

PROFESSIONAL PRACTICE

LECTURE 3

PURPOSE OF WRITTEN SPECIFICATIONS

1. In SMALL PROJECTS, it is read in conjunction with the working drawing, as the only basis for tendering by contractor.
2. For LARGE PROJECTS, it is given to the QS together with the working drawings for production of BQ.
3. On CONSTRUCTION site, it is the *PROJECT MANUAL* explaining all the site operations.

GUIDELINES FOR WRITING SPECIFICATIONS

1. The **style of writing is technical** in approach. One of the CSI's demands that **“you say it once and clear, concise, complete, and correct.”** Even though in general use of English as a language, use of comma before the conjunction *‘and’* is optional, in specification writing, it is not really optional. For instance, let us analyze the difference between these two sentences:
 - a) ***“provide water, and electrical installation equipments.”***
and,
 - b) ***“provide water and electrical installation equipments”***

guidelines.....

- 2. Repetition is better than omission** in specifications writing. In as much as it is desirable to '*say it once*', it is better to repeat an item than to omit. Generally, it is accepted that repetition helps to impress.
- 3. Only the information that cannot be shown on drawings** is included in specification writing. Sketches should not be included in specification writing.

guidelines.....

4. Each item in specifications writing, is **arranged according to the type of building trade** it belongs, for example earthwork, concreting, masonry, carpentry, etc.. Each section or division is further sub-divided into three Parts as thus:

Part 1, where **general** issues concerning the trade, materials and their handling are discussed.

Part 2, where type, colour, size and all other qualities of **materials** are discussed.

Part 3, where fixing, mixing and all forms of **installations** or **execution** of the job under that section/division are discussed.

CAWS sequence however applies **only** to fresh projects.

guidelines.....

5. Making provisions for **prime cost (PC)** and **provisional sums** for specialist works.

6. Making sure that all specified works do **comply with building regulations** in force in the vicinity of the site. It is the designer's responsibility to find out the actual size, not just to say *'contractor should provide and connect pipes as may be required by authority.'*

guidelines.....

7. In specifications writing, use of **standard specifications for material**, like the British Standard Specification (BSS) and **code of practice (CP) for workmanship** is necessary.
8. Those **materials to be supplied by the client** for use in the contract have to be clearly described in types, quality and quantity in the specifications.
9. **Preliminary items** of the contract have to be described.
10. Designers/Specification writers **must have to keep up to date** with developments of new materials and their methods of fixing.

PROCESS OF WRITING SPECIFICATIONS

- Project Briefing by client.
- Architect's bubble-diagram/schematic design.
- Preliminary design (architectural, structural and M&E).
- Working Drawings (architectural, structural and M&E).
- Written Specifications.

COMMON ARRANGEMENTS OF WORKS SECTIONS (CAWS)

NATIONAL BUILDING SPECIFICATIONS
(NBS) STANDARD.

SECTION A

preliminaries

A10. PROJECT PARTICULARS.

A11. TENDER & CONTRACT DOCUMENTS.

A12. THE SITE/ EXISTING BUILDINGS.

A13. DESCRIPTION OF WORKS.

A20. CONTRACT CONDITIONS.

A30. TENDERING/SUBLETTING/SUPPLY.

A31. PROVISION, CONTENT & USE OF DOCS.

A32. MANAGEMENT OF WORKS.

A33. QUALITY STANDARDS/CONTROL.

A34. SECURITY/SAFETY/PROTECTION.

A35. SPECIFIC LIMITATIONS ON METHOD/SEQUENCE/TIMING.

A36. FACILITIES/TEMPORARY WORK/SERVICES.

A37. OPERATION/ MAINTENANCE OF FINISHED WORKS.

A40-44. CONTRACTOR'S GENERAL COST ITEMS ON: (MANAGEMENT & STAFF; SITE ACCOMMODATION; SERVICES & FACILITIES; MECHANICAL PLANTS and TEMPORARY WORKS.)

