



SPECWORKS / SAMPLE CLAUSE PACK

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INSIDE THIS PACK

Judge the library by the clauses.

Specification quality is difficult to assess from promises alone. This pack contains three complete clauses so you can examine the structure, coordination and level of instruction for yourself.

Each sample addresses a different construction context. Together they show how SpecWorks turns technical intent into language that can be selected, edited and issued as part of a real project specification.

The three samples

CLAUSE	SUBJECT
R108	Selective Demolition and Removal of Existing Construction A retained-building clause that shows how sequencing, services, temporary support, asbestos information and inspection points can be coordinated without losing clarity.
A04	Filling, Compaction and Made Ground Preparation A broad groundworks clause that turns material selection, placement, compaction and verification into a usable construction sequence.
B04	External Wall Cavity Trays, Stop Ends and Weep Vents A coordinated envelope clause covering interfaces that are often split across drawings, product literature and generic workmanship notes.

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You may use and adapt these sample clauses in genuine project tender and specification documents. Do not republish, redistribute or resell this pack, or incorporate its clauses into another clause library or commercial product.

The clauses are starting points, not substitutes for project-specific professional judgement. Review selections, interfaces, standards and Contract particulars before issue. Delete specification writer's notes where instructed.

Edition prepared August 2026. Standards, guidance and legislation should be checked for continued applicability at the time of use.

SAMPLE CLAUSE / R108

Selective Demolition and Removal of Existing Construction

WHY THIS SAMPLE

A retained-building clause that shows how sequencing, services, temporary support, asbestos information and inspection points can be coordinated without losing clarity.

WHAT TO LOOK FOR

Defined limits of removal, clear stop conditions and practical completion requirements.

The clause below is reproduced in full. Review and edit all project-specific requirements before issue.

Specification Writer's Note (Delete Before Issue)

Use this clause where part of an existing structure is to be removed as part of alteration, extension, refurbishment or remedial works. It is intended for controlled demolition within retained buildings and shall be read in conjunction with the Contract Preliminaries, temporary works requirements, structural information and relevant clauses for opening up, protection of existing construction, temporary support and service isolation.

State project specific requirements for occupied buildings, phased working, temporary weather protection, salvage items, noise restrictions and waste management where these differ from the provisions of this clause.

Delete this note before issuing the Contract Documents.

Selective Demolition and Removal of Existing Construction

1. Scope

Selective demolition shall comprise the controlled removal of identified construction within, attached to or adjoining retained work to facilitate the permanent Works.

Carry out demolition only to the extent shown on the Contract Documents or subsequently instructed by the Contract Administrator. Limit removal to the minimum necessary and preserve all construction identified for retention.

Before commencing demolition, establish and clearly mark the limits of removal. Resolve discrepancies between the Contract Documents and the existing building before cutting, breaking out or dismantling begins.

2. Verification Before Demolition

Confirm that all necessary investigations, surveys and opening up works have been completed in accordance with Clause R107 – Opening Up Existing Construction.

Verify the extent of retained construction, structural arrangements, concealed services and adjoining finishes before demolition commences.

Before commencing intrusive demolition or refurbishment works, review all relevant pre-construction information, including any Refurbishment and Demolition Asbestos Survey provided under the Contract. Do not disturb construction identified as containing, or presumed to contain, asbestos until the necessary control measures have been completed and authority has been given to proceed.

Where the existing building differs materially from the Contract information, suspend the affected operation, protect exposed construction and notify the Contract Administrator before proceeding.

3. Planning and Sequencing

Plan demolition so that the structural stability, weather resistance, fire performance, security and continued operation of the building are maintained throughout the Works.

Sequence demolition in conjunction with service isolations, temporary works, structural support and subsequent construction to avoid unnecessary disturbance and repeated operations.

Complete inspections, service isolations and temporary support before demolition affecting those elements commences.

4. Existing Services

Before disturbing existing construction, isolate, divert, protect or temporarily maintain all services affected by the Works.

Treat unidentified services as live until positively identified.

Carry out all work affecting existing services in accordance with Clause R106 – Isolation, Diversion and Protection of Existing Services.

5. Structural Stability

Do not remove structural elements until temporary works necessary to maintain the stability of the building have been installed.

Support floors, roofs, walls, beams, columns, lintels and other structural elements where demolition may reduce their bearing, restraint or stability.

Immediately suspend work where unexpected movement, cracking, distortion or instability is observed and notify the Contract Administrator.

6. Protection of Retained Construction

Protect all retained construction against damage arising from demolition operations.

Provide temporary boarding, sheeting, barriers, coverings or other appropriate protection where necessary.

Protect adjoining finishes, glazing, joinery, fixtures, fittings and completed work from impact, vibration, water ingress, dust and debris.

Form clean, sound and stable interfaces suitable for receiving the permanent Works. Remove loose or fractured material and avoid unnecessary damage to adjoining construction.

7. Selective Demolition Operations

Carry out demolition in a planned sequence from the least structurally significant elements towards elements forming part of the primary structure. Do not commence removal until the function, support and relationship of the element with adjoining retained construction has been established.

Remove finishes, linings, ceilings, floor coverings, fixtures, fittings and non-structural components before disturbing structural elements where necessary to expose bearings, supports, concealed services or structural connections.

Demolish masonry in small controlled lifts. Do not undermine retained construction or leave unsupported sections. Cut masonry back to sound, regular edges suitable for forming permanent junctions.

Where local removal of masonry is required, provide temporary support before removing bricks, blocks, lintels or bearings contributing to the stability of adjoining construction.

