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BUILDING WORKS

TS 3.10.06

GENERIC TECHNICAL SPECIFICATION
FOR CIVIL, STRUCTURAL AND BUILDING ENGINEERING

SECTION NO : 06

TITLE : BUILDING WORKS

GENERIC TECHNICAL SPECIFICATION FOR CIVIL, STRUCTURAL AND BUILDING ENGINEERING

This document shall be read in conjunction with Generic Technical Specification Civil, Structural and Building Engineering – Introduction, ref: TS 3.10.00.

The clause numbering system relates to the numbering system in CESWI6 Specification.

TABLE OF CONTENTS

BUILDING WORKS	5
6.1 Brickwork and Blockwork Generally.....	5
6.2 Brickwork and Blockwork, Jointing and Pointing	5
6.3 Cavity Walls	6
6.4 Damp-Proof Course	6
6.5 Corbelling	6
6.9 Bricklaying and Blocklaying in Cold Weather.....	7
6.10 Preparation for Plastering	7
6.11 Fixing of Plasterboard	7
6.12 Plastering	8
6.14 Concrete Floor Finishes	8
6.15 Floor Tiling	10
6.17 External Rendering	11
6.18 Wall Tiles.....	11
6.19 Carpentry and Joinery.....	12
6.20 Structural Steelwork	13
6.21 Roofs	13
6.22 Timber Floors	13
6.23 Door Frames	13
6.24 Windows.....	14
6.25 Glazing	14
6.26 Painting	14
6.27 Slating and Tiling.....	15
6.29 Asphalt Roofing	15
6.30 Bitumen Felt Roofing.....	17
6.31 Plumbing	17
6.32 Openings in Walls, Floors and Ceilings	18
6.34 Electrical Installations.....	18
6.35 Profiled Steel Cladding.....	18
6.38 Soil, Waste, Ventilation and Rainwater Pipework and Fittings	19
6.39 Conduits	20
6.40 Proprietary Anchor Systems	20
6.41 Repairs to Plaster and Dry Lining	20
6.42 Suspended Ceilings	21
6.43 Raised Access Floors	21
6.44 Mastic Asphalt Flooring.....	22
6.45 Built-Up Roofing Systems	23
6.46 Trussed Rafters.....	23
6.47 Timberwork for Roofing.....	24

6.48	Underlay.....	24
6.49	Roofing Battens.....	25
6.50	Tiling and Slating.....	25
6.51	Ventilation to Roof Space	25
6.52	Flashings - General.....	26
6.53	Lead Flashing.....	26
6.54	Aluminium Flashings.....	27
6.55	Caulking and Sealing Joints.....	27
6.56	Transformer Noise Enclosures	28
AMENDMENTS RECORD		29

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BUILDING WORKS

6.1 Brickwork and Blockwork Generally

6.1.1 Clause 6.1.1 is deleted in its entirety and replaced as follows:

Brickwork and blockwork and ancillary works shall comply with the relevant provisions of BS EN 1996: Part 2 or BS 5628: Part 3 and the recommendations of BS 8000: Part 3 unless conflicting with a requirement of the *Civil Engineering Specification for Water Industry (CESWI6)* or this *Supplementary Specification* or the *Particular Specification*.

6.1.7 Details of proposed cutting or chasing of brickwork and blockwork shall be submitted to the *Contract Administrator* for approval. This is a **Hold Point**.

6.1.8 On completion, all putlog and other holes shall be made good using masonry units and mortar of types which ensure that the face matches the surrounding masonry. Putlog and other similar holes shall, where possible, be of full masonry unit size.

6.1.9 Kiln fresh bricks shall not be incorporated in the works for a minimum period of 24 hours after delivery to site or as recommended by the manufacturer, whichever is longer.

6.1.10 If facing bricks are delivered in loads with a noticeable variation in colour they shall not be used in rotation as delivered. Bricks from different loads shall be intermingled to ensure that any differences in colour do not form defined areas in the completed brickwork.