B. COMPLETE BUILDINGS/ STRUCTURES/UNITS

B11 Prefabricated building units

B12 Conservatories

B13 Modular buildings

B14 Prefabricated panelled constructions

B15 Prefabricated framed constructions

C. DEMOLITION/ALTERATION/RENOVATIONS

C10 Site survey

C11 Site investigation

C20 Demolition

C30 Shoring/ Facade retention

C40 Cleaning masonry/ concrete

C41 Repairing/ Renovating/ Conserving masonry

C42 Repairing/ Renovating/ Conserving concrete

C45 Damp proof course renewal/ insertion

C46 Cavity wall tie renewal/ insertion

C51 Repairing/ Renovating/ Conserving timber

C52 Fungus/ Beetle eradication

C90 Alterations - spot items

D. GROUNDWORK

D20 Excavating and filling.

D21 Ground gas collection and venting systems

D30 Piling

D40 Embedded retaining walls

D41 Crib walls/ Gabions/ Drystack masonry

D45 Soil nailing

D50 Underpinning

E. INSITU CONCRETE/LARGE PRECAST

E05 In situ concrete construction generally

E10 Mixing/ Casting/ Curing in situ concrete

E11 Sprayed in situ concrete

E20 Formwork for in situ concrete

E30 Reinforcement for in situ concrete

E40 Designed joints for in situ concrete

E41 Worked finishes to in situ concrete

E42 Accessories cast into in situ concrete

E60 Precast/ Composite concrete floors/ roof decks

F. MASONRY

- F10 Brick/ Block walling
- F11 Glass block walling
- F20 Natural stone rubble walling
- F21 Natural stone/ ashlar walling/ dressings
- F22 Cast stone ashlar walling/ dressings
- F30 Accessories/ Sundry items for brick/ block/ stone walling
- F31 Precast concrete sills/ lintels/ copings/ features
- F42 Straw bale walling systems

G. STRUCTURAL/CARCASSING METAL/ TIMBER.

- G10 Structural steel framing
- G12 Isolated structural metal members
- G20 Carpentry/ Timber framing/ First fixing
- G30 Metal profiled sheet decking
- G32 Edge reinforced wood wool slab decking

H. CLADDING/COVERING

- H10 Patent glazing
- H11 Curtain walling
- H13 Structural glass assemblies
- H14 Precast concrete and glass lens/ paver rooflights/ floor lights/ pavement lights/ security panels
- H20 Rigid sheet cladding
- H21 Timber weatherboarding
- H22 Plastics weatherboarding
- H30 Fibre cement profiled sheet cladding/ covering
- H31 Metal profiled/ flat sheet cladding/ covering
- H32 Plastics profiled sheet cladding/ covering
- H40 Glassfibre reinforced concrete cladding/ components
- H41 Glassfibre reinforced plastics cladding/ features
- H42 Precast concrete panel cladding/ features
- H43 Metal composite panel cladding/ covering
- H51 Natural stone slab cladding/ lining/ features
- H60 Plain roof tiling
- H61 Fibre cement slating
- H62 Natural slating
- H64 Wood shingle and shake roofing
- H65 Single lap roof tiling
- H67 Metal single lap roof tiling
- H71 Lead sheet coverings/ flashings
- H72 Aluminium strip/ sheet coverings/ flashings
- H73 Copper strip/ sheet coverings/ flashings
- H74 Zinc strip/sheet coverings/ flashings
- H75 Stainless steel strip/ sheet coverings/ flashings
- H90 Tensile fabric coverings
- H92 Rainscreen cladding

J. WATERPROOFING

- J10 Cementitious mortar tanking/ doam proofing
- J20 Mastic asphalt tanking/ damp proofing
- J21 Mastic asphalt roofing/ insulation/ finishes
- J30 Liquid applied tanking/ damp proofing
- J31 Liquid applied waterproof roof coverings
- J40 Flexible sheet tanking/ damp proofing
- J41 Reinforced bitumen membrane roof coverings
- J42 Single layer polymeric sheet roof coverings
- J44 Sheet linings for pools/ lakes/ waterways

