Roberts Limbrick

Oakwood School Hygiene Room

Work Sections

Tender

C01

10-07-2025

11962

Contents

C20
Demolition

Summary

Revision history

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2 To be read with preliminaries/general conditions

General requirements

120A Extent of deconstruction/ demolition - Generally

1. General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to as shown on drawings.

Services affected by deconstruction/ demolition

210 Services regulations

1. Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.

220 Location of services

1. Services affected by deconstruction/ demolition work: Locate and mark positions.
2. Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
   2.1. Marking standard: In accordance with National Joint Utilities Group ‘Guidelines on the positioning and colour coding of underground utilities’ apparatus’.

240 Disconnection of drains

1. General: Locate, disconnect and seal disused foul and surface water drains.
2. Sealing: Permanent, and within the site.

250 Live foul and surface water drains

1. Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings
   1.1. Protect; maintain normal flow during deconstruction/ demolition.
   1.2. Make good any damage arising from deconstruction/ demolition work.
   1.3. Leave clean and in working order at completion of deconstruction/ demolition work.
2. Other requirements: N/A

260 Service bypass connections

1. General: Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction/ demolition is taking place and to adjoining sites/ properties.
2. Minimum notice to adjoining owners and all affected occupiers: 72 hours, if shutdown is necessary during changeover.

Deconstruction/ demolition work

310 Workmanship

1. Standard: Demolish structures in accordance with BS 6187.
2. Operatives
   2.1. Appropriately skilled and experienced for the type of work.
   2.2. Holding, or in training to obtain, relevant CITB Certificates of Competence.
3. Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.

330 Dust control

1. General: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.

2. Lead dust: Submit method statement for control, containment and clean-up regimes.

340 Health hazards

1. Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

350 Adjoining property

1. Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
2. Defects: Report immediately on discovery.
3. Damage: Minimize. Repair promptly to ensure safety, stability, weather protection and security.
4. Support to foundations: Do not disturb.

360 Structures to be retained

1. Extent: As drawings
2. Parts which are to be kept in place: Protect.
3. Interface between retained structures and deconstruction/ demolition: Cut away and strip out with care to minimize making good.

370 Partly demolished structures

1. General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
2. Temporary works: Prevent overloading due to debris.
3. Access: Prevent access by unauthorized persons.

380 Dangerous openings

1. General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
2. Access: Prevent access by unauthorized persons.

390 Asbestos-containing materials – known occurrences

1. General: Materials containing asbestos are known to be present in: refer to asbesytos surveys.
2. Removal: By contractor licensed by the Health and Safety Executive, and prior to other works starting in these locations

391 Asbestos-containing materials – unknown occurrences

1. Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition work. Avoid disturbing such materials.
2. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

410 Unforeseen hazards

1. Discovery: Give notice immediately when hazards such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition.
2. Removal: Submit details of proposed methods for filling, removal, etc.

450 Site condition at completion

1. Debris: Clear away and leave the site in a tidy condition.
2. Other requirements: None

Materials arising

510 Contractor's property

1. Components and materials arising from the deconstruction/ demolition work: Property of the Contractor except where otherwise provided.
2. Action: Remove from site as work proceeds where not to be reused or recycled for site use.

Ω End of Section

G20
Carpentry/ timber framing/ first fixing

Summary

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General

105 Timber procurement

1. Timber (including timber for wood-based products): Obtained from well managed forests/ plantations in accordance with:
   1.1. The laws governing forest management in the producer country or countries.
   1.2. International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
2. Documentation: Provide either in accordance with chain of custody certification scheme requirements:
   2.1. Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied, or
   2.2. Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
3. Chain of Custody Certification scheme: Not applicable
   3.1. Other evidence: None

Products

210 Structural softwood (graded direct to strength class)

1. Description: FOR STRUCTURAL USE GENERALLY
2. Grading standard: To BS EN 14081-1 and BS 4978, or other suitable national equivalent and so marked.
3. Strength class to BS EN 338: C24
4. Treatment
   4.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8
      4.1.1. Design service life: 30 years
   4.2. Flame retardant treatment: None required

270 Ungraded softwood

1. Description: Generally
2. Quality of timber: Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.
3. Surface finish: Regularized
4. Treatment
   4.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8
   4.2. Design service life: 25 years
   4.3. Flame retardant treatment: None required

310A Structural plywood

1. Description: Generally
2. Standard: To BS EN 636.
3. Type: Finnish birch-faced plywood
4. Grade: WBP Exterior quality glue
5. Nominal thickness/ number of plies: As noted on drawings
6. Finish: Sanded
7. Treatment: Marine Plywood

7.1. Preservative treatment: Organic solvent impregnation to NBS section Z12 and Wood Protection Association Commodity Specification C8

7.1.1. Design service life: 25 years

7.2. Fire retardant treatment: None required

311 Non-structural plywood

1. Description: Generally
2. Standard: To an approved national standard.
3. Thickness: 12mm, 18mm and 25mm as indicated on drawings
4. Appearance class to BS EN 635: III
5. Use class to BS EN 335: Use class 2
6. Bonding quality to BS EN 314-2: Class 1
7. Finish: Sanded
8. Edges: Square
9. Treatment
   9.1. Preservative treatment: None required
   9.1.1. Design service life: 30 years
   9.2. Flame retardant treatment: None required

Workmanship generally

401 Cross-section dimensions of structural softwood and hardwood

1. Dimensions: Dimensions in this specification and shown on drawings are target sizes as defined in BS EN 336.
2. Tolerances: The tolerance indicators (T1) and (T2) specify the maximum permitted deviations from target sizes as stated in BS EN 336, clause 4.3:
   2.1. Tolerance class 1 (T1) for sawn surfaces.
   2.2. Tolerance class 2 (T2) for further processed surfaces.

402 Cross-section dimensions of non-structural softwood

1. Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
2. Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1, clause 6 for sawn sections.

420 Warping of timber

1. Bow, spring, twist and cup: Not greater than the limits set down in BS 4978 or BS EN 14081-1 for softwood, or BS 5756 for hardwood

430 Selection and use of timber

1. Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

450 Moisture content

1. Moisture content of wood and wood-based products at time of installation: Not more than:
   1.1. Covered in generally unheated spaces: 24%.
   1.2. Covered in generally heated spaces: 20%.
   1.3. Internal in continuously heated spaces: 20%.

451 Moisture content testing

1. Procedure: When instructed, test timber sections with an approved electrical moisture meter.
2. Test sample: Test 5% but not less than 10 lengths of each cross-section in the centre of the length.

3. Test results: 90% of values obtained to be within the specified range. Provide records of all tests.

510 Protection

1. Generally: Keep timber dry and do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
2. Timber and components: Store under cover, clear of the ground and with good ventilation. Support on regularly spaced, level bearers on a dry, firm base. Open pile to ensure free movement of air through the stack.
3. Trussed rafters: Keep vertical during handling and storage.

Jointing timber

570 Jointing/ fixing generally

1. Generally: Where not specified precisely, select methods of jointing and fixing and types, sizes and spacings of fasteners in compliance with section Z20.

615 Bolt/ screw assemblies

1. Description: For general use
2. Designation: Grade 5.8
3. Size: M12 minimum
4. Coating applied by manufacturer: Galvanized
5. Nuts and washers: Material grade and finish to suit bolts.
6. Washer dimensions: Diameter/ side length of washers in contact with timber faces to be minimum 3 times bolt diameter, with a thickness not less than 0.3 times bolt diameter.

Erection and installation

770 Additional supports

1. Provision: Position and fix additional studs, noggings and/ or battens to support edges of sheets materials, and wall/ floor/ ceiling mounted appliances, fixtures, etc. shown on drawings
2. Material properties: Additional studs, noggings and battens to be of adequate size and have the same treatment, if any, as adjacent timber supports.

850 Inspection generally

1. Structural timber-work: Give reasonable notice before covering up.

Ω End of Section

K10
Plasterboard dry linings/ partitions/ ceilings

Summary

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Types of dry lining

115A Metal stud partition system

1. Description: Generally
2. Partition type: Gypsum White Book Reference A206142
3. Lining substitute: [First layer of wallboard either side to be substituted with 12mm plywood from FFL to 2400 high with wallboard over].
4. Partition height: C.O.S
5. Head condition: See drawings
   5.1. Deflection allowance: 10 mm maximum
6. Fire resistance of complete partition assembly: To BS 476-20 and -22, 30/30 minutes (Integrity/ Insulation)
7. Metal framing: Type recommended by board manufacturer to complete the partition assembly and achieve specified performance.
8. Finishing: Skim coat plaster
   8.1. Primer/ Sealer: Not required
   8.2. Accessories: Beads/ stops
9. Other requirements: Fire stopping around services as section P12

General/ preparation

305 Compliance with performance requirements

1. Testing/ Assessment: Submit UKAS accredited laboratory reports for the following: Fire resistance: Partitions (including deflection heads and doorsets) and suspended ceilings (including access units)..
2. Materials, components and details: As used in testing/ assessment reports. If discrepancies arise, give notice.

335 Additional supports

1. Framing: Accurately position and securely fix to give full support to:
   1.1. Partition heads running parallel with, but offset from main structural supports.
   1.2. Fixtures, fittings and service outlets. Mark framing positions clearly and accurately on linings.
   1.3. Board edges and lining perimeters, as recommended by board manufacturer to suit type and performance of lining.

375 New wet laid bases

1. Dpcs: Install under full width of partitions/ freestanding wall linings.
   1.1. Material: Bituminous sheet or plastics.

