



MAYO COUNTY COUNCIL

**New Development of 64 No. Dwellings
at
Lawn road, Castlebar, Co Mayo**

MA637

MA637-03-PM_40_45_03-X-XXX-SP-MCC-AR-9008

Employers Requirements, Architectural & Landscaping Specification

TENDER ISSUE - August 2026

Issue:	Date:	Notes:	Prepared:	Checked:
1	02.08.2025	Tender Issue	DL	DL



Rialtas na hÉireann
Government of Ireland

Housing for All

A new Housing Plan for Ireland

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Employers Requirements

PM_10

Project information

Project management

PM_10_10_60/10 Project description

1. Project reference: **MA637**
2. Project title: **New Development of 64 No. Dwellings at Lawn road, Castlebar, Co Mayo**
3. Project description: A new social housing development located in Lawn road, Castlebar, Co. Mayo.

Construction of 64 no. dwellings, together with all associated site development works, at Lawn road, Castlebar, Co Mayo.

The construction of 64 No. dwellings comprising of 30 no. 3-Bedroom 6-Person 3-Storey houses, 4 no. 2-Bedroom, 4-Person, 2-Storey houses, 6 no. 3-Bedroom, 5-Person, duplex apartments, 6no. 2-Bedroom, 4-Person, duplex apartments and 18 no. 1-Bedroom, 2-Person, apartments.

The development will include the provision of new footpaths and roads including site access, necessary site clearance, associated site and civil works, installation of new services, utilities, drainage, services connections & infrastructure for statutory undertakers, with associated hard & soft landscaping, cycle and car parking, public lighting, street furniture, boundary walls & fencing, siteworks and all ancillary site works. The development will also incorporate construction of a new access onto the proposed development from Lawn road.
4. Notes: There are several issues for the contractor to address in the Safety Plan.

Lawn road is a busy road serving Castlebar and is frequently used by pedestrians, cyclists and local residents. The contractor is to address the issues of deliveries and vehicles and include for a Traffic Management Plan. The contractor shall become familiar with the site and restrictive widths and heights of access routes. Please be aware of the OH electric wires at proposed entrance. These need to be diverted ASAP and a priority when planning site mobilisation.

The contractor is required to provide all temporary accommodation works to ensure the safety of the public, access to residences and premises where necessary is maintained at all times and to ensure that traffic is not impeded or hampered.

The contractor is required to manage the site in a proper and safe manner and that includes management of traffic, deliveries, site personnel parking and all reasonable measures to ensure the safety of the public and site personnel.

Road closures 'may' only be authorised by the Employer only under exceptional circumstances upon receipt of a written submission received at least three weeks prior. Such scenarios must be identified in advance of preparing the works programme.

As these are public works, the generation of unacceptable levels of noise and dust is not acceptable. The onus is on the contractor to reduce the nuisance to a minimum.

It is the responsibility of the contractor to consult with relevant adjoining stakeholders in relation to the erection of site hording and other temporary works. Relevant adjoining Stakeholders include:

 - Local residents (Mchale road residents)
 - Civil Authorities & municipal functions etc.

The Contractor is required to ensure that no undue damage or interference is caused to existing structures and buildings. The Contractor is responsible for the reinstatement cost associated with any damage caused or affected to such structures and the cost of maintaining all necessary protection measures. He shall also be responsible for cleaning all debris associated with the works.

The contractor is required to liaise with the Employer & other contractors employed by the Employer as part of this landscaping project in all matters relating to the proper completion of the works. Thus, the contractors tender shall include for co-ordinating their work and liaising with the said contractors and the local authority, attendance of bi-monthly site meetings with the Employers Representative.

The works must be carried out in accordance with the following:

 - Manual Handling in the Irish Construction Industry, Health & Safety Laboratory.
 - Code of Practice for Access & Working Scaffolds, H.S.A
 - HSE, Construction Site Transport Safety.
 - HSE, Safe use and erection of falsework.
 - Code of Practice for Avoiding Danger from underground services, H.S.A
 - Code of Practice for Avoiding danger from Overhead Electricity Lines, H.S.A.
 - A guide to safety in excavations, H.S.A
 - Guidelines for working on Roads, H.S.A.
 - Safety Advice for working in the Vicinity of Natural Gas Pipes, Bord Gáis Networks.

PM_10_10_60/20 Drawings and other documents

1. Details: Copies of the drawings, additional to those provided for in the conditions of Contract, shall be provided at the Contractor's expense. Keep one copy of all Contract Drawings on the works for inspection by the Architect. Return all copies of Drawings to the Architect on completion of the works. The Contractor tendering shall be deemed to have made a thorough examination of the drawings and specification, the site and all features thereof, the nature of the ground, means of access to the site, drains, mains, overhead lines, adjoining premises or any other matter affecting in any way the proposed works.

The Employer shall not remunerate Contractors for any expenses incurred in the preparation of the Tender.

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- 1.1. **Additional Detail Drawings:** Detail drawings in all cases shall be worked to in preference to those of a more general character and figured dimensions shall be followed in preference to scaling.

Under no circumstances must the work as set forth in the Specification and shown on the Drawings be varied without the Architect's written instruction.

2. **Standards, Codes of Practice:** Reference herein to Irish, British or other National Standards or Codes of Practice do not give the year of issue or dates of amendments. The latest relevant published revision including any relevant amendments at date of invitation to tender shall apply. Where a standard or Code or Practice has been superseded, the latest edition at the superseding publication shall apply.
3. **Statutory Obligations:** Obtain approval from the relevant Local Authority Department or Area Engineer for the location of temporary entrances, hard standings and crossings required for the Works. Comply with the requirements of the Local Authority regarding their maintenance and reinstatement. Pay all necessary Local Authority charges and erect all relevant road/safety signage required.

Obtain permission from Local Authority for all temporary hoarding, scaffolding and fences. Pay all fees, charges and taxes legally demanded by local and public service authorities. Pay all necessary local authority charges for water connections, connections to sewers, etc.

Maintain the public road adjacent to the site in a clean and safe manner at all times. Erect all relevant warning signs while working on or traversing the public road as necessary in accordance with chapter 8 of the Roads Traffic Manual and as directed by the Council and any other Authority.

4. **Building Regulations:** The Contractor shall be responsible for compliance with all aspects of the relevant Building Regulations in connection with the execution of the works. The Contractor must be familiar with all amendments to the Building Regulations and allied legislation.

Building Control (Amended) Regulations 2014.

The appointed contractor will be required to fully comply with all the duties and responsibilities required of the 'Builder' under the Building Control (Amendment) Regulations 2014, S.I. No. 9 of 2014 and the associated Code of Practice for Inspecting and Certifying Buildings and Works, including any subsequent amendments or alterations to this code.

5. **Health, Safety and Welfare At Work** (see also Public Works Contract - Section 2.4 Project Supervisor): The Contractor shall include for compiling in full with the Safety, Health and Welfare at Work Act 2005 and the Safety, Health and Welfare at Work (Construction) Regulations 2013 and any other Acts relating to the Safety, Health and Welfare of the work people employed on the works.

The Contractor shall include for appointment of Project Supervisor (Construction Stage) as set out in the Safety, Health and Welfare at Work (Construction) Regulations 2013 and nominate a person, subject to the approval of the Employer for this position.

The Contractor shall include for the **insurance cover** required to be obtained and maintained by the Contractor of the Main Contract and shall provide indemnity in respect of any claim for bodily injury or property damage which may be incurred by reason of the performance of the functions of the Project Supervisor for the Construction Stage of the project.

The Contractor shall, prior to the commencement of the Works prepare a **safety statement** pursuant to the pertinent section of the current Safety Health and Welfare at Work Act and shall furnish two copies of the same to the Architect.

The Contractor shall include for all duties to be carried out by the Project Supervisor (Construction Stage) and in particular develop before the commencement of work the **preliminary Health & Safety Plan** and to make adjustments to such plan where required to take account of the progress of the work and any changes which occur.

Where more than one contractor is engaged on site, it is the duty of the Project Supervisor (Construction Stage) to prepare a Safety File, containing relevant health & safety information to be taken into account during any subsequent construction work following completion of the works.

It is the duty of the Project Supervisor (Construction Stage) to provide relevant information, to be taken into account during any subsequent construction work following completion of the works, for the **Safety File**. On completion of the works deliver the safety file to the Client.

It shall be the duty of the Project Supervisor (Construction Stage) to maintain and keep available for inspection a record of persons at work and ensure they are in possession of a current **recognised approved Safe Pass** Programme card, and where appropriate, a current recognised Construction Skills Certification Scheme card.

- 5.1. **Safety File:** On completion of the works deliver the following (non-exhaustive list) documents to the PSDP for inclusion in the safety file. The safety file must include the following as a minimum:

1. All relevant product guarantees / warranties.
2. All relevant safety certificates,
3. All relevant operation manuals,
4. Testing certificates / results – gravel, concrete, mortar, steel etc.
5. Commissioning certificates.
6. All relevant product information.
7. All relevant as-built drawings by way of 3 sets of copies. As built information shall include (non-exhaustive) as constructed utilities, foundations, topographical survey etc.
8. Copies of fabrication and 'as erected' drawings of any bespoke installations.
9. Copies of traffic management plans and safe systems of work plans.

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10. Maintenance instructions.
11. Anything else deemed necessary by the PSDP / E.R

It shall be the duty of the PSCS Project Supervisor (Construction Stage) to maintain and keep available for inspection a record of persons at work and are in possession of a current Safe Pass Programme card, and where appropriate, a current Construction Skills Certification Scheme card.

6. Contract drawings

- 6.1. Generally: The same as the tender drawings.

Keep one copy of all Contract Drawings on the works for inspection by the Architect.

Return all copies of Drawings to the Architect on completion of the works.

The Contractor tendering shall be deemed to have made a thorough examination of the drawings and specification, the site and all features thereof, the nature of the ground, means of access to the site, drains, mains, overhead lines, adjoining premises or any other matter affecting in any way the proposed works.

The Employer shall not remunerate Contractors for any expenses incurred in the preparation of the Tender.

7. Cross references

- 7.1. **Accuracy:** Check remainder of the annotation or item description against the terminology used in the cited section or clause.
- 7.2. **Related terminology:** Where a numerical cross-reference is not given the relevant sections and clauses of the specification will apply.
- 7.3. **Relevant clauses:** Clauses in the cited specification section dealing with general matters, ancillary products and execution also apply.
- 7.4. **Discrepancy or ambiguity:** **Give immediate notice in writing setting out the nature and assessed impact of the conflict. Do not proceed until instructions are received.**

8. Dimensions: Use numbered dimensions only.

Do not scale direct from drawings.

9. Additional copies: Copies of the drawings, additional to those provided for in the conditions of Contract, shall be provided at the Contractor's expense.

PM_10_10_60/30 Project location

1. **Details:** The Proposed new social housing development is located in Lawn road, Castlebar Co. Mayo.
2. **Address:** Lawn road, Castlebar, Co. Mayo

PM_10_10_60/40 Existing buildings on, or adjacent to the site

1. **Details:** The site for the proposed development is located on the outskirts of the town of Castlebar. The development will be accessed via the Lawn Road and is within the 50km/h speed limit zone.

PM_10_10_60/50 Surrounding land and building uses

1. **Details:** Refer project SHW Preliminary Safety & Health Plan included in tender package.

PM_10_10_60/60 Access

1. **Details:** Refer project SHW Preliminary Safety & Health Plan
2. **Limitations:** Refer project SHW Preliminary Safety & Health Plan

PM_10_10_60/80 The works/ services

1. **Details:** The construction of 64 No. new dwellings comprising of 30 no. 3-Bedroom 6-Person 3-Storey houses, 4 no. 2-Bedroom, 4-Person, 2-Storey houses, 6 no. 3-Bedroom, 5-Person, duplex apartments, 6no. 2-Bedroom, 4-Person, duplex apartments and 18 no. 1-Bedroom, 2-Person, apartments.
2. The dwelling constructions comprise insulated ground bearing reinforced concrete rafts, external insulated blockwork and specialist brickwork masonry cavity walls, insulated cut roof pitched roofs with slate finishes.

The dwellings are to be finished for tenant occupation - includes hot water and heating, electrical installation, and lighting. Ancillary work includes external services, drainage, roads, paths, fences, car parking and landscaping work.
3. **Related works:** Provide trades with necessary details of related types of work. Before starting each new type or section of work, ensure that previous related work is complete, in accordance with the project documents, to a suitable standard, and in a suitable condition to receive new work.

