joints BS 5911: Part 114:1992 Specification for porous pipes 184. BS 5911-1:2002 Concrete pipes and ancillary concrete products. Specification for unreinforced and reinforced concrete pipes (including jacking pipes) and fittings with flexible joints 185. BS 5911-3:2002 Concrete pipes and ancillary concrete products. Specification for unreinforced and reinforced concrete manholes and soakaway:						
Withdrawn	BS 5911-1:2002+A2:2010 BS EN 1916:2002	GS:5911-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1992; Normative; GS:5911-2; The citation fails to identify which part of BS 5911 is relevant. It is therefore assumed that the general standard for concrete pipes, BS EN 1916:2002, and its supplementary standard, BS 5911-1:2002+A2:2010, are appropriate for pre-cast concrete pipes to be used in geotechnical drainage. BS EN 1916:2002 is not listed as a reference in the General Specification, although BS 5911-1:2002 is. BS 5911-1:2002 has been revised and the reference should be updated to BS 5911-1:2002+A2:2010.	4b
Withdrawn	BS 5911-1:2002+A2:2010 BS EN 1916:2002	GS:5911-3	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1992; Normative; GS:5911-3; The citation fails to identify which part of BS 5911 is relevant. There is no specific part of BS 5911 related to perforated pipes. It is therefore assumed that the general standard for concrete pipes, BS EN 1916:2002, and its supplementary standard, BS 5911-1:2002+A2:2010, are appropriate for concrete pipes to be used in geotechnical drainage. BS EN 1916:2002 is not listed as a reference in the General Specification, although BS 5911-1:2002 is. BS 5911-1:2002 has been revised and the reference should be updated to BS 5911-1:2002+A2:2010.	4b
186. BS 5930:1981 Code of practice for site investigations						
Revised, Withdrawn	BS EN 1997-2:2007	GS:5930-2	7.4	7.18: An Undisturbed Soil Sample is a sample complying with Class 1 or Class 2 of BS 5930.	1981a; Normative; GS:5930-2; The reference has been superseded. The citation should be updated to BS EN 1997-2. The reference in Section 1 should be amended to BS EN 1997-2:2007.	4a
Revised, Withdrawn	BS EN ISO 22282-3:2012	GS:5930-3	7.63	7.183: (4) Packer tests shall be carried out in accordance with BS 5930, Chapter 21.5 and Clause 7.183(5) to (8)	1981a; Normative; GS:5930-3; The reference has been superseded. The citation should be updated to BS EN ISO 22282-3. The reference in Section 1 should be amended to BS EN ISO 22282-3:2012.	4a
192. BS 6089:1981 Guide to assessment of concrete strength in existing structures						
Superseded, Withdrawn	BS 6089:2010 BS EN 13791:2007	GS:6089-2	7.54	7.146: The results of tests for compressive strength of concrete cores shall be interpreted in accordance with BS 6089 . Adjustments to the measured strength in respect of the age of the core when tested shall not be made unless permitted by the Engineer. The minimum compressive strength of concrete cores, converted to the estimated in-situ cube strength in accordance with BS 6089, shall be the specified grade strength at 28 days.	1981b; Normative; GS:6089-2; The reference has been superseded. The citation should be updated to BS 6089 and BS EN 13791. The reference in Section 1 should be amended to BS 6089:2010 and BS EN 13791:2007.	4b
Superseded, Withdrawn	BS 6089:2010 BS EN 13791:2007	GS:6089-3	7.54	7.146: The results of tests for compressive strength of concrete cores shall be interpreted in accordance with BS 6089. Adjustments to the measured strength in respect of the age of the core when tested shall not be made unless permitted by the Engineer. The minimum compressive strength of concrete cores, converted to the estimated in-situ cube strength in accordance with BS 6089 , shall be the specified grade strength at 28 days.	1981b; Normative; GS:6089-3; The reference has been superseded. The citation should be updated to BS 6089 and BS EN 13791. The reference in Section 1 should be amended to BS 6089:2010 and BS EN 13791:2007.	4b
3. BS EN 197-1:2000 Cement – Part 1: Composition, specifications and conformity criteria for common cements						
Revised, Withdrawn	BS EN 197-1:2011	GS:197-2	7.33	7.84: (1) Cement mortar for in-filling joints in rock faces, for bedding rock for masonry infilling and for surfacing slopes shall consist of Portland Cement (PC) and sand in the proportions 1:3 by volume. (2) PC shall comply with BS EN 197-1 . (3) Sand shall be natural sand or crushed natural stone complying with BS 1200.	2000a; Normative; GS:197-2; The citation is undated and therefore does not require amendment, however the reference requires updating to BS EN 197-1:2011 in Section 1.	1
Revised, Withdrawn	BS EN 197-1:2011	GS:197-3	7.33	7.86: (1) Soil-cement shall consist of PC, sand and inorganic soil in the proportions 1:3:12 by mass unless otherwise stated. The mix proportion of soil-cement is 1:3:40 by mass when it is applied to the top layer (maximum 300 mm thick) or other areas as directed or agreed by the Engineer. (2) PC shall comply with BS EN 197-1 . (3) Sand shall comply with BS 1200. (4) Inorganic soil shall be free of organic matter and shall contain not more than 30% of soil particles passing a 63 µm BS test sieve.	2000a; Normative; GS:197-3; The citation is undated and therefore does not require amendment, however the reference requires updating to BS EN 197-1:2011 in Section 1.	1

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BS Status	Relevant Updated Code for Citation	ID No.	Page no.	Existing Content of Technical Guidance Document	General Comments to define Scope of Updating / Specific Clauses in EN (s) / UK NA(s)	Scope of Updating
42. BS EN 10223-2:1998 Steel wire and wire products for fences						
Revised, Withdrawn	BS EN 10223-2:2012	GS:10223-2	7.33	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102:1990 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052: (1999). Galvanized coating on wires shall comply with BS EN 10244-2:2001. The tolerance on the opening of mesh shall comply with BS EN 10223-2:1998 .	1998a; Normative; GS:10223-2; The reference has been updated. The current standard, BS EN 10223-2:2012, should be placed in Section 1 and the date removed from the citation.	3a
43. BS EN 10244-2:2001 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings						
Revised, Withdrawn	BS EN 10244-2:2009	GS:10244-2	7.33	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102:1990 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052: (1999). Galvanized coating on wires shall comply with BS EN 10244-2:2001 . The tolerance on the opening of mesh shall comply with BS EN 10223-2:1998.	2001a; Normative; GS:10244-2; The reference has been updated. The current standard, BS EN 10244-2:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN 10244-2:2009	GS:10244-3	7.37	7.99: Wire mesh for erosion control shall comply with Clause 7.89(1). Unless otherwise specified in the Drawings, the wire mesh shall be fixed onto the slope surface by means of anchor bolts and/or fixing pins. The fixing pins, steel plates and washers for fixing the wire mesh to slope face shall comply with Clause 7.89. Galvanized coating on wires shall comply with BS EN 10244-2:2001 . The anchor bolts, nuts and washers for fixing the wire mesh to soil nail heads shall be stainless steel complying with Section 5. Details of the anchor bolts and fixing pins shall be submitted to the Engineer for approval. Anchor bolts and accessories shall have the following properties:	2001a; Normative; GS:10244-3; The reference has been updated. The current standard, BS EN 10244-2:2009, should be placed in Section 1 and the date removed from the citation.	3a
2. BS EN ISO 1461:1999 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods						
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-2	7.33	7.89: (5) Hooks, fixing pins, steel plates and washers for fixing the protective mesh to slope face shall be as shown on the Drawings and shall be galvanized to BS EN ISO 1461:1999 .	1999a; Normative; GS:1461-2; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-3	7.34	7.89: (6) Galvanizing shall comply with BS EN ISO 1461:1999 .	1999a; Normative; GS:1461-3; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-4	7.34	7.90: (1) Rock bolts shall be a proprietary type approved by the Engineer. Rock bolts shall comply with CS 2 and shall be mild steel or high yield deformed steel as stated in the Contract. Rock bolts shall be galvanized to BS EN ISO 1461:1999 . Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer.	1999a; Normative; GS:1461-4; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-5	7.34	7.90: (3) Nuts for rock bolts shall be of grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15 of this GS. Bearing plates shall be of grade 43A steel plate and comply with BS 4360. Holes in steel plates for rock bolt heads shall be drilled perpendicular to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All nuts, connectors and bearing plates shall be galvanized to BS EN ISO 1461:1999 . Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer. Grease shall comply with Table 1 of Geospec 1.	1999a; Normative; GS:1461-5; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-6	7.34	7.92: Rock dowels shall comply with CS 2 and shall be galvanized to BS EN ISO 1461:1999 . Rock dowels shall have non-corrodible centralizers capable of ensuring an even annulus of grout around the steel bar as approved by the Engineer.	1999a; Normative; GS:1461-6; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-7	7.34	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15. Bearing plates shall be of Grade 43A steel plate and comply with BS 4360:1986. Permanent casings shall comply with BS4019:1974. Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461:1999 .	1999a; Normative; GS:1461-7; The reference has been updated. The current standard, BS EN ISO 1461:2009, should be placed in Section 1 and the date removed from the citation.	3a