Components

401 Gypsum plasterboard

1. Type: To BS EN 520, type A
2. Core density (minimum): 650 kg/m³.
3. Reaction to fire: Manufacturer's standard
4. Water vapour resistance factor: Manufacturer's standard
5. Thermal conductivity: Manufacturer's standard
6. Other BS EN 520 characteristics: None

7. Recycled content: Contractor's choice
8. Exposed surface and edge profiles: Suitable to receive specified finish

402 Gypsum plasterboard (vapour control)

1. Type: To BS EN 520, type A
2. Core density (minimum): 650 kg/m³.
3. Reaction to fire: Manufacturer's standard
4. Water vapour resistance factor: Manufacturer's standard
5. Thermal conductivity: Manufacturer's standard
6. Other BS EN 520 characteristics: None
7. Recycled content: Contractor's choice
8. Moisture vapour resistance of backing layer (minimum): 60 MNs/g.
9. Exposed surface and edge profiles: Suitable to receive specified finish

403 Gypsum plasterboard (moisture-resistant)

1. Type: To BS EN 520, type H1
2. Core: Moisture resistant.
   2.1. Density (minimum): 710 kg/m³.
3. Paper facings: Moisture resistant.
4. Reaction to fire: Manufacturer's standard
5. Water vapour resistance factor: Manufacturer's standard
6. Thermal conductivity: Manufacturer's standard
7. Other BS EN 520 characteristics: None
8. Recycled content: Contractor's choice
9. Exposed surface and edge profiles: Suitable to receive specified finish

Installation

435 Dry linings generally

1. General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
2. Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing.
   2.1. Cut edges: Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
3. Fixings boards: Securely and firmly to suitably prepared and accurately levelled backgrounds.
4. Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

445 Ceilings

1. Sequence: Fix boards to ceilings before installing dry lined walls and partitions.
2. Orientation of boards: Fix with bound edges at right angles to supports and with ends staggered in adjacent rows.
3. Two layer boarding: Stagger joints between layers.

485 Suspended ceiling grids

1. Setting out: Accurately aligned and level.
   1.1. Grid members and hangers: Centres to suit specified linings and imposed loads.
   1.2. Additional grid members: Provide bracing and stiffening at upstands, partition heads, access hatches, etc.
2. Fixing: Securely at perimeters, grid joints, top and bottom hanger fixings.

510 Sealing gaps and air paths

1. Location of sealant: To perimeter abutments and around openings.
   1.1. Pressurized shafts and ducts: At board-to-board and board-to-metal frame junctions.
2. Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.
   2.1. Gaps greater than 6 mm between floor and underside of gypsum board: After sealing, fill with jointing compound.

560 Joints between boards

1. Tapered edged gypsum boards
   1.1. Bound edges: Lightly butted.
   1.2. Cut/ unbound edges: 3 mm gap.
2. Square edged plasterboards: 3 mm gap.
3. Square edged gypsum fibre boards: 5 mm gap.

Finishing

650 Level of dry lining across joints

1. Sudden irregularities: Not permitted.
2. Joint deviations: Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to BS 8212, clause 3.3.5.
   2.1. Tapered edge joints
      2.1.1. Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
   2.2. External angles
      2.2.1. Permissible deviation (maximum) for both faces: 4 mm.
   2.3. Internal angles
      2.3.1. Permissible deviation (maximum) for both faces: 5 mm.

670 Seamless jointing to gypsum boards

1. Cut edges of boards: Lightly sand to remove paper burrs.
2. Filling and taping: Fill joints, gaps and internal angles with jointing compound and cover with continuous lengths of paper tape, fully bedded.
3. Protection of edges/ corners: Reinforce external angles, stop ends, etc. with specified edge/ angle bead.
4. Finishing: Apply jointing compound. Feather out each application beyond previous application to give a flush, smooth, seamless surface.
5. Nail/ screw depressions: Fill with jointing compound to give a flush surface.
6. Minor imperfections: Remove by light sanding.

692 Rigid beads/stops

1. Internal: To BS EN 13658-1.
2. External: To BS EN 13658-2.

695 Installing beads/ Stops

1. Cutting: Neatly using mitres at return angles.
2. Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
3. Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

725 Repairs to existing gypsum board

1. Filling small areas with broken cores: Cut away paper facing, remove loose core material and fill with jointing compound.
   1.1. Finish: Flush, smooth surface suitable for redecoration.
2. Large patch repairs: Cut out damaged area and form neat hole with rectangular sides. Replace with matching gypsum board.
   2.1. Fixing: Use methods to suit type of dry lining, ensuring full support to all edges of existing and new gypsum board.
   2.2. Finishing: Fill joints, tape and apply jointing compound to give a flush, smooth surface suitable for redecoration.

Ω End of Section

K32
Panel cubicles/ duct and wall linings/ screens

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To be read with preliminaries/general conditions.

150A Duct linings

1. Manufacturer: Bristol Panel Formers.
   1.1. Web: Home - Bristol Panel Formers
   1.2. Email: bristolpanelformers.co.uk
   1.3. Tel: +44 (0)1474 353333.
   1.4. Address: Unit 606 Central Park Petherton Road, Bristol BS14 9BZ
   1.5. Product reference: Soild Grade Laminate panels with no visible surface fixings
2. Panel colour/ finish: To be confirmed with Client at Pre-Contract Meeting

250 Installation

1. Programming: Do not install cubicles or duct/ wall panels before building is weathertight, wet trades have finished their work, wall and floor finishes are complete, and the building is well dried out.
2. Accuracy: Set out to ensure frames and/ or panels and doors are plumb, level and accurately aligned.
3. Modifications: Do not cut, plane or sand prefinished components except where shown on drawings.
4. Fixing: Secure components using methods and fasteners recommended by the cubicle manufacturer. Prevent pulling away, bowing or other distortions to frames, panels and doors. Use only suitable length screw fixings so not to cause injury to maintenance personal
5. Moisture and thermal movement: Make adequate allowance for future movement.

To be read with preliminaries/ general conditions. - Not Used

Ω End of Section

M20
Plastered/ rendered/ roughcast coatings

Summary

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Clauses

2 To be read with preliminaries/ general conditions.

Types of coating

210 Lightweight gypsum plaster

1. Description: GENERALLY
2. Substrate: Concrete blockwork as section F10
   2.1. Preparation: Not required
3. Manufacturer: Contractor's choice
4. Undercoats: To BS EN 13279-1.
   4.1. Product reference: Thistle Hardwall
   4.2. Thickness (excluding dubbing out and keys): Two coat 13 mm overall
5. Final coat: Finish plaster to BS EN 13279-1.
   5.1. Product reference: as clause 280A
   5.2. Thickness: 2-3 mm.
   5.3. Finish: Smooth.
6. Accessories: Beads and stops

280 Gypsum plaster skim coat on plasterboard

1. Plasterboard: 12.5 mm with foil backing to ceilings
   1.1. Preparation: Bonding agent recommended by plaster manufacturer
2. Plaster: Board finish/ finish plaster to BS EN 13279-1.
   2.1. Manufacturer: as clause 280A
      2.1.1. Product reference: as clause 280A
   2.2. Thickness: 5mm
   2.3. Finish: Smooth.
3. Accessories: Beads and stops

280A Thistle multi finish

1. Manufacturer: British Gypsum.
   1.1. Web: www.british-gypsum.com.
   1.2. Email: bgtechnical.enquiries@bpb.com.
   1.3. Product reference: Thistle Multi Finish.
2. Accessories: [beads, stops, etc] .

General - Not Used

Materials and marking of mortar - Not Used

Preparing substrates

510 Suitability of substrates

1. Soundness: Free from loose areas and significant cracks and gaps.
2. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
3. Tolerances: Permitting specified flatness/ regularity of finished coatings.
4. Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

527 Raking out for key

1. Joints in existing masonry: Rake out to a depth of 13 mm (minimum).
   1.1. Dust and debris: Remove from joints.

531 Roughening for key

1. Substrates: Roughen thoroughly and evenly.
   1.1. Depth of surface removal: Minimum necessary to provide an effective key.

541 Bonding agent application

1. General: Apply evenly to substrate to achieve effective bond of plaster/ render coat. Protect adjacent joinery and other surfaces.

Backings/ beads/ joints

600 Additional framing supports for backings

1. Framing: Accurately position and securely fix to give full support to fixtures, fittings and service outlets.
2. Support board edges and perimeters: As recommended by board manufacturer to suit type and performance of board.

607 Proprietary gypsum plasterboard backings

1. Manufacturer: British Gypsum
   1.1. Product reference: Contractor's choice
2. Exposed surface and edge profiles: Suitable to receive specified plaster finish.

610A Fixing plasterboard backings to metal studs

1. Description:
2. Fixings, accessories and installation methods: As recommended by board manufacturer.
3. Fixing: At the following centres (maximum):
   3.1. Nails: 150 mm.
   3.2. Screws to partitions/ walls: 300 mm. Reduce to 200 mm at external angles.
   3.3. Screws to ceilings: 230 mm.
4. Position of screws from edges of boards (minimum):
   4.1. Bound edges: 10 mm.
   4.2. Cut/ unbound edges: 13 mm.
5. Position of screws from edges of supports (minimum): 6 mm.
6. Screw heads: Set below surface. Do not break paper or gypsum core.