K. LINING SHEATING

K10 Plasterboard dry linings/ partitions/ ceilings

K11 Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings

K12 Under purlin/ inside rail panel linings

K13 Rigid sheet fine linings/ panelling

K20 Timber board flooring/ sarking/ linings/ casings

K21 Wood strip/ board fine flooring/ linings

K30 Panel partitions

K32 Panel cubicles

K40 Demountable suspended ceilings

K41 Raised access floors

K45 Suspended ceiling system alterations

K46 Raised access floor system alterations

L. WINDOWS/DOORS/STAIRS.

L10 Windows/ Rooflights/ Screens/ Louvres

L20 Doors/ Shutters/ Hatches

L30 Stairs/ Ladders/ Walkways/ Handrails/
Balustrades

L35 Fixed utilitarian access systems

L40 General glazing

M. SURFACE FINISHES.

M10 Cement based levelling/ wearing screeds

M11 Mastic asphalt flooring/ floor underlays

M12 Resin flooring

M13 Calcium sulfate based levelling screeds

M20 Plastered/ Rendered/ Roughcast coatings

M21 Insulation with rendered finish

M22 Sprayed monolithic coatings

M30 Metal lathing/ anchored mesh reinforcement for plastered/ rendered coatings

M40 Stone/ Concrete/ Quarry/ Ceramic tiling/ Mosaic

M41 Terrazzo tiling/ In situ terrazzo

M42 Wood block/ composition block/ mosaic parquet flooring

M50 Rubber/ Plastics/ Cork/ Lino/ Carpet tiling/ sheeting

M51 Edge fixed carpeting

M52 Decorative papers/ fabrics

M60 Painting/ Clear finishing

M61 Intumescent coatings for fire protection of steelwork

N. FURNITURE/EQUIPMENT.

N10 General fixtures/ furnishings/ equipment

N11 Domestic kitchen fittings, furnishings and equipment

N12 Commercial catering fittings, furnishings and equipment

N13 Sanitary appliances and fittings

N14 General signage systems

N15 Fire and safety signage systems

N16 Bird and vermin control systems

N17 Portable fire fighting systems

N25 Permanent access and safety equipment

P. BUILDING FABRIC SUNDRIES.

P10 Sundry insulation/ proofing work

P11 Foamed/ Fibre/ Bead cavity wall insulation

P12 Fire stopping systems

P20 Unframed isolated trims/ skirtings/ sundry items

P21 Door/ Window ironmongery

P30 Trenches, pipeways and pits for buried engineering services

P31 Holes, chases, covers and supports for services

Q.PAVING/PLANTING/FENCING/SITE FURNITURE.

- Q10 Kerbs/ Edgings/ Channels/ Paving accessories
- Q20 Granular sub-bases to roads/ pavings
- Q21 In situ concrete roads/ pavings/ bases
- Q22 Coated macadam/ Asphalt roads/ pavings
- Q23 Gravel/ Hoggin/ Woodchip roads/ pavings
- Q24 Interlocking brick/ block roads/ pavings
- Q25 Slab/ Brick/ Sett/ Cobble pavings
- Q26 Special surfacings/ pavings for sport/ general amenity
- Q28 Topsoil and growing media
- Q30 Seeding/ Turfing
- Q31 External planting
- Q32 Internal and artificial planting
- Q35 Landscape maintenance
- Q37 Green roofs
- Q40 Fencing
- Q41 Barriers/ Guardrails
- Q50 Site/ Street furniture/ equipment
- Q52 Play and sports equipment
- Q55 External decks, boardwalks and pergolas

R.DISPOSAL SYSTEMS.

R10 Rainwater drainage systems

R11 Above ground foul drainage systems

R12 Below ground drainage systems

R13 Land drainage

R16 Groundwater pressure relief drainage

R17 Soakaway, septic tank and sewage
treatment units

R18 Pumping stations and pressure pipelines

S. PIPED SUPPLY SYSTEMS.

S15 Fountains and water features

S14 Irrigation

S17 Water reclamation systems

S90 Hot and cold water supply systems -
domestic

S91 Natural gas supply systems - domestic

S92 Sprinkler systems - domestic

Z. BUILDING FABRIC REFERENCE SPECIFICATION.

Z10 Purpose made joinery

Z11 Purpose made metalwork

Z12 Preservative/ Fire retardant treatment

Z20 Fixings and adhesives

Z21 Mortars

Z22 Sealants

Z31 Powder coatings

Z33 Anodizing