Table P1 - Summary of Current British Standard References and Replacement Eurocodes

BS Status	Relevant Updated Code for Citation	ID No.	Page no.	Existing Content of Technical Guidance Document	General Comments to define Scope of Updating / Specific Clauses in EN (s) / UK NA(s)	Scope of Updating
BS 1194 [Not listed][BS 1194:1969,Specification for concrete porous pipes for under-drainage]						
Withdrawn	N/A	GS:1194-2	7.66	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	1969a; Normative; GS:1194-2; The cited reference has been withdrawn, as has its replacement BS 5911:Part 114:1992. The cited reference is not listed in the reference section of the General Specification, although the replacement is. In UK practice porous concrete pipes are no longer used or supported, having been replaced by plastic pipes. However, in the event that porous concrete pipes are required the historical reference to BS 1194 is retained.	1
Reference Section of Report						
Confirmed, Current	BS 65:1991	GS:65-1	1.28	4. BS 65:1991 (2003) Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings	1991; Reference; GS:65-1; The reference has one normative citation. The reference is current however the incorrect year is shown in the General Specification. The entry should be corrected to BS 65:1991.	3a
Revised, Withdrawn	BS 410-1:2000, ISO 3310-1:2000	GS:410-1	1.28	9. BS 410:1986 Specification for test sieves	1986a; Reference; GS:410-1; The reference has six normative citations. The reference has been revised, and should be updated to BS 410-1:2000, ISO 3310-1:2000.	3b
Superseded, Withdrawn	BS EN 10311:2005 BS EN 10224:2002	GS:534-1	1.28	15. BS 534:1990 Specification for steel pipes, joints and specials for water and sewage	1990d; Reference; GS:534-1; The reference has one normative citation. The reference has been superseded, and should be replaced by BS EN 10311:2005 and BS EN 10224:2002.	4b
Superseded, Withdrawn	BS EN 932-1:1997	GS:812-1	1.29	19. BS 812-102:1989 Methods for sampling	1989; Reference; GS:812-1; The reference has one normative citation. The reference has been superseded, and should be replaced by Construction Standard 3.	4b
Confirmed, Current	BS 1052:1980	GS:1052-1	1.31	32. BS 1052:1999 Specification for mild steel wire for general engineering purposes (actual year is 1980)	1999b; Reference; GS:1052-1; The reference has one normative citation. The reference is current however the incorrect year is shown in the General Specification. The entry should be corrected to BS 1052:1980.	3a
Current, Obsolescent, Superseded	BS 1199 and 1200:1976	GS:1200-1	1.31	33. BS 1200:1976 Specification for building sands from natural sources (Should be BS 1199 and 1200:1976)	1976a; Reference; GS:1200-1; The reference has three normative citations. The reference is current and no update is required. The citations to this reference should be corrected.	3a
Confirmed, Current, Partially replaced	BS 1377-9:1990 BS EN ISO 22476-3:2005+A1:2011	GS:1377-1	1.32	44. BS 1377:1990 Methods of test for soils for civil engineering purposes	1990a; Reference; GS:1377-1; The reference has two normative citations. The reference is current, partially replaced, and should be updated to BS 1377-9:1990 and BS EN ISO 22476-3:2005+A1:2011. (NB There is a note with the reference which calls-up a non-existent clause and refers to BS 1377:1975. This note should either be clarified or deleted.)	4b
Superseded, Withdrawn	BS EN 10255:2004	GS:1387-1	1.32	45. BS 1387:1990 Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads (actual year is 1985)	1990b; Reference; GS:1387-1; The reference has one normative citation. The reference has been superseded, and should be replaced by BS EN 10255:2004.	4b
Superseded, Withdrawn	BS 1377-4:1990	GS:1924-1	1.32	55. BS 1924:1990 Stabilized materials for civil engineering purposes (actual standard is in two parts)	1990c; Reference; GS:1924-1; The reference has one normative citation. The reference was recently withdrawn by BSI with no replacement standard yet issued. However, in the context of the citation the relevant test method is contained in BS1377-4:1990.	4b
Withdrawn	No replacement	GS:2760-1	1.33	66. BS 2760:1973 Specification for pitch-impregnated fibre pipes and fittings for below and above ground drainage	1973; Reference; GS:2760-1; The reference has one normative citation. The reference is withdrawn, and there is no replacement.	5
Confirmed, Current	BS 3506:1969	GS:3506-1	1.35	83. BS 3506:1969 Specification for unplasticized PVC pipe for industrial uses	1969b; Reference; GS:3506-1; The reference has one normative citation. The reference is current and no update is required.	1
Current	BS 4019-3:1993, ISO 3551-1:1992 BS 4019-4:1993, ISO 3551-2:1992	GS:4019-1	1.36	96. BS 4019:1993 Rotary core drilling equipment	1993; Reference; GS:4019-1; The reference has one normative citation. The reference is current but not given in full. It should be presented as BS 4019-3:1993, ISO 3551-1:1992 and BS 4019-4:1993, ISO 3551-2:1992.	3b
Revised, Withdrawn	BS 4102:1998	GS:4102-1	1.36	102. BS 4102:1990 Specification for steel wire for general fencing purposes	1990e; Reference; GS:4102-1; The reference has one normative citation. The reference has been revised, and should be updated to BS 4102:1998.	3a
Confirmed, Current	BS 4190:2001	GS:4190-1	1.36	105. BS 4190:2001 Specification for ISO metric black hexagon bolts, screws and nuts	2001b; Reference; GS:4190-1; The reference has two normative citations. The reference is current, and no update is required.	1

Table P1 - Summary of Current British Standard References and Replacement Eurocodes