612 Joints in plasterboard backings

1. Ceilings
   1.1. Bound edges: At right angles to supports and with ends staggered in adjacent rows.
   1.2. Two layer boarding: Stagger joints between layers.
2. Partitions/ walls
   2.1. Vertical joints: Centre on studs. Stagger joints on opposite sides of studs.
      2.1.1. Two layer boarding: Stagger joints between layers.
   2.2. Horizontal joints
      2.2.1. Two layer boarding: Stagger joints between layers by at least 600 mm. Support edges of outer layer.
3. Joint widths (maximum): 3 mm.

630 Beads/ stops for internal use

1. Standard: In accordance with BS EN 13914-2, Table 2.
2. Material: Galvanized steel to BS EN 13658-1

640 Beads/ stops generally

1. Location: External angles and stop ends except where specified otherwise.
2. Corners: Neat mitres at return angles.
3. Fixing: Secure, using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
   3.1. Beads/ stops for external render: Fix mechanically.
4. Finishing: After coatings have been applied, remove surplus material while still wet, from surfaces of beads/ stops exposed to view.

659 Plasterboard joints

1. Joints and angles (except where coincident with metal beads). Reinforce with continuous lengths of jointing tape.

Mouldings/ decorative plasterwork - Not Used

Internal plastering

710 Application generally

1. Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
2. Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
   2.1. Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
3. Drying out: Prevent excessively rapid or localized drying out.

715 Flatness/ surface regularity

1. Sudden irregularities: Not permitted.
2. Deviation of plaster surface: Measure from underside of a straight edge placed anywhere on surface.
   2.1. Permissible deviation (maximum) for plaster not less than 13 mm thick: 3 mm in any consecutive length of 1800 mm.

718 Junction of new plasterwork with existing

1. New plasterwork: Finish flush with original face of existing plasterwork to form a seamless junction.

720 Dubbing out

1. General: Correct substrate inaccuracies.
2. New smooth dense concrete and similar surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.
3. Thickness of any one coat (maximum): 10 mm.
4. Mix: As undercoat.
5. Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

725 Undercoats generally

1. General: Rule to an even surface. Cross scratch to provide a key for the next coat.
2. Undercoats on metal lathing: Work well into interstices to obtain maximum key.

3. Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

742 Thin coat plaster

1. Preparation for plasters less than 2 mm thick: Fill holes, scratches and voids with finishing plaster.

777 Smooth finish

1. Appearance: A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. Avoid water brush, excessive trowelling and over polishing.

778 Wood float finish

1. Appearance: An even overall texture. Finish with a dry wood float as soon as wet sheen has disappeared.

External rendering - Not Used

Ω End of Section

M50
Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

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Types of covering

110A Pvcu wall lining - To hygiene room

1. Location: To all walls
2. Base: Minimum 9mm W.B.P. resin bonded plywood fixed at max. 400mm centres to treated timber battens/studs.
   2.1. Preparation: As manufacturer's recommendations
3. Sheet: Extruded semi-rigid PVCu sheet, EU Grade- Maximum service temp: 60°C- Fire rating: BS 476 Part 7 (1987) surface spread of flame - Class 1BS 476 Part 6 (1989) fire propagation - Class 0*(*when fixed to a non-combustible substrate)EN13501-1 B-s3, d0
   3.1. Manufacturer: Altro Limited,telephone +44(0)1462 707600,fax +44 (0)1462 707515, email enquiries@altro.com
      3.1.1. Product reference: Altro Whiterock™ W103/W104hygienic wall cladding
   3.2. Width: 1220 mm
   3.3. Length: to suit application
   3.4. Thickness: 2.5 mm
   3.5. Colour: To approval
   3.6. Light reflectance value: 95
   3.7. Surface finish: Satin
4. Adhesive (and primer if recommended by manufacturer): AltroFix™ W139 or W157 depending upon substrate
5. Accessories: services access panels as clause N10/350E
6. Finishing: as recommended by manufacturer
7. Other requirements: Seam welded joints

155A Vinyl sheet safety flooring

1. TO HYGIENE ROOM
2. Base:: Screed
   2.1. Preparation:: As manufacturers recommendations. Latex levelling compound as necessary to provide smooth even surface and DPM as clause M50/461
3. Manufacturer: Contractor's choiceTo match existing
   3.1. Web:
   3.2. Email:
   3.3. Tel:
   3.4. Address:
   3.5. Product reference:
4. Colour: To approval
5. Seam welding:: Hot welded with matching coloured rod
6. Accessories:: Manufacturers skirting for system generally (floor finish dressed up wall on coved former in toilets) and threshold strips as clause 740 at junctions with all other floor finishes

General requirements

210 Workmanship generally

1. Base condition after preparation: Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.

2. Finished coverings: Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

251 Layout – seams in roll materials

1. Setting out: Minimise occurrences of seams and cross seams.
2. Cross seams: Not permitted in following locations: all.

330 Commencement

1. Required condition of works prior to laying materials
   1.1. Building is weathertight and well dried out.
   1.2. Wet trades have finished work.
   1.3. Paintwork is finished and dry.
   1.4. Conflicting overhead work is complete.
   1.5. Floor service outlets, duct covers and other fixtures around which materials are to be cut are fixed.
2. Notification: Submit not less than 48 hours before commencing laying.

340 Conditioning

1. Prior to laying: Condition materials by unpacking and separating in spaces where they are to be laid. Maintain resilient flooring rolls in an upright position. Unroll carpet and keep flat on a supporting surface.
2. Conditioning time and temperature (minimum): As recommended by manufacturer with time extended by a factor of two for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

350 Environment

1. Temperature and humidity: Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.
2. Ventilation: Before during and after laying, maintain adequate provision.

Preparing bases

410 New bases

1. Suitability of bases and conditions within any area: Commencement of laying of coverings will be taken as acceptance of suitability.

420 Existing bases

1. Notification: Before commencing work, confirm that existing bases will, after preparation, be suitable to receive coverings.
2. Suitability of bases and conditions within any area: Commencement of laying of coverings will be taken as acceptance of suitability.

440 Substrates to receive thin coverings

1. Trowelled finishes: Uniform, smooth surface free from trowel marks and other blemishes. Abrade suitably to receive specified floor covering material.

461 Smoothing/ levelling underlayment and surface dpm

1. FOR GENERAL USE
2. Type: Latex cement and Epoxy
3. Manufacturer: Arditex, Tremco
   3.1. Product reference: Arditex (coats above and below DPM), Tremco ES100 One Coat Universal DPM

Laying coverings

620 Colour consistency

1. Finished work in any one area/ room: Free from banding or patchiness.

640 Adhesive fixing generally

1. Adhesive type: As specified, as recommended by covering/ underlay, manufacturer or as approved.
2. Primer: Type and usage as recommended by adhesive manufacturer.
3. Application: As necessary to achieve good bond.
4. Finished surface: Free from trowel ridges, high spots caused by particles on the substrate, and other irregularities.

650 Seams

1. Patterns: Matched.
2. Joints: Tight without gaps.

680 Seam welding coverings

1. Commencement: At least 24 hours after laying, or after adhesive has set.
2. Joints: Neat, smooth, strongly bonded, flush with finished surface.

720 Doorways

1. Joint location: On centre line of door leaf.

740 Edgings and cover strips

1. Manufacturer: Gradus Ltd or equivalent
   1.1. Product reference: Clip-Top
2. Material/ finish: PVC insert. colour to approval
3. Fixing: Secure with edge of covering gripped. Use matching fasteners where exposed to view

770A Self coved skirtings for Whiterock

1. Manufacturer: Altro
   Web: www.altro.co.uk.
   Email: enquiries@altro.com.
   Tel: +44 (0)1462 707604.
   Address: Works Road, Letchworth Garden City, Hertfordshire. SG6 1NW.
   1.1. Product reference: Cove former: Altro 38R - Securely bond to base and background.
2. Fixing: Secure with top edge straight and parallel with floor.
   Turn flooring material up wall and securely bond to cove former and background, with top edge straight.
   2.1. Height:: Minimum 150 mm
   2.2. Top edge:: Overlap by 50 mm
   2.3. Adhesive:: as F Ball recommendation
   2.4. Joints:: Hot weld joints and mitred corners with matching Altro welding rod. Do not chemical weld.
   2.5. Corners: Mitre joints.
3. Other requirements:: Seal underside of Whiterock sheet using Altromastic 100 clear.

780 Trafficking after laying

1. Covering types: all
2. Traffic free period: Until adhesive is set

Completion

820 Finishing

1. Description: VINYL/MARMOLEUM FLOORING
2. Cleaning operations
   2.1. Wash floor with water containing neutral (pH 6-9) detergent. If necessary, lightly scrub heavily soiled areas.
   2.2. Rinse with clean water, removing surplus to prevent damage to adhesive. Allow to dry.
3. Emulsion polish: Two coats of a type recommended by covering manufacturer.

880 Waste

1. Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.

Ω End of Section

M60
Painting/clear finishing

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/general conditions.