PM_10_10_60/110 The subcontract work

1. **Details:** Details of specialist electrical and mechanical domestic sub-contractors to be appointed by main contractor (contractor's choice) to be provided to the Employer's representative prior to commencement of contract on site.

PM_10_10_60/140 Products provided by, or on behalf of, employer/ client/ purchaser

1. **General:** Details of products to be fixed as part of the contract work are given in the systems Use for no other purpose than the works.
2. **Handling:** Accept delivery, check against receipts and take into appropriate storage.
3. **Surplus products:** Keep safe and obtain instructions.

Ω End of Section

PM_30

Site, ground and environmental information

Project management

PM_30_10_93 Utilities and services survey information

1. **Details:** READ AND FOLLOW ALL RECOMMENDATIONS CONTAINED IN STRUCTURAL ENGINEERS GROUND INVESTIGATION SITE REPORT AND ASSOCIATED DRAWINGS.

Make all necessary enquiries about the nature of the ground.

The Contractor before submitting his tender will be permitted to dig trial holes subject to approval.

Refer to Existing Site survey drawings and Site Investigation report and drawings.
Site survey indicates existing ground levels boundaries and trial holes.

Consult all responsible authorities, before commencing excavation, regarding the position and type of underground services likely to be encountered.

2. **Provision:** Provided.
As per Document Register Sheets

Ground investigation reports

PM_30_20_35 Ground investigation report

1. **Details:** Site Investigation report provided.
2. **Provision:** Provided.
As per Document Register Sheets

PM_30_20_35 Archaeological investigation report

1. **Details:** Archaeological Investigation report
2. **Provision:** Provided.
As per Document Register Sheets

Environmental information

PM_30_30_25 Appropriate Assessment Screening report AA SR

1. **Details:** Appropriate Assessment Screening report
2. **Format:** PDF
3. **Provision:** Provided as per Document Register Sheets

PM_30_30_25 Environmental Impact Assessment Screening report EIA SR

1. **Details:** Environmental Impact Assessment Screening report
2. **Format:** PDF
3. **Provision:** Provided as per Document Register Sheets

Ω End of Section

PM_35

Project Performance Requirements

Project management

PM_35_10_25 Durability performance requirements

1. **Requirement::** The building is to be designed and constructed using materials, systems and components with durability set out below from date of Substantial Completion, given that normal maintenance will be carried out and fair wear and tear excepted.
Required documentation: CE, Declaration of Performance NSAI or Agrément Certificate or third party certification, (or equivalent) stating durability.

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Accreditation by a member of the European cooperation for Accreditation (EA) such as the Irish National Accreditation Board (INAB) offers a way of ensuring that tests are conducted in accordance with recognised criteria and can be relied on.

2. Elements of structure: 60 years Required
3. Floors, Balconies, Walls, Claddings and Roofs:: 60 years Required
4. Waterproofing Flat Roofs and Balconies:: 30 years Required
5. External Completions; windows and doors:: 30 years Required
6. Heating ,Mechanical Systems and renewable systems: 20 years Required. Note that for Heat pumps design life span of 15 years minimum is acceptable.
7. Plumbing and Sanitary:: 40 Years Required
8. Electrical Services:: 40 Years Required
9. Kitchen frontage / Worktops / Sinks & accessories:: 20 years Required

PM_35_10_47 Environmental Product Declaration

1. Life cycle requirements: *Ensure that all built structures, systems and components are suited to the specified function and service conditions in which they are to be installed.*
2. Requirement:: Environmental Product Declarations (EPD) to be provided for materials where requested in specification.
3. Description:: Environmental Product Declarations (EPD) are a standardised way of providing data about the environmental impacts of a product through the product life cycle. In Europe, they must conform to the European Standard, EN 15804, which ensures that EPD for construction products use a common methodology, report a common set of environmental indicators and have a common reporting format. This means that EPD can be integrated into building level assessment, and used to compare construction products in a building context. In EN 15804, the impacts of construction products are modelled over four life cycle stages – see figure below:
 1. The product stage (A1-A3) showing the impacts of manufacture and the supply chain from the “cradle to gate”;
 2. The construction stage (A4-A5) showing the impacts of transport and construction on site;
 3. The use stage (B1-B7) showing the impacts of any emissions in use, maintenance, expected repair or replacement and any energy or water consumed in use;
 4. The end of life stage (C1-C4) showing the impacts of demolition or deconstruction, transport to waste processing and any recovery or disposal processes.

EPD including all life cycle stages are known as “cradle to grave” EPD. EPD can also show the potential benefits of any reuse, recovery or recycling after end of life in Module D. These modules and stages are standardised across products and building level environmental assessment (using EN 15978, another of the CEN/TC 350 suite of standards for sustainable construction), so that EPD data can be easily used at building level to assess the life cycle impacts.

A product with an EPD is not automatically a product with low environmental impact – the EPD only provides the environmental information about the product which allows you to discover this by comparing to other products at the building level. However, in obtaining an EPD, the manufacturer will receive an EPD Project Report which explains the sources of impacts through the life cycle, which will allow them to consider how they might best reduce them.

Because EPD to EN 15804 have a common methodology, EPD from different programmes can be used outside their country of origin, although often the data from “gate to grave” may not be representative as typical transport distances or end of life routes may be different in different countries.

4. Standard: EN15804 +A2 2019
EN 15804 EPD are all independently verified (normally by a third party) and registered and published within EPD programmes which need to meet the requirements of International Standard ISO 14025. There are EPD programmes using EN 15804 across Europe, America and Australasia and in January 2018 there were over 5,400 registered construction product EPD verified to EN 15804.
5. Environmental Indicators:: EPD measure the environmental indicators listed below.
6. Primary Energy: EPD report the amount of primary energy used within the product (as feedstock, for example for plastics and wood) and to manufacture the product (as energy). Primary Energy is also broken down into energy from renewable sources, such as hydro-electricity and biomass, and from non-renewable sources – fossil fuels and nuclear energy. They also provide information on the amount of secondary (recycled) material used and the amount of recovered material, fuel or energy produced at end of life.
7. Global Warming Potential (GWP): GWP measures the Carbon Dioxide (CO₂) and greenhouse gas (GHG) emissions associated with the manufacture and use of a product or service, sometimes known as “embodied carbon” or the “carbon footprint”.
8. Acidification (AP):: Acidic gases such as sulphur dioxide (SO₂) react with water in the atmosphere to form “acid rain”. When this rain falls, often a considerable distance from the original emission, it causes ecosystem damage.
9. Eutrophication (EP): Nitrates and phosphates are essential for life, but increased concentrations in water can encourage excessive growth of algae and reduce the oxygen within the water, which can lead to damage of ecosystems, increasing mortality of aquatic fauna and flora. Eutrophication can therefore be classified as the over-enrichment of water courses.
10. Stratospheric Ozone Depletion Potential (ODP): Ozone-depleting gases (e.g. CFCs, HCFCs and halons) cause damage to stratospheric ozone or the “ozone layer”, reducing its ability to stop ultraviolet (UV) light entering the earth’s atmosphere. Growing concern in the 1980s led to world-wide efforts to curb the destruction of the ozone layer, culminating in the Montreal Protocol which banned many of the most potent ozone depleting gases.
11. Photochemical Ozone Creation Potential (POCP):: In atmospheres containing nitrogen oxides (NO_x), a common pollutant, and volatile organic compounds (VOCs), ozone and other air pollutants can be created in the presence of sunlight. Although ozone is vital at high levels of the atmosphere (see ODP), low level ozone is implicated in impacts such as increased incidence of asthma. The most common manifestation of the effects of high levels of POCP-contributing gases is in the smog seen over large cities such as Los Angeles or Beijing.

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12. **Abiotic depletion::** Abiotic depletion indicators aim to capture the decreasing availability of non-renewable resources as a result of their extraction and underlying scarcity. There are two different indicators of abiotic depletion covering firstly scarce chemical elements, and secondly fossil fuels.
13. **Abiotic Depletion (Elements) (ADPE)::** This impact category indicator is related to extraction of scarce elements (and their ores) and is measured using the Production/(Ultimate Reserve)² which is compared to the reference case, Antimony (Sb).
14. **Depletion (Fossil Fuels) (ADPF)::** This impact category indicator is related to the use of fossil fuels as fuel or feedstock and is measured using the primary energy of the extracted fuel.

PM_35_10_60 Performance compliance requirements

1. **Requirement:** Proof of compliance with specified performance.
2. **Method**
 - 2.1. **Laboratory project testing :** *For fire performance.*
For acoustic performance.
For thermal performance.
For airtightness performance.
For resistance to moisture performance.
3. **Testing authority:**

A Competent accredited independent testing body or association. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA) which provides appropriate testing equipment, testing environment and independent testing results.

- The Authority must be a laboratory -accredited organization that conforms to IS EN ISO/IEC 17025.
- For CE marked products, authorities must be approved by European co-operation for Accreditation (EA) members.

The Testing Authority shall be subject to acceptance by the Employers representative.

4. **Submittals**
 - 4.1. **Format:** *Test results and certification which will be used to verify conformance with the Specification.*

Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.
 - 4.2. **Timing:** Manufacturers or Suppliers Certificate of compliance with the standard shall be provided
 1. **on submission of product data for approval**or
 2. **when requested by the Employers representative.**

PM_35_30_28/10 Fire resistance

- **Assessment authority:** Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
- **Loadbearing elements**
 - **Standard:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification and in accordance with:
 - I.S. EN 1365-1:2012 - FIRE RESISTANCE TESTS FOR LOADBEARING ELEMENTS - PART 1: WALLS
 - I.S. EN 1365-2:2014 - FIRE RESISTANCE TESTS FOR LOADBEARING ELEMENTS - PART 2: FLOORS AND ROOFS
 - I.S. EN 1365-3:2000 - FIRE RESISTANCE TESTS FOR LOAD-BEARING ELEMENTS - PART 3: BEAMS
 - I.S. EN 1365-4:2000 - FIRE RESISTANCE TESTS FOR LOAD-BEARING ELEMENTS - COLUMNS
 - I.S. EN 1365-5:2004 - FIRE RESISTANCE TESTS FOR LOADBEARING ELEMENTS - PART 5: BALCONIES AND WALKWAYS
 - I.S. EN 1365-6:2004 - FIRE RESISTANCE TESTS FOR LOADBEARING ELEMENTS - PART 6: STAIRS

PM_35_30_30/10 Fire safety – compliance route

1. **General approach:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification.
2. **Advanced approach:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification. Alternative approaches based on fire safety engineering may be employed to satisfy the requirements of the Regulations. These may be based on a fundamental analysis of the fire safety problem or involve a comparative analysis between a provision of this technical guidance document and an alternative solution. Where appropriate, compensating fire safety measures should be considered and evaluated.
A qualitative assessment of the alternative design may be adequate in some cases, but generally quantitative analysis will also be required.
3. **Fire safety engineering:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification. Fire safety engineering may also be used to demonstrate the adequacy of alternative solutions to those outlined in this Technical Guidance

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Document. This approach may also be appropriate in the case of existing buildings or where a particular provision of the guidance can not practicably be achieved.

PM_35_30_70 Reaction to fire performance requirements

- **Standard:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification.
- **Assessment authority:** A laboratory-accredited organization which conforms to EN ISO/IEC 17025, such as those approved by NSAI.

For CE marked products, authorities must be approved by European co-operation for Accreditation (EA) members such as NSAI.

- **Requirements:** Ensure that all building systems and elements are designed, detailed and third-party-certified to achieve the required or greater reaction to fire requirements as set out in TGD B Dwellings

PM_35_30_80 Spread of fire performance requirements

1. **Standards:** In accordance with TGD B and Project specific Fire Safety Certificate technical specification.
2. **Assessment authority:** A laboratory-accredited organization which conforms to EN ISO/IEC 17025, such as those approved by NSAI.

For CE marked products, authorities must be approved by European co-operation for Accreditation (EA) members such as NSAI.

PM_35_30_85 Structural fire performance requirements

1. **Standard:** IS EN 1991-1-2 – general actions on structures.
IS EN 1992-1-2 – concrete.
IS EN 1993-1-2 – steel.
IS EN 1994-1-2 – composite construction.
IS EN 1995-1-2 – timber.
IS EN 1996-1-2 – masonry. (which includes clay and concrete brickwork/blockwork)
IS EN 1999-1-2 – aluminium.
2. **Requirement:**
 - 2.1. **Design:** *So that in an event of fire, the stability of the building will be maintained in accordance with TGD B requirements and design structure will inhibit the internal spread of fire either by compartmentation or a fire suppression system.*

PM_35_40_03 Airtightness performance requirements

1. **Appears with:** Air permeability and pressure testing.
2. **Air permeability requirements:** The building fabric shall be constructed to meet airtightness requirements in accordance with with current Irish Building Regulations Parts L & F.
The building fabric shall be constructed so that there are no reasonably avoidable thermal bridges in the insulation layers, caused by gaps within the various elements, at joints between elements and at the edges of elements such as window and doors surrounds.

The building fabric shall be constructed so to eliminate air-permeability or the uncontrolled movement of air, both into and out of the building, through cracks and gaps in the building envelope particularly at routes such as service penetrations or junctions between building elements that remain unsealed.

- 2.1. **Pressure difference (maximum):** Internal to external of 50 Pa.
- 2.2. **Air leakage rate (maximum):** 2.0m³/hr/m²
3. **Methodology:** The contractor must apply due care and diligence on site to ensure that workmanship, careful and considered detailing is applied to ensure that the envelope performs in accordance with the stated maximum air exchange rate for dwellings.

The contractor shall be responsible for the cost of each and every airtightness test in the event that the maximum ACH is exceeded.

PM_35_40_15 Condensation control performance requirements

1. **Standards:** In accordance with IS EN ISO 13788.
2. **Condensation Risk Analysis::** Suppliers of insulation provided to timber roof structures shall provide a WUFI (en) report (WUFI - Wärme Und Feuchte Instationär) confirming there is no condensation risk to structure resulting from insulation provision.
3. **Verification:** As per 'PM_35_10_60 Performance compliance requirements'.

PM_35_40_72 Resistance to ground contaminants performance requirements

1. **Methodology**
 - 1.1. **Solid or liquid contaminants:** Remove.
 - 1.2. **Gaseous contaminants:** Adopt protection measures in accordance with Technical Guidance Document C- Site Preparation and Resistance to Moisture
2. **Verification:** As per 'PM_35_10_60 Performance compliance requirements'.

PM_35_60_05/50 Acoustic performance of buildings

1. **Standard:** In accordance with TGD E and BS 8233.
2. **Acoustic Testing Requirements:** Testing of completed buildings or spaces (new or refurbished) is required to be completed by the Contractor to ensure compliance with the specified / required acoustic criteria in compliance with the various legislation and criteria for noise levels defined in planning documentation & Building Regulations TGD E .

Refer

Ac_15_55_04/640 SOUND TESTING Acoustic testing

PM_35_70_92 Thermal transmittance performance requirements

1. **Standards**
 - 1.1. **Calculation:** In accordance with IS EN ISO 6946.
In accordance with IS EN ISO 10077-1.
In accordance with IS EN ISO 10077-2.
In accordance with IS EN 673
 - 1.2. **Measurement:** In accordance with IS EN ISO 8990.
In accordance with IS EN ISO 12567-1.
In accordance with IS EN ISO 12567-2.
2. **Requirements**
 - 2.1. **Windows/ Doors U-value ::**

In accordance with TGD L

Windows **max 0.8 W/m²K**
External Doors **max 0.8 W/m²K**

Note : Solar Transmittance Value Of Glazing Not To Be Below 40%
 - 2.2. **Walls U-value (maximum):** Dwelling Exposed Walls : 0.16 W/m²K - In accordance with TGD L
 - 2.3. **Floors U-value (maximum):** Dwelling Exposed Floors : 0.11 W/m²K - In accordance with TGD L
 - 2.4. **Roofs U-value (maximum):** Dwelling Exposed Roofs : 0.12 W/m²K - In accordance with TGD L
3. **MAX THERMAL BRIDGING FACTOR :**

Y=0.08W/m²K
(IN ACCORDANCE WITH DEAP MANUAL)
4. **Verification:** As per verification clause PM_35_10_60.

Ω End of Section

PM_40 Design and approvals information Project management

PM_001 Building Regulations

1. The Contractor shall be responsible for compliance with all aspects of the relevant Building Regulations in connection with the execution of the works. The Contractor must be familiar with all amendments to the Building Regulations and allied legislation.
2. **Building Control (Amended) Regulations 2014.**

The appointed contractor will be required to fully comply with all the duties and responsibilities required of the 'Builder' under the Building Control (Amendment) Regulations 2014, S.I. No. 9 of 2014 and the associated Code of Practice for Inspecting and Certifying Buildings and Works, including any subsequent amendments or alterations to this code.
3. "Builder" means a competent builder appointed, for purposes of the Building Control Regulations, by the building owner, to build and supervise the works.

PM_002 Ancillary Certificates

1. Ancillary Certificates :

The Contractor shall obtain and provide to the Employer's Representative any and all Certificates / Ancillary Certificates required in order to ensure that the completed development achieves compliance with the Building Regulations via the Building Control (Amendment) Regulations Framework.

Refer Form of Tender and Schedule & Preliminary Inspection Plan and Inspection Notification Framework for non-exhaustive list of Certificates and warranties required.

Main Contractor is responsible for ensuring all required certification is provided to the Assigned Certifier.

The schedule of certificates required shall be determined in full detail by the Assigned Certifier and furnished to the Contractor

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based on the Contractor's tender submission.

Any omission shall not absolve the Contractor from their obligation to provide any and all certificates required in order to ensure that the completed development achieves compliance with the Building Regulations via the Building Control (Amendment) Regulations Framework.

Ancillary Certificate is defined in the contract as a certificate as prescribed by the Building Control Regulations, other than a statutory certificate of compliance, given by a competent person to confirm compliance of elements of the building, design or Works with Building Regulations; and

Ancillary Certifier is defined in the contract as the person proposed to issue such a certificate.

1.1. **Specialist Certification:**

All Contractors / suppliers responsible for providing ancillary design certification to Design Certifier to satisfy Assigned Certifier that the fabrication and construction as well as installation has been carried out in compliance with the Building Regulations including but not limited to:

- 1.1.1.
 - Roof Truss Design & Manufacture Certification
 - Precast Concrete / Hollow core Design & Manufacture Certification
 - Window and Door Design & Manufacture Certification. (Internal & External)
 - Stairs Balustrade & Guardrail Design & Manufacture Certification.
 - Radon membrane, sump and accessories Installation & Testing certification

1.2. **Testing Certification:**

All Contractors / suppliers responsible for providing ancillary certification to Design Certifier to satisfy Assigned Certifier that the design fabrication, construction and installation of Mech & Elec. systems, including renewables in houses, has been carried out in compliance with the Building Regulations including but not limited to:

- 1.2.1.
 1. Test and commissioning certification for Mechanical Services Installation, all aspects of heating / cooling systems including Heating Appliances, all heat pumps, pipework pressure, controls / sensors and all aspects of renewable technologies.
 2. Test and commissioning certification and commissioning certification for all aspects of Electrical, Fire, Security & CCTV services Installations including all lighting and power; telecoms, TV, IT services, alarms and detectors - Including Electrical Board Manufacturers Certification

1.3. **Commissioning & Testing at Completion:**

Main Contractor is responsible for delivering all commissioning and test certificates, to satisfy Assigned Certifier that the complete project has been constructed in compliance with the Building Regulations and that all systems are operating to achieve a building which is compliant. See list, this is a non-exhaustive list and the contractor is responsible for ensuring all certification is provided to the Assigned Certifier.

1.4. **Test Certificates:**

Specialists engaged to test and certify compliance of construction / fabrication has been carried out in compliance with the Building Regulations including but not limited to:

- 1.4.1.
 1. Radon membrane/seals Testing and certification - test and certify any weatherproofing / membranes to establish warranty.
 2. Airtightness Testing and certification
 3. Water Testing and certification
 4. Pressure Testing and certification
 5. Chlorination Testing and certification
 6. Acoustic Testing and certification
 7. Ventilation Commissioning certification & Testing in line with TGD
 8. BER Certification on Completion
 9. Water Leak Test and Certification

PM_003

Product Certification

•

- **To ensure minimum quality and durability standards are met. All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.**

Samples of products (or parts of products) may be requested by the ER or Design Team to assist with verification of the system, or for reference throughout the project.

- All construction products must bear a CE mark, where a harmonised standard exists for the product.

Such products / materials shall either be certified as complying with latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.

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- Products which are not covered by a harmonised European standard

Demonstrate **compliance** by referring to technical specifications, national standards, non-harmonised European and international standards.

In these cases the contractor will have to provide more details in their technical documentation explaining how products comply with requirements and TGD's.
- The Contractor shall submit a copy of valid current certificate for all proposed products.

Such certification must include, in part or in total,
 - *Product CE marking and associated Declaration of Performance (DoP) and all relevant data sheets.*
 - *Board of Agrément Certificate Approved by INAB (Irish National Accreditation Board) e.g. NSAI Agrément or equivalent.*
 - *Certificate Approved by accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)*
 - *Certificate of European Technical Assessment Approval*
- **Note - Product Legislation**

EU product legislation applies to products placed on the EU market irrespective of where they are manufactured.

Under [Regulation \(EU\) No 305/2011](#) (known as the Construction Products Regulation or the "CPR"), CE marking is mandatory for all construction products placed on the market in the European Economic Area and it is covered by:
 1. [a harmonised European product standard](#)or
 2. [a European Technical Assessment](#) (These are used by manufacturers of products which are not covered by a harmonised European standard but who still wish their products to be CE marked)
- **Note - Notified Bodies**
 - Notified bodies are independent assessment bodies accredited by National Accreditation Bodies and listed by the EU Commission on the [EU NANDO website](#)
 - Notified Bodies must be established in an EU Member State and designated by an EU Member State notifying authority for performing the conformity assessment tasks set out in the relevant EU product legislation.
- Where works involve systems, products, materials, techniques or equipment, for which published national standards do not yet exist, third party certification demonstrating compliance with Irish Building Regulations and durability requirements shall be required by the contracting authority.

Products / materials shall either be certified as complying with latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.
- Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
 - It is not sufficient to submit proposed product information.
Contractor response must clearly provide a description how the proposed product meets compliance with project spec and regs.
Reference must be made clearly to how the proposed product meets compliance with project spec and regs in narrative provided.

PM_4

The Site

- The access to the site, and the working area for the Contractor, shall be that indicated on site layout drawings. Contractor to ensure that access to lands adjacent to the construction access road are kept free from obstruction and accessible at all times to the relevant landowners.

Do not use the site for any purpose other than carrying out the Works.

The Contractor is advised to visit the site and ascertain all local conditions and restrictions likely to affect the execution of the Works. No claims arising from failure to do so will be considered.
- Work outside the site shall not be undertaken without express agreement with the Architect.

Take adequate precautions at all times to prevent trespass on adjoining property by employers or by sub-contractor's employees.

Obtain permission from the owner of adjoining property, if it is necessary to use that property for any purpose in connection with the works. Indemnify the Employer against all charges arising there from.

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Take all reasonable precautions to prevent damage to adjoining property and to avoid causing a nuisance to adjoining occupants and to the public. Make good any damage caused to adjoining property.

Do not store inflammable liquids or compressed gases within the buildings.

- The Contractor shall be responsible for all damage to existing roads caused by his own or sub-contractors' or supplier's transport to and from the site.
Maintain the employer's existing roads and footpaths during the Contract and make good any damage caused by site traffic or site operations. Keep roads and footpaths clean and free from obstruction at all times.
Provide all relevant warning and information working signs while working on or traversing public roads and footpaths. Signs/lights etc. to be adequately maintained during working and non-working hours.
- The Employer intends to permit E.S.B. and Eir to install underground services during the progress of the Works. Provide reasonable facilities and give at least seven days' notice to the Architect of when the work may proceed.
Take adequate precautions to protect persons and property from damage or nuisance caused by water, smoke, dust, rubbish and otherwise.
Do not display or permit advertisements to be displayed on the site without approval.
- The contractor shall be required to present a Method statement to the Architect detailing specifically how he intends to manage the site. This shall include site set up details, location of office / site hut, material storage, protection for public and pedestrians, traffic management, waste collection and disposal, site maintenance etc.

PM_004 Equivalent Products

• **Proposed Equivalent Products**

Equivalent products may be proposed by the contractor to those specified in this document or associated drawings, but such equivalent proposals must be accepted by the Employer's Representative / Architect in writing before proceeding.

For such equivalent products the contractor shall provide full technical literature to demonstrate that equivalent proposals are of a standard at least equal to that specified and demonstrate compatibility with the design intent.

1. Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark. Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
 2. Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate.
 3. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
- Should the Contractor propose equivalent goods, products, works or service as being "equivalent" to those specified, the Contractor shall be liable to reimburse the Employer's Representative / Architect's reasonable investigation costs associated with such proposal.
 - If the selection of the equivalent product would necessitate a change by the Employer's Representative / Architect in the Design parameters, the Contractor shall additionally reimburse all the costs incurred by the Employer's Representative / Architect associated with any re-design resulting from or consequent upon such a selection provided always that the Employer's Representative / Architect shall not be obliged to agree to any such change.
- **STANDARDS OF PRODUCTS AND EXECUTIONS**
 - **Equivalent Products**
 - Details: If equivalent products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed equivalent substitution. Substitutions of equivalent products which have not been notified at tender stage may not be considered.
 - Compliance: Substitutions of equivalent products accepted will be subject to verification requirements detailed in the specification.
 - **Substitution of equivalent products**
 - **Products:** If an equivalent product to that specified is proposed, obtain approval before ordering the product.
 - **Reasons:** Submit reasons and relevant information for the proposed equivalent product substitution.
 - **Information to be submitted:** Manufacturer and product reference.

Cost.
Availability.
Relevant standards.
Performance.
Function.
Compatibility of accessories.
Proposed revisions to drawings and specification.
Compatibility with adjacent work.
Appearance.
Copy of warranty or guarantee.
 - **Alterations to adjacent work:** If needed, advise scope, nature and cost.
 - **Manufacturers' guarantees:** If equivalent product is accepted, submit before ordering products.

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- **Substitution of standards**

- Specification:

To Irish or European Standards.

- Substitution of Equivalent Products:

May be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognized in Ireland.

- Ordering:

Submit notification of all such substitutions before ordering.

- When requested:

Submit for verification documentary evidence. Submitted foreign language documents must be accompanied by certified translations into English.

PM_005

Samples

1. The Contractor shall, at his own expense, provide and deliver samples of materials, concrete cubes, blocks, cladding panels, manufactured articles and executed work, etc, at the Architect's Offices for the approval or at the Offices of an approved testing authority as may be directed.

The Contractor shall, at this own expense, provide samples and shop drawings to include the following and all others requested by the Architect at any time throughout the contract:

Aggregate

Stone Fill

Lintels

Concrete

Mortar

Additive's

Blocks/bricks

asphalt

Channels/drains

All Insulations

Timbers/joinery

Plumbing/heating

Sanitary ware

Electrical fittings

Boilers complete

Windows/Doors

Doors/Sliding Door

Curtain Wall Glazing

Stairs complete

Internal and external Railings, Gates and Balustrades.

Handrails

Lime Plaster

Ironmongery

Lime Mortar Mix

Light Fixtures

Floor Materials - Wood Flooring, Tile flooring, Stone, Slate and Rubber Flooring

Wall finishes - render & plasterwork, Interior Tile work, Interior wood panelling / cladding

Paving/Ceramics

Lift and plant, Internal and external cab finishes.

Railings

Lead work,

Gutters Soffits and downpipes,

External Paving & Pavers

Skirtings & architraves,

Ceiling finishes,

Paint Samples,

Roof felt,

Vapour barrier membranes,

air tightness membranes & tapes,

Radon barrier/DPM,

Thresholds,

New and replacement stone & brickwork,

Patent partitioning

Slate, ridge, eaves and asphalt system

Internal joinery

Glazing/ Canopy Glazing

Rainwater goods, gutters soffits and downpipes

Internal and External Lime Render and associated products

Stonework

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Skirtings, picture rails & architraves
Ceiling finishes
Interior Tile work and Toilet partitions
Paint Samples
Countertops, & window boards
Light fittings.
Cutsheets for all Lighting, electrical fixtures, ironmongery and plumbing fixtures

and the work of other trades as may be directed by the Architect.

(See also specific requirements contained in the Specification hereinafter and provide that at least one 2m x 1m panel of each may be required.)

Maintain approved samples as controls during the course of the works.

PM_006 Materials & Storage

- All the materials used in the Works shall be new unless otherwise described and to be of Irish manufacture unless otherwise agreed.

Where materials or components are specified to comply with a National Standard Specification, the relevant standard number shall be marked on the commodity itself or on the delivery note accompanying the commodity.

Provide in respect of materials or components, manufacturer's certificates of compliance with Standard when requested by the Architect.

- Samples of all materials, manufactured articles and workmanship shall be submitted to the Architect for provisional approval before adoption, but such approval shall not relieve the Contractor in anyway, from the responsibility for any defects appearing subsequently. Where a material has not been specified by a trade name or other, the Contractor should quote a trade name or other at time of pricing the tender.
- Materials and manufactured articles supplied or fixed or work executed without permission and approval of samples shall be removed and the necessary reinstatements executed at the Contractor's expense.
- Provide sheds, compounds or any other structure necessary for the safekeeping and storage of all materials liable to loss or damage from exposure and maintain these structures during the course of the contract and clear away on completion.

Separate dedicated compound to be provided for goods, materials and protected elements associated with the project.

PM_40_30 Design information

1. **Scope:** Include the following in the Contractor's Proposals.
 - 1.1. **Design drawings:** Refer ITT & FTS for details where required.
 - 1.2. **Technical information:** Refer ITT & FTS for details where required.
 - 1.3. **Submittal date:** Refer ITT & FTS for details where required.
 - 1.4. **Specialist Elements:** Specialist responsible for design shall submit all necessary information and certification for approval as noted in the work section specification.

PM_40_30_27 Energy target - BER (Building Energy Rating)

1. **Performance Requirement:** A2 energy rating and in compliance with TGD Part L.
2. **BER Certification :**

The Contractor is to appoint a BER Assessor to

1. Monitor construction for the duration of the works .
2. Complete a Final BER report for each individual dwelling on completion of construction, which is required to be compliant with NZEB requirements.

BER assessors are solely responsible for:

1. carrying out BER assessments and verifying the accuracy of each data point in each BER assessment that they carry out
 2. submitting all required data upon completion of BER assessments
 3. ensuring that the data compiled and inputted into the calculation software is an accurate representation of all characteristics relevant to the energy performance of the building
 4. uploading complete assessments directly to SEAI's National Administration System for BER Assessments for publication of BER certificates and advisory reports
 5. issuing BER certificates and advisory reports directly to their clients once they are accepted into the national BER register maintained by SEAI
3. **Contractor to Provide Information:** Contractor to provide all documentation required by BER Assessor to complete their assessment including (but not limited to) wall, roof, door, window and floor specifications and copies of certificates of performance for construction products and appliances installed in the buildings.
4. **Calculation documentation**
 - 4.1. **Standard:** Calculated using the Dwelling Energy Assessment Procedure (DEAP) published by Sustainable Energy Authority of Ireland;

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5. Deliver to: ER a minimum of 4 weeks before Substantial Completion.

For inclusion with;

- Submission of Certificate of Compliance on Completion
- The Building Manual
- The Safety File

PM_40_30_28 Thermal transmittance performance requirements

1. Standards

- 1.1. **Calculation:** In accordance with IS EN ISO 6946.
In accordance with IS EN ISO 10077-1.
In accordance with IS EN ISO 10077-2.
In accordance with IS EN 673
- 1.2. **Measurement:** In accordance with IS EN ISO 8990.
In accordance with IS EN ISO 12567-1.
In accordance with IS EN ISO 12567-2.

2. Requirements

- 2.1. Windows/ Doors U-value ::

In accordance with TGD L

Windows = **max 0.8 W/m²K Component U-Value**
External Doors = **max 0.8 W/m²K Component U-Value**

Note :

Solar Transmittance Value Of Glazing Not Permitted Below 40%

- 2.2. Walls U-value (maximum): Dwelling Exposed Walls : 0.16 W/m²K - In accordance with TGD L
- 2.3. Floors U-value (maximum): Dwelling Exposed Floors : 0.11 W/m²K - In accordance with TGD L
- 2.4. Roofs U-value (maximum): Dwelling Exposed Roofs : 0.12 W/m²K - In accordance with TGD L

3. MAX THERMAL BRIDGING FACTOR :

Y=0.08W/m²K
(IN ACCORDANCE WITH DEAP MANUAL)

4. Verification: As per verification clause PM_35_10_60.

PM_40_60_05 Activities terminology

1. Advise: See 'Communicate'.
2. Agree: See 'Communicate'.
3. Approve: Record conformance of work to specified criteria by giving formal or official sanction.
4. Communicate: Includes advise, inform, agree, confirm, notify, seek, provide or obtain information, consent or instructions, or make arrangements.
5. Confirm: See 'Communicate'.
6. Ease: Adjust moving parts of designated products, systems or work to achieve free movement and good fit in open and closed positions.
7. Fix: Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging; to include labour, materials and site equipment for that purpose.
8. Give notice: Communicate in writing to the person administering the contract at the address listed.
9. Inform: See 'Communicate'.
10. Keep for recycling: As 'Keep for reuse', but relates to a naturally occurring material rather than a manufactured product.
11. Keep for reuse: Do not damage designated products, systems or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the employer or purchaser, or for use in the works as instructed.
12. Make good: Execute local remedial work to designated work. Make secure, sound and neat.
13. Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
14. Notify: See 'Communicate'.
15. Quote: Use 'Estimate'.
16. Recycle: Collect, sort, process and convert discarded or recovered components into raw materials for use in the creation of new products.
17. Refix: Fix previously removed products.
18. Remove: Disconnect, dismantle as necessary and take out the designated products or work, together with associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials.

Removal of an item excludes removal and disposing of associated pipework, wiring, ductwork or other services.

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Removal of a system includes this work.

19. **Remediate:** Take action or measures to lessen, clean up, remove or mitigate the existence of hazardous materials existing on a property; in accordance with standards, specifications or requirements as may be required by statutes, rules, regulations or specification.
20. **Repair:** Execute remedial work to restore something to its original working state. Make secure, sound and neat.

Excludes redecoration and replacement.

21. **Replace:** Supply and fix new products matching those removed. Execute work to match the original new state of that removed.
22. **Reuse:** Recover complete items to be fixed or used in the project or elsewhere without the requirement for recycling.
23. **Submit:** Deliver in a specified format to a specified person within a specified timeframe.
24. **Submit proposals:** Submit information in response to specified requirements.
25. **Supply and fix:** Supply of products, components or systems to be fixed, together with everything necessary for their fixing.

PM_40_60_22 Data security policy

1. **Records:** Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the [Freedom of Information Act](#), as amended.
2. **Received requests:** Obtain instruction before proceeding.

Do not supply information to those who are not project participants without express written permission.

3. **Confidentiality:** Maintain at all times.

PM_40_60_23 Description terminology

1. **Attendance:** Includes:

The provision of temporary roads, pavings and paths, standing scaffolding, standing power-operated hoisting plant;

The provision of temporary lighting of an equivalent brightness to the finished lighting brightness;

The provision of water;

The clearing away of rubbish and paying all charges in connection with its disposal, the provision of secure hard standing space for the sub-contractor's own offices, plant and material storage;

The use of standing mess rooms, sanitary accommodation and welfare facilities; and

The provision of all health and safety facilities and all fire safety precautions, services, equipment, signage, facilities, marshals and the like necessary to comply with the relevant parts of the [Joint Fire Code](#).

Additional requirements should be described as 'Special Attendance'.

2. **Building Manual:** A document containing information of use to subsequent building owners, occupiers and users about the requirements and procedures for effective operation, maintenance, decommissioning and demolition of the building.
3. **Construction Work:** Permanent work together with temporary work.
4. **Contractor :** The party who undertakes to perform the services, supply goods or carry out work defined in a contract. Includes main contractor, prime contractor, supplier, service provider, builder, subcontractor, etc. as the context dictates, which may be defined terms in certain standard contract forms.
5. **Contractor's choice:** Selection delegated to the contractor, but liability to remain with the specifier.
6. **Contractor's design:** Design to be carried out or completed by the contractor, supported by appropriate contractual arrangements, to correspond with specified requirements.
7. **Cost:** The amount paid or given by one party to another in exchange for goods, work, supplies or services.
8. **Designer:** A person or organization carrying out design on a project.
9. **Deviation:** Difference between a specified dimension or position and the actual dimension or position.
10. **Drawings:** Definitions as [BSRIA Building Applications Guide: Design framework for building services. 5th edition](#).
11. **Employer:** The party to the contract for whom the goods, work, supplies or services are provided. Includes client (in consultancy contracts and CDM Regulations), the employer, building owner or purchaser (in construction contracts), the developer (in development agreements and funding agreements), or the 'Main' contractor in contractor/ subcontractor agreements – which may be defined terms in certain standard contract forms.
12. **Estimate:** An approximate evaluation of quantity, number, extent, time or cost of part or the whole of a project.
13. **Execute:** To complete a task fully and put into effect. To fix, apply, install or lay products securely, accurately, plumb and in alignment.
14. **Existing:** Items retained in place to receive new work.
15. **Fastener:** Device for mechanically attaching something to something else.
16. **Manufacturer and Product reference:** Manufacturer – the person or legal entity under whose name or trademark the particular product, component or system is marketed.