BS Status	Relevant Updated Code for Citation	ID No.	Page no.	Existing Content of Technical Guidance Document	General Comments to define Scope of Updating / Specific Clauses in EN (s) / UK NA(s)	Scope of Updating
Superseded, Withdrawn	BS 7668:2004 BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004 BS EN 10029:2010 BS EN 10210-1:2006 BS EN ISO 18286:2010	GS:4360-1	1.37	114. BS 4360:1986 Specification for weldable structural steels	1986b; Reference; GS:4360-1; The reference has two normative citations. The reference has been superseded, and should be updated to BS EN 10025:2004.	4b
Revised, Withdrawn	BS 4483:2005	GS:4483-1	1.37	121. BS 4483:1998 Specification for steel fabric for the reinforcement of concrete	1998b; Reference; GS:4483-1; The reference has one normative citation. The reference has been revised, and should be updated to BS 4483:2005.	3a
Confirmed, Current, Partially	BS 4660:2000	GS:4660-1	1.38	136. BS 4660:2000 Specification for thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage	2000b; Reference; GS:4660-1; The reference has one normative citation. The reference is current and no update is required.	1
Superseded, Withdrawn	BS EN 598:2007+A1:2009 BS EN 545:2010 BS EN 969:2009	GS:4772-1	1.39	142. BS 4772:1988 Ductile piping and fittings	1988; Reference; GS:4772-1; The reference has one normative citation. The reference has been superseded, and should be updated to BS EN 598:2007+A1:2009.	4b
Confirmed, Current	BS 5252F:1976	GS:5252F-1	1.40	160. BS 5252F:1976 (2004) Framework for colour co-ordination for building purpose: colour matching fan	1976b; Reference; GS:5252F-1; The reference has one normative citation. The reference is current but is ambiguously presented as BS 5252F:1976(2004). The entry should be revised to BS 5252F:1976.	3a
Withdrawn	BS 5911-1:2002+A2:2010 BS EN 1916:2002	GS:5911-1	1.41	183. BS 5911-114:1992 Precast concrete pipes, fittings and ancillary products or, 184. BS 5911-1:2002 Concrete pipes and ancillary concrete products. Specification for unreinforced and reinforced concrete pipes (including jacking pipes) and fittings with flexible joints	1992; Reference; GS:5911-1; The reference has two normative citations. The reference is withdrawn but its entry is ambiguous. For the occurrences in Section 7, the citations should be referenced to BS 5911-1:2002+A2:2010 and BS EN 1916:2002.	4b
Revised, Withdrawn	BS EN 1997-2:2007 BS EN ISO 22282-3:2012	GS:5930-1	1.41	186. BS 5930:1981 Code of practice for site investigations	1981a; Reference; GS:5930-1; The reference has two normative citations. The reference has been superseded in relation to the citations in Section 7 and should be replaced by BS EN 1997-2:2007 and BS EN ISO 22282-3:2012.	4b
Superseded, Withdrawn	BS 6089:2010 BS EN 13791:2007	GS:6089-1	1.42	192. BS 6089:1981 Guide to assessment of concrete strength in existing structures	1981b; Reference; GS:6089-1; The reference has two normative citations. The reference has been superseded, and should be updated to BS 6089:2010 and BS EN 13791:2007.	4b
Revised, Withdrawn	BS EN 197-1:2011	GS:197-1	1.48	3. BS EN 197-1:2000 Cement – Part 1: Composition, specifications and conformity criteria for common cements	2000a; Reference; GS:197-1; The reference has two normative citations. The reference has been revised, and should be updated to BS EN 197-1:2011.	3a
Revised, Withdrawn	BS EN 10223-2:2012	GS:10223-1	1.52	42. BS EN 10223-2:1998 Steel wire and wire products for fences	1998a; Reference; GS:10223-1; The reference has one normative citation. The reference has been revised, and should be updated to BS EN 10223-2:2012.	3b
Revised, Withdrawn	BS EN 10244-2:2009	GS:10244-1	1.52	43. BS EN 10244-2:2001 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings	2001a; Reference; GS:10244-1; The reference has two normative citations. The reference has been revised, and should be updated to BS EN 10244-2:2009.	3a
Revised, Withdrawn	BS EN ISO 1461:2009	GS:1461-1	1.53	2. BS EN ISO 1461:1999 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods	1999a; Reference; GS:1461-1; The reference has six normative citations. The reference has been revised, and should be updated to BS EN ISO 1461:2009.	3a
Withdrawn	N/A	GS:1194-1	Not listed	. BS 1194 [Not listed][BS 1194:1969,Specification for concrete porous pipes for under-drainage]	1969a; Reference; GS:1194-1; The related citation has no reference. The cited standard has been withdrawn with no replacement, however an interim standard (BS 5911:Part 114:1992) was listed in the references. This interim reference has itself been replaced, however, the citation to BS1194 is retained as an historical reference.	1

Table P2 - Extracts of Relevant Sections or Clauses of the British Standards and Eurocodes / National Annexes

Relevant Updated Code for Citation	ID No.	Page no.	Scope of Updating	Extracts of Relevant Sections or Clauses of the superseded British Standard(s)	Extracts of Relevant Sections or Clauses of the replacement British/European Standards
Technical Clauses in Report					
4. BS 65:1991 Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings					
BS 65:1991	GS:65-2	7.66	1	Whole document.	No change
9. BS 410:1986 Specification for test sieves					
BS 410-1:2000, ISO 3310-1:2000	GS:410-2	7.33	4b	Standard not cited as a reference.	Whole document.
BS 410-1:2000, ISO 3310-1:2000	GS:410-3	7.56	4b	Standard not cited as a reference.	Whole document.
BS 410-1:2000, ISO 3310-1:2000	GS:410-4	7.56	4b	Standard not cited as a reference.	Whole document.
BS 410-1:2000, ISO 3310-1:2000	GS:410-5	7.67	4b	Standard not cited as a reference.	Whole document.
BS 410-1:2000, ISO 3310-1:2000	GS:410-6	7.67	4b	Standard not cited as a reference.	Whole document.
BS 410-1:2000, ISO 3310-1:2000	GS:410-7	7.79	4b	Standard not cited as a reference.	Whole document.
15. BS 534:1990 Specification for steel pipes, joints and specials for water and sewage					
BS EN 10311:2005 BS EN 10224:2002	GS:534-2	7.66	4b	Whole document.	Whole document.
19. BS 812-102:1989 Methods for sampling					
BS EN 932-1:1997	GS:812-2	7.78	4a	Whole document.	Section 8 - Methods of Sampling
32. BS 1052:1999 Specification for mild steel wire for general engineering purposes (actual year is 1980)					
BS 1052:1980	GS:1052-2	7.33	3a	Whole document.	No change
33. BS 1200:1976 Specification for building sands from natural sources (Should be BS 1199 and 2000:1976)					
BS 1199 and 1200:1976	GS:1200-2	7.33	3a	Whole document.	No change
BS 1199 and 1200:1976	GS:1200-3	7.33	3a	Whole document.	No change
BS 1199 and 1200:1976	GS:1200-4	7.56	3a	Whole document.	No change
44. BS 1377:1990 Methods of test for soils for civil engineering purposes					
BS EN ISO 22476-	GS:1377-2	7.24	4a	BS 1377-9:1990 cl 3.3	Whole document.
BS 1377-9:1990	GS:1377-3	7.26	3a	BS 1377-9:1990 cl 4.4	No change
45. BS 1387:1990 Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads (actual year is 1985)					
BS EN 10255:2004	GS:1387-2	7.57	4a	Whole document.	Whole document.
55. BS 1924:1990 Stabilized materials for civil engineering purposes (actual standard is in two parts)					
BS 1377-4:1990	GS:1924-2	7.53	4b	BS 1924-2:1990 cl 2.1.5	Section 3.7. Method using Vibrating Hammer
66. BS 2760:1973 Specification for pitch-impregnated fibre pipes and fittings for below and above ground drainage					
No replacement	GS:2760-2	7.66	5	Whole document.	N/A
83. BS 3506:1969 Specification for unplasticized PVC pipe for industrial uses					
BS 3506:1969	GS:3506-2	7.66	1	Whole document.	No change
96. BS 4019:1993 Rotary core drilling equipment					
BS 4019-3:1993, ISO 3551-1:1992	GS:4019-2	7.34	3a	Whole document.	No change
102. BS 4102:1990 Specification for steel wire for general fencing purposes					
BS 4102:1998	GS:4102-2	7.33	3a	Whole document.	No change
105. BS 4190:2001 Specification for ISO metric black hexagon bolts, screws and nuts					
BS 4190:2001	GS:4190-2	7.34	3a	Whole document.	No change
BS 4190:2001	GS:4190-3	7.34	3a	Whole document.	No change

Table P2 - Extracts of Relevant Sections or Clauses of the British Standards and Eurocodes / National Annexes