Coating systems

114 Vinyl matt emulsion paint

1. Description: TO CEILINGS
2. Manufacturer: ICI Dulux
   2.1. Product reference: Vinyl matt emulsion
3. Surfaces: Plasterboard & skim
   3.1. Preparation: As clause 400A/440 **ensuring that dent, depressions, etc are filled after mist coat and that all paint snots, runs, etc from previous decoration are scraped off prior to painting. Pinboards should have all staples removed before decoration.**
4. Initial coats: 1no mist coat
5. Finishing coats: 2no full top coats emulsion.Special Requirements: CA shall be notified and given oppurtunity to inspect between coats. 2 hours notice required before commencements of subsequent coats

115A Diamond matt emulsion paint

1. Description: TO INTERNAL PLASTERED WALLS
2. Manufacturer: ICI Dulux
   2.1. Product reference: diamond matt vinyl emulsion paint
3. Surfaces: Plaster
   3.1. Preparation: As clause 400A/440 **ensuring that dent, depressions, etc are filled after mist coat and that all paint snots, runs, etc if previously decorated are scraped off prior to painting. Existing pinboards should have all staples removed before decoration.**
4. Initial coats: 1no mist coat
5. Finishing coats: 2no full top coatsSpecial Requirements: CA shall be notified and given oppurtunity to inspect between coats. 2 hours notice required before commencements of subsequent coats

116A Gloss paint

1. Description: INTERNAL
2. Manufacturer: ICI Dulux
   2.1. Product reference: ICI Dulux Colour dimensions range
3. Surfaces: Timber
   3.1. Preparation: As clause 400A/440 **ensuring that dent, depressions,etc. are filled after first undercoat and that all paint snots, runs, etc from previous decoration are scraped off prior to painting**
4. Initial coats: 1no primer, 1no undercoat
5. Finishing coats: 2no top coats gloss finishSpecial Requirements: CA shall be notified and given oppurtunity to inspect between coats. 2 hours notice required before commencements of subsequent coats

117 Satinwood

1. Description: TO INTERNAL TIMBER SURFACES
2. Manufacturer: ICI Dulux
   2.1. Product reference: Satinwood, colour dimensions range
3. Surfaces: softwood/mdf
   3.1. Preparation: As clause 400A
4. Initial coats: Base coat primer / sealer

5. Finishing coats: 3

Generally

210 Coating materials

1. Manufacturers: Obtain materials from any of the following:
2. ICI Dulux.
3. Selected manufacturers: Submit names before commencement of coating work.

215 Handling and storage

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

220 Compatibility

1. Coating materials selected by contractor
   1.1. Recommended by their manufacturers for the particular surface and conditions of exposure.
   1.2. Compatible with each other.
   1.3. Compatible with and not inhibiting performance of preservative/fire-retardant pretreatments.

240 Surfaces not to be coated

1. Radiator Valves and stop valves, electrical switches, sockets etc.other predecorated components.It should be noted that second fix items must be loosened or removed prior to decoration. Failure to do this resulting in fittings needing to have paint removed will require the contractor to decorate again the whole of the wall or surface in which it occurs at his own expense.

280 Protection

1. 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

Preparation

400A Preparation generally

1. Standard: To BS 6150, Section 4.
2. Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
3. Substrates: Sufficiently dry in depth to suit coating.
4. Efflorescence salts: Remove.
5. Dirt, grease and oil: Remove.
   5.1. Give notice if contamination of surfaces/ substrates has occurred.
6. Joints, cracks, holes and other depressions:
   6.1. Fill with stoppers/ fillers. Work well in and finish off flush with surface.
   6.2. Abrade to a smooth finish.
7. Water based stoppers and fillers:
   7.1. Apply before priming unless recommended otherwise by manufacturer.
   7.2. If applied after priming: Patch prime.
8. Oil based stoppers and fillers: Apply after priming.
9. Surface irregularities: Abrade to a smooth finish.
10. Dust, particles and residues from abrasion: Remove.
11. Doors, opening windows and other moving parts:
    11.1. Ease before coating.

11.2. Prime resulting bare areas.

12. NOTE:: Should the painting sub-contractor carry out painting operations to walls without loosening off second fix electrical items etc, culminating in the fittings having to be cleaned and the paint finish made good, the contractor will redecorate the whole of the walls affected at his own cost. Touching up areas of previously roller applied paintwork with brush applied finsih will not be accepted.

420 Fixtures and fittings

1. Removal: Before commencing work remove: Ironmongery, Radiators/heaters, All loose items.
2. On completion of coating work: Refix.
3. Replacement: Refurbish as necessary, refit when coating is dry.

425 Ironmongery

1. Removal: Before commencing work: Remove ironmongery from surfaces to be coated.
2. Hinges: Do not remove
3. Replacement: Refurbishment as necessary; refit when coating is dry.

440 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150, clause 11.5.
2. Contaminated or hazardous surfaces:
   2.1. Coatings suspected of containing lead.
   2.2. Substrates suspected of containing asbestos or other hazardous materials.
   2.3. Significant rot, corrosion or other degradation of substrates.
3. Suspected existing hazardous materials:
4. Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
6. Alkali affected coatings: Completely remove.
7. Discovery: Give notice of:
   7.1. Coatings suspected of containing lead.
   7.2. Substrates suspected of containing asbestos.
   7.3. Significant rot, corrosion or other degradation of substrates.
8. Retained coatings
   8.1. Thoroughly clean to remove dirt, grease and contaminants.
   8.2. Gloss-coated surfaces: Provide key.
9. Partly removed coatings
   9.1. Additional preparatory coats: Apply to restore original coating thicknesses.
   9.2. Junctions: Provide flush surface.
10. Completely stripped surfaces: Prepare as for uncoated surfaces.

471 Preprimed wood

1. Areas of defective primer: Take back to bare wood and reprime.

481 Uncoated wood

1. General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
2. Heads of fasteners: Countersink sufficient to hold stoppers/fillers.
3. Resinous areas and knots: Apply two coats of knotting.

Application

711 Coating generally

1. Application standard: In accordance with BS 6150, clause 9.
2. Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Priming coats
   - 6.1. Thickness: To suit surface porosity.
   - 6.2. Application: As soon as possible on same day as preparation is completed.
7. Finish
   - 7.1. Even, smooth and of uniform colour.
   - 7.2. Free from brush marks, sags, runs and other defects.
   - 7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

720 Priming joinery

1. Preservative treated timber: Retreat cut surfaces with two flood coats of a suitable preservative before priming.
2. End grain: Coat liberally allow to soak in, and recoat.

800 Glazing

1. Etched, sand blasted and ground glass: Treat or mask edges before coating to protect from contamination by oily constituents of coating materials.

Ω End of Section

N10
General fixtures/ furnishings/ equipment

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/general conditions.

Products

210A Coat rails

1. Description: To hygiene room
2. Manufacturer: : Boyco Manufacturing Co
   Tel: 0161 428 7077
3. Material: American white ash
4. Finish/colour: 2 coats lacquer with 'hot-dip' nylon coated pegs.
5. Other components: As recommended by manufacturer
6. Reference: 2 No. 'K' pegs at 150mm centres 1050mm from FFL and 2 No. 'K' pegs at 150mm centres 1400mm from FFL
7. Dimension(s): 1050mm & 1400mm above FFL

270A Mirrors

1. Description: To hygiene room
2. Dimensions: 1200 x 450 mm
   2.1. Thickness: 4mm
3. Material: Silvered float glass to BS EN 1036-1
4. Quality: Free from tarnishing, discoloration, scratches and other defects visible in the designed viewing conditions. Reflection undistorted.
5. Backing: Polypropylene safety film
6. Edges:
   6.1. Treatment: Polished
   6.2. Profile: Square
7. Fixing: Holes, 4 mm diameter, inset 50 x 50 mm from corners, for fixing screws
8. Installation: Accurately with sides vertical.

350E Hinged Wall Access Panel

1. Item: Hinged Tile Door
2. Manufacturer: The Access Panel Company Ltd
   Web: www.accesspanels.co.uk
   Tel: +44 (0)1724 853 090
   2.1. Product reference: Hinged Tile Door Access Panel
3. Size/ Capacity: 300 x 300mm
4. Wall finish: PVCu wall covering as M50/110A
5. Material: Steel
6. Finish/ Colour: PPC / white
7. Fixing: to plywood surround
8. Other requirements: RPT tamperproof lock + 2 No. keys

Execution - Not Used

Completion - Not Used

Ω End of Section

N13
Sanitary appliances and fittings

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/ general conditions.

Products

300C Wash/Dry WC.

1. Manufacturer: Geberit Sales Ltd.
   1.1. Web: www.geberit.co.uk.
   1.2. Email: enquiries@geberit.co.uk.
   1.3. Tel: +44 (0)1926 516800.
   1.4. Fax: +44 (0)1926 400101.
   1.5. Address: Geberit House, Edgehill Drive, Warwick, Warwickshire. CV34 6NH.
   1.6. Product reference: 142.242.11.1, white alpine - Geberit AquaClean Mera Care WC complete solution, floor-standing WC
2. Accessories: As manufacturer recommendations

335C Hygiene room Rise & fall wash basin

1. Manufacturer: Armitage Shanks.
   1.1. Web: www.idealspec.co.uk.
   1.2. Email: info@thebluebook.co.uk.
   1.3. Tel: +44 (0)870 122 8822.
   1.4. Fax: +44 (0)870 122 8282.
   1.5. Address: Armitage, Old Road, Rugeley, Staffordshire. WS15 4BT.
   1.6. Product reference: S2311 Portman 21 washbasin 50cm, 1 taphole with overflow, no chainstay hole
2. Finish: White - (01)
3. Washbasin Wall Fixings: S0652 Care Plus washbasin mounting bracket, gas cell counter balanced with lever lock, vertical adjustment
4. Brassware: Conti+ 161.000.11 - ultra lavatory faucet GS10, PUBLIC, IR-sensor, temp. mixing, battery, without drain assembly, chrome
5. Waste: S8733(AA) Waste 1¼" brass anti theft swivel plug waste, 80mm slotted tail
6. Flexible Feed & Waste System: S0649(67) Care Plus flexible 70cm feed & waste system
7. Thermostatic Valve: A5900 - 15mm Thermostatic Mixing Valve
8. Height: As shown on internal elevations