6.1.11 Horizontal mortar joints shall have an average thickness of 10mm.

6.1.12 Bricks with double frogs shall be laid with the deeper frog uppermost and the bed joints shall have sufficient mortar to ensure that the frogs on the underside of the bricks are completely filled with mortar. Voids in hollow blocks shall not be filled with mortar.

6.1.13 Work below ground or below DPC level shall be built of Class B engineering bricks laid in sulphate resisting mortar, unless otherwise specified. External faced brickwork shall commence two courses below the finished ground level.

6.1.14 Commencement of construction of masonry work is a **Notification Point**.

6.2 Brickwork and Blockwork, Jointing and Pointing

6.2.3 Pointing shall not proceed in frosty weather.

6.2.4 Type of bonding shall be as follows:

Wall type	Bonding type
One or more masonry units thick	English bond
One masonry unit thick with fair face on both sides	Each face: stretcher bond with full width expanded metal placed in alternate courses to tie the leaves together.
Half masonry unit thick (including leaves of cavity walls)	Stretcher bond

Where normal bonding is not possible due to dimensional reasons, the *Contractor* shall inform the *Contract Administrator*. This is a **Hold Point**.

6.2.5 Pointing shall be weather struck type.

6.2.6 New masonry shall be bonded to existing work in masonry units not more than 300mm high.

6.3 Cavity Walls

6.3.1 Clause 6.3.1 is deleted in its entirety and replaced as follows:

Cavity walls shall have a minimum cavity width of 50mm and a minimal air gap of 25mm between any cavity insulation and the outer skin. Cavity walls shall be built with wall ties uniformly spaced at spacings complying with the recommendations of BS 8000: Part 3, staggered, and laid to fall outwards. Additional ties shall be used near the sides of all openings, one for each third course of bricks. Care shall be taken to keep the ties within the cavity free from mortar or mortar droppings, and any mortar or debris collecting at the bottom of the cavity shall be cleaned out through temporary openings left for this purpose in the bottom courses.

6.3.3 When the cavity is to receive board or slab insulation, the bottom row of cavity ties above the DPC shall have a maximum spacing of 600mm.

6.3.4 Where a vertical damp proof course prevents bonding of the two leaves at the reveals to openings or similar locations, a vertical line of additional wall ties shall be used at a maximum spacing of 300mm and within 225mm horizontally of the openings.

6.3.5 Where a structural steel or concrete member with a width of at least 450mm interrupts the inner skin of a cavity wall the outer skin shall have one layer of expanded metal or approved equal reinforcement to every fourth course carried beyond the steel or concrete member for a distance of 900mm in each direction.

6.4 Damp-Proof Course

6.4.2 Proprietary shaped damp proof courses shall be used at junctions and corners with stepped damp proof courses where the external ground is sloping, all in accordance with the manufacturer's recommendations and the Drawings.

6.4.3 Damp proof courses used with cavity wall bridges shall be unjointed wherever possible but lapped at least 150mm and sealed with an approved jointing compound where joints cannot be avoided. They shall be fixed tightly across the cavity, stepped up towards the inner leaf and supported to prevent sagging. They shall extend at least 150mm beyond the end of the bridge.

6.4.4 Chemical damp proof courses shall be installed in accordance with BS 6576.

6.5 Corbelling

6.5.2 Rises and quoins shall be racked back. Toothing shall only be used when shown on the Drawings.

6.9 Bricklaying and Blocklaying in Cold Weather

- 6.9.3 The method including precautions of bricklaying and blocklaying in cold weather shall be submitted by the *Contractor* to the *Contract Administrator* for approval. This is a **Hold Point**.
- 6.9.4 Mortar ingredients including water and masonry units shall be warmed, if appropriate, to ensure that the temperature of the mortar in the brickwork does not fall below 5°C. Mixing water shall not be heated above 60°C. In no case shall the temperature of the combined materials exceed 32°C before the cement is added. Mortars of a higher classification than that specified shall not be used for the brickwork for the purpose of preventing freezing or accelerating hardening. The use of additives to the mortar which prevent freezing or accelerate hardening shall not be permitted.
- 6.9.5 Frost damaged mortar shall be raked out and replaced. Damaged brickwork/blockwork shall be taken down and rebuilt.