Cut concrete using controlled sawing, coring or breaking techniques selected to minimise vibration and damage to retained work. Do not cut reinforcement, embedded steelwork, post-tensioned tendons or structural connections without specific instruction.

Remove timber construction in a controlled sequence, supporting joists, rafters, trimmers and framed members where necessary before adjoining construction is removed.

Disconnect mechanical and electrical installations only after the relevant services have been isolated and made safe. Protect retained service terminations immediately following disconnection.

Use hand tools, low-vibration equipment or specialist cutting techniques where adjoining construction is fragile, historic or particularly sensitive to vibration.

Do not permit uncontrolled collapse or free fall of demolition materials. Lower dismantled components safely and remove unstable material immediately.

Do not overload existing floors, roofs or access platforms with demolition arisings. Remove heavy materials from the work area as demolition progresses.

At the completion of each working period, leave partially demolished construction stable, weather protected, secure and free from loose material.

8. Salvaged Materials, Reuse and Disposal

Carefully remove materials identified for reuse without unnecessary damage. Clean, label and store salvaged items securely in the location stated within the Contract or as instructed by the Contract Administrator.

Materials arising from selective demolition that are not expressly identified within the Contract as waste or for reuse shall remain on Site until their disposal, retention or reuse has been determined by the Contract Administrator.

The Contractor shall not assume that demolition arisings may be removed from Site, disposed of or otherwise dealt with without instruction where they may reasonably possess reuse, heritage or financial value.

Where demolition exposes items not previously identified but which may reasonably be considered suitable for reuse or of architectural, historic or financial significance, immediately protect those items from damage and notify the Contract Administrator.

Dispose only of materials confirmed as demolition waste in accordance with the Contract and applicable legislation.

9. Removal of Demolished Materials and Debris

Remove demolition arisings regularly throughout the Works. Do not permit waste materials to accumulate within the building where they may obstruct access, fire escape routes or subsequent construction operations.

Lower materials in a controlled manner. Do not throw materials from height.

Use enclosed chutes, containers or other controlled methods where debris is removed from upper floors.

Protect retained finishes, circulation routes and access points during removal operations.

Prevent dust, mud and debris from being tracked through occupied buildings or deposited on the public highway.

Remove waste from Site regularly and dispose of it only at appropriately licensed facilities. Retain waste transfer documentation where required.

Do not burn demolition waste on Site.

10. Waste Management and Housekeeping

Segregate demolition waste into reusable materials, recyclable materials, hazardous waste and general waste.

Maintain the Works in a clean and orderly condition throughout demolition.

Remove combustible waste regularly.

Keep access routes free from obstruction.

Remove projecting nails, sharp edges and trip hazards as work progresses.

Leave each work area clean, safe and ready for subsequent trades at the completion of each working shift.

11. Occupied Buildings

Where demolition is undertaken within occupied premises, minimise disruption to building users.

Control dust, noise and vibration using temporary partitions, extraction equipment, dust suppression, acoustic barriers and low-vibration working methods appropriate to the location.

Maintain emergency escape routes, fire compartmentation, safeguarding arrangements and building security throughout the Works.

Provide temporary fire-resisting protection where demolition temporarily breaches fire compartments until permanent reinstatement has been completed.

Secure all temporary openings outside normal working hours.

12. Unexpected Constructions

Where demolition reveals undocumented structural members, concealed services, hazardous materials, hidden defects or construction differing materially from the Contract information, immediately suspend the affected operation.

Where suspected asbestos-containing materials not identified within the available pre-construction information are encountered, immediately cease work within the affected area, prevent further disturbance and notify the Contract Administrator. Do not recommence work until appropriate instruction has been issued.

Protect exposed construction and establish an exclusion zone where necessary.

Record significant discoveries in accordance with Clause R107 – Opening Up Existing Construction.

13. Inspection Hold Points

Do not proceed beyond completion of service isolation until the required inspection has been carried out.

Do not proceed beyond completion of temporary structural support until the required inspection has been carried out.

Do not conceal newly exposed structural construction until the required inspection has been carried out.

Do not commence reinstatement until selective demolition has been completed and the required inspection has been carried out.

Do not conceal making good until the required inspection has been carried out.

14. Completion

Upon completion of demolition, remove all waste materials, temporary protection no longer required and surplus materials arising from the Works.

Leave cut edges sound, clean and ready to receive the permanent Works.

Confirm that retained construction has not been damaged and that temporary supports, protection and service terminations remaining in place are secure and clearly identified.

Leave the Works clean, safe, weatherproof and ready for subsequent construction.

Related Clauses

Read this clause in conjunction with:

R105 – Temporary Structural Support.

R106 – Isolation, Diversion and Protection of Existing Services.

R107 – Opening Up Existing Construction.

Relevant clauses relating to temporary works, making good and waste management.

References

Legislation

Health and Safety at Work etc. Act 1974.

Construction (Design and Management) Regulations 2015.

Environmental Protection Act 1990.

Waste (England and Wales) Regulations 2011.

British Standards

BS 6187, Code of Practice for Full and Partial Demolition.

BS 8000, relevant parts, Workmanship on Building Sites.

SAMPLE CLAUSE / A04

Filling, Compaction and Made Ground Preparation

WHY THIS SAMPLE

A broad groundworks clause that turns material selection, placement, compaction and verification into a usable construction sequence.

WHAT TO LOOK FOR

Project choices remain visible, while workmanship and evidence requirements stay explicit.

The clause below is reproduced in full. Review and edit all project-specific requirements before issue.