335I School hygiene room disposal sink

1. Manufacturer: Pland Stainless Ltd.
   1.1. Web: www.plandstainless.co.uk.
   1.2. Email: sales@plandstainless.co.uk.
   1.3. Tel: +44 (0)113 263 4184.
   1.4. Fax: +44 (0)113 231 0560.
   1.5. Address: Lower Wortley Ring Road, Leeds, West Yorkshire. LS12 6AA.
   1.6. Product reference: Madison (UR2200) Wall mounted washbasin. (waste, trap etc to manufactureres recomendations)
   1.7. Taps: Ideal Standard A6682(AA) Markwik 21+ panel mounted thermostatic basin mixer, single sequential lever, demountable with removable spout (Mounted 200mm above top of sink to u/s of spout)

436A Handrails and grab bars

1. Description: GENERALLY

2. Manufacturer: Armitage Shanks
   2.1. Product reference: Contractor's choice 600mm long
3. Diameter: 32 mm
4. Finish/ Colour: Charcoal

436C Hinged fold down arm

1. Manufacturer: Armitage Shanks.
   1.1. Web: www.idealspec.co.uk.
   1.2. Email: info@thebluebook.co.uk.
   1.3. Tel: +44 (0)870 122 8822.
   1.4. Fax: +44 (0)870 122 8282.
   1.5. Address: Armitage, Old Road, Rugeley, Staffordshire. WS15 4BT.
   1.6. Product reference: S6360 - Contour 21 Hinged Arm Wall Support Rail
2. Finish: Charcoal - (RN)
3. Accessories: S6363 - Toilet Roll Holder to one fold down arm

449A Colostomy shelf

1. Description: Disabled toilet colostomy shelf
2. Manufacturer: Disabled Toilets UK
   Tel:+441603 558850
   Email: sales@disabled-toilets-uk.co.uk
   2.1. Product reference: DTUK27
3. Material: plastic with anti-bacterial coating
4. Finish/ colour: white

492B Items supplied by client and fixed by contractor

1. Description: To hygiene room
   1.1. Items:: Paper towel dispenser.
   Wide paper roll dispenser.

492C Items supplied and positioned by client

1. Description: To hygiene room
   1.1. Items:: General waste bin
   Large sanitary disposal unit
   height adjustable changing bench

580A Sealant

1. Manufacturer: Dow Corning.
   1.1. Web: www.dowcorning.com/construction.
   1.2. Email: marie.elliott@dowcorning.com.
   1.3. Product reference: 786 Mildew Resistant Silicone Sealant
2. Colour: White

Execution

610 Installation generally

1. Assembly and fixing: Surfaces designed to falls to drain as intended.
2. Fasteners: Nonferrous or stainless steel.
3. Supply and discharge pipework: Fix before appliances.
4. Fixing: Fix appliances securely to structure. Do not support on pipework.

5. Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.
6. Appliances: Do not use. Do not stand on appliances.
7. On completion: Components and accessories working correctly with no leaks.
8. Labels and stickers: Remove.

613 Compatibility of components

1. General: Each sanitary assembly must consist of functionally compatible components, preferably obtained from a single manufacturer.
   1.1. Exceptions: N/A

620 Noggings and bearers

1. Noggings, bearers, etc. to support sanitary appliances and fittings: Position accurately. Fix securely.

650 Installing WC pans

1. Floor-mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings.
2. Seat and cover: Stable when raised.

670 Installing cisterns

1. Cistern operating components: Obtain from cistern manufacturer.
2. Inlet and flushing valves: Match to pressure of water supply.
3. Internal overflows: Into pan, to give visible warning of discharge.
4. External overflows: Fix pipes to falls and locate to give visible warning of discharge. Agree location where not shown on drawings.

710 Installing taps

1. Fixing: Secure against twisting.
2. Seal with appliance: Watertight.
3. Positioning: Hot tap to left of cold tap as viewed by user of appliance.

720 Installing wastes and overflows

1. Bedding: Waterproof jointing compound.
2. Fixing: With resilient washer between appliance and backnut.

755 Sealant bedding and pointing

1. Bedding: Bed and point basins to underside of vanity units.
2. Pointing: Joints between appliances / fittings and adjacent finishes.

Ω End of Section

P20
Unframed isolated trims/ skirtings/ sundry items

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

To be read with preliminaries/ general conditions

240 Plywood

1. Description: GENERALLY
2. Manufacturer: Contractor's choice
   2.1. Product reference: Contractor's choice, external use
3. Face ply species: Contractor's choice
4. Appearance class to BS EN 635: Class I/II
5. Bond quality to BS EN 314-2: Class 2
6. Fire rating: To BS 476-7, Class 1
7. Reaction to fire rating: Not applicable
8. Thickness: as shown on drawings
9. Edges: Rounded
10. Finish: Prepared and primed as section M60
11. Support/ Fixing: Brass cups and screws at 450 mm centres

Execution

510 Installation generally

1. Joinery workmanship: As section Z10.
2. Metal workmanship: As section Z11.
3. Methods of fixing and fasteners: As section Z20 where not specified.
4. Straight runs: To be in one piece, or in long lengths with as few joints as possible.
5. Running joints: Location and method of forming to be agreed where not detailed.
6. Joints at angles: Mitre, unless shown otherwise
7. Position and level: To be agreed where not detailed.

Ω End of Section

R11
Above ground foul drainage systems

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/ general conditions.

General

115 Above ground foul drainage system

1. Sanitary and floor drainage outlets: N/A
2. Waste pipework: Plastics
3. Discharge stack and branch pipework: PVC-U
4. Separate ventilating pipework: PVC-U
5. Accessories: N/A
6. Disposal: To existing below ground drainage

System performance

210 Design

1. Design: Complete the design of the above ground foul drainage system.
2. Standards: To BS EN 12056-1 and BS EN 12056-2, and in accordance with BS EN 12056-2 National Annexes NA-NG.
   2.1. System type to BS EN 12056-2: System III.
3. Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

220 Collection and distribution of foul water

1. General: Quick, quiet and complete, self-cleansing in normal use, without blockage, crossflow, backfall, leakage, odours, noise nuisance or risk to health.
2. Pressure fluctuations in pipework (maximum): ±38 mm water gauge.
3. Water seal retained in traps (minimum): 25 mm.

Products

350 MUPVC or PVC-C pipework

1. Description: FOR WASTES
2. Material and standard
   2.1. MUPVC: To BS 5255 and Kitemark certified; or
   2.2. PVC-C: To BS EN 1566-1, and Kitemark certified.
      2.2.1. Application area code: B.
      2.2.2. Opening dimensions of access fittings, design of swept fittings, stand off dimensions of pipe and fitting brackets and requirements for adaptors and plugs: To BS 4514.
3. Manufacturer: Contractor's choice
   3.1. Product reference: Contractor's choice
4. Nominal sizes: DN 40 & DN50 where fittings discharge combined
5. Colour: White where exposed to view
6. Brackets: Plastics pipe clips, colour to match pipes
   6.1. Fixings: Stainless steel screws
      6.1.1. Size: 25 x 4 mm
7. Accessories: Access fittings

365A PVC-U pipework

1. Description: FOR DISCHARGE & VENTILATING STACKS

2. Standard: To BS EN 1329-1, Kitemark certified.
    2.1. Weather resistance, connectors to WC pans, opening dimensions of access fittings, design of swept fittings, stand off dimensions of pipe and fitting brackets and requirements for adaptors and plugs: To BS 4514.
3. Manufacturer: Contractor's choice
    3.1. Product reference: Contractor's choice
4. Nominal size: DN 110
5. Colour: Grey
6. Brackets: Plastics pipe clips, colour to match pipes
    6.1. Fixings: Contractors choice
        6.1.1. Size:
7. Accessories: Access fittings and Weathering collar

375 Air admittance valves

1. Standard: To BS EN 12380 or Agrément certified.
2. Minimum air flow rate: To BS EN 12056-2.
3. Manufacturer: Contractor's choice
    3.1. Product reference: Contractor's choice

390A Rodding eyes

1. Description: Internal
2. Manufacturer: Wade International Ltd
    2.1. Product reference: K5697H
3. Body material: Stainless steel
4. Cover type: for use with flexible sheet flooring
5. Cover material: Stainless steel

Fabrication - Not Used

Execution

601 Installation generally

1. Standard: To BS EN 12056-5.
2. Components: From the same manufacturer for each type of pipework.
3. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
4. Plastics and galvanized steel pipes: Do not bend.
5. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
6. Concealed or inaccessible surfaces: Decorate before starting work specified in this section.
7. Protection
    7.1. Purpose made temporary caps: Fit to prevent ingress of debris.
    7.2. Access covers, cleaning eyes and blanking plates: Fit as the work proceeds.

605 Pipe routes

1. General: The shortest practical, with as few bends as possible.
    1.1. Bends in wet portion of soil stacks: Not permitted.
    1.2. Routes not shown on drawings: Submit proposals before commencing work.

610 Fixing pipework

1. Pipework: Fix securely plumb and/ or true to line. Fix discharge stack pipes at or close below socket collar or coupling.
2. Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
3. Externally socketed pipes and fittings: Fix with sockets facing upstream.
4. Additional supports: Provide as necessary to support junctions and changes in direction.
5. Vertical pipes: Provide a load bearing support not less than every storey level. Tighten fixings as work proceeds so that every storey is self supporting.
6. Wall and floor penetrations: Isolate pipework from structure, e.g. with pipe sleeves.
   6.1. Masking plates: Fix at penetrations if visible in the finished work.
7. Expansion joint sockets: Fix rigidly to the building.
8. Fixings: Allow the pipe to slide.