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Product reference – the proprietary brand name and/ or identifier by which the particular product, component or system is described.

References are as specified in the manufacturer's technical literature current on the date specified.

17. **Manufacturer's standard:** Where used in conjunction with a specified proprietary product, accessories to be those recommended by the product manufacturer.
18. **Permanent Work:** Work to be constructed and completed in accordance with the contract.
19. **Price:** An indication of the amount required to be paid by one party to another in exchange for goods, work, supplies or services.
20. **Product:** Material, both manufactured and naturally occurring, goods and accessories for permanent incorporation into the works.
21. **Requirements:** A description in outline or detailed form of the development, or a part of it, which one party wants another to undertake, design and/ or construct.
22. **Schedule of rates:** The subdivision of product and execution prices by a predetermined unit basis.
23. **Schedule of Work/ Work Schedule:** The subdivision of work items by a predetermined classification. Can form the basis of a pricing document where bills of quantities are not used.
24. **Schematic:** A drawing of a system showing components, products, systems and their interconnections.
25. **Site equipment:** The contractor's apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the works and the remedying of defects.

Includes appliances, vehicles, consumables, tools, temporary work, scaffolding, cabins and other site facilities.

Excludes: temporary work, employer's products and equipment or anything intended to form or forming part of the permanent works.

26. **Specification:** Written description of requirements.
27. **System:** Products, components, equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.
28. **Temporary work:** Incidental work to undertaken during construction but not intended to form part of the completed work.

Ω End of Section

PM_55

Contract information

Clauses

PUBLIC WORKS CONTRACT FOR BUILDING WORKS DESIGNED BY THE EMPLOYER

- **The Contract:** Public Works Contract for MiBuilding and Civil Engineering Works Designed by the Employer.
Document reference
PW-CF1 v.2.8-01-05-2024
PUBLIC WORKS CONTRACT FOR BUILDING WORKS DESIGNED BY THE EMPLOYER
- **Requirement:** Allow for the obligations, liabilities and services described.

CONDITIONS - No Amendments

1 The Contract - No Amendments

2 The Law - No Amendments

3 Loss, Damage and Injury - No Amendments

4 Management - No Amendments

5 Contractor's Personnel - No Amendments

6 Property - No Amendments

7 The Site - No Amendments

8 Quality, testing and defects - No Amendments

9 Time and completion - No Amendments

10 Claims and adjustments - No Amendments

11 Payment - No Amendments

12 Termination - No Amendments

13 Disputes - No Amendments

Covid-19 mandatory closure - No Amendments

PV1 Price Variation - No Amendments

SCHEDULE PART 1

Schedule Document

- Reference: FTS completed as per List 1 Volume B of tender documents.

EXECUTION

EXECUTION

- The Contract will be executed: Under seal.

Ω End of Section

PM_60

Construction management information

Project management

PM_60_10_50 Site access information

1. Details: Refer **Preliminary Health and Safety Plan** and associated Drawings.

The Contractor shall be responsible for the safety of all persons who enter upon the site and in particular the Contractor shall comply with all the obligations arising pursuant to the Health, Safety and Welfare at Work (Construction) Regulations as relevant and shall provide to Architect on request a copy of its Safety Statement for the Works.

The Contractor is appointed Project Supervisor for the construction stage of the Works and accepts the appointment.

2. Limitations: Refer **Preliminary Health and Safety Plan** and associated Drawings
3. Access for inspections: Provide access at reasonable times for both on-site and off-site work.

PM_60_10_55/10 Name boards and advertisements

1. Name boards and advertisements:

Provide and erect temporary name-board as detailed and locate at site entrance.

Do not display or permit advertisements to be displayed on the site without approval.

PM_60_10_65/40 Safety and Health information

1. Content: The Contractor warrants and undertakes to the Employer that he is competent to and shall perform the duties required of the Project Supervisor for the Construction stage pursuant to the provisions of the current Safety Health and Welfare at Work (Construction) Regulations and any amendment thereof.
2. Include: The Contractor shall include for all duties to be carried out by the Project Supervisor (Construction Stage) and in particular develop before the commencement of work the **Site Health & Safety Plan** and to make adjustments to such plan where required to take account of the progress of the work and any changes which occur.

It is the duty of the Project Supervisor (Construction Stage) to provide relevant information, to be taken into account during any

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subsequent construction work following completion of the works, for the **Safety File**. On completion of the works deliver the safety file to the Client.

It shall be the duty of the Project Supervisor (Construction Stage) to maintain and keep available for inspection a record of persons at work and ensure they are in possession of a current **recognised approved Safe Pass** Programme card, and where appropriate, a current recognised **Construction Skills Certification Scheme** card.

3. **Safety Statement:** The Contractor shall, prior to the commencement of the Works prepare a site specific safety statement pursuant to the pertinent section of the current Safety Health and Welfare at Work Act and shall furnish two copies of the same to the Architect.

The Contractor shall throughout the course of the construction of the Works develop the site specific safety plan as required. The Contractor shall further upon request, in that regard, permit any party to inspect the safety plan as developed from time to time and the Contractor shall, in the event of any such party making comment, or requesting requirements of the Contractor in respect of the development of the Safety Plan, take such action as is necessary to procure that the Safety Plan is being developed in accordance with the requirements of legislation and site safety.

4. **Submittal date:** Within one week of request.

PM_60_10_75/20 Use of the site

1. **General:** Do not use the site for any purpose other than carrying out the Works.
Take adequate precautions at all times to prevent trespass. Provide all relevant warning and information working signs.
The contractor is required to liaise with the Employer, the Employers Representative, the assigned certifier, the design team, the PSDP & other contractors employed by the Employer in all matters relating to the proper completion of the works. Thus, the contractors tender shall include for co-ordinating their work and liaising with the said contractors and attendance of bi-monthly site meetings with the Employers Representative.
2. The contractor must allow in his tender for the safe delivery of the project taking into account access to the works, transportation and delivery operations. Parking for construction personnel must be orderly and should not at any juncture impede traffic or pedestrians on the main road.

The Contractor is required to ensure that no undue damage or interference is caused to the public roads and infrastructure. The Contractor is responsible for the reinstatement cost associated with any damage caused or affected to such structures and the cost of maintaining all necessary protection measures. He shall also be responsible for cleaning all debris associated with the works.

PM_60_10_75/30 Traffic and vehicles

1. **Limitations:** The Construction Regulations set out clear requirements to be followed.

A Construction Site Traffic Management Plan or CSTMP is to be developed and implemented to identify hazards and apply appropriate controls so that the movement of vehicles and pedestrians on the construction site are managed and coordinated.

Erect all relevant warning **signs** while working on or traversing the public road as necessary in accordance with chapter 8 of the Traffic Signs Manual and as directed by the Council and any other Authority.

PM_60_10_75/40 Storage, accommodation, mechanical plant, temporary works and services

1. **Position:** Submit proposed details of intended siting.

Maintain, adopt, remove and make good after removal temporary works and temporary services in accordance with all relevant standards and codes of practice.

Provide temporary sheds, offices, mess rooms and sanitary accommodation required for own use and for use by sub-contractors. Comply with the requirements of the Factories Act and Safety, Health and Welfare at Work Act.

Provide temporary fencing, planked footways and guardrails, to protect the public and others, for the proper execution of the works and to prevent unauthorised entry to or trespass beyond the boundaries of the site.

Provide and erect a temporary name board indicating the Project Title, the names of the Contractor, Employer, Consulting Structural Engineer, and Quantity Surveyor and locate adjacent to main road at entry to site.

2. **Maintenance:** Provide an adequate supply of clean water for the Works.
Provide all necessary power and light for the Works.
Provide all necessary security for the Works.

Alter, adapt and move as necessary. Remove when no longer required and make good.

PM_60_10_75/50 Management and staff – contract minimum requirement

1. **Details:** Allow for compliance with contract obligations.

PM_60_10_75/70 Control and protection – contract minimum requirement

1. **Details:** Allow for compliance with Contract obligations.

The contractor shall be required to present a Method statement to the Architect detailing specifically how he intends to manage the site. This shall include site set up details, location of office / site hut, material storage, protection for public and pedestrians, traffic management, waste collection and disposal, site maintenance etc.

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Clean site and access roads daily. Maintain a neat, tidy work site clear of clutter and debris.

Maintain the public roadways adjacent to the site in a clean and safe manner at all times.

2. **Cost-significant items:** Safeguard the site, the Works, materials and plant against unauthorised entry, damage and theft. Make good any damage caused by ineffective protection. Provide watching and lighting necessary for the security of the Works.

Protect the Works, materials and plant from the weather and make good any damage caused.

Keep finished surfaces clean as work proceeds and protect from dirt, staining and physical damage. Obtain approval for cutting holes or chases in the structure.

Protect existing buildings, fences, gates, walls, power lines and other site features which are to remain in position during the execution of the Works, from damage by site operations. Make good any damage to existing features resulting from the Works.

Protect in accordance with best conservation practice all historic built fabric and associated structures. Ensure all existing windows and doors and associated ironmongery to be retained during the duration of the works are adequately protected. Ensure all internal joinery including flooring, staircases, door and window architraves, internal panelling, internal plasterwork (walls and ceilings) and supporting structures, cornicing and associated mouldings are adequately protected during the course of the works.

Protect from damage during the execution of the Works, all trees, shrubs and lawns on the site, which have been scheduled for retention. Replace all damaged trees, shrubs and lawns with well-established growths guaranteed for a period of twelve months after planting.

Prevent the growth of noxious weeds on the site during the Contract Period. Noxious weeds include thistle, dock, ragwort, common barberry and wild hop.

Do not deposit deleterious material into surface water channels or rivers. Comply with the requirements of the Water Pollution Act, Rivers Pollution Protection Act, the Public Health (Ireland) Acts, and the Fisheries Acts. The Contractor should make themselves aware of all local licensed landfill sites.

3. **Additional requirements:** Do not use any furniture, fittings or equipment belonging to the Employer and protect them from damage, dirt and splashes. Move such items as is necessary to properly execute the Works and, on completion, replace them in their original positions.

Store all materials in a tidy manner. Separate different materials and protect them from dirt, physical damage, reaction with other materials, marking or staining, microorganisms, mildew, fungus and vermin.

Do not store materials in ways that may cause damage to the works or to the materials or endanger the safety of people or property. Handle and store materials in accordance with the manufacturer's recommendations. Do not use materials that have been stored for a period in excess of the manufacturer's recommended shelf life.

PM_60_10_75/140 Personal protective equipment

1. **General:** Requirements for the provision, use and maintenance of personal protective equipment (PPE) are stated in the [Safety, Health and Welfare at Work \(General Application\) Regulations](#). To ensure that it is in good working order, PPE must be examined regularly by trained staff in accordance with the supplier's and manufacturer's instructions. The user should check the PPE and should not use it if found to be defective. As part of good maintenance practice appropriate storage must be provided for PPE when not in use.
2. **Safety helmets**
 - 2.1. Standard: To [IS EN 397](#) neither damaged nor time expired.
3. **High-visibility waistcoats**
 - 3.1. Standard: To [IS EN ISO 20471](#).
4. **Safety boots**
 - 4.1. Standard: To [IS EN ISO 20345](#), with steel insole and toecap.
5. **Disposable respirators**
 - 5.1. Standard: To [IS EN 149](#) FFP1S.
6. **Eye protection**
 - 6.1. Standard: To [IS EN ISO 16321-1](#) and [IS EN ISO 16321-3](#).
7. **Ear protection**
 - 7.1. Standard: Muffs to [IS EN 352-1](#), plugs to [IS EN 352-2](#).
8. **Hand protection**
 - 8.1. Standard: To [IS EN 388](#), [IS EN 407](#), [IS EN 420](#) or [IS EN 511](#), as appropriate.