Relevant Updated Code for Citation	ID No.	Page no.	Scope of Updating	Extracts of Relevant Sections or Clauses of the superseded British Standard(s)	Extracts of Relevant Sections or Clauses of the replacement British/European Standards
114. BS 4360:1986 Specification for weldable structural steels					
BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004	GS:4360-2	7.34	5	Whole document.	Whole document.
BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004	GS:4360-3	7.34	5	Whole document.	Whole document.
121. BS 4483:1998 Specification for steel fabric for the reinforcement of concrete					
BS 4483:2005	GS:4483-2	7.33	1	Whole document.	Whole document.
136. BS 4660:2000 Specification for thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage					
BS 4660:2000	GS:4660-2	7.66	1	Whole document.	No change
142. BS 4772:1988 Ductile piping and fittings					
BS EN 598:2007+A1:2009	GS:4772-2	7.66	4a	Whole document.	Whole document.
160. BS 5252F:1976 Framework for colour co-ordination for building purpose: colour matching fan					
BS 5252F:1976	GS:5252F-2	7.87	3a	Whole document.	No change
183. BS 5911 Precast concrete pipes, fittings and ancillary products					
BS 5911: Part 2:1982 Specification for inspection chambers and street gullies					
BS 5911-1:2002+A2:2010 BS EN 1916:2002	GS:5911-2	7.66	4b	Whole document.	Whole document.
BS 5911-1:2002+A2:2010 BS EN 1916:2002	GS:5911-3	7.66	4b	Whole document.	Whole document.
186. BS 5930:1981 Code of practice for site investigations					
BS EN 1997-2:2007	GS:5930-2	7.4	4a	BS 5930:1981 cl 19.2	BS EN 1997-2:2007 cl 3.4.1
BS EN ISO 22282-3:2012	GS:5930-3	7.63	4a	BS 5930:1981 cl 21.5	Whole document.
192. BS 6089:1981 Guide to assessment of concrete strength in existing structures					
BS 6089:2010 BS EN 13791:2007	GS:6089-2	7.54	4b	Whole document.	Whole document.
BS 6089:2010 BS EN 13791:2007	GS:6089-3	7.54	4b	Whole document.	Whole document.
3. BS EN 197-1:2000 Cement – Part 1: Composition, specifications and conformity criteria for common cements					
BS EN 197-1:2011	GS:197-2	7.33	1	Whole document.	Whole document.
BS EN 197-1:2011	GS:197-3	7.33	1	Whole document.	Whole document.
42. BS EN 10223-2:1998 Steel wire and wire products for fences					
BS EN 10223-2:2012	GS:10223-2	7.33	3a	Whole document.	Whole document.
43. BS EN 10244-2:2001 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings					
BS EN 10244-2:2009	GS:10244-2	7.33	3a	Whole document.	Whole document.
BS EN 10244-2:2009	GS:10244-3	7.37	3a	Whole document.	Whole document.
2. BS EN ISO 1461:1999 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods					
BS EN ISO 1461:2009	GS:1461-2	7.33	3a	Whole document.	Whole document.
BS EN ISO 1461:2009	GS:1461-3	7.34	3a	Whole document.	Whole document.
BS EN ISO 1461:2009	GS:1461-4	7.34	3a	Whole document.	Whole document.
BS EN ISO 1461:2009	GS:1461-5	7.34	3a	Whole document.	Whole document.
BS EN ISO 1461:2009	GS:1461-6	7.34	3a	Whole document.	Whole document.
BS EN ISO 1461:2009	GS:1461-7	7.34	3a	Whole document.	Whole document.

Table P2 - Extracts of Relevant Sections or Clauses of the British Standards and Eurocodes / National Annexes

Relevant Updated Code for Citation	ID No.	Page no.	Scope of Updating	Extracts of Relevant Sections or Clauses of the superseded British Standard(s)	Extracts of Relevant Sections or Clauses of the replacement British/European Standards
BS 1194 [Not listed][BS 1194:1969,Specification for concrete porous pipes for under-drainage]					
N/A	GS:1194-2	7.66	1	Whole document - historical reference.	No equivalent.

Table P3 - Description of Standards, Differences and Recommended Amendments

ID No.	Page no.	Scope of Updating	Description of Design, Specification and/or Testing Required		Effects of differences in Adopting Up-to-date Standard(s)	Recommended Amendments
			Quoted Standard(s)	Up-to-date Standard(s)		
Technical Clauses in Report						
4. BS 65:1991 Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings						
GS:65-2	7.66	1	Material specification.	N/A	No change.	No change.
9. BS 410:1986 Specification for test sieves						
GS:410-2	7.33	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
GS:410-3	7.56	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
GS:410-4	7.56	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
GS:410-5	7.67	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
GS:410-6	7.67	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
GS:410-7	7.79	4b	Material specification.	Material specification.	No change.	Citation of standard to be added to text and reference to be updated to give full title.
15. BS 534:1990 Specification for steel pipes, joints and specials for water and sewage						
GS:534-2	7.66	4b	Material specification.	Material specification.	No change.	Reference to be updated. Citation unchanged.
19. BS 812-102:1989 Methods for sampling						
GS:812-2	7.78	4a	Method of sampling.	Method of sampling.	No change.	Change citation and reference.
32. BS 1052:1999 Specification for mild steel wire for general engineering purposes (actual year is 1980)						
GS:1052-2	7.33	3a	M aterial specification.	Material specification.	No change.	Date to be removed from citation.
33. BS 1200:1976 Specification for building sands from natural sources (Should be BS 1199 and 2000:1976)						
GS:1200-2	7.33	3a	Material specification.	Material specification.	No change.	Amend citation to 'BS 1199 and 1200'.
GS:1200-3	7.33	3a	Material specification.	Material specification.	No change.	Amend citation to 'BS 1199 and 1200'.
GS:1200-4	7.56	3a	Material specification.	Material specification.	No change.	Amend citation to 'BS 1199 and 1200'.
44. BS 1377:1990 Methods of test for soils for civil engineering purposes						
GS:1377-2	7.24	4a	Test method.	Test method.	No change.	Change citation and reference. Include reference to Geoguide 2.
GS:1377-3	7.26	3a	Test method.	Test method.	No change.	Date to be removed from citation.
45. BS 1387:1990 Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads (actual year is 1985						
GS:1387-2	7.57	4a	Material specification.	Material specification.	No change.	Change citation and reference.
55. BS 1924:1990 Stabilized materials for civil engineering purposes (actual standard is in two parts)						
GS:1924-2	7.53	4b	Test method.	Test method - comprising two potential methods; <i>Definitive</i> using a special apparatus, and <i>subsidiary</i> using a CBR mould.	No change to the requirements of the GS, except that BS 1377-4 only contains one test method usinga CBR mould (equivalent to the subsidiary method in BS 1924).	Change citation and reference.
66. BS 2760:1973 Specification for pitch-impregnated fibre pipes and fittings for below and above ground drainage						
GS:2760-2	7.66	5	M aterial specification.	No direct replacement.	Specified item may have to be discontinued.	Delete the citation and reference. Product no longer to be used.
83. BS 3506:1969 Specification for unplasticized PVC pipe for industrial uses						
GS:3506-2	7.66	1	Material specification.	N/A	No change.	No change.
96. BS 4019:1993 Rotary core drilling equipment						
GS:4019-2	7.34	3a	Equipment standard.	N/A	No change.	Update reference to give full designation.