This clause covers the selection, placing, spreading, compaction, trimming and protection of fill material required above prepared formations, within excavated areas, below slabs, below external works, around foundations, around structures, within localised over-excavations and within other areas identified for filling. It applies to site-won fill, imported fill, granular fill, engineered fill, capping material, selected fill, blinding layers and other fill materials required to provide stable support for subsequent construction.

A04.01 Scope of Works

Provide all labour, plant, equipment, supervision, testing attendance, material handling, placing, spreading, trimming, compaction, protection and ancillary operations necessary to complete the filling and compaction works.

The works shall include preparation of receiving surfaces, selection and segregation of suitable materials, placing of fill in controlled layers, compaction to suit the specified use, protection of completed fill and making good of any defective or disturbed areas.

The Contractor shall coordinate filling operations with formation approval, drainage works, foundation works, floor construction, external works, service installations, retaining structures and any testing or inspection requirements.

Do not place fill until the receiving formation has been inspected and accepted where inspection is required by the Contract Documents.

A04.02 Extent of Filling Works

Place fill only within the areas, levels, depths, profiles and build-ups shown on the drawings or instructed by the Contract Administrator.

Do not raise levels, extend fill areas, substitute fill materials or alter specified build-ups without instruction.

Where the drawings state “as existing”, “make up levels” or similar wording, confirm the required finished levels before filling commences.

Where fill thickness, material type or compaction requirements are unclear, raise the matter before proceeding.

A04.03 Receiving Formation

Before filling commences, ensure that the receiving formation is clean, stable, drained, trimmed and free from standing water, loose material, soft spots, organic matter, waste, frost, contamination and unsuitable material.

Do not place fill on softened, frozen, waterlogged, unstable, contaminated or unapproved formations.

Where the formation deteriorates before filling takes place, stop work locally and seek instruction.

Any loose, disturbed or unsuitable material shall be removed before fill is placed.

A04.04 Fill Material Selection

Fill material shall be suitable for the intended use and for the construction above.

Use only material stated in the Contract Documents, shown on the drawings, specified by the Structural Engineer, approved by the Contract Administrator or otherwise accepted for the specific location and purpose.

Material selection shall take account of bearing requirements, drainage requirements, frost susceptibility, compaction requirements, moisture condition, contamination risk, settlement risk and compatibility with adjacent construction.

Do not assume that material suitable for landscaping is suitable below slabs, foundations, roads, paths, hardstandings or structural construction.

A04.05 Core Fill Material Options

The following options may be used where shown on the drawings, stated in the Contract Documents or selected for the project.

Option 1: Selected site-won fill, where excavated material is confirmed as suitable for reuse and is free from organic matter, contamination, excessive moisture, frost, waste and unsuitable inclusions.

Option 2: Imported engineered fill suitable for structural applications.

Option 3: Type 1 unbound granular material, where a well-graded sub-base material is required for roads, car parks, footpaths, hardstandings or other paved construction.

Option 4: Type 2 unbound granular material, where specified for general sub-base or capping applications.

Option 5: 6F2 or similar recycled capping material, where permitted by the Contract Documents and suitable for the intended use.

Option 6: Clean single-sized granular drainage fill, where drainage, gas venting or free-draining material is specifically required.

Option 7: Sand blinding, where protection or levelling is required below membranes, insulation, concrete or other sensitive construction.

Option 8: Lean mix concrete, where localised make-up, soft spot replacement, over-excavation or structural make-up is instructed.

Delete options not applicable to the project. Do not use any option unless it is suitable for the location, loading, drainage condition and construction above.

A04.06 Unacceptable Fill

Do not use topsoil, turf, peat, organic material, tree roots, timber, vegetation, plasterboard, general rubbish, frozen material, contaminated material, wet or softened clay, uncontrolled demolition waste, ash, hazardous material or unclassified made ground as fill below permanent construction.

Do not use broken bricks, concrete, hardcore or demolition arisings as fill unless the material has been processed, graded, tested where required and accepted as suitable for the intended use.

Do not use material containing voids, large unbroken fragments, excessive fines, soft inclusions, deleterious material or material likely to decay, collapse, swell, shrink or contaminate adjacent construction.

Where unsuitable material is delivered to site or identified within stockpiles, segregate it and remove it from the works.

A04.07 Reuse of Excavated Material

Site-won excavated material may be reused only where it is suitable for the intended purpose and has been accepted for reuse.

Keep reusable material separate from topsoil, unsuitable material, contaminated material, waste and materials requiring disposal.

Do not place site-won material in permanent works where its moisture condition, composition, grading, contamination status or compaction performance is uncertain.

Where classification, testing or approval is required, do not place the material until the required confirmation has been obtained.

A04.08 Imported Fill

Imported fill shall be suitable for its intended use and supplied from an approved source.

Provide delivery records, material descriptions, grading information, certificates, test results, recycled aggregate documentation, waste exemption information or other evidence required by the Contract Documents.

Imported recycled aggregate shall be clean, graded, processed and suitable for the proposed use.

Do not import unprocessed demolition arisings, uncontrolled fill, contaminated material or material of uncertain origin.

Reject imported material that does not match the specified type, appears contaminated, contains unsuitable inclusions or cannot be verified.

A04.09 Frost Susceptibility

Fill used below roads, paths, hardstandings, slabs, external pavings or other frost-sensitive construction shall be suitable for the exposure and depth of construction.

Do not use frost-susceptible material where frost action could cause heave, movement, instability, damage to surfacing or damage to the construction above.

Where frost susceptibility requirements are stated in the Contract Documents, provide evidence that the material complies.

Where doubt exists, seek instruction before placing the material.

A04.10 Moisture Condition of Fill

Place fill only when its moisture condition permits effective compaction.