PM_60_10_77/10 Security – contract minimum requirement

1. **Details:** Allow for compliance with contract obligations.
2. **Additional requirements:**
 1. Security staff.
 2. Security equipment.
 3. Hoardings, fences and gates.

PM_60_10_77/30 Safety and environmental protection – contract minimum requirement

1. **Details:** Allow for compliance with contract obligations.
2. **Provide the following Mitigation:** Prior to commencing works, the works site shall be controlled and cordoned off with appropriate solid site hoarding as per works requirements.

Run off of polluted water from the site

It is possible that the proposed works may lead to the generation of water on site through the collection of rainwater in foundations, excavations, sealing and jointing works. It is possible that this may require pumping out to facilitate construction activity. However, proper management is required to ensure this does not run-off directly into storm drains, gullies and water courses. This may be done by way of silt fences, settlement ponds and hydrocarbon interceptors. In addition, the contractor may also consider incorporating terram fabric as part of the perimeter fencing detail.

Hydrocarbon usage

The use of hydrocarbons during the construction process leads to the potential for pollution to enter the local water course. Leaks in poorly maintained plant and machinery could lead to hydrocarbon dispersal over the site that could potentially enter the wider environment. Leaks in fuel storage tanks and spillages during refuelling operations could lead to larger releases of hydrocarbons into the environment.

Mitigation of Hydrocarbons

If fuel is stored on the site, it shall be stored in double skinned (bunded) tanks within a designated section of the construction compound.

It is more likely however that fuel will be brought onto the site in a tanker and that this will refuel all the machines during a short visit and negate the requirements for fuel storage.

All construction vehicles shall be regularly checked and maintained to prevent hydrocarbon leakage.

All refuelling operations (including small machinery) shall take place in a designated area (next to the fuel tanks if they are used). The contractor is required to install a 300mm layer of sand placed under this refuelling area on top of which will be a layer of stone to create the driving surface. There shall be no refuelling operations permitted outside this designated area. In the case of any significant fuel spillage (>20 litres), the underlying sand shall be removed from the site to a licensed waste facility and replaced with clean sand.

A spill kit including absorbent pads and a spill containment boom is to be kept on-site by the contractor at all times.

Vehicles are not to be left unattended during refuelling.

Hoses and valves are to be checked by the contractor regularly for signs of wear and are to be turned off and securely locked when not in use.

All stationary machinery such as pumps are to be placed on drip trays to contain any hydrocarbon spillages. These trays are to be regularly checked by the contractor and rainwater removed to maintain their effectiveness.

PM_60_10_77/40 Safety and environmental protection – additional requirement

1. **Provide the following:** The construction site shall be controlled with solid hoarding of adequate construction to prevent trespass with gates provided at all entrances and including the entrance to the development.
Hoardings are temporary works and therefore consideration must be given to procedures for their management and control. Site hoardings are the responsibility of the Main Contractor & PSCS.
Main Contractor to appoint a competent temporary works designer and ensure management procedures are in place including regular inspections and required maintenance during the life of the hoarding.
Hoarding to be designed in accordance with current HAS requirements and design standards.
Suitably designed and constructed hoarding in Solid timber min 2m high on secure support system should be erected to secure construction work.
Alternative arrangements must be put in place to ensure that normal pedestrian and public vehicular traffic is not put at undue risk as a result of any changes made.
The height and detail are to be confirmed by the Main Contractor to the Design Team & PSDP for agreement prior to fabrication / erection.

PM_60_10_83 Temporary services information

1. **Details:** Allow for compliance with contract obligations.
Provide all necessary temporary power and light for the Works and pay all charges.
Maintain, adopt, remove and make good after removal temporary works and temporary services in accordance with all relevant standards and codes of practice. Provide temporary fencing, planked footways, guardrails and scaffolding for the proper execution of the works and to prevent unauthorised entry to or trespass beyond the boundaries of the site.

Provide, for the duration of the Contract, general attendance on specialists, sub-contractors engaged on the Works concurrent with the Contract as follows:
 - Use of sanitary accommodation.
 - Space for storage of plant and materials.
 - Clearing away rubbish.
 - Access and plant to work locations.
2. **Cost-significant items:**

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The contractor will be required to establish temporary external lighting of sufficient wattage to adequately illuminate the construction site during gloomy or dark hours without causing undue annoyance to adjoining properties.

PM_60_10_83/10 Water

1. **Supply:** There is existing mains adjacent to the site to be used for the works.

PM_60_10_83/40 Water restrictions

1. **Emergency legislation:** If the water supply is or is likely to be restricted, inform the Employers Representative without delay and ascertain the availability of water from alternative sources.
2. **Suitability:** Check pH value of water from a proposed new source and ensure that it is suitable for the plants, soil and turf being watered.

PM_60_10_83/60 Lighting and power

1. **Supply:** Electric power from the existing mains may be used for the works as follows:.
2. **Particular requirements**
 - 2.1. **Metering:** Metered by the Contractor and charged to the Contractor.
 - 2.2. **Continuity:** No liability will be accepted for the consequences of failure or restriction in supply.
3. **Finishing work and inspection:** Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

PM_60_10_83/90 On site communications

1. **Communications**
 - 1.1. **Additional Facilities:** The Contractor shall provide a separate telephone, data and fax line for the Clerk of Works office and pay all installation costs & charges and remove on completion.
2. **Costs:** Pay fees and charges associated with connection, rental subscriptions and the like.

PM_60_10_83/150 E-mail and internet facility

1. **General:** As soon as practicable after the start on site provide a suitable email facility on site, with a separate dedicated connection, for the use of the contractor, subcontractors and other members of the project team.
2. **Use on behalf of Employer:** Allow for the cost of a reasonable number of transmissions made by other members of the project team.

PM_60_10_83/160 Photocopier

1. **General:** Provide reasonable access to and limited free use of an on-site photocopier, which may be located in the contractor's own site offices.

PM_60_10_83/170 Use of permanent heating system

1. **Permanent heating system :** May be used for drying out the works and/ or services, and for controlling temperature and humidity levels.
2. **Requirements:** Take responsibility for operation, maintenance and remedial work. Arrange supervision by and indemnification of the appropriate subcontractors. Pay fuel and associated costs.

PM_60_10_83/190 Beneficial use of installed systems

1. **Permanent systems:** Do not use for any purpose other than running in, testing and commissioning.
2. **Other uses:** If permission is given for any other use of a system before the works are accepted as complete, enter into a separate written agreement recording details of the terms and conditions of use.

PM_60_10_85 Temporary works information

1. **Minimum requirement**
 - 1.1. **Details:** Allow for compliance with the contract obligations.

PM_60_10_85/10 Temporary Accommodation - use and location

1. **New Item:** The contractor is required to provide all temporary accommodation works. The contractor is required to visit the site and ascertain all local conditions and restrictions likely to affect the execution of the Works. No claims arising from a failure to do so will be considered.

PM_60_10_85/50 Parking

1. **Requirement:** Provide and maintain exclusively for use by Employer and their representatives and consultants.

PM_60_10_85/60 Temporary works – contract minimum requirement

1. **Details:** Allow for compliance with contract obligations.

PM_60_20_60/10 Preconstruction information

1. **Scope:** Integral with the project specification, including but not restricted to the following:

Description of project.

Client's consideration and management requirements.

Environmental restrictions and on-site risks.

Significant design and construction hazards.

The health and safety file.

PM_60_20_64/80 Daywork vouchers

1. **Notice:** Give reasonable notice to person countersigning daywork vouchers before starting work to be recorded.
2. **Information requirements**
 - 2.1. **Details:** Include a full description of the work undertaken and time spent on individual tasks.
 - 2.2. **Reference:** To the instruction under which the work is authorized.
 - 2.3. **Signature:** Sign by contractor's person in charge as evidence that the operatives' names, the time spent by each, the plant and materials shown are correct.
 - 2.4. **Submittal date:** No later than the end of week following that in which the work has been done.

PM_60_20_79 Setting out methodology

1. **General:** Submit details of methods and equipment to be used in setting out the Works.

Refer Public Works Contract - Section 7.7 Setting Out the Works

Establish a master bench on the site for the duration of the Contract.

Set out the Works in accordance with the Drawings / Works Requirements. Establish, in an approved manner, base reference lines for setting out the works, and set out additional reference lines as required.

All setting out must be checked and agreed with the Employers Representative.

Discrepancies between Specification and drawings should be brought to Architect's attention prior to that work starting on site. Do not scale the drawings. Use dimensions figured on the drawings for setting out the works.

No excavation shall be set until the position of the proposed structures indicated on the contract drawings has been set out, the levels of existing ground recorded and the proposed finished levels shown on layout have been indicated on the ground with timber cross-rails by the Contractor's representative. All setting out must be checked and agreed with the Employers representative. Two days' notice is to be given to check the setting out.

Site boundaries.

Existing site boundary features (walls, fences, gates or other such feature) scheduled for demolition and clearance and delineating property ownership, shall be confirmed by reference to the master bench mark(s) and permanent markings (by agreed methodology) shall be offset from the boundary, recorded on the topographical master survey and maintained for the duration of the works. Make survey plans available to the Employers Representative in PDF and dwg, formats.

2. **Levels and dimensions:** Check and record the results on a copy of drawings. Give notification of discrepancies and obtain instructions before proceeding.
3. **Completion of setting out:** Give notice before commencing construction.

PM_60_20_79/20 Setting out records

1. **Record drawings:** Include details of grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the contract, and hand over on completion.

Contract programme and progress

PM_60_30_13/20 Commissioning programme

1. **Submittal date:** Two weeks (minimum) before commissioning commences.

A commissioning programme shall be prepared as part of the contract programme in conjunction with the design Team. This should programme inspection, testing, commissioning, demonstration and instruction procedures.

2. **Format:** Paper and electronic format.

PM_60_30_19/20 Divergence from the statutory requirements

- **Divergence:** Between the drawings or specification and the requirements of the Building Regulations, other statutes, statutory undertakers and other regulatory authorities.

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- Action: Give notice immediately.

PM_60_30_19/50 Method statements

1. **Method statements:** The contractor is required to present a Method statement to the Architect detailing specifically how they intend to manage the site. This shall include site set up details, location of office / site hut, material storage, protection for public and pedestrians, traffic management, waste collection and disposal, site maintenance etc.
2. **Procedures:** Prepare a Method Statement describing how and when the following procedures are to be carried out.
 1. Demolitions & protection of existing structures and items to be reused / restored.
 2. Excavating and installing construction access / Haul road and associated temporary works including interface works with existing structures or utility services on or adjacent to the site.
 3. Excavating and forming retaining walls.
 4. All temporary works.
 5. Excavating and installing Culverts and associated temporary bridges / shoring works.
 6. Installation of roof level plant.
 7. Connections to Utilities / Services (Electricity, Water, Gas, Telecoms)
 8. Commissioning and testing of engineering installations.
 9. Commissioning and testing of lift installations.
 10. Road opening works
 11. All works outside the designated construction site.
 12. All demolitions works within and outside the designated construction site.
 13. All works in respect of ESB diversion works on site
 14. All works in respect of water diversion works on site
 15. Any interface works with existing structures or utility services on or adjacent to the site.
 16. Works relating to work practices and welfare provisions associated with Public Health Measures as per current Government and CIF Standard Operating Procedures, particularly relating to work progressing in a manner that is conducive to maintaining public health advice and all provisions reasonably practicable to exercise social distancing.
 17. Other – as identified in the works requirements and as deemed necessary by the
 18. Other – as identified in the works requirements and as deemed necessary by the E.R
3. **Submittal date:** Within one week of request.

PM_60_30_19/80 Alternative method proposals

1. **General:** In addition to and at the same time as tendering for the works as defined in the tender documents, alternative methods of construction and installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
2. **Alternative method proposals:** Include a complete and precise statement of the effects on cost and programme.
3. **Safety method statement:** Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the health and safety plan.
4. **Full technical data:** Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the works.
5. **Submittal date:** Within one week of request.

PM_60_30_19/90 Alternative time proposals

- **General:** In addition to and at the same time as undertaking to complete the contract work by the date for completion or period specified in the contract, an alternative proposal based upon a different date or period may be submitted.
- **Date for Completion:** If any such proposal is accepted, the date for completion or period inserted in the contract will be the date stated in or determined from the alternative proposal.

PM_60_30_20/40 Programme

1. **Master programme:** When requested and before starting work on site, submit in an approved form a master programme for the Works.