Table P3 - Description of Standards, Differences and Recommended Amendments

ID No.	Page no.	Scope of Updating	Description of Design, Specification and/or Testing Required		Effects of differences in Adopting Up-to-date Standard(s)	Recommended Amendments
			Quoted Standard(s)	Up-to-date Standard(s)		
102. BS 4102:1990 Specification for steel wire for general fencing purposes						
GS:4102-2	7.33	3a	Material specification.	Material specification.	No change.	Change citation and reference.
105. BS 4190:2001 Specification for ISO metric black hexagon bolts, screws and nuts						
GS:4190-2	7.34	3a	Material specification.	Material specification.	No change.	Date to be removed from citation.
GS:4190-3	7.34	3a	Material specification.	Material specification.	No change.	Date to be removed from citation.
114. BS 4360:1986 Specification for weldable structural steels						
GS:4360-2	7.34	5	Material specification.	Material specification.	No change.	Material designation to be changed to S275JR. Change citation and reference.
GS:4360-3	7.34	5	Material specification.	Material specification.	No change.	Material designation to be changed to S275JR. Change citation and reference.
121. BS 4483:1998 Specification for steel fabric for the reinforcement of concrete						
GS:4483-2	7.33	1	Material specification.	Material specification.	No change.	No change.
136. BS 4660:2000 Specification for thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage						
GS:4660-2	7.66	1	Material specification.	Material specification.	No change.	No change.
142. BS 4772:1988 Ductile piping and fittings						
GS:4772-2	7.66	4a	Material specification.	Material specification.	No change.	Change citation and reference.
160. BS 5252F:1976 Framework for colour co-ordination for building purpose: colour matching fan						
GS:5252F-2	7.87	3a	Colour standard.	Colour standard.	No change.	Date to be removed from citation.
183. BS 5911 Precast concrete pipes, fittings and ancillary products						
BS 5911: Part 2:1982 Specification for inspection chambers and street gullies						
GS:5911-2	7.66	4b	Material specification.	Material specification.	No change.	Change citation and reference.
GS:5911-3	7.66	4b	Material specification.	Material specification.	No change.	Change citation and reference.
186. BS 5930:1981 Code of practice for site investigations						
GS:5930-2	7.4	4a	Test method.	Test method.	No change.	Change citation and reference.
GS:5930-3	7.63	4a	Test method.	Test method.	No change.	Change citation and reference.
192. BS 6089:1981 Guide to assessment of concrete strength in existing structures						
GS:6089-2	7.54	4b	Test method.	Test method.	No change.	Change citation and reference.
GS:6089-3	7.54	4b	Test method.	Test method.	No change.	Change citation and reference.
3. BS EN 197-1:2000 Cement – Part 1: Composition, specifications and conformity criteria for common cements						
GS:197-2	7.33	1	Material specification.	Material specification.	No change.	No change.
GS:197-3	7.33	1	Material specification.	Material specification.	No change.	No change.
42. BS EN 10223-2:1998 Steel wire and wire products for fences						
GS:10223-2	7.33	3a	Material specification.	Material specification.	No change.	Change citation and reference.
43. BS EN 10244-2:2001 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings						
GS:10244-2	7.33	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:10244-3	7.37	3a	Material specification.	Material specification.	No change.	Change citation and reference.
2. BS EN ISO 1461:1999 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods						
GS:1461-2	7.33	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:1461-3	7.34	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:1461-4	7.34	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:1461-5	7.34	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:1461-6	7.34	3a	Material specification.	Material specification.	No change.	Change citation and reference.
GS:1461-7	7.34	3a	Material specification.	Material specification.	No change.	Change citation and reference.

Table P3 - Description of Standards, Differences and Recommended Amendments

ID No.	Page no.	Scope of Updating	Description of Design, Specification and/or Testing Required		Effects of differences in Adopting Up-to-date Standard(s)	Recommended Amendments
			Quoted Standard(s)	Up-to-date Standard(s)		
BS 1194 [Not listed][BS 1194:1969,Specification for concrete porous pipes for under-drainage]						
GS:1194-2	7.66	1	Material specification.	N/A	N/A	This historical reference is retained in the event that porous concrete pipes are used.
Reference Section of Report						
GS:65-1	1.28	3a	This reference document is: Confirmed, Current.	The current document(s) is (are): BS 65:1991		Remove erroneous date.
GS:410-1	1.28	3b	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS 410-1:2000, ISO 3310-1:2000		Update reference.
GS:534-1	1.28	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS EN 10311:2005		Replace reference.
GS:812-1	1.29	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS EN 932-1:1997		Reference to BS should be replaced by reference to Construction Standard 3.
GS:1052-1	1.31	3a	This reference document is: Confirmed, Current.	The current document(s) is (are): BS 1052:1980		Remove erroneous date.
GS:1200-1	1.31	3a	This reference document is: Current, Obsolescent, Superseded.	The current document(s) is (are): BS 1199 and 1200:1976		No change.
GS:1377-1	1.32	4b	This reference document is: Confirmed, Current, Partially replaced .	The current document(s) is (are): BS 1377-9:1990 BS EN ISO 22476-3:2005+A1:2011		Amend reference to BS 1377-9:1990 for first citation and BS EN ISO 22476-3:2005+A1:2011 for the second citation.
GS:1387-1	1.32	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS EN 10255:2004		Replace reference.
GS:1924-1	1.32	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS 1377-4:1990		Amend reference to BS 1377-4:1990.
GS:2760-1	1.33	5	This reference document is: Withdrawn.	The current document(s) is (are): No replacement		Delete the reference.
GS:3506-1	1.35	1	This reference document is: Confirmed, Current.	The current document(s) is (are): BS 3506:1969		No change.
GS:4019-1	1.36	3b	This reference document is: Current.	The current document(s) is (are): BS 4019-3:1993, ISO 3551-1:1992 BS 4019-4:1993, ISO 3551-2:1992		Amend reference to give full current title.
GS:4102-1	1.36	3a	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS 4102:1998		Update reference.
GS:4190-1	1.36	1	This reference document is: Confirmed, Current.	The current document(s) is (are): BS 4190:2001		No change.
GS:4360-1	1.37	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS 7668:2004 BS EN 10025-1:2004 BS EN 10025-2:2004 BS EN 10025-3:2004 BS EN 10025-4:2004 BS EN 10029:2010 BS EN 10210-1:2006 BS EN ISO 18286:2010		For the purposes of Section 7, the replacement references are limited to BS EN 10025-1:2004, BS EN 10025-2:2004, BS EN 10025-3:2004 and BS EN 10025-4:2004.
GS:4483-1	1.37	3a	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS 4483:2005		Update reference.
GS:4660-1	1.38	1	This reference document is: Confirmed, Current, Partially replaced .	The current document(s) is (are): BS 4660:2000		No change.
GS:4772-1	1.39	4b	This reference document is: Superseded, Withdrawn.	The current document(s) is (are): BS EN 598:2007+A1:2009 BS EN 545:2010 BS EN 969:2009		For the purposes of Section 7, the replacement reference is limited to BS EN 598:2007+A1:2009.
GS:5252F-1	1.4	3a	This reference document is: Confirmed, Current.	The current document(s) is (are): BS 5252F:1976		Remove erroneous date.

Table P3 - Description of Standards, Differences and Recommended Amendments

ID No.	Page no.	Scope of Updating	Description of Design, Specification and/or Testing Required		Effects of differences in Adopting Up-to-date Standard(s)	Recommended Amendments
			Quoted Standard(s)	Up-to-date Standard(s)		
GS:5911-1	1.41	4b	This reference document is: Withdrawn.	The current document(s) is (are): BS 5911-1:2002+A2:2010 BS EN 1916:2002		Delete the reference to BS 5911-114:1992. Update the reference to BS 5911-1. Add a reference to BS EN 1916:2002.
GS:5930-1	1.41	4b	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS EN 1997-2:2007 BS EN ISO 22282-3:2012		For the purposes of Section 7, replace the reference with references to BS EN 1997-2:2007 for the first citation and BS EN ISO 22282-3:2012 for the second citation.
GS:6089-1	1.42	4b	This reference document is: Superseded, Withdrawn .	The current document(s) is (are): BS 6089:2010 BS EN 13791:2007		Replace reference.
GS:197-1	1.48	3a	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS EN 197-		Update reference.
GS:10223-1	1.52	3b	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS EN 10223-		Update reference.
GS:10244-1	1.52	3a	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS EN 10244-		Update reference.
GS:1461-1	1.53	3a	This reference document is: Revised, Withdrawn.	The current document(s) is (are): BS EN ISO 1461:2009		Update reference.
GS:1194-1	Not listed	1	This reference document is: Withdrawn.	The current document(s) is (are): N/A		Replace reference to BS 5911-114:1992, which itself replaced BS1194 with reference to BS EN 1916:2002 and BS 5911-1:2002+A2:2010.