Do not place fill that is too wet, too dry, frozen, waterlogged or otherwise unsuitable for compaction.

Where material becomes wet, softened or unworkable, allow it to dry, replace it, treat it or remove it as instructed.

Do not conceal wet or unstable material beneath further fill, sub-base, blinding, membranes, insulation, concrete or paving.

A04.11 Preparation Before Placing Fill

Before placing fill, remove loose material, debris, standing water, softened material and unsuitable matter from the receiving surface.

Where fill is to be placed against existing structures, foundations, walls, retaining features, drainage, services or other permanent construction, confirm that those elements are complete, protected and suitable to receive fill.

Where geotextiles, membranes, drainage layers, protection boards or other separating layers are required, install them before fill is placed.

Do not damage membranes, services, drainage, insulation, retaining structures or adjacent works during filling operations.

A04.12 Placing Fill

Place fill in even, controlled layers suitable for the material type, compaction plant and intended use.

Spread each layer to a uniform thickness before compaction.

Do not tip fill into heaps and compact only the surface.

Do not place layers so thick that full-depth compaction cannot be achieved.

Do not place large stones, lumps or hard fragments in positions where they may damage membranes, pipes, services, insulation or adjacent construction.

A04.13 Layer Thickness

Layer thickness shall be suitable for the fill material, compaction plant, moisture condition and required end performance.

Where layer thicknesses are stated in the Contract Documents, those limits shall be followed.

Where no project-specific layer thickness is stated, use layer thicknesses that allow effective compaction through the full depth of each layer.

Reduce layer thickness where compacting close to structures, services, edges, confined areas or sensitive construction.

If compaction plant cannot achieve full-depth compaction, reduce the layer thickness or change the compaction method.

A04.14 Compaction

Compact fill using plant and methods suitable for the material type, layer thickness, location and required performance.

Compact each layer before the next layer is placed.

Compaction shall produce a stable, firm and even surface without excessive movement, rutting, pumping, weaving or loose pockets.

Do not over-compact or use unsuitable plant where this could damage services, membranes, insulation, drainage, foundations, retaining structures or adjacent construction.

Where the specified compaction standard cannot be achieved, stop work locally and seek instruction.

A04.15 Compaction Near Structures and Services

Carry out filling and compaction around foundations, walls, retaining structures, chambers, ducts, pipes, drainage runs and services in a controlled manner.

Use smaller plant, hand placement, selected material or reduced layer thickness where required to prevent damage or displacement.

Do not compact directly over services, pipes, membranes or other sensitive construction unless adequate cover and protection are in place.

Place fill evenly on both sides of walls, retaining structures, chambers or similar elements where uneven loading could cause movement, cracking or distortion.

Report any movement, damage, displacement or cracking immediately.

A04.16 Backfilling Around Foundations and Structures

Backfill around foundations, ground beams, retaining walls, chambers and other structures only when the construction is sufficiently complete and able to withstand the imposed loading.

Do not backfill against green concrete, unsupported walls, unprotected membranes, unrestrained structures or incomplete works unless instructed.

Use suitable fill material for the location and construction above.

Place and compact backfill in controlled layers without damaging the completed works.

Do not use topsoil, organic material, uncontrolled rubble, wet clay or unsuitable material as structural backfill.

A04.17 Filling Below Ground-Bearing Slabs

Fill below ground-bearing slabs shall be suitable to provide stable support for the slab construction, insulation, membranes and finishes above.

Use material shown on the drawings or specified in the Contract Documents.

Place and compact fill to form a stable, level and properly supported base for subsequent blinding, damp proof membrane, gas membrane, insulation, reinforcement or concrete.

Do not leave voids, loose areas, soft pockets, projecting stones or sharp fragments that could damage membranes or reduce slab support.

Where gas protection, radon protection or ventilation layers are specified, do not substitute the fill material or grading without instruction.

A04.18 Filling Below Roads, Paths, Pavings and Hardstandings

Fill below roads, paths, pavings, car parks, service yards and hardstandings shall be suitable for the intended traffic loading and pavement construction.

Where Type 1, Type 2, capping material or other highway-style material is specified, provide material complying with the relevant project requirements.

Construct fill and sub-base layers to the required thickness, level, fall and compaction standard.

Protect completed layers from contamination, rutting, standing water and construction traffic damage.

Do not proceed with surfacing or paving until the supporting layers are complete, stable and accepted where inspection is required.

A04.19 Geotextiles and Separating Layers

Where geotextiles or separating layers are specified, lay them to the manufacturer's instructions and project requirements.

Prepare the receiving surface before installation.

Lap joints as recommended by the manufacturer or as stated in the Contract Documents.

Protect geotextiles from tearing, puncturing, displacement, contamination and unnecessary exposure.

Do not traffic directly over geotextiles unless suitable protection or cover has been provided.

A04.20 Blinding Layers

Provide blinding layers where shown on the drawings, specified in the Contract Documents or required to protect membranes, insulation, concrete or other subsequent construction.

Blinding material shall be clean, even, stable and suitable for the intended purpose.

Trim blinding layers to the required levels and falls.

Do not use sharp, contaminated, unstable or unsuitable material as blinding.

Where sand blinding is used below membranes, remove projecting stones, sharp fragments and other items that could cause puncture or damage.

A04.21 Existing Made Ground

Existing made ground shall not be assumed suitable to support permanent construction.

Where made ground is to remain below slabs, foundations, roads, hardstandings or other construction, its suitability shall be confirmed by the Contract Documents, ground investigation information, Structural Engineer or other competent designer.

Where made ground is unsuitable, remove, replace, improve, cap, stabilise or otherwise treat it as instructed.

Do not found permanent construction on uncontrolled made ground unless it has been assessed and accepted for that purpose.

Report unexpected made ground, buried waste, voids, tanks, ash, contamination, soft pockets, settlement or instability immediately.

A04.22 Ground Improvement and Stabilisation

Where ground improvement, lime stabilisation, cement stabilisation, dynamic compaction, vibro treatment, piling mats or other specialist ground treatment is required, it shall be carried out by competent specialists in accordance with the design and project requirements.

Do not carry out ground improvement by informal substitution, over-compaction or unapproved treatment.

Where stabilised material is used, comply with the specified binder type, binder content, mixing method, curing period, testing and acceptance criteria.

Do not place permanent construction on treated ground until required testing and acceptance have been completed.

A04.23 Protection of Completed Fill

Protect completed fill from standing water, frost, erosion, contamination, rutting, disturbance and construction traffic damage.

Do not allow completed fill to become mixed with topsoil, mud, waste, demolition material or other unsuitable matter.

Where completed fill is damaged, softened, rutted, contaminated or disturbed, remove or rework the affected material as instructed.

Do not cover defective fill with further construction.

A04.24 Testing and Verification

Where testing is specified, provide access, attendance, suitable preparation and cooperation for the testing organisation.

Testing may include material classification, grading, moisture content, density testing, CBR testing, plate load testing, proof rolling or other project-specific checks.

Do not proceed with covering works until required testing, inspections and approvals have been completed. Keep test results, delivery records, compaction records and material approvals available for review where required by the Contract Documents.

A04.25 Tolerances and Finished Levels

Complete filling works to the levels, falls, profiles and tolerances shown on the drawings or stated in the Contract Documents.

Finished fill surfaces shall be stable, even and suitable for the next operation.

High spots, depressions, loose areas, rutting, soft pockets, pumping areas and unstable zones shall be corrected before further construction proceeds.

Do not use additional blinding, sub-base, insulation, concrete or other follow-on construction to conceal poor filling or inadequate compaction.

A04.26 Completion Standard

Upon completion, fill shall be placed, compacted, trimmed, protected and ready to receive the next specified construction operation.

Completed fill shall be stable under construction traffic appropriate to the work, free from standing water, free from unsuitable material, properly compacted and formed to the required levels and profiles.

Remove surplus material, rejected material, waste, debris and temporary items no longer required.

A04.27 Hold Point

Before placing slabs, blinding, membranes, insulation, reinforcement, concrete, sub-base, paving, roads, hardstandings or other permanent construction over fill, request inspection where required by the Contract Documents.

No follow-on works shall proceed where fill material, compaction, levels, testing, drainage, made ground, contamination or stability remain unresolved.

A04.28 Related Documents and Information Required

Read in conjunction with the drawings, site survey, ground investigation report, structural information, drainage information, contamination information, gas protection strategy, external works details, pavement design, utility information, Pre Construction Information, Construction Phase Plan and project specific requirements.

Where relevant information is absent, incomplete or inconsistent, raise the matter before filling proceeds.

A04.29 Reference Standards and Guidance

Relevant references include Approved Document A Structure, Approved Document C Site preparation and resistance to contaminants and moisture, BS EN 16907-1 Earthworks – Principles and general rules, BS EN 16907-3 Earthworks – Construction procedures, BS EN 16907-5 Earthworks – Quality control, HSE guidance on excavation safety where filling interfaces with open excavations, current waste duty of care requirements and project specific geotechnical information.

Where highway, road, car park, adopted external works or highway-style sub-base construction is included, refer also to the Manual of Contract Documents for Highway Works, including Series 600 Earthworks and Series 800 Road Pavements – Unbound, Cement and Other Hydraulically Bound Mixtures, where applicable.

Where recycled aggregates are used, provide evidence that the material is suitable for the intended use and has been processed and supplied in accordance with applicable recycled aggregate quality requirements.

SAMPLE CLAUSE / B04

External Wall Cavity Trays, Stop Ends and Weep Vents

WHY THIS SAMPLE

A coordinated envelope clause covering interfaces that are often split across drawings, product literature and generic workmanship notes.

WHAT TO LOOK FOR

Locations, materials, installation, inspection and common specification options are brought together in one place.

The clause below is reproduced in full. Review and edit all project-specific requirements before issue.

1. Clause scope

Provide cavity trays, stop ends, weep vents and associated damp proofing accessories to external cavity wall construction above DPC level.

This clause applies to external masonry cavity walls, including brick outer leaf walls, block outer leaf walls, rendered masonry walls, walls with full fill or partial fill cavity insulation, wall openings, service penetrations, abutments, roof intersections, lintels, cavity barriers and changes in level.

The completed work shall collect moisture entering the outer leaf or cavity and discharge it safely to the external face without allowing moisture to track to the inner leaf, insulation, internal finishes, structural members or enclosed cavities.

2. Related clauses

This clause is to be read in conjunction with:

- B01 External Cavity Walling Above DPC
- B02 Cavity Wall Insulation and Thermal Continuity
- B03 Wall Ties, Bed Joint Reinforcement and Restraint
- B05 Lintels to External Cavity Walls
- B06 Movement Joints in External Masonry Walls
- A23 Damp Proof Courses
- A24 Substructure Cavity Trays and Interfaces

3. Standards and guidance

Carry out the work in accordance with the relevant current standards, statutory requirements and manufacturer's recommendations applicable to the selected products and wall construction.