Refer Public Works Contract - Section 4.9 Programme and Section 4.10 Progress Reports

Prepare a detailed programme in box chart form for the completion of the Works within the Contract Period.

The Contractor shall submit to the Employer's Representative a detailed programme having regard to the requirements of the Inspection Plan and the Inspection Notification Framework and showing the sequence and timing of the principal parts of the Works and periods for planning and design.

Itemize any work which is excluded. Clearly include **and identify separately** the following within the programme;

1. programme contingency.
2. The 21-day review and validation period for BCMS following upload of the project completion package required under BC(A)R.

Employers Requirements, Architectural & Landscaping Specification

Maintain an up-to-date record of progress. Display progress on the site office copy of the progress chart.

Review and update the programme at monthly intervals and modify to take account of circumstances which have affected the programme.

Provide two copies of the revised and updated programme for the Architect.

2. Include
 - 2.1. Information: Design, production information and proposals provided by the contractor, subcontractors or suppliers, including inspection and checking.
 - 2.2. Planning: Planning and mobilization by the contractor.
 - 2.3. Dates: Earliest start and finish dates for each activity and identification of critical activities.
 - 2.4. Engineering services: Running in, adjustment, commissioning and testing of engineering services and installations.
 - 2.5. Instructions: Work resulting from instructions issued in regard to the expenditure of provisional sums.
 - 2.6. Concurrent work: Work by others and concurrent with the contract, the nature and scope of which, the relationship with preceding and following work and relevant limitations are suitably defined in the contract documents.
3. Exclusions: Where work is not well defined and the programme implications are impossible to assess, exclude these activities from the programme. Confirm the nature and extent of any exclusions when submitting the programme.
4. Further information: Submission of the programme will not relieve the contractor of their responsibility to advise of the need for further drawings, details or instructions in accordance with the contract.
5. Number of copies: Provide two copies of the programme for the Architect. Keep one further copy available for inspection in the site office.
6. Submittal date: Within fourteen days of the date of acceptance of the tender.

PM_60_30_45/30 Adjoining property

1. Permission: Obtain as necessary from owners if required to erect scaffolding on, or otherwise use, adjoining property.

PM_60_30_45/60 Existing structures

1. Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.

Inform ER & consultant engineer immediately the contractor becomes aware of any additional requirements for support and protection of adjoining property during or after demolition.
2. Supports
 - 2.1. Standards: In accordance with [IS EN 12812: Falsework - Performance requirements and general design](#).
 - 2.2. Requirement: Provide and maintain incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, which may be endangered or affected by the works.

Do not remove until new work is strong enough to support existing structure.

Prevent overstressing of completed work when removing supports.
3. Adjacent structures: Monitor and immediately report excessive movement.

PM_60_30_45/70 Materials for recycling or reuse

1. Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
2. Storage: Stack neatly and protect until required by the employer or for use in the works as instructed.

PM_60_30_45/90 Scaffolding

1. Scaffolding: Make available to subcontractors and others at all times.

PM_60_30_49 Limitations on timing report

- Specific limitations: As per Preliminary Safety and Health Plan and Planning conditions.

PM_60_30_57 Notice of commencement

1. Part of the works:
 - Detailed design work.
 - Off-site fabrication work.
 - Work on site.
 - Excavation work.
2. Notice period (minimum): Two weeks

PM_60_30_66/40 Progress report

1. Submittal date: At least **five business days** before the site meeting.

Employers Requirements, Architectural & Landscaping Specification

2. Requirement: Notwithstanding any obligations under the contract the report must include the following.
3. Content:
 1. Health and Safety site report
 2. Resources & Waste Management Plan
 3. Subcontractors and suppliers Progress
 4. Upcoming works and associated method statements
 5. BCaR Notifications and progress
 6. Product approvals
4. Progress statement: Detailing matters materially affecting the regular progress of the works with reference to the master programme.
5. RFI: Requirements for further drawings or details or instructions to fulfil obligations under the conditions of contract.

PM_60_40_40/60 Specialists

1. Listed work: Described and set out in the Employer's Requirements to be executed by the following persons as specialists in accordance with subclause 5.4
2. Specialist: As named in the Works Requirements or in the Schedule, part 2E,
3. Proposals for alternatives to those listed: Will be allowed.

PM_60_40_40/130 Ownership of products

1. Ownership: At the time of each valuation, supply details of those products not incorporated into the works which are subject to reservation of title inconsistent with passing of property as required by the conditions of contract, together with their respective values.
2. Evidence: When requested, provide evidence of freedom of reservation of title.

PM_60_40_40/170 Products stored off site

1. Evidence of title: Submit five working days prior to the period of interim certificates stated within the appendix to the contract.
2. Supplier: For products purchased from a supplier include a copy of the contract of sale and a written statement from the supplier that conditions of the sale relating to the passing of property have been fulfilled and the products are not subject to encumbrance or charge.
3. Subcontractor: For products purchased from a supplier by a subcontractor or manufactured or assembled by a subcontractor, copies of the subcontract with the subcontractor and a written statement from the subcontractor confirming that conditions relating to the passing property have been fulfilled and the products are not subject to encumbrance or charge.

PM_60_40_40/200 Labour and equipment returns

1. Records: Provide for verification at the beginning of each week in respect of each of the previous seven days.
2. Include
 - 2.1. Labour: The number and description of craftsmen, labourers and other persons directly or indirectly employed on or in connection with the works or services, including those employed by subcontractors.
 - 2.2. Equipment: The number, type and capacity of mechanical, electrical and power operated equipment employed in connection with the works or service.

PM_60_40_40/210 Overtime working schedule

1. Requirement: Prior to overtime being worked, submit notice of times, types and locations of work to be done.
2. Notice period (minimum): Three days prior to overtime being worked.
3. Concealed work: If executed during overtime for which notice has not been submitted, it may be required to be opened up for inspection and reinstatement at the contractor's expense.

PM_60_40_60/10 Monitoring

1. Progress
 - 1.1. Records: Record on a copy of the programme kept on site.
 - 1.2. Delays: Minimize. Take appropriate action to recover lost time.
 - 1.3. Corrective action: Where progress falls below target, submit proposals.
 - 1.4. Submittal date: As soon as possible.
 - 1.5. Completion forecast: Submit on the last working day of each week.

PM_60_40_60/20 Progress meetings

1. General: Meetings will be held to review progress and other matters arising from administration of the contract.
2. Frequency: Every month.
3. Venue: On Site
4. Accommodation: Ensure availability at the time of such meetings.

Employers Requirements, Architectural & Landscaping Specification

- Attendees: The Contractor, or a responsible official from his organisation, shall attend progress meetings, which will be held at monthly intervals.

Inform such sub-contractors and suppliers as are necessary that attendance at progress meetings shall be required.

- Chairperson

- Duties: The Chairperson will send invitations, receive apologies, distribute agendas, take and distribute minutes.

PM_60_40_60/30 Contractor's progress meetings

- General: Hold meetings with appropriate subcontractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

PM_60_50_17 Completion certificate

- Notice: Give reasonable notice to person countersigning daywork vouchers before starting work to be recorded.
- Information requirements
 - Details: Include a full description of the work undertaken and time spent on individual tasks.
 - Reference: To the instruction under which the work is authorized.
 - Signature: Sign by contractor's person in charge as evidence that the operatives' names, the time spent by each, the plant and materials shown are correct.
 - Submittal date: No later than the end of week following that in which the work has been done.

PM_60_60_26/10 Temporary protection to existing trees and vegetation

- Trees and vegetation
 - Requirement: Protect before starting work.
 - Standard: Relevant measures to [BS 5837](#).
- Areas of structural landscaping to be protected from construction operations
 - Requirement: Protect from effects of construction operations.
 - Positions: Protect existing trees/ vegetation within agreed buffer zone between the site and any existing rivers / natural features as indicated on drawings.
Protect existing trees where not impacted by the works.
- Integrity of protection: Maintain for the duration of the works.
- Completion: Remove on completion of the works and make good disturbed areas.

PM_60_60_26/50 Noise and vibration

- Standard: Comply with the provisions of the [Guide to the Safety, Health and Welfare at Work \(General Application\) Regulations](#), Chapter 1 of Part 5: 'Control of Noise at Work' during the execution of the works.
- Restrictions: Obtain consent before using percussion tools and other noisy appliances.

Do not use radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

PM_60_60_26/70 Pollution

- Prevention: Protect the site, the works and the general environment including water courses against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate authorities, and provide relevant information.

PM_60_60_26/90 Pesticides

- Use: Not permitted.

PM_60_60_26/140 Asbestos containing material

- Requirement: Report immediately suspected materials discovered during execution of the works. Do not disturb and agree methods for safe removal or encapsulation.
- Notification: To the HSA 28 days before asbestos is removed.

PM_60_60_26/160 Moisture

- Drying The Works: Dry out the Works in accordance with best conservation practice to an agreed programme as required to facilitate progress of the works and to allow adequate time for drying out and to prevent damage to or deterioration of the existing built fabric and the work. Control humidity as required to facilitate progress and to prevent damage to or deterioration of work. Moisture meters are required to monitor drying conditions on site.

Please note that sequencing of the works in the programme should allow for maximum drying-out times for all works associated with the drying out of the structures including mortars, renders and plasters, in consultation with the specialist mortars, renders and plasters consultant and the specialist sub-contractor.

- Wetness or dampness: Prevent where this may cause damage to the works.

Employers Requirements, Architectural & Landscaping Specification

3. Drying out: Control humidity and the application of heat to prevent:

Blistering and failure of adhesion.

Damage due to trapped moisture.

Excessive movement.

PM_60_60_26/180 Infected timber and contaminated materials

- **Removal:** Where instructed to remove material affected by fungal and/ or insect attack from the building, minimize the risk of infecting other parts of the building.
- **Testing:** Carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro-organisms are within acceptable levels.

PM_60_60_26/200 RESOURCE AND WASTE MANAGEMENT PLAN

- **Waste:** Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
 - **NOTE:** : Waste is defined as per the European Waste Catalogue and Hazardous Waste List which includes excavation waste, (rock, stone, soil, subsoil, tree roots etc.,) demolition waste, (concrete, timber, metal, glass, insulation, etc.) packaging waste (pallets, plastic, cardboard, ties, wrap, etc.) building material (concrete blocks, bricks, cement, timber, tiles, electric cable, metal, etc.), Municipal waste (packaging, canteen waste etc.).
- **Requirement:** Keep the site and Works clean and tidy. Remove rubbish, dirt and residues before closing voids and cavities in the construction.

Remove all rubbish from the Works, as it accumulates and maintain the Works in a clean and tidy condition for the duration of the Contract. Clean the Works internally and externally, remove all rubbish and leave the entire Works in a tidy condition ready for completion or use.

- **Disposal:** Remove frequently and dispose off site in a manner approved by the Local Authority. Removal contractors must hold:
 1. A waste collection permit issued by the Waste Management Authority, or
 2. A license issued by the Environment Protection Agency for specified waste recovery and disposal activities, or
 3. A permit from a Local Authority or certificate of registration from the EPA or Local Authority.
- **Resource & Waste Management Plan (RWMP) :** All waste shall be managed in accordance with the Waste Management Act 1996, as amended, including any Regulations relevant thereto. All Contractors, Subcontractors and other persons employed on the development shall comply with statutory obligations and the regulations concerning waste management. Prior to the commencement of development, the Main Contractor shall prepare and submit a formal **Resource & Waste Management Plan (RWMP)** to Mayo County Council to be agreed in writing by the contracting authority before construction work commences. Waste shall be separated on site and reused or recycled in so far as is practicable.

The plan shall be prepared in accordance with **Best Practice Guidelines for the preparation of resource and waste management plans for construction & demolition projects** currently published by the Environmental Protection Agency. The Template structure for such plans is provided in Appendix B of the Guidelines for Tier 1 Projects (e.g new residential projects of less than 10 housing units), or in Appendix C of the Guidelines for Tier 2 projects (e.g. new residential projects of more than 10 No. housing units) of the Guidelines.

The tender submitted will be deemed to be inclusive of all costs in respect of the agreed RWMP in respect of waste management/disposal and implementation and all supervisory aspects associated.

Submission of the **RWMP** shall form part of the overall tender documentation to be submitted by the Contractor as part of a valid tender submission.