6.10 Preparation for Plastering

- 6.10.4 Notwithstanding the requirements of this Clause, work shall be undertaken in accordance with the provisions and recommendations of BS 8481.
- 6.10.5 Surfaces to be plastered or rendered shall be uncontaminated, sound, stable and free from fins and projections. Inspection of the surface prior to application of plaster or render shall be a **Notification Point**.
- 6.10.6 All metal work for fixings shall be plumb, square and true to line. Cut ends shall be protected with bitumen coating solution.
- 6.10.7 At junctions between columns and panels of dissimilar backgrounds, a separating layer of building paper shall be provided over the face of the column and the steel lathing bridging over the column face, fixed to the panels at each side.
- 6.10.8 Uneven backgrounds shall be dubbed out in thickness not greater than 10mm in the same mix as the first coat. Each coat shall be cross-scratched immediately after the set, and allowed to dry out before the next coat is applied.

6.11 Fixing of Plasterboard

- 6.11.3 Notwithstanding the requirements of Clause 6.11, work shall be undertaken in accordance with the provisions and recommendations of BS 8212 and BS 8000: Part 8.
- 6.11.4 Fixing to metal firrings shall be by plaster dabs at 450mm centres and then screwed at 300 mm centres, not less than 10mm from the edge of the boards. Screw depressions shall be filled with filler finished flush with the surface.
- 6.11.5 The use of mechanical jointing techniques shall be approved by the *Contract Administrator* and carried out in accordance with the manufacturer's recommendations. This is a **Hold Point**.
- 6.11.6 The employment of bed corner jointing tape for external angles shall be subject to the approval of the *Contract Administrator*. This is a **Hold Point**.

6.12 Plastering

6.12.4 Clause 6.12.4 is deleted in its entirety and replaced as follows:

The thickness of finishing coats shall be of the order of 3mm except where board finished plaster is used, when the thickness shall be 5mm and the work shall comply with the relevant provisions of BS 8481 and BS EN 13914: Part 2.

6.12.5 Notwithstanding the requirements of this Clause, work shall also be undertaken in accordance with the provisions and recommendations of BS EN 13914: Parts 1 and 2.

6.12.6 Plaster shall not be used after initial set has taken place. Retempered plaster or reconstituted mixes shall not be used.

6.12.7 If the *Contractor* proposes to use mechanical application methods, details shall be submitted including the type of plaster as recommended by the manufacturer to the *Contract Administrator* for approval. This is a **Hold Point**.

6.12.8 The undercoat shall be applied with a firm pressure and brought to a true and level surface using a straight edge. The surface shall be thoroughly scratched to provide a mechanical key for the finishing coat.

6.12.9 Each wall or ceiling surface shall be carried out in one continuous operation.

6.12.10 All arises shall be slightly rounded.

6.12.11 Succeeding coats shall not be applied until undercoats are set. Cement-based undercoats shall be dry and cured with the drying shrinkage substantially complete.

6.12.12 The finishing coat shall be smooth finish level 4 or level 1 for surfaces to receive wall tiles, flatness level 1 to BS EN 13914: Part 2.

6.12.13 Sample panels of plaster work for each type of background substrate shall be prepared for the *Contract Administrator's* approval and to act as a quality control reference. This is a **Hold Point**.

6.14 Concrete Floor Finishes

6.14.1 Clause 6.14.1 is deleted in its entirety and replaced as follows:

Screeds shall comply with the relevant provisions of the appropriate part of BS 8204, as set out below: