

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 / CISTERNS
- 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