NES Building Services Sections
CAWS Based Master Specification

A - Preliminaries / General Conditions
  A10 - THE PROJECT PARTICULARS
  A11 - TENDER AND CONTRACT DOCUMENTS
  A12 - THE SITE EXISTING BUILDINGS
  A13 - DESCRIPTION OF THE WORKS AND COMMON DESIGN CRITERIA
  A20 - THE CONTRACT / SUB-CONTRACT
  A30 - TENDERING / SUB-LETTING / SUPPLY
  A31 - PROVISION, CONTENT AND USE OF DOCUMENTS
  A32 - MANAGEMENT OF THE 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 THE FINISHED BUILDING
  A40-A44 - CONTRACTORS / SUB-CONTRACTOR'S COST ITEMS
  A50 - WORKS / PRODUCTS BY/ON BEHALF OF THE EMPLOYER
  A53 - WORK BY STATUTORY AUTHORITIES / UNDERTAKERS
  A54 - PROVISIONAL WORK / ITEMS
  A55 - DAYWORKS
  A64 - GENERAL CONDITIONS (Self-Contained Specification)

B - Complete Buildings / Structures / Units
  B01 - MECHANICAL SERVICES PROJECT PARTICULAR
  B02 - ELECTRICAL SERVICES PROJECT PARTICULAR
  B03 - PUBLIC HEALTH SERVICES PROJECT PARTICULAR
  B04 - CONTROLS PROJECT PARTICULAR
  B05 - LIFT AND TRANSPORT SYSTEMS PROJECT PARTICULAR
  B20 - RESIDENTIAL PROJECTS (Self-Contained Specification)

C - Existing Site / Buildings / Services
  C10 - REMOVAL OF COMPLETE SYSTEMS
  C12 - UNDERGROUND SERVICES SURVEY
  C14 - BUILDING SERVICES SURVEY
  C20 - DEMOLITION
  C21 - TOXIC / HAZARDOUS MATERIAL REMOVAL
  C90 - ALTERATIONS - SPOT ITEMS

N - Equipment and Off-Site Pre-Fabrication
  N10 - GENERAL FIXTURES / FURNISHINGS / EQUIPMENT
  N11 - DOMESTIC KITCHEN FITTINGS
  N12 - CATERING EQUIPMENT
  N13 - SANITARY APPLIANCES / FITTINGS
  N20 - SPECIAL PURPOSE FIXTURES, FURNISHINGS AND EQUIPMENT
  N30 - PACKAGED PLANT ROOMS
  N31 - OFF-SITE PREFABRICATED PLANT AND SERVICE MODELS

P - Building Fabric Sundries
  P30 - TRENCHES / PIPEWAYS / PITS FOR BURIED ENGINEERING SERVICES
  P31 - HOLES / CHASES / COVERS / SUPPORTS FOR SERVICES
R - Disposal Systems
   R10 - RAINWATER PIPEWORK / GUTTERS
   R11 - FOUL DRAINAGE ABOVE GROUND
   R12 - DRAINAGE BELOW GROUND
   R13 - LAND DRAINAGE
   R14 - LABORATORY / INDUSTRIAL WASTE DRAINAGE
   R19 - RAINWATER AND FOUL DRAINAGE ABOVE GROUND (Self-Contained Specification)
   R20 - SEWAGE PUMPING
   R21 - SEWAGE TREATMENT / STERILISATION
   R30 - CENTRALISED VACUUM CLEANING
   R31 - REFUSE CHUTES
   R32 - COMPACTORS / MACERATORS
   R33 - INCINERATION PLANT

S - Furniture / Equipment
   S10 - COLD WATER
   S11 - HOT WATER
   S12 - HOT AND COLD WATER (Self-Contained Specification)
   S13 - PRESSURISED WATER
   S14 - IRRIGATION
   S15 - FOUNTAINS / WATER FEATURES
   S16 - BOREHOLE / WELL WATER
   S17 - WATER RECLAMATION SYSTEM
   S20 - TREATED WATER
   S21 - SWIMMING POOL WATER TREATMENT
   S22 - HIGH PURITY WATER
   S30 - COMPRESSED AIR
   S31 - INSTRUMENT AIR
   S32 - NATURAL GAS
   S33 - LIQUEFIED PETROLEUM GAS
   S34 - MEDICAL / LABORATORY GAS
   S40 - PETROL / DIESEL STORAGE / DISTRIBUTION
   S41 - FUEL OIL STORAGE / DISTRIBUTION
   S50 - VACUUM
   S51 - STEAM
   S52 - CLEAN STEAM
   S53 - HIGH PRESSURE STEAM
   S60 - FIRE HOSE REELS
   S61 - DRY RISERS
   S62 - WET RISERS
   S63 - SPRINKLERS
   S64 - DELUGE
   S65 - FIRE HYDRANTS
   S70 - GAS FIRE FIGHTING
   S71 - FOAM FIRE FIGHTING
   S72 - POWDER FIRE FIGHTING
   S73 - WATERMIST FIRE PROTECTION

T - Mechanical Heating / Cooling / Refrigeration Systems
   T10 - GAS / OIL FIRED BOILERS
   T11 - COAL FIRED BOILERS
   T12 - ELECTRODE / DIRECT ELECTRIC BOILERS
   T13 - PACKAGED STEAM GENERATORS
   T14 - HEAT PUMPS
   T15 - SOLAR HOT WATER SYSTEM
   T16 - BIOMASS BOILERS AND ANCILLARY PLANT
T19 - COMBINED HEAT AND POWER SYSTEMS
T20 - PRIMARY HEAT DISTRIBUTION
T30 - MEDIUM TEMPERATURE HOT WATER HEATING
T31 - LOW TEMPERATURE HOT WATER HEATING
T32 - LOW TEMPERATURE HOT WATER HEATING (Self-Contained Specification)
T33 - STEAM HEATING
T40 - WARM AIR HEATING
T41 - WARM AIR HEATING (Self-Contained Specification)
T42 - LOCAL HEATING UNITS
T50 - HEAT RECOVERY
T60 - CENTRAL REFRIGERATION PLANT
T61 - PRIMARY / SECONDARY COOLING DISTRIBUTION
T62 - VRF SYSTEM
T69 - CHILLED WATER (Self-Contained Specification)
T70 - LOCAL COOLING UNITS
T71 - COLD ROOM SYSTEMS
T72 - ICE PADS

U - Ventilation / Air Conditioning Systems
U10 - GENERAL VENTILATION
U11 - TOILET VENTILATION
U12 - KITCHEN VENTILATION
U13 - CAR PARK VENTILATION
U14 - SMOKE AND HEAT CONTROL
U15 - FUME CUPBOARD / AND SAFETY CABINET SYSTEMS
U16 - FUME EXTRACT
U17 - ANAESTHETIC GAS EXTRACT
U19 - VENTILATION (Self-Contained Specification)
U20 - DUST COLLECTION
U30 - LOW VELOCITY AIR CONDITIONING
U31 - VAV AIR CONDITIONING
U32 - DUAL DUCT AIR CONDITIONING
U33 - MULTI-ZONE AIR CONDITIONING
U39 - AIR CONDITIONING (Self-Contained Specification)
U40 - INDUCTION AIR CONDITIONING
U41 - FAN COIL AIR CONDITIONING
U42 - TERMINAL RE-HEAT AIR CONDITIONING
U43 - TERMINAL HEAT PUMP AIR CONDITIONING
U50 - HYBRID SYSTEM AIR CONDITIONING
U60 - AIR CONDITIONING UNITS
U61 - CHILLED BEAMS
U62 - CHILLED CEILINGS AND RAFTS/SAILS
U70 - AIR CURTAINS

V - Electrical Supply / Power / Lighting Systems
V10 - EMERGENCY AND STANDBY GENERATORS
V11 - HV SUPPLY / DISTRIBUTION / PUBLIC UTILITY SUPPLY
V12 - LV SUPPLY / PUBLIC UTILITY SUPPLY
V13 - SOLAR PHOTOVOLTAIC (PV) SYSTEMS
V14 - WIND POWER SYSTEMS
V20 - LV DISTRIBUTION
V21 - GENERAL LIGHTING
V22 - GENERAL LV POWER
V30 - EXTRA-LOW VOLTAGE / REDUCED LOW VOLTAGE AC SUPPLY
V31 - LOW AND EXTRA-LOW VOLTAGE DC SUPPLY
V32 - UNINTERRUPTIBLE POWER SUPPLY (UPS)
V33 - MEDICAL IT POWER SUPPLIES (IPS)
V34 - ELECTRICAL VEHICLE CHARGING EQUIPMENT INSTALLATIONS
V35 - ELECTRICAL ENERGY STORAGE SYSTEMS (EESS)
V40 - EMERGENCY LIGHTING
V41 - STREET / AREA / FLOOD LIGHTING
V50 - ELECTRIC TRACE HEATING SYSTEMS (EXCLUDING PIPED SERVICES)
V51 - DIRECT ELECTRICAL ROOM HEATING UNITS AND EMBEDDED HEATING
V90 - ELECTRICAL INSTALLATION (Self-Contained Specification)
V91 - TELECOMMUNICATIONS NETWORKS (Self-Contained Specification)
V92 - SECURITY SYSTEMS, AV SYSTEMS AND NON-SECURITY ALARM SYSTEMS (Self-Contained Specification)