Relevant standards and guidance include:

- BS 8215: Design and installation of damp proof courses in masonry construction.
- BS EN 1996 series: Eurocode 6, design of masonry structures, where cavity wall construction and movement provisions are structurally relevant.
- BS EN 845-1: Ancillary components for masonry, wall ties, tension straps, hangers and brackets.
- BS EN 845-2: Ancillary components for masonry, lintels.
- BS EN 845-3: Ancillary components for masonry, bed joint reinforcement.
- BS EN 771 series: Masonry units, as applicable to clay, concrete, calcium silicate, autoclaved aerated concrete or manufactured stone units.
- BS 8000-3: Workmanship on building sites, masonry.
- Approved Document C: Site preparation and resistance to contaminants and moisture.
- Approved Document B: Fire safety, where cavity trays interface with cavity barriers and fire stopping.
- Approved Document L: Conservation of fuel and power, where trays, closers and penetrations affect thermal continuity.
- Manufacturer's current written recommendations for cavity trays, stop ends, weep vents, DPCs, cavity closers, lintels, insulation and proprietary wall accessories.

Flexible DPC and cavity tray materials shall be suitable for masonry cavity wall use and shall comply with the relevant product standard or hold appropriate third party certification for the intended application.

Where proprietary cavity tray, lintel tray, gas resistant tray or weep vent systems are used, install the complete system, including matching stop ends, cloaks, tapes, sealants and accessories, in accordance with the manufacturer's tested or certified details. Do not substitute materials from different systems unless compatibility is confirmed before installation.

4. General performance requirements

Cavity trays, stop ends and weep vents shall provide a continuous, watertight and free draining damp proofing arrangement within the external wall construction.

The installation shall direct moisture collected within the cavity outwards to the external face. Water shall not be allowed to discharge from the end of a tray into the cavity, track across insulation, enter the inner leaf or collect behind closers, lintels, service penetrations or cavity barriers.

Cavity trays shall be installed with watertight laps, sealed junctions, properly formed corners and effective stop ends. Weep vents shall remain open and visible on completion. The residual cavity, where present, shall remain clear and unobstructed.

The outer leaf shall be treated as a drained protective leaf, not as a waterproof barrier.

5. Materials

Cavity tray and DPC materials shall be selected to suit the wall type, cavity width, exposure, insulation type, backing construction, adjacent membranes and any gas protection requirements.

Acceptable materials include:

- polyethylene DPC material suitable for horizontal and cavity tray use;
- polypropylene based flexible DPC material suitable for cavity tray use;
- bitumen polymer DPC material suitable for masonry cavity applications;
- pitch polymer or modified bitumen based DPC material, where compatible with adjacent construction;
- EPDM cavity tray material for flexible dressed cavity tray arrangements and abutment detailing;
- lead cored or metal foil cored cavity tray material where additional shape retention is required at stepped abutments, subject to compatibility;
- proprietary preformed cavity tray units manufactured for specific wall, lintel, corner, abutment or parapet conditions;
- proprietary cavity tray cloaks, corner pieces, stop ends and junction units from the same system manufacturer where available;
- gas resistant cavity tray material where forming part of a radon, methane, carbon dioxide or ground gas protection system;
- proprietary plastic weep vents, open perp weep units or combined ventilating weep units manufactured for external masonry use.

Do not use general purpose polythene sheet, damp proof membrane offcuts, roofing felt, improvised site cut plastic, sealant alone or mortar fillets as cavity tray material.

All proprietary materials shall be used in accordance with the manufacturer's current recommendations. Components within a tray system shall be compatible with each other and with adjacent DPCs, cavity insulation, lintels, cavity closers, wall ties, sealants, fire barriers, membranes and masonry units.

Where a proprietary tray system is selected, use the manufacturer's matching stop ends, corner units, cloaks, tapes, jointing pieces and weep units unless a specific alternative is approved.

6. Submission requirements

Before installation, provide product information for proposed cavity tray and weep vent materials where required by the specification or where the construction is non standard.

Submissions shall identify the material type, manufacturer and product reference, suitability for the wall type and cavity width, compatibility with insulation and DPC materials, jointing requirements, stop end details, weep vent type and spacing, gas resistance where applicable, and any fire performance considerations where trays interface with cavity barriers.

Do not mix tray materials or accessories from different proprietary systems unless compatibility is confirmed.

7. Locations requiring cavity trays

Provide cavity trays at all positions where the cavity is interrupted, bridged, closed, penetrated or where water entering the outer leaf requires collection and discharge.

Cavity trays shall be provided at:

- heads of all external wall openings, including windows, doors, louvres, screens, vents and service openings;
- above lintels in external cavity walls;
- above cavity closers where the closer or frame arrangement interrupts the cavity;
- roof abutments against external cavity walls;
- lean to roof junctions;
- stepped flashing locations;
- parapet walls, including below copings and above roof abutments where required;

- changes in wall thickness, wall construction or cavity arrangement;
- changes from full fill insulation to partial fill insulation or to a closed cavity condition;
- above meter boxes, service boxes, ducts, grilles, flues and other built in components;
- above horizontal cavity barriers where moisture may be trapped or deflected;
- above support angles, shelf angles or other structural supports built into the cavity;
- at stepped DPC locations on sloping ground;
- at balcony, canopy, porch or projecting roof abutments;
- at interfaces between new external cavity walling and retained existing walls where moisture could track across the junction.

Where drawings omit a cavity tray at an obvious water risk location, provide notice before proceeding. Do not assume omission means it is unnecessary.

8. Cavity trays over openings and lintels

Install cavity trays over every external opening in cavity wall construction.