630 Jointing pipework – generally

1. General: Joint with materials, fittings and techniques that will make effective and durable connections.
2. Jointing differing pipework systems: With adaptors intended for the purpose.
3. Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
4. Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
5. Junctions: Form with fittings intended for the purpose.
6. Jointing material: Do not allow it to project into bore of pipes and fittings.
7. Surplus flux, solvent jointing materials and cement: Remove from joints.

660 Jointing pipework – ABS, MUPVC, PVC-C and PVC-U

1. Jointing: Solvent welded with lubricated ring seal joints at maximum 1800 mm spacing

695 Discharge and ventilating stacks

1. Terminations: Perforated cover or cage that does not restrict airflow.
   1.1. Material: Plastics, as discharge stack

700 Installing air admittance valves

1. Position: Vertical, above flood level of highest appliance served and clear of insulation materials (other than the manufacturer's insulating cover).
2. Connection to discharge stack: Allow removal for rodding, e.g. ring seal.
3. Roof spaces and other unheated locations: Fit manufacturer's insulating cover.

705 Access for testing and maintenance

1. General: Install pipework with adequate clearance to permit testing, cleaning and maintenance, including painting where necessary.
2. Access fittings and rodding eyes: Position to avoid obstruction.

Completion

905 Pipework airtightness test

1. Preparation
   1.1. Open ends of pipework: Temporarily seal using plugs.
   1.2. Test apparatus: Connect a 'U' tube water gauge and air pump to pipework via a plug or through trap of an appliance.
2. Testing: Pump air into pipework until gauge registers 38 mm.
3. Required performance: Pressure of 38 mm is to be maintained without loss for at least three minutes.

910 Siphonage and back pressure tests

1. Method
   1.1. WC pans: Test by flushing.
   1.2. Other appliances: Test by filling to overflow level, then removing the plug.
2. Number of tests: Test each appliance three times. Recharge traps before each test.
3. Self siphonage testing: Test each appliance individually.
4. Induced siphonage and back pressure testing: Test by discharging the following numbers of appliances simultaneously on each stack:
   4.1. WCs: 4
   4.2. Washbasins: 4
   4.3. Sinks: 2
   4.4. Selection of appliances: Submit proposals.

915 Prehandover checks

1. Temporary caps: Remove.
2. Permanent blanking caps, access covers, rodding eyes, floor gratings and the like: Secure complete with fixings.

Ω End of Section

R12
Below ground drainage systems

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

General

110 Below ground drainage system

1. Description: Generally
2. Foul drainage sources: Sanitary appliances, as section N13
   Floor drains, as section R11
3. Pipes, bends and junctions: Clay - flexible joints
4. Disposal: To sewers
5. Accessories – general: Access covers and frames

System performance - Not Used

Products

311A Adaptors to clay drainage - Basin

1. Description: Basin waste adaptor
2. Material and standard: Polypropylene to BS EN 295-1 and Kitemark certified.
3. Type: DN 32 waste pipe to DN 100 clay
4. Manufacturer: Hepworth Building Products
   4.1. Product reference: Supersleve Code SA4 adaptor

311B Adaptors to clay drainage - Sink

1. Description: Basin waste adaptor
2. Material and standard: Polypropylene to BS EN 295-1 and Kitemark certified.
3. Type: DN 40 waste pipe to DN 100 clay
   DN 50 waste pipe to DN 100 clay
4. Manufacturer: Hepworth Building Products
   4.1. Product reference: Supersleve Code SA5/SA6 adaptor

311C Adaptors to clay drainage - Soil pipe

1. Description: Soil pipe adaptor
2. Material and standard: Polypropylene to BS EN 295-1 and Kitemark certified.
3. Type: DN 100 discharge stack to DN 100 clay
4. Manufacturer: Hepworth Building Products
   4.1. Product reference: Supersleve Code SA9 adaptor

329A Pipes, bends and junctions - supply

1. Pipes and fittings: From same manufacturer for each pipeline.
2. Materials shall not be unreasonably mixed throughout the project and shall not give rise to maintenance requirements in excess of normal, current industry standard for below ground drainage systems.
3. Submit a schedule of proposed materials and suppliers and obtain CA approval prior to installation.
4. Equal approved products to those described below provided they are manufactured to the same standard. All materials must be new but may contain a degree of recycled material provided this is incorporated at the manufacturing stage.

336A Pipes, bends and junctions - clay – with flexible joints for gravity surface water and foul drainage

1. Description: (only to be used where there is no risk of external groundwater pressure in excess of 1m head)
2. Material and standard: Vitrified clay to BS EN 295-1, Kitemark certified.
3. Manufacturer: Hepworth or equal.

4. Strength: 100 & 150 dia.-40kN/m., 225 dia.-45kN/m., 300 dia.-72kN/m.
5. Sizes: as detailed on the drainage layout drawings.
6. Bedding Class: S unless class Z concrete bed & surround indicated on drawings or required by other clauses in this specification.
7. Jointing: flexible joints to manufacturer's recommendations for each pipe size.

371A Rodding points

1. Description: Square rodding point
2. Material: Plastic with integral hinged metal access plate
3. Manufacturer: Hepworth Building Products
   3.1. Product reference: Supersleve code SRPS1/1
4. Sizes: DN 100

401A Inspection chambers – plastics 450 mm dia

1. Manufacturer: Hepworth
   1.1. Web: www.hepworthclay.co.uk
   1.2. Email: drainage@hepworth.co.uk
2. Product Reference: Clay Inspection Chambers – Range 450
3. Type: 44NE316
4. Accessories: To suit application
5. Access covers and frames
   5.1. Product reference: Round ductile iron code SPK8 or stainless steel recessed where internal.

401B Inspection chambers – plastics 300 mm dia

1. Manufacturer: Hepworth
   1.1. Web: www.hepworthclay.co.uk
   1.2. Email: drainage@hepworth.co.uk
2. Product Reference: Mini access chamber
3. Type: SDAC1/1
4. Accessories: To suit application
5. Access covers and frames
   5.1. Product reference: Integral cover or stainless steel recessed where internal.

471A Access covers and frames - Grey or Ductile Iron

1. Description: Manholes generally
2. Standard: To BS EN 124.
3. Types: Double seals and grease
   Single seal
4. Manufacturer: Glynwed Brickhouse
   4.1. Product reference: Valiant
5. Material: Iron
6. Finishes: Self finish
7. Sizes: 600 x 450 mm
8. Edging trims: Not required
9. Accessories: Lifting keys

471B Access covers and frames - Recessed

1. Description: For internal use

2. Standard: To BS EN 124 where applicable.
3. Types: Double seals and grease
4. Manufacturer: Jones of Oswestry
   4.1. Product reference: Suprasteel recessed cover & frame
5. Material: Steel with stainless steel edgings
6. Finishes: Self finish
7. Sizes: 400 x 400 mm code CIA1/30-30/A/A2/B4/E1 (300mm dia mini chamber)
   600 x 600 mm code CIA1/60-60/A/A2/B4/E1 (450mm dia inspection chamber)
8. Edging trims: Stainless steel
9. Accessories: lifting keys

483A Concrete

1. Description: Generally
2. Standard: To BS 8500-2.
3. Concrete: GEN 3 unless noted otherwise on drawings.
4. Ground conditions to BS 8500-1: Design sulphate class DS-2 with ACEC class of AC-2

496A Granular material

1. Description: Pipe surrounds & bedding
2. Standards: To BS EN 12620 and Highways Agency Volume 1, ‘Specification for Highway Works’ as appropriate.
3. Supplier : Contractor's choice
4. Recycled content: Up to 100% provided the material meets the standard in all respects

498A Granular sub-base material

1. Description: For trench backfill under paved areas and beneath ground bearing slabs
2. Standard: To Highways Agency Volume 1, ‘Specification for Highway Works’, unbound mixtures for sub-base. Clause 803 Type 1.
3. Recycled content: up to 100% provided the material meets the standard in all respects

Fabrication - Not Used

Execution

611 Existing drains

1. Setting out: Before starting work, check invert levels and positions of existing drains, sewers, inspection chambers and manholes against drawings. Report discrepancies.
2. Protection: Protect existing drains to be retained and maintain normal operation if in use.

613A Excavated material

1. Dispose of all excavated material unless the materials comply with the specified requirements for use as back fill material or for earthworks fill material elsewhere on the site. Set aside any material suitable for re-use so that double-handling of material is minimised.
2. Dispose of any surplus excavated material not suitable for re-use to an off-site tip suitably licensed to receive the material and in accordance with any appropriate requirements of Specification D20 – Excavating and Filling.

623 Lower part of trench – general

1. Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
   1.1. Width (minimum): External diameter of pipe plus 300 mm.

625 Lower part of trench – transition depth

1. Trench widths up to 300 mm above crown of pipe (maximum)
   1.1. DN 100 pipelines more than 6.0 m deep: 600 mm.
   1.2. DN 150 pipelines more than 5.4 m deep: 700 mm.
   1.3. DN 225 pipelines more than 4.0 m deep: 800 mm.
   1.4. DN 300 pipelines more than 2.9 m deep: 900 mm.

631 Type of subsoil

1. General: Where type of subsoil at level of crown of pipe differs from that stated for the type of bedding, surround or support, give notice.