W - Communications / Security / Control Systems
W10 - TELECOMMUNICATIONS
W11 - STAFF PAGING / LOCATION
W12 - PUBLIC ADDRESS / SOUND AMPLIFICATION
W14 - BEDHEAD SERVICES
W15 - FACILITIES FOR THE DISABLED
W20 - ENTERTAINMENT SYSTEMS
W21 - PROJECTION AND CONTROL ROOM DISPLAYS
W22 - ADVERTISING DISPLAY
W23 - CLOCKS
W30 - DATA TRANSMISSION
W40 - ACCESS CONTROL
W41 - SECURITY DETECTION AND ALARM
W42 - CLOSED CIRCUIT TELEVISION
W50 - FIRE DETECTION AND ALARM
W51 - LV EARTHING AND BONDING
W52 - LIGHTNING AND SURGE PROTECTION SYSTEMS (LSPS)
W53 - ELECTROMAGNETIC COMPATIBILITY (EMC)
W54 - LIQUID DETECTION ALARM
W55 - OXYGEN DEPLETION MONITORING SYSTEM
W56 - HV EARTHING AND BONDING
W60 - CENTRAL CONTROL / BUILDING MANAGEMENT
W61 - BUILDING SYSTEMS INTEGRATION
W69 - CENTRAL CONTROL / BUILDING MANAGEMENT (Self-Contained Specification)
W70 - STRUCTURED CABLING SYSTEM

X - Transport Systems
X10 - LIFTS
X11 - ESCALATORS
X12 - MOVING PAVEMENTS
X19 - LIFTS PRE-ENGINEERED (Self-Contained Specification)
X20 - HOISTS
X21 - CRANES
X22 - TRAVELLING CRADLES
X23 - GOODS DISTRIBUTION / MECHANISED WAREHOUSING
X30 - MECHANICAL DOCUMENT CONVEYING
X31 - PNEUMATIC DOCUMENT CONVEYING
X32 - AUTOMATIC DOCUMENT FILING AND RETRIEVAL

Y - Reference Specification
Y10 - PIPELINES AND PIPEWORK
Y11 - PIPELINE ANCILLARIES
Y20 - PUMPS
Y21 - WATER TANKS / CISTERSNS
Y22 - HEAT EXCHANGERS
Y23 - STORAGE CYLINDERS AND CALORIFIERS
Y24 - TRACE HEATING OF PIPED SERVICES AND VESSELS
Y25 - CLEANING AND CHEMICAL TREATMENT
Y30 - AIR DUCTLINES AND ANCILLARIES
Y40 - AIR HANDLING UNITS
Y41 - FANS
Y42 - AIR FILTRATION
Y43 - COILS, HEAT RECOVERY EQUIPMENT AND GAS / ELECTRIC BATTERIES
Y44 - HUMIDIFIERS AND DEHUMIDIFIERS
Y45 - SILENCERS / ACOUSTIC TREATMENT
Y46 - GRILLES / DIFFUSERS / LOUVRES
Y50 - THERMAL INSULATION
Y51 - TESTING AND COMMISSIONING OF MECHANICAL SERVICES
Y52 - VIBRATION ISOLATION MOUNTINGS
Y54 - IDENTIFICATION - MECHANICAL
Y60 - CONDUIT AND CABLE TRUNKING
Y61 - CABLES AND WIRING
Y62 - BUSBAR TRUNKING
Y63 - SUPPORT COMPONENTS - CABLES
Y71 - LV SWITCHGEAR AND DISTRIBUTION BOARDS
Y72 - CONTACTORS AND STARTERS
Y73 - LUMINAIRES AND LAMPS
Y74 - ACCESSORIES FOR ELECTRICAL SERVICES
Y80 - EARTHING AND BONDING
Y81 - TESTING AND COMMISSIONING OF ELECTRICAL SERVICES
Y82 - IDENTIFICATION - ELECTRICAL
Y90 - FIXING TO BUILDING FABRIC
Y91 - PAINTING AND ANTI-CORROSION TREATMENTS
Y92 - MOTOR DRIVES - ELECTRIC

Z - Part 2 Clauses
- PIPELINES AND PIPEWORK
- PIPELINE ANCILLARIES
- PUMPS
- WATER TANKS / CISTERNS
- HEAT EXCHANGERS
- STORAGE CYLINDERS AND CALORIFIERS
- TRACE HEATING OF PIPED SERVICES AND VESSELS
- CLEANING AND CHEMICAL TREATMENT
- AIR DUCTLINE AND ANCILLARIES
- AIR HANDLING UNITS
- FANS
- AIR FILTRATION
- COILS, HEAT RECOVERY EQUIPMENT AND GAS / ELECTRIC BATTERIES
- HUMIDIFIERS AND DEHUMIDIFIERS
- SILENCERS / ACOUSTIC TREATMENT
- GRILLES / DIFFUSERS / LOUVRES
- THERMAL INSULATION
- TESTING AND COMMISSIONING OF MECHANICAL SERVICES
- VIBRATION ISOLATION MOUNTINGS
- IDENTIFICATION - MECHANICAL
- CONDUIT AND TRUNKING
- CABLES AND WIRING
- BUSBAR TRUNKING
- SUPPORT COMPONENTS - CABLES
- LV SWITCHGEAR AND DISTRIBUTION BOARDS
- CONTACTORS AND STARTERS
- LUMINAIRES AND LAMPS
- ACCESSORIES FOR ELECTRICAL SERVICES
- EARTHING AND BONDING COMPONENTS
- TESTING AND COMMISSIONING OF ELECTRICAL SERVICES
- IDENTIFICATION - ELECTRICAL
- FIXING TO BUILDING FABRIC
- OFF-SITE PAINTING AND ANTI-CORROSION TREATMENT

Z1 - British Standards