Cavity trays over openings shall be positioned directly above the lintel or opening head so that water entering the cavity is collected before it can reach the frame, closer or inner leaf. Unless the proprietary system requires a greater dimension, trays shall extend not less than 150 mm beyond each end of the lintel bearing or opening.

Each tray shall be turned up at both ends with stop ends and shall discharge through weep vents in the outer leaf. Trays shall be dressed and supported to avoid sagging, backfall or ponding, and shall remain clear of mortar droppings and insulation debris.

Where proprietary lintels incorporate an integral cavity tray, confirm that stop ends and weep vents are still provided. Integral tray lintels do not remove the need for positive discharge points.

Where separate flexible trays are used above lintels, support the tray adequately and avoid sharp creases, unsupported folds or punctures.

9. Stop ends and junction cloaks

Provide stop ends to all cavity trays over openings, at interrupted trays, at tray ends, at abutments and at changes in direction.

Use proprietary preformed stop ends where available. Where site formed stop ends are permitted, form them neatly from compatible tray material with sealed folds and upstands.

Stop ends shall prevent collected water running off the end of the tray and into the cavity. They shall be high enough to retain water under expected exposure conditions, sealed to the tray material and securely positioned so that they are not displaced during walling.

Use proprietary junction cloaks at corners, changes in direction, stepped abutments and complex three dimensional junctions where available.

Do not rely on an unsealed fold, mortar packing or sealant smeared over a corner as a stop end.

10. Weep vent types

Weep vents shall be purpose made units suitable for external masonry cavity wall use.

Acceptable types include:

- proprietary plastic open perp weep vents;
- proprietary baffled weep vents;
- proprietary ventilating weep vents where both drainage and ventilation are required;
- colour matched weep vents where required for facing brickwork;
- insect resistant weep units where specified or where required by the wall system manufacturer.

Open perp joints may be used only where appropriate to the exposure, appearance requirements and masonry type, and only where they provide a clear drainage path. On higher quality facework, use proprietary weep vents unless otherwise specified.

Weep vents shall be selected to suit the perp joint width, masonry colour, exposure, cavity condition and finish. For rendered walls, use weep units suitable for render applications and ensure outlets are not covered by render beads, basecoat, mesh, topcoat or paint.

11. Weep vent locations and spacing

Install weep vents through the outer leaf immediately above cavity trays and other cavity drainage points.

Weep vents shall be provided over all external openings, above lintel trays, at stepped cavity trays, at roof abutment trays, above horizontal cavity barriers where drainage is required, at the base of drained cavity zones, above service penetrations where local trays are installed, and at parapet or coping tray discharge points where required.

Spacing shall be not more than 900 mm centres generally, with weeps located not more than 450 mm from each end of a tray over an opening. Provide not fewer than two weep vents over any opening, regardless of opening width. Use closer centres where required by the tray manufacturer, exposure, rendered finish or local detailing.

Set weep vents level and flush with the finished face unless the proprietary unit requires otherwise. Keep weep vents clean, open and unobstructed during walling, pointing, cleaning, rendering and completion works.

Do not block weeps with mortar, sealant, render, insulation, cavity debris, paint or mastic.

12. Stepped cavity trays and roof abutments

At sloping roof abutments, stepped flashings and lean to roof intersections, install stepped cavity trays rising with the roof line.

Stepped trays shall be built into bed joints in sequence with the masonry and shall overlap each lower section to shed water outwards and downwards. Laps and junctions shall be sealed. Stop ends shall be provided at appropriate discharge points, with weep vents at the lowest points and at suitable intermediate positions.

Coordinate stepped trays with lead flashings, secret gutters, soakers, roof coverings, insulation and masonry coursing. The cavity tray shall remain separate from the external flashing so that water penetrating the outer leaf is collected behind the flashing line.

Do not rely on the external lead flashing alone to perform the function of a cavity tray.

Where abutments occur to existing walls, cut out bed joints neatly, insert trays to the required depth and make good masonry without damaging the structural integrity or appearance of the wall.

13. Parapets, copings and high exposure locations

Provide cavity trays beneath copings and at parapet abutments where required to prevent moisture passing down into the wall construction.

At parapets, coordinate cavity trays with coping DPCs, drips, throatings, cavity closures, roof upstands, lead or membrane flashings, cavity insulation, fire stopping, compartmentation and movement joints.

In exposed locations, use robust proprietary tray systems with preformed stop ends and sealed joints. Avoid fragile site formed arrangements where repeated wetting, wind driven rain or thermal movement could compromise the detail.

14. Penetrations through external cavity walls

Where ducts, vents, pipes, meter boxes, service boxes, flues, overflow pipes, cable entries, grilles or other components pass through an external cavity wall, form a water management detail that prevents moisture tracking to the inner leaf.

Penetrations shall be detailed so that ducts, sleeves, vents and service boxes fall or drain towards the external face where appropriate. The cavity shall not be bridged with mortar, debris or poorly sealed packing, and the sleeve or duct shall not direct water towards the inner leaf.

Insulation shall be cut neatly and reinstated around the penetration. Air leakage paths shall be sealed on the warm side where required. Cavity fire stopping shall be maintained where penetrations pass through or near cavity barriers. Any manufacturer's integral sleeve, hood, grille or weathering detail shall be installed complete.

Where the penetration does not include an integral certified water barrier, provide a local cavity tray above the penetration, complete with stop ends and weep vents. Unless the proprietary detail requires more, the local tray shall extend not less than 150 mm beyond each side of the penetration.

For ducts and vents crossing the cavity, provide a sleeve or duct unit suitable for cavity wall installation. Bed and seal the outer leaf and inner leaf openings neatly. Do not leave ragged gaps around ducts to be hidden by grilles.