635 Formation for beddings

1. Timing: Excavate to formation immediately before laying beddings or pipes.
2. Mud, rock projections, boulders and hard spots: Remove & replace with consolidated bedding material.
3. Local soft spots: Harden by tamping in bedding material.
4. Inspection of excavated formations: Give notice.

641 Pipes at different levels in common trench

1. Subtrench: Permissible provided soil of step is stable and unlikely to break away.
   1.1. Subtrench not permissible: Trench depth as required for lower pipe. Increase thickness of bedding to upper pipe as necessary.
2. Lower pipe: Backfill with compacted granular material to at least half way up higher pipe.
3. Clear horizontal distance between pipes (minimum)
   3.1. Pipes up to DN 700: 350 mm.
   3.2. Pipes exceeding DN 700: 500 mm.

657 Class F bedding

1. Description: To pipes, bends & junctions
2. Type of subsoil: Generally
3. Granular material: Granular material to BS 882
   3.1. Sizes: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
4. Bedding
   4.1. Material: Granular, compacted over full width of trench.
   4.2. Thickness (minimum): 50 mm for sleeve jointed pipes,
5. 100 mm for socket jointed pipes. Where trench bottom is uneven, increase thickness by 100 mm.
6. Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
7. Initial testing before backfilling: Not required
8. Backfilling
   8.1. Material: Protective cushion of selected fill.
   8.2. Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
   8.3. Compaction: By hand in 100 mm layers.

661 Class O support

1. Description: To pipes, bends & junctions
2. Type of subsoil: Generally
3. Granular material: Granular material to BS 882
   3.1. Sizes: To Water Industry Specification WIS 4-08-02 (as amended by WIS 4-08-02A, 2008).
4. Bedding

4.1. Material: Granular, compacted over full width of trench.
4.2. Thickness (minimum): 100 mm.
5. Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
6. Initial testing before placing support: Not required
7. Support
7.1. Material: Granular.
7.2. Depth: To slightly above crown of pipe.
7.3. Compaction: By hand.
8. Backfilling
8.1. Material and depth
8.1.1. Protective cushion of selected fill to 300 mm above crown of pipe; or
8.1.2. Additional granular material, to 100 mm above crown of pipe.
8.2. Compaction: By hand in 100 mm layers.

676 Class Y surround

1. Description: Where crown of pipe is less than 300 mm below underside of slab.
2. Type of subsoil: Generally
3. Timing: Excavate trench after hardcore has been laid and compacted.
4. Blinding
4.1. Material: Concrete.
4.2. Thickness (minimum): 25 mm.
4.3. Width: Full width of trench.
4.4. Allow to set before proceeding.
5. Pipes
5.1. Temporary support: Folding wedges of compressible board. Prevent flotation.
5.2. Clearance under pipes (minimum): 100 mm.
5.3. Adjust pipes to line and gradient.
6. Initial testing before placing surround: Not required
7. Surround, cast integrally with slab
7.1. Material: Concrete of same mix as slab.
7.2. Width (minimum): External diameter of pipe plus 200 mm.
8. Extent of surround: To within 150 mm of nearest flexible joint.

680 Concrete surround for pipe runs near foundations

1. Class Z surround: Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):
1.1. Trenches less than 1 m from foundations: Top of concrete surround not lower than bottom of foundation.
1.2. Trenches more than 1 m from foundations: Top of concrete surround not lower than D mm below bottom of foundation, where D mm is horizontal distance of trench from foundation, less 150 mm.

683 Laying pipelines

1. Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
2. Ingress of debris: Seal exposed ends during construction.
3. Timing: Minimize time between laying and testing.

684 Advance excavation in pipe trench

1. Excavate at least two standard pipe lengths ahead of pipeline to establish service crossing positions. Obtain instruction if line or level of pipe is obstructed or in close proximity to existing services. Inform CA and allow reasonable opportunity for the CA to inspect affected services.

685 Jointing pipelines

1. Connections: Durable, effective and free from leakage.
2. Junctions, including to differing pipework systems: With adaptors intended for the purpose.
3. Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
4. Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
5. Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
6. Jointing material: Do not allow to project into bore of pipes and fittings.

687 Concrete surround for crossovers

1. Class Z surround: Provide where two pipelines (other than plastics pipes) cross with less than 300 mm separation.
    1.1. Extent, on both pipes: 1 m centred on the crossing point, and beyond as necessary to come within 150 mm of nearest flexible joints.

689 Pipelines passing through structures

1. Pipelines that must be cast in or fixed to structures (including manholes, catchpits and inspection chambers): Provide 600 mm long rocker pipes adjacent to the external face of the structure (or both faces where appropriate, e.g. walls to footings), with flexible joints at both ends.
    1.1. Distance to rocker pipe from structure (maximum):150 mm.
2. Provision for movement for pipelines that need not be cast in or fixed to structures (e.g. walls to footings)
    2.1. Rocker pipes as specified above; or
    2.2. Openings in the structures to give 50 mm minimum clearance around the pipeline. Closely fit a rigid sheet to each side of opening to prevent ingress of fill or vermin.

691 Bends at base of soil stacks

1. Type: Nominal 90° rest bends
    1.1. Radius to centreline of pipe (minimum): 800 mm
2. Height of invert of horizontal drain at base of stack below centreline of lowest branch pipe (minimum): 450 mm
3. Bedding: Do not impair flexibility of pipe couplings.
    3.1. Material: Concrete.

693 Direct connection of ground floor wcs to drains

1. Drop from crown of WC trap to invert of drain (maximum): 1.5 m
2. Horizontal distance from the drop to a ventilated drain (maximum): 6 m.

697 Installing flexible couplings

1. Ends of pipes to be joined: Cut cleanly and square.
2. Outer surfaces of pipes to be joined: Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines and/ or apply a cement grout over the sealing area.
3. Clamping bands: Tighten carefully to make gastight and watertight seals.

699 Connections to sewers

1. General: Connect new pipework to existing adopted sewers to the requirements of the adopting authority or its agent.

705 Initial testing of pipelines

1. Before testing
   1.1. Cement mortar jointing: Leave 24 h.
   1.2. Solvent welded pipelines: Leave 1 h.
2. Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

711 Trench supports

1. Removal of trench supports and other obstacles: Sufficient to permit compacted filling of all spaces.

715 Backfilling to pipelines

1. Backfilling above top of surround or protective cushion: Material excavated from trench, compacted in layers 300 mm (maximum) thick.
2. Heavy compactors: Do not use before there is 600 mm (total) of material over pipes.

718 Backfilling over concrete

1. Minimum times from placing concrete
   1.1. Backfilling generally: 24 h.
   1.2. Heavy compactors and traffic loads: 72 h.

720 Backfilling under roads and pavings

1. Backfilling from top of surround or protective cushion up to formation level: Granular sub-base material, laid and compacted in 150 mm layers.

723 Backfilling around manholes and other structures

1. Undertake in a manner which avoids uneven loading or damage. Backfilling to be Type 1 material to DoT Specification for Highway Works, Clause 803 laid and compacted in 150mm layers.

732 Temporary bridges

1. Trench bridges: As necessary to prevent construction traffic damaging pipes after backfilling.

734 Installing access points and gullies

1. Bedding
   1.1. Material: GEN 3 Concrete
   1.2. Thickness (minimum): 150 mm
2. Surround
   2.1. Material: GEN 3 Concrete
   2.2. Thickness (minimum): 150 mm
   2.3. Height: to underside of paving build up or topsoil as appropriate to location
3. Backfilling
   3.1. Material: Type 1 sub base material in paved areas, selected excavated or imported material elsewhere
   3.2. Compaction: By hand in 100 mm layers.
4. Setting out relative to adjacent construction features: Square and tightly jointed.
5. Permissible deviation in level of external covers and gratings: +0 to -6 mm.
6. Raising pieces (clay and concrete units): Joint with 1:3 cement:sand mortar.
7. Exposed openings: Fit purpose made temporary caps. Protect from traffic.

736 Installing rodding points

1. Bedding and surround
   1.1. Material: Concrete.
   1.2. Thickness (minimum): 150 mm.
2. Permissible deviation in level of external covers and gratings: +0 to -6 mm.

741A Installing inspection chambers - plastics

1. As indicated on standard construction detail drawings
2. Backfilling: Undertake in a manner that avoids uneven loading or damage.
3. In soft landscaped areas – excavated or imported material as Clause 616.
4. Under roads and pavings – Type 1 granular material as Clause 498.
5. Compaction: By hand in 100 mm layers.

773 Installing access covers and frames

1. Seating: as indicated on drawings
2. Bedding and haunching of frames: Continuously.
   2.1. Material: 1:3 cement:sand mortar
   2.2. Top of haunching: 30 mm below surrounding surfaces.
3. Horizontal positioning of frames
   3.1. Centred over openings.
   3.2. Square with joints in surrounding paving.
4. Vertical positioning of frames
   4.1. Level; or
   4.2. Marry in with levels of surrounding paving.
5. Permissible deviation in level of external covers and frames: +0 to -6 mm.

Completion

901 Removal of debris and cleaning

1. Preparation: Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
   1.1. Timing: Before cleaning, final testing, CCTV inspection if specified, and immediately before handover.
2. Cleaning: Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
3. Washings and detritus: Do not discharge into sewers or watercourses.
4. Covers: Securely replace after cleaning and testing.