General Specification for Civil Engineering Works 2006, Volume 1, Section 7

Table P4 - Recommended Revisions to Existing Clauses referring to British Standards

Page no.	BS Referenced in Technical Guidance Document	Scope of Updating ⁽¹⁾	ID No.	Existing Content of Technical Guidance Document	Recommended Content for Updated Technical Guidance Document
1.28	BS 65:1991	3a	GS:65-1	4. BS 65:1991 (2003) Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings	4. BS 65:1991 Specification for vitrified clay pipes, fittings, also flexible mechanical joints for use solely with surface water pipes and fittings
1.28	BS 410:1986	3b	GS:410-1	9. BS 410:1986 Specification for test sieves	9 BS 410-1:2000, ISO 3310-1:2000, Test sieves. Technical requirements and testing. Test sieves of metal wire cloth
1.28	BS 534:1990	4b	GS:534-1	15. BS 534:1990 Specification for steel pipes, joints and specials for water and sewage	BS EN 10311:2005, Joints for the connection of steel tubes and fittings for the conveyance of water and other aqueous liquids BS EN 10224:2002, Non-alloy steel tubes and fittings for the conveyance of water and other aqueous liquids. Technical delivery conditions
1.29	BS 812-102:1989	4b	GS:812-1	19. BS 812-102:1989 Methods for sampling	Construction Standard 3:2013, Aggregates for Concrete
1.31	BS 1052:1999	3a	GS:1052-1	32. BS 1052:1999 Specification for mild steel wire for general engineering purposes	32. BS 1052:1980, Specification for mild steel wire for general engineering purposes
1.31	BS 1200:1976	3a	GS:1200-1	33. BS 1200:1976 Specification for building sands from natural sources	33. BS 1199 and 1200 :1976 Specification for building sands from natural sources
1.32	BS 1377:1990	4b	GS:1377-1	44. BS 1377:1990 Methods of test for soils for civil engineering purposes	44. BS 1377-9:1990, Methods for test for soils for civil engineering purposes. In-situ tests
	Additional reference required.				BS EN ISO 22476-3:2005+A1:2011, Geotechnical investigation and testing. Field testing. Standard penetration test
1.32	BS 1387:1990	4b	GS:1387-1	45. BS 1387:1990 ¹ Specification for screwed and socketed steel tubes and tubulars and for plain end steel tubes suitable for welding or for screwing to BS 21 pipe threads	BS EN 10255:2004, Non-alloy steel tubes suitable for welding and threading. Technical delivery conditions
1.32	BS 1924:1990	4b	GS:1924-1	55. BS 1924:1990 Stabilized materials for civil engineering purposes	BS 1377-4:1990, Methods of test for Soils for civil engineering purposes - Part 4: Compaction-related tests [Delete reference]
1.33	BS 2760:1973	5	GS:2760-1	66. BS 2760:1973 Specification for pitch-impregnated fibre pipes and fittings for below and above ground drainage	[No change]
1.35	BS 3506:1969	1	GS:3506-1	83. BS 3506:1969 Specification for unplasticized PVC pipe for industrial uses	[No change]
1.36	BS 4019:1993	3b	GS:4019-1	96. BS 4019:1993 Rotary core drilling equipment	BS 4019-3:1993, ISO 3551-1:1992, Rotary core drilling equipment. Specification for System A. Metric units BS 4019-4:1993, ISO 3551-2:1992, Rotary core drilling equipment. Specification for System A. Inch units
1.36	BS 4102:1990	3a	GS:4102-1	102. BS 4102:1990 Specification for steel wire for general fencing purposes	102. BS 4102:1998 Specification for steel wire for general fencing purposes
1.36	BS 4190:2001	1	GS:4190-1	105. BS 4190:2001 Specification for ISO metric black hexagon bolts, screws and nuts	[No change]
1.37	BS 4360:1986	4b	GS:4360-1	114. BS 4360:1986 Specification for weldable structural steels	BS EN 10025-1:2004, Hot rolled products of structural steels. General technical delivery conditions BS EN 10025-2:2004, Hot rolled products of structural steels. Technical delivery conditions for non-alloy structural steels BS EN 10025-3:2004, Hot rolled products of structural steels. Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels BS EN 10025-4:2004, Hot rolled products of structural steels. Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels
1.37	BS 4483:1998	3a	GS:4483-1	121. BS 4483:1998 Specification for steel fabric for the reinforcement of concrete	121. BS 4483:2005 Specification for steel fabric for the reinforcement of concrete
1.38	BS 4660:2000	1	GS:4660-1	136. BS 4660:2000 Specification for thermoplastics ancillary fittings of nominal sizes 110 and 160 for below ground gravity drainage and sewerage	[No change]
1.39	BS 4772:1988	4b	GS:4772-1	142. BS 4772:1988 Ductile piping and fittings	BS EN 598:2007+A1:2009, Ductile iron pipes, fittings, accessories and their joints for sewerage applications. Requirements and test methods
1.40	BS 5252F:1976 (2004)	3a	GS:5252F-1	160. BS 5252F:1976 (2004) Framework for colour co-ordination for building purpose: colour matching fan	160. BS 5252F:1976 Framework for colour co-ordination for building purposes: colour matching fan

¹ Actual date for this reference is 1985.

Table P4 - Recommended Revisions to Existing Clauses referring to British Standards

Page no.	BS Referenced in Technical Guidance Document	Scope of Updating ⁽¹⁾	ID No.	Existing Content of Technical Guidance Document	Recommended Content for Updated Technical Guidance Document
1.41	BS 5911:Part 144:1992	5	GS:1149-1	BS 5911:Part 114:1992 Precast concrete pipes, fittings and ancillary products, Specification for porous pipes	<i>[No citation in text. Delete reference.]</i>
1.41	BS 5911	4b	GS:5911-1	184. BS 5911-1:2002 Concrete pipes and ancillary concrete products. Specification for unreinforced and reinforced concrete pipes (including jacking pipes) and fittings with flexible joints	BS 5911-1:2002+A2:2010, Concrete pipes and ancillary concrete products. Specification for unreinforced and reinforced concrete pipes (including jacking pipes) and fittings with flexible joints (complementary to BS EN 1916:2002) BS EN 1916:2002, Concrete pipes and fittings, unreinforced, steel fibre and reinforced
1.41	BS 5930:1981	4b	GS:5930-1	186. BS 5930:1981 Code of practice for site investigations	BS EN 1997-2:2007, Eurocode 7. Geotechnical design. Ground investigation and testing
	Additional reference required.				BS EN ISO 22282-3:2012, Geotechnical investigation and testing. Geohydraulic testing. Water pressure tests in rock
1.42	BS 6089:1981	4b	GS:6089-1	192. BS 6089:1981 Guide to assessment of concrete strength in existing structures	BS EN 13791:2007, Assessment of in-situ compressive strength in structures and pre-cast concrete components BS 6089:2010, Assessment of in-situ compressive strength in structures and precast concrete components. Complementary guidance to that given in BS EN 13791
1.48	BS EN 197-1:2000	3a	GS:197-1	3. BS EN 197-1:2000 Cement – Part 1: Composition, specifications and conformity criteria for common cements	3. BS EN 197-1:2011, Cement. Composition, specifications and conformity criteria for common cements
1.52	BS EN 10223-2:1998	3b	GS:10223-1	42. BS EN 10223-2:1998 Steel wire and wire products for fences	42. BS EN 10223-2:2012, Steel wire and wire products for fencing and netting. Hexagonal steel wire netting for agricultural, insulation and fencing purposes
1.52	BS EN 10244-2:2001	3a	GS:10244-1	43. BS EN 10244-2:2001 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings	43. BS EN 10244-2:2009 Steel wire and wire products. Non-ferrous metallic coatings on steel wire. Zinc or zinc alloy coatings
1.53	BS EN ISO 1461:1999	3a	GS:1461-1	2. BS EN ISO 1461:1999 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods	2. BS EN ISO 1461:2009 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods
Not listed	No reference.	1	GS:1194-1	BS 1194 [Not listed][BS 1194:1969, Specification for concrete porous pipes for under-drainage]	<i>[Historical reference to be retained.]</i>
7.04	BS 5930:1981	4a	GS:5930-2	7.18: An Undisturbed Soil Sample is a sample complying with Class 1 or Class 2 of BS 5930.	7.18: An Undisturbed Soil Sample is a sample complying with Class 1 or Class 2 of BS EN 1997-2.
7.24	BS 1377:1990	4b	GS:1377-2	7.68: (1) The apparatus and procedure for standard penetration tests shall comply with BS 1377:1990 (Part 9, Test 3.3), amended by this Clause as necessary. The drive hammer shall be a type incorporating an automatic trip mechanism to ensure free fall. The steel anvil of the drive assembly shall have a diameter of 145 ± 5 mm. The guide rod arrangement that permits the hammer to drop with minimal resistance shall have an outer diameter of at least 3 mm smaller than the diameter of the central hole of the hammer.	7.68: (1) The apparatus and procedure for standard penetration tests shall comply with BS 22476-3 and the recommendations in 'Geoguide 2' (as amended), amended by this Clause as necessary. The steel anvil of the drive assembly shall have a diameter of 145 ± 5 mm. The guide rod arrangement that permits the hammer to drop with minimal resistance shall have an outer diameter of at least 3 mm smaller than the diameter of the central hole of the hammer.
7.26	BS 1377:1990	3a	GS:1377-3	7.70: (1) Vane shear tests shall be carried out as specified in BS 1377:1990 (Part 9, Test No. 4.4), amended by this Clause.	7.70: (1) Vane shear tests shall be carried out as specified in BS 1377- 9 (Test No. 4.4), amended by this Clause.
7.33	BS EN 197-1:2000 BS 1200:1976	1 3a	GS:197-2 GS:1200-2	7.84: (1) Cement mortar for in-filling joints in rock faces, for bedding rock for masonry infilling and for surfacing slopes shall consist of Portland Cement (PC) and sand in the proportions 1:3 by volume. (2) PC shall comply with BS EN 197-1. (3) Sand shall be natural sand or crushed natural stone complying with BS 1200.	7.84: (1) Cement mortar for in-filling joints in rock faces, for bedding rock for masonry infilling and for surfacing slopes shall consist of Portland Cement (PC) and sand in the proportions 1:3 by volume. (2) PC shall comply with BS EN 197-1. (3) Sand shall be natural sand or crushed natural stone complying with BS 1199 and 1200.