For meter boxes and recessed service boxes, provide a cavity tray above the box and seal the box perimeter to prevent water entering the cavity or inner leaf.

For circular pipe penetrations, use proprietary collars, sleeves or seal systems where required. Sealant alone is not acceptable as the sole method of weathering where movement or long term exposure is likely.

15. Interaction with cavity insulation

Install cavity trays without damaging or displacing cavity insulation.

At partial fill cavities, maintain the designed residual clear cavity and keep the drainage path between the outer leaf and the insulation clear. Trays shall project and dress correctly to discharge water beyond the insulation line. Rigid insulation boards shall be cut neatly around trays and accessories, with board joints taped or closed where required by the insulation system.

At full fill cavities, use cavity tray systems suitable for full fill insulation. The tray installation shall not create voids, compression paths or blocked weep outlets. Insulation batts or boards shall not be allowed to obstruct the drainage route to weep vents.

Where insulation continuity is interrupted by a tray, closer, lintel or penetration, make good with compatible insulation pieces or proprietary insulated components to reduce cold bridging.

16. Interaction with cavity barriers and fire stopping

Coordinate cavity trays with cavity barriers and fire stopping.

Where cavity trays pass above or adjacent to cavity barriers, install both systems in accordance with their manufacturers' recommendations and maintain the required fire stopping performance.

Do not cut, omit, compress or displace cavity barriers to fit trays. Where a horizontal cavity barrier could collect water within the cavity, provide a suitable tray and weep arrangement above the barrier where required.

Seal around penetrations through cavity barriers using compatible fire stopping materials. Do not use ordinary DPC material as a substitute for a cavity barrier.

17. Laps, joints and fixing

Lap flexible cavity tray and DPC materials by not less than 100 mm unless the manufacturer requires a greater lap.

For gas resistant systems, provide laps, tapes, seals and jointing pieces in accordance with the approved gas protection system.

Lay trays on a smooth, even bed where required and build them into the masonry as work proceeds. Secure trays sufficiently to prevent displacement during walling, insulation installation and lintel fixing.

Avoid punctures, unsupported sagging, sharp folds that restrict drainage, reverse falls, unsealed laps, open corners, crushed or twisted tray material, wall ties penetrating tray material and mortar droppings on the drainage face of the tray.

18. Workmanship and sequencing

Build cavity trays, stop ends and weep vents progressively with the walling.

Do not attempt to insert standard cavity trays retrospectively into completed cavity walling unless the method is specifically agreed and the completed detail will remain watertight and durable.

Before covering trays, remove mortar droppings, loose mortar, masonry fragments, insulation offcuts, packaging, plastic ties and other debris from the cavity. Keep the tray face and weep outlets clear.

Protect trays from damage during scaffold works, lintel installation, insulation installation and follow on trades.

19. Inspection and hold points

Give notice for inspection before cavity trays are covered at:

- major openings;
- roof abutments;
- stepped trays;
- parapets;
- trays linked to gas resistant systems;
- trays above cavity barriers;
- service penetrations and meter boxes;
- site formed stop ends;
- non standard junctions.

Do not cover defective work until missing stop ends, poor laps, blocked weeps, damaged trays or incorrect falls have been corrected.

20. Completion requirements

At completion, the installation shall be continuous, watertight, free draining, correctly lapped and sealed, fitted with stop ends, fitted with correctly spaced weep vents, clear of mortar and debris, and coordinated with insulation, lintels, closers, cavity barriers, DPCs and penetrations.

Check all weep vents after pointing, cleaning, rendering or painting. Clear or replace blocked or damaged weep vents.

21. Common specification options

Option A: Standard proprietary cavity tray system

Provide proprietary flexible or preformed cavity trays over external openings and cavity interruptions, complete with matching stop ends, cloaks and weep vents.

Option B: Preformed lintel tray system

Provide proprietary preformed trays to lintel heads, complete with factory formed stop ends and colour matched weep vents.

Option C: Stepped abutment tray system

Provide proprietary stepped cavity tray system to roof abutments, complete with sealed laps, stop ends and weep vents.

Option D: Gas resistant cavity tray system

Provide gas resistant cavity trays, laps, tapes and seals forming part of the approved gas protection system.

Option E: Render compatible weep vent system

Provide proprietary weep vents suitable for rendered external walls, installed to remain visible and open through the completed render finish.

Option F: Service penetration tray detail

Provide local cavity trays above ducts, vents, meter boxes and service penetrations, extending not less than 150 mm beyond each side and discharging through weep vents.

22. Defects to be avoided

The following are not acceptable:

- ordinary polythene sheet used as a cavity tray;
- missing cavity trays over openings;
- missing stop ends;
- site formed stop ends left unsealed;
- missing or blocked weep vents;
- trays ending short of lintel bearings;
- trays falling towards the inner leaf;
- trays punctured by ties, fixings or straps;
- cavity insulation blocking drainage paths;
- unsealed laps and corners;
- weeps hidden by render, pointing or paint;
- penetrations without local damp proofing provision;
- meter boxes or ducts bridging moisture to the inner leaf;
- trays installed after the event by rough cutting without an agreed method.

23. Building performance

The completed work shall support compliance with moisture resistance, durability, thermal continuity and fire safety requirements by collecting and discharging water entering the external leaf, preventing damp transfer to the inner leaf and internal finishes, maintaining the function of DPCs and cavity barriers, reducing avoidable cold bridging at openings and penetrations, and maintaining the drainage and ventilation function of the cavity.

THE NEXT CLAUSE SHOULD BE THIS CLEAR.

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