903 Temporary measures

1. Water used to stabilize tanks and the like during installation: Drain.

911 Testing and inspection

1. Dates for testing and inspection: Give notice.
   1.1. Period of notice: 1 day where attendance of Building Control is not required otherwise the period of notice is to be agreed with the relevant Building Control officer.- Carry out a final test on completion prior to Works handover

922 Initial testing of pipelines

1. Before testing:
   1.1. Cement mortar jointing: Leave 24 h.

1.2. Solvent welded pipelines: Leave 1h.

2. Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

978 Lifting keys

1. Lifting keys: Supply suitable keys for each type of access cover.
   1.1. Timing: At completion.

980 Instructions

1. Manufacturer's user instructions: Ensure all manufacturers' data for the installed equipment is obtained and, as appropriate, either included in the Health & Safety file for the development in accordance with the CDM 2015 requirements or passed to the CA for forwarding to the Client

Ω End of Section

Z10
Purpose made joinery

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

To be read with preliminaries/ general conditions.

110 Fabrication

1. Standard: To BS 1186-2.
2. Sections: Accurate in profile and length, and free from twist and bowing. Formed out of solid unless shown otherwise.
   2.1. Machined surfaces: Smooth and free from tearing, wooliness, chip bruising and other machining defects.
3. Joints: Tight and close fitting.
4. Assembled components: Rigid. Free from distortion.
5. Screws: Provide pilot holes.
   5.1. Screws of 8 gauge (4 mm diameter) or more and screws into hardwood: Provide clearance holes.
   5.2. Countersink screws: Heads sunk at least 2 mm below surfaces visible in completed work.
6. Adhesives: Compatible with wood preservatives applied and end uses of timber.

120 Cross section dimensions of timber

1. General: Dimensions on drawings are finished sizes.
2. Maximum permitted deviations from finished sizes
   2.1. Softwood sections: To BS EN 1313-1:-
      2.1.1. Clause 6 for sawn sections.
   2.2. Hardwood sections: To BS EN 1313-2:-
      2.2.1. Clause 6 for sawn sections.
      2.2.2. Clause NA.3 for further processed sections.

130 Preservative treated wood

1. Cutting and machining: Completed as far as possible before treatment.
2. Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.
3. Surfaces exposed by minor cutting and/ or drilling: Treat as recommended by main treatment solution manufacturer.

140 Moisture content

1. Wood and wood based products: Maintained within range specified for the component during manufacture and storage.

210 Laminated plastics veneered boards/ panels

1. Fabrication: To British Laminated Plastics Fabricators Association Ltd (BLF) fabricating standards.
2. Balancing veneer: From decorative veneer manufacturer and of similar composition. Applied to reverse side of core material.
3. Finished components: Free from defects, including bow, twist, scratches, chipping, cracks, pimpling, indentations, glue marks, staining and variations in colour and pattern.
4. Joints visible in completed work: Tight butted, true and flush.

220 Wood veneered boards/ panels

1. Core material and veneers: Conditioned before bonding.
2. Setting out: Veneer features and grain pattern aligned regularly and symmetrically unless instructed otherwise.
3. Balancing veneer: Applied to reverse side of core material.
   3.1. Moisture and temperature movement characteristics: As facing veneer.
4. Veneer edges: Tight butted and flush, with no gaps.
5. Tolerance of veneer thickness (maximum): ± 0.5 mm.

6. Finished components: Free from defects, including bow, twist, scratches, chipping, splits, blebs, indentations, glue marks and staining.
7. Surface finish: Fine, smooth, free from sanding marks.

250 Finishing

1. Surfaces: Smooth, even and suitable to receive finishes.
   1.1. Arrises: Eased unless shown otherwise on drawings.
2. End grain in external components: Sealed with primer or sealer as section M60 and allowed to dry before assembly.

Ω End of Section

Z20
Fixings and adhesives

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/ general conditions.

Products

310 Fasteners generally

1. Materials: To have:
   1.1. Bimetallic corrosion resistance appropriate to items being fixed.
   1.2. Atmospheric corrosion resistance appropriate to fixing location.
2. Appearance: Submit samples on request.

320 Packings

1. Materials: Noncompressible, corrosion proof.
2. Area of packings: Sufficient to transfer loads.

330 Nailed timber fasteners

1. Nails
   1.1. Steel: To BS 1202-1 or BS EN 10230-1.
   1.2. Copper: To BS EN 1202-2.
   1.3. Aluminium: To BS 1202-3.

340 Masonry fixings

1. Light duty: Plugs and screws.
2. Heavy duty: Expansion anchors or chemical anchors.

350 Plugs

1. Type: Proprietary types to suit substrate, loads to be supported and conditions expected in use.

360 Anchors

1. Types
   1.1. Expansion: For use in substrate strong enough to resist forces generated by expansion of anchor.
   1.2. Adhesive or chemical
      1.2.1. For use in substrate where expansion of anchor would fracture substrate.
      1.2.2. For use in irregular substrate where expansion anchors cannot transfer load on anchor.
   1.3. Cavity: For use where the anchor is retained by toggles of the plug locking onto the inside face of the cavity.

370 Wood screws

1. Type
   1.1. Wood screws (traditional pattern).
      1.1.1. Standard: To BS 1210.
   1.2. Wood screws.
      1.2.1. Pattern: Parallel, fully threaded shank or twin thread types.
2. Washers and screw cups: Where required are to be of same material as screw.

380 Miscellaneous screws

1. Type: To suit the fixing requirement of the components and substrate.
   1.1. Pattern: Self-tapping, metallic drive screws, or power driven screws.
2. Washers and screw cups: Where required to be of same material as screw.

390 Adhesives

1. Standards
   1.1. Hot-setting phenolic and aminoplastic: To BS 1203.
   1.2. Thermosetting wood adhesives: To BS EN 12765.
   1.3. Thermoplastic adhesives: To BS EN 204.

410 Powder actuated fixing systems

1. Types of fastener, accessories and consumables: As recommended by tool manufacturer.

Execution

610 Fixing generally

1. Integrity of supported components: Select types, sizes, quantities and spacings of fixings, fasteners and packings to retain supported components without distortion or loss of support.
2. Components, substrates, fixings and fasteners of dissimilar metals: Isolate with washers/ sleeves to avoid bimetallic corrosion.
3. Appearance: Fixings to be in straight lines at regular centres.

620 Fixing through finishes

1. Penetration of fasteners and plugs into substrate: To achieve a secure fixing.

630 Fixing packings

1. Function: To take up tolerances and prevent distortion of materials and components.
2. Limits: Do not use packings beyond thicknesses recommended by fixings and fasteners manufacturer.
3. Locations: Not within zones to be filled with sealant.

640 Fixing cramps

1. Cramp positions: Maximum 150 mm from each end of frame sections and at 600 mm maximum centres.
2. Fasteners: Fix cramps to frames with screws of same material as cramps.
3. Fixings in masonry work: Fully bed in mortar.

650 Nailed timber fixing

1. Penetration: Drive fully in without splitting or crushing timber.
2. Surfaces visible in completed work: Punch nail heads below wrot surfaces.
3. Nailed timber joints: Two nails per joint (minimum), opposed skew driven.

660 Screw fixing

1. Finished level of countersunk screw heads
   1.1. Exposed: Flush with timber surface.
   1.2. Concealed (holes filled or stopped): Sink minimum 2 mm below surface.

670 Pelleted countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Pellets: Cut from matching timber, match grain and glue in to full depth of hole.
3. Finished level of pellets: Flush with surface.

680 Plugged countersunk screw fixing

1. Finished level of countersunk screw heads: Minimum 6 mm below timber surface.
2. Plugs: Glue in to full depth of hole.
3. Finished level of plugs: Projecting above surface.

690 Using powder actuated fixing systems

1. Powder actuated fixing tools: To BS 4078-2 and Kitemark certified.
2. Operatives: Trained and certified as competent by tool manufacturer.

700 Applying adhesives

1. Surfaces: Clean. Adjust regularity and texture to suit bonding and gap filling characteristics of adhesive.
2. Support and clamping during setting: Provide as necessary. Do not mark surfaces of or distort components being fixed.
3. Finished adhesive joints: Fully bonded. Free of surplus adhesive.

Ω End of Section

Z22
Sealants

Summary

Revision history

Date	No.	Title	Status	Revision	Note
26/06/2025	11962	Work Sections	Tender	P01	
10/07/2025	11962	Work Sections	Tender	C01	

Clauses

2 To be read with preliminaries/general conditions.

Products

310 Joints

1. Description:
2. Primer, backing strip, bond breaker: Types recommended by sealant manufacturer.

Execution

610 Suitability of joints

1. Presealing checks
   1.1. Joint dimensions: Within limits specified for the sealant.
   1.2. Substrate quality: Surfaces regular, undamaged and stable.
2. Joints not fit to receive sealant: Submit proposals for rectification

620 Preparing joints

1. Surfaces to which sealant must adhere
   1.1. Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
   1.2. Clean using materials and methods recommended by sealant manufacturer.
2. Vulnerable surfaces adjacent to joints: Mask to prevent staining or smearing with primer or sealant.
3. Backing strip and/ or bond breaker installation: Insert into joint to correct depth, without stretching or twisting, leaving no gaps.
4. Protection: Keep joints clean and protect from damage until sealant is applied.

630 Applying sealants

1. Substrate: Dry (unless recommended otherwise) and unaffected by frost, ice or snow.
2. Environmental conditions: Do not dry or raise temperature of joints by heating.
3. Sealant application: Fill joints completely and neatly, ensuring firm adhesion to substrates.
4. Sealant profiles
   4.1. Butt and lap joints: Slightly concave.
   4.2. Fillet joints: Flat or slightly convex.
5. Protection: Protect finished joints from contamination or damage until sealant has cured.

Ω End of Section

Specification created using NBS Chorus