Table P4 - Recommended Revisions to Existing Clauses referring to British Standards

Page no.	BS Referenced in Technical Guidance Document	Scope of Updating ⁽¹⁾	ID No.	Existing Content of Technical Guidance Document	Recommended Content for Updated Technical Guidance Document
7.33	BS EN 197-1:2000 BS 1200:1976 BS 410:1986	1 3a 4b	GS:197-3 GS:1200-3 GS:410-2	7.86: (1) Soil-cement shall consist of PC, sand and inorganic soil in the proportions 1:3:12 by mass unless otherwise stated. The mix proportion of soil-cement is 1:3:40 by mass when it is applied to the top layer (maximum 300 mm thick) or other areas as directed or agreed by the Engineer. (2) PC shall comply with BS EN 197-1. (3) Sand shall comply with BS 1200. (4) Inorganic soil shall be free of organic matter and shall contain not more than 30% of soil particles passing a 63 µm BS test sieve.	7.86: (1) Soil-cement shall consist of PC, sand and inorganic soil in the proportions 1:3:12 by mass unless otherwise stated. The mix proportion of soil-cement is 1:3:40 by mass when it is applied to the top layer (maximum 300 mm thick) or other areas as directed or agreed by the Engineer. (2) PC shall comply with BS EN 197-1. (3) Sand shall comply with BS 1199 and 1200. (4) Inorganic soil shall be free of organic matter and shall contain not more than 30% of soil particles passing a 63 µm BS test sieve (BS 410-1, ISO 3110-1).
7.33	BS 4483:1998	1	GS:4483-2	7.88: Unless otherwise approved by the Engineer fabric reinforcement including A393 and A252 for sprayed concrete shall comply with to BS 4483 except that the 50 mm x 50 mm x 2.7 mm (wire diameter) hot-dip galvanized steel welded mesh shall have tensile strength not less than 275N/mm².	[No change]
7.33	BS 4102:1990 BS 1052:1999 BS EN 10244-2:2001 BS EN 10223-2:1998	3a 3a 3a 3a	GS:4102-2 GS:1052-2 GS:10244-2 GS:10223-2	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102:1990 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052: (1999). Galvanized coating on wires shall comply with BS EN 10244-2:2001. The tolerance on the opening of mesh shall comply with BS EN 10223-2:1998.	7.89: (1) Protective mesh for slopes shall be PVC coated galvanized steel wire woven into a double twist hexagonal mesh. Each hexagon shall be 80 mm x 60 mm. The steel wire shall be at least 2.2 mm diameter and the PVC coating shall be at least 0.4 mm thick. PVC coating on steel wire shall comply with BS 4102 or equivalent. The colour of PVC coating is to be approved by the Engineer. Wire for protective mesh shall comply with BS 1052. Galvanized coating on wires shall comply with BS EN 10244-2. The tolerance on the opening of mesh shall comply with BS EN 10223-2.
7.33	BS EN ISO 1461:1999	3a	GS:1461-2	7.89: (5) Hooks, fixing pins, steel plates and washers for fixing the protective mesh to slope face shall be as shown on the Drawings and shall be galvanized to BS EN ISO 1461:1999.	7.89: (5) Hooks, fixing pins, steel plates and washers for fixing the protective mesh to slope face shall be as shown on the Drawings and shall be galvanized to BS EN ISO 1461.
7.34	BS EN ISO 1461:1999	3a	GS:1461-3	7.89: (6) Galvanizing shall comply with BS EN ISO 1461:1999.	7.89: (6) Galvanizing shall comply with BS EN ISO 1461.
7.34	BS EN ISO 1461:1999	3a	GS:1461-4	7.90: (1) Rock bolts shall be a proprietary type approved by the Engineer. Rock bolts shall comply with CS 2 and shall be mild steel or high yield deformed steel as stated in the Contract. Rock bolts shall be galvanized to BS EN ISO 1461:1999. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer.	7.90: (1) Rock bolts shall be a proprietary type approved by the Engineer. Rock bolts shall comply with CS 2 and shall be mild steel or high yield deformed steel as stated in the Contract. Rock bolts shall be galvanized to BS EN ISO 1461. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer.
7.34	BS 4190:2001 BS 4360:1986 BS EN ISO 1461:1999	3a 5 3a	GS:4190-2 GS:4360-2 GS:1461-5	7.90: (3) Nuts for rock bolts shall be of grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15 of this GS. Bearing plates shall be of grade 43A steel plate and comply with BS 4360. Holes in steel plates for rock bolt heads shall be drilled perpendicular to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All nuts, connectors and bearing plates shall be galvanized to BS EN ISO 1461:1999. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer. Grease shall comply with Table 1 of Geospec 1.	7.90: (3) Nuts for rock bolts shall be of grade 4 steel and comply with BS 4190. Connectors shall comply with Section 15 of this GS. Bearing plates shall be of grade S275JR steel plate and comply with BS EN 10025. Holes in steel plates for rock bolt heads shall be drilled perpendicular to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All nuts, connectors and bearing plates shall be galvanized to BS EN ISO 1461. Rock bolts shall have non-corrodible centralizers capable of ensuring an even annulus of grout as approved by the Engineer. Grease shall comply with Table 1 of Geospec 1.
7.34	BS EN ISO 1461:1999	3a	GS:1461-6	7.92: Rock dowels shall comply with CS 2 and shall be galvanized to BS EN ISO 1461:1999. Rock dowels shall have non-corrodible centralizers capable of ensuring an even annulus of grout around the steel bar as approved by the Engineer.	7.92: Rock dowels shall comply with CS 2 and shall be galvanized to BS EN ISO 1461. Rock dowels shall have non-corrodible centralizers capable of ensuring an even annulus of grout around the steel bar as approved by the Engineer.