Resource Waste Management Plan: The Resource Waste Management Plan (C&D WMP) must include for (but not be limited to) providing licenses in respect of transportation of waste off site and disposal of waste in currently certified disposal sites approved by the Local Authority. The following information is required: -

1. Details of the measures necessary to prevent the spillage of waste material on the public highway.
2. Details of the disposal/recovery/recycling/reuse of all construction and demolition waste.
3. Details of the Waste Collection Permit numbers of those to be employed to transport waste off site. - All persons employed to transport waste must hold a valid Waste Collection Permit and comply with the conditions of the permit.
4. Details of the Waste Permit numbers of site/s where waste is to be disposed. - Waste must only be transferred to a permitted site.

The Main Contractor will be required (once the **Resource and Demolition Waste Management Plan** is approved and the project is underway) to submit summary reports as part of the Contractors monthly Progress Report to the Employers Representative on the project, detailing the extent of actual reuse, salvage, recycling and solid waste disposal taking place, together with an estimate of the amount of waste diverted from landfill through the Resource and Waste Management Plan.

The local authority shall when appropriate carry out periodic monitoring and inspection of the construction site.

Upon completion of construction the Contractor shall prepare a final report summarising the outcomes of the resource management processes adopted, the total reuse and recovery figures and the final destinations of all resources taken off-site. This report will be issued to the Client and the Employers Representative in a clear and comprehensive format.

The Contractor shall minimize the waste present on site removing rubbish, debris, spoil, containers and surplus material for disposal off site in a manner approved by the Local Authority by holders of:

A waste collection permit issued by the Waste Management Authority.

A license issued by the Environment Protection Agency for specified waste recovery and disposal activities.

Employers Requirements, Architectural & Landscaping Specification

A permit from a local authority or certificate of registration from the EPA/ local authority.

- Documentation: Retain on site.

PM_60_60_26/210 Invasive species

1. **General:** Prevent the introduction or spread of species (e.g. plants or animals) that may adversely affect the site and the works economically, environmentally or ecologically.
2. **Requirement:** Report immediately suspected invasive species discovered during execution of the works. Do not disturb and agree methods for safe eradication or encapsulation.

PROTECTION OF

PM_60_60_26/240 Existing services

1. **Confirmation:** Notify service providers, statutory authorities and/ or adjacent owners of proposed work not less than one week before commencing site operations.
2. **Identification:** Before starting work, check and mark positions of mains and services. Where positions are not shown on drawings obtain relevant details from service providers, statutory authorities or other owners.
3. **Work adjacent to services:** Comply with service provider's or statutory authority's recommendations.

Adequately protect, and prevent damage to services.

Do not interfere with their operation without consent of service providers, statutory authorities or other owners.

4. **Identifying services**
 - 4.1. **Below ground:** Use signboards, giving type and depth.
 - 4.2. **Overhead:** Use headroom markers.
5. **Damage to services**
 - 5.1. **Action:** Immediately give notice and notify appropriate service provider or statutory authority.
 - 5.2. **Repair:** Make arrangements for making good without delay to the satisfaction of service provider, statutory authority or other owner as appropriate.
6. **Liability:** Measures taken to deal with an emergency will not affect the extent of the contractor's liability.
7. **Marker tapes or protective covers:** Replace if disturbed during site operations to service provider's or statutory authority's recommendations.

PM_60_60_26/270 Roads and footpaths

1. **Duty:** Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
2. **Damage:** Make good if caused by site traffic, or otherwise consequent upon the works, to the satisfaction of the employer, local authority or other owner.

PM_60_60_26/280 Existing topsoil and subsoil

1. **Duty:** Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the works.
2. **Protection:** Submit proposals.
3. **Submittal date:** Before starting work.

PM_60_60_40/130 Insurance claims

1. **Notice:** If an event occurs which may give rise to a claim or proceeding in respect of loss or damage to the works or injury or damage to persons or property arising out of the works, immediately give notice to the employer, the person administering the contract on behalf of the employer, the project supervisor design stage and the Insurers.
2. **Failure to notify:** Indemnify the employer against loss, which may be caused by failure to give such notice.
3. **Health and safety:** Advise the health and safety authority of notifiable occurrences.

PM_60_60_60/10 Removal or replacement of existing work

1. **Extent and location:** Agree with and seek approval of before commencement.
2. **Execution:** Carry out in ways that minimize the extent of work.

PM_60_60_60/20 Ownership of materials

1. **Alteration or clearance work:** **SITE CLEARANCE AND EXCAVATION
MUST BE READ IN CONJUNCTION WITH THE WORKS REQUIREMENTS AND CIVIL & STRUCTURAL ENGINEERS
SPECIFICATION**

Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

Employers Requirements, Architectural & Landscaping Specification

2. **Obligations & Restrictions imposed by the Employer** The use or disposal of any materials found on site.: Materials excavated from the site shall, unless expressly stated otherwise, be removed from the site in agreement with the Architect.

The Contractor will identify all registered landfills where spoil will be removed to prior to the commencement of construction.

All articles of value and/or of antiquarian or archaeological interest which may be found in the excavation or on the property of the Employer shall be handed over to the Architect.

PM_60_60_60/30 Measurement

1. **Covered work:** Give notice before covering work required to be measured.

PM_60_60_60/50 Security

1. **Protection:** Safeguard the site, the works, products, materials, and existing buildings affected by the works from damage and theft.
2. **Access:** Take reasonable precautions to prevent unauthorized access to the site, the works and adjoining property.
3. **Special requirements:** Provide temporary hoarding and scaffolding about site boundaries as indicated, to protect the public and others, for the proper execution of the Works and to prevent unauthorised entry to or trespass beyond the boundaries of the site.

The contractor will be required to establish temporary external safety lighting along all pedestrian footpaths and erect all statutory signage. The contractor will be required to ensure that vehicular traffic will not be unduly effected by hoarding and scaffolding required for the execution of works.

The contractor will be required to establish temporary external lighting of sufficient wattage to adequately illuminate the construction site during gloomy or dark hours without causing undue annoyance to adjoining properties.

PM_60_60_60/70 Stability

1. **Responsibility:** Maintain the stability and structural integrity of the works and adjacent structures during the contract.
2. **Design loads:** Obtain details, support as necessary and prevent overloading.

PM_60_60_75/20 Explosives

1. **Use:** Not permitted.

PM_60_60_75/50 Fire prevention

1. **Requirement:** Prevent personal injury or death, and damage to the works or other property from fire.
2. **Standard:** Comply with
CFPA-E Guideline No 21:2012 F - Fire prevention on construction sites

PM_60_60_75/60 Smoking on site

1. **Smoking on site:** Not permitted.

PM_60_60_75/70 Burning on site

1. **Burning on site:** Not permitted.

PM_60_60_75/110 Electromagnetic interference

1. **Duty:** Prevent excessive electromagnetic disturbance to other susceptible apparatus.

PM_60_60_75/130 Laser equipment

1. **Construction laser equipment:** Install, use and store in accordance with [IS EN 60825-1](#) and the manufacturer's instructions.
2. **Class 1 or Class 2 laser equipment:** Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
3. **Class 3R and Class 3B laser equipment:** Do not use without approval and subject to submission of a method statement on its safe use.

PM_60_60_75/140 Powder actuated fixing systems

1. **Use:** Not permitted.

PM_60_60_75/150 Existing features

1. **Protection:** Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features which are to remain in position during execution of the works.

PM_60_60_75/160 Existing work

1. **Protection:** Prevent damage to existing work, structures or other property during the execution of the works.
2. **Removal:** Minimum amount necessary.
3. **Replacement work:** To match existing.

PM_60_60_75/170 Building interiors

1. **Protection:** Prevent damage from exposure to the environment, including weather, flora, fauna and other causes of material degradation during the execution of the works.

PM_60_60_75/210 Especially valuable or vulnerable items

1. **Protection:** Ensure provision and maintenance of special protective measures to prevent damage.
2. **Method statement:** Submit within one week of request describing special protection to be provided.

PM_60_60_88/10 Meter readings

1. **Charges for service supplies:** Where to be apportioned ensure that:

Meter readings are taken by relevant authority at possession and/ or completion as appropriate.

Copies of readings are supplied to interested parties.

PM_60_70_17/30 Safety and health plan construction phase

1. **Delivery to the Client:** At award of contract prior to site commencement.
2. **Confirmation:** Do not start construction work until the employer has confirmed in writing that the safety and health plan for the construction stage includes the procedures and arrangements required by [Safety, Health and Welfare at Work \(Construction\) Regulations](#) (as amended).
3. **Content:** Develop the plan from and draw on the outline construction phase safety and health plan and the information communicated by the project supervisor design process.

PM_60_70_25/50 Health and safety hazards

- **Hazards:**
 1. Refer to Preliminary Health & Safety Plan for details.
- **Limitations :** The nature and condition of the site and/ or building cannot be fully ascertained before it is opened up.
- **Information:** The accuracy and sufficiency of this information is not guaranteed. Ascertain if additional information is required to ensure the safety of all persons and the works.
- **Training:** Ensure that all relevant personnel are aware of the hazards listed, and that appropriate training and precautionary measures are in place to deal with them.

PM_60_70_40/70 Safety and health information

1. **Content:** Describe the proposed organization and resources to safeguard the safety and health of operatives, including those of subcontractors, and of any person whom the works may affect.
2. **Submit:** With the tender.

PM_60_70_40/80 Health and safety file information

- **Information:** The Contractor warrants and undertakes to the Employer that he is competent to and shall perform the duties required of the Project Supervisor for the Construction stage pursuant to the provisions of the current Safety Health and Welfare at Work (Construction) Regulations and any amendment thereof
- **Details:** It is the duty of the Project Supervisor (Construction Stage) to provide relevant information, to be taken into account during any subsequent construction work following completion of the works, for the **Safety File**. On completion of the works deliver the safety file to the PSDP.
- **Specification reference:** Prior to Substantial Completion being granted the Contractor shall provide to the Architect the Safety File for the Works (without limitation) as follows:-
 1. all relevant product guarantees
 2. all relevant safety certificates
 3. all relevant operation manuals
 4. insurance, testing and commissioning certificates for all equipment
 5. all relevant maintenance contracts
 6. all relevant as built drawings by way of; 3 sets of hard copies and one electronic CAD format.

PM_60_70_60/20 Product hazards

1. **Hazardous substances:** Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in 2021 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations (2001-2021) and the Safety, Health and Welfare at Work (Carcinogens) Regulations (2001-2019)
2. **Common hazards:** Control by good management and site practice.

PM_60_70_75/10 Supervision

1. **Requirement:** The whole of the contract work and any significant parts must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality, progress and coordination.

Employers Requirements, Architectural & Landscaping Specification

2. **Evidence:** Submit, including: details of the person proposed; their relevant skills, training and knowledge; practical experience; qualifications; membership or registration with professional bodies; employment history; work-related assessments; and management structure.
3. **Submittal date:** Within one week of request.
4. **Replacement of supervisory personnel:** Give maximum possible notice before changing supervisory personnel.

PM_60_70_75/20 Coordination of engineering services

1. **Suitability:** Site organization staff must include one or more persons with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the works generally.
2. **Evidence:** Submit on request, including: details of the person proposed; their relevant skills, training and knowledge; practical experience; qualifications; membership or registration with professional bodies; employment history; work-related assessments; and management structure.

PM_60_90_40/20 Safety provisions for site visits

1. **Access:** Provide at reasonable times.
2. **Inspections:** Agree dates and times one week in advance, to enable affected parties to be present.
3. **Safety:** Submit details in advance of safety provisions and procedures (including those relating to materials, which may be deleterious) which will require compliance when visiting the site.
4. **Protective clothing and/ or equipment:** Provide and maintain on site for visitors to the site.

PM_60_90_40/30 Inspections

1. **Standard:** Inspection, or other action, of products or executions must not be taken as approval, unless confirmed in writing and including: date of inspection; part of the work inspected; respects or characteristics which are approved; extent and purpose of the approval; and associated conditions.

PM_60_90_40/40 Defects in existing work report

1. **Undocumented defects:** When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
2. **Documented remedial work:** Do not execute work which may hinder access to defective products or executions, or be rendered abortive by the remedial work.

PM_60_90_70 Quality control and management report

1. **Details:** If products of different manufacture to those specified are proposed, submit details with the tender, giving reasons for each proposed substitution. Unless notified at tender stage, proposals for substitutions may not be considered.
2. **Compliance:** Substitutions accepted will be subject to verification requirements detailed in the specification.

PM_60_90_70/60 Currency of documents

1. **Currency:** References to published documents are to the editions, including amendments and revisions