Table P4 - Recommended Revisions to Existing Clauses referring to British Standards

Page no.	BS Referenced in Technical Guidance Document	Scope of Updating ⁽¹⁾	ID No.	Existing Content of Technical Guidance Document	Recommended Content for Updated Technical Guidance Document
7.34	BS 4190:2001 BS 4360:1986 BS 4019:1974 BS EN ISO 1461:1999	3a 5 3a 3a	GS:4190-3 GS:4360-3 GS:4019-2 GS:1461-7	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190:2001. Connectors shall comply with Section 15. Bearing plates shall be of Grade 43A steel plate and comply with BS 4360:1986. Permanent casings shall comply with BS4019:1974. Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461:1999.	7.94: (1) Soil nail bars shall be of high yield deformed bars and comply with CS2. Nuts shall be of Grade 4 steel and comply with BS 4190. Connectors shall comply with Section 15. Bearing plates shall be of Grade S275JR steel plate and comply with BS EN 10025. Permanent casings shall comply with BS4019-3, ISO 3551-1 or BS 4019-4, ISO 3551-2. Holes in steel plates for soil nail heads shall be drilled perpendicularly to the face of the steel plate and the centre of the hole shall be at a position of within 2 mm from the centroid of the plate. The clearance between the steel bar and the hole of the steel plate shall not be more than 2 mm. All steel components for soil nails shall be galvanized to BS EN ISO 1461.
7.37	BS EN 10244-2:2001	3a	GS:10244-3	7.99: Wire mesh for erosion control shall comply with Clause 7.89(1). Unless otherwise specified in the Drawings, the wire mesh shall be fixed onto the slope surface by means of anchor bolts and/or fixing pins. The fixing pins, steel plates and washers for fixing the wire mesh to slope face shall comply with Clause 7.89. Galvanized coating on wires shall comply with BS EN 10244-2:2001. The anchor bolts, nuts and washers for fixing the wire mesh to soil nail heads shall be stainless steel complying with Section 5. Details of the anchor bolts and fixing pins shall be submitted to the Engineer for approval. Anchor bolts and accessories shall have the following properties:	7.99: Wire mesh for erosion control shall comply with Clause 7.89(1). Unless otherwise specified in the Drawings, the wire mesh shall be fixed onto the slope surface by means of anchor bolts and/or fixing pins. The fixing pins, steel plates and washers for fixing the wire mesh to slope face shall comply with Clause 7.89. Galvanized coating on wires shall comply with BS EN 10244-2. The anchor bolts, nuts and washers for fixing the wire mesh to soil nail heads shall be stainless steel complying with Section 5. Details of the anchor bolts and fixing pins shall be submitted to the Engineer for approval. Anchor bolts and accessories shall have the following properties:
7.53	BS 1924:1990	4b	GS:1924-2	7.142: The maximum dry density and optimum moisture content of soil-cement fill shall be as stated in Section 6 except that the method of testing shall be the Vibrating Hammer Test Method in accordance with BS 1924.	7.142: The maximum dry density and optimum moisture content of soil-cement fill shall be as stated in Section 6 except that the method of testing shall be the Vibrating Hammer Test Method in accordance with the test method given in BS1377-4:1990.
7.54	BS 6089:1981 BS 6089:1981	4b 4b	GS:6089-2 GS:6089-3	7.146: The results of tests for compressive strength of concrete cores shall be interpreted in accordance with BS 6089. Adjustments to the measured strength in respect of the age of the core when tested shall not be made unless permitted by the Engineer. The minimum compressive strength of concrete cores, converted to the estimated in-situ cube strength in accordance with BS 6089, shall be the specified grade strength at 28 days.	7.146: The results of tests for compressive strength of concrete cores shall be interpreted in accordance with BS 6089 and BS EN 13791. Adjustments to the measured strength in respect of the age of the core when tested shall not be made unless permitted by the Engineer. The minimum compressive strength of concrete cores, converted to the estimated in-situ cube strength in accordance with BS 6089 and BS EN 13791, shall be the specified grade strength at 28 days.
7.56	BS 1200:1976 BS 410:1986 BS 410:1986	3a 4b 4b	GS:1200-4 GS:410-3 GS:410-4	7.160: (2) Sand for grout shall be clean dry sand complying with BS 1200 and shall have a particle size distribution such that 100% passes a 2 mm BS test sieve and not more than 30% passes a 0.2 mm BS test sieve.	7.160: (2) Sand for grout shall be clean dry sand complying with BS 1199 and 1200 and shall have a particle size distribution such that 100% passes a 2 mm BS test sieve (BS 410-1, ISO 3310-1) and not more than 30% passes a 0.2 mm BS test sieve (BS 410-1, ISO 3310-1).
7.57	BS 1387:1990	4a	GS:1387-2	7.161: Unless otherwise approved by the Engineer standpipes for grouting shall be standard black metal pipe complying with BS 1387. With the permission of the Engineer, non-metallic grout pipe may be used for grouting rock dowels, rock bolts and soil nails. Where metal standpipes are used for grouting rock dowels, rock bolts and soil nails, they shall be extracted from drillholes as grouting proceeds.	7.161: Unless otherwise approved by the Engineer standpipes for grouting shall be standard black metal pipe complying with BS EN 10255. With the permission of the Engineer, non-metallic grout pipe may be used for grouting rock dowels, rock bolts and soil nails. Where metal standpipes are used for grouting rock dowels, rock bolts and soil nails, they shall be extracted from drillholes as grouting proceeds.
7.63	BS 5930:1981	4a	GS:5930-3	7.183: (4) Packer tests shall be carried out in accordance with BS 5930, Chapter 21.5 and Clause 7.183(5) to (8)	7.183: (4) Packer tests shall be carried out in accordance with BS EN ISO 22282-3 and Clause 7.183(5) to (8)
7.66	BS 5911 BS 65:1991 BS 4772:1988 BS 534:1990 No reference BS 5911 BS 2760:1973 BS 4660:2000 BS 3506:1969	4b 1 4a 4b 1 4b 5 1 1	GS:5911-2 GS:65-2 GS:4772-2 GS:534-2 GS:1194-1 GS:5911-3 No replacement GS:4660-2 GS:3506-2	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911 Vitrified clay pipes: BS 65 DI pipes: BS 4772 Steel pipes: BS 534 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 Pitch fibre pipes: BS 2760 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252	7.197: (1) Filter pipes shall comply with the following: Precast concrete pipes: BS 5911-1 and BS EN 1916 Vitrified clay pipes: BS 65 DI pipes: BS EN 598 Steel pipes: BS EN 10311 and BS EN 10224 Porous concrete pipes: BS 1194 Perforated concrete pipes: BS 5911 and BS EN 1916 uPVC pipes: BS 4660 or BS 3506 Corrugated polyethylene tubing: AASHTO Designation M252

Table P4 - Recommended Revisions to Existing Clauses referring to British Standards

Page no.	BS Referenced in Technical Guidance Document	Scope of Updating ⁽¹⁾	ID No.	Existing Content of Technical Guidance Document	Recommended Content for Updated Technical Guidance Document
7.67	BS 410:1986	4b	GS:410-5	7.200: (2) Fill material passing a 425µm BS test sieve shall be non-plastic.	7.200: (2) Fill material passing a 425µm BS test sieve (BS 410-1, ISO 3310-1) shall be non-plastic.
7.67	BS 410:1986	4b	GS:410-6	In Table 7.2: Percentage by mass passing BS test sieve	In Table 7.2: Percentage by mass passing BS test sieve (BS 410-1, ISO 3310-1)
7.78	BS 812-102:1989	4a	GS:812-2	7.242: (3) The size of each sample taken as stated in Clause 7.242(1) shall be 10 kg. The method of sampling shall be in accordance with BS 812: Part 102 .	7.242: (3) The size of each sample taken as stated in Clause 7.242(1) shall be 10 kg. The method of sampling shall be in accordance with Construction Standard 3 .
7.79	BS 410:1986	4b	GS:410-7	7.247: (1) Each sample of fill material for trench drains shall be tested to determine the particle size distribution. Fill material passing a 425 µm BS test sieve shall also be tested to determine the plasticity index.	7.247: (1) Each sample of fill material for trench drains shall be tested to determine the particle size distribution. Fill material passing a 425 µm BS test sieve (BS 410-1, ISO 3310-1) shall also be tested to determine the plasticity index.
7.87	BS 5252F:1976 (2004)	3a	GS:5252F-2	7.269: Details of paint products (e.g. specification and colour samples etc.) and method statement shall be submitted for the Engineer’s approval prior to painting. The colour of paint shall be “Antique” to BS 5252F:2004 colour code 10B25 or other colour as directed by the Engineer.	7.269: Details of paint products (e.g. specification and colour samples etc.) and method statement shall be submitted for the Engineer’s approval prior to painting. The colour of paint shall be “Antique” to BS 5252F colour code 10B25 or other colour as directed by the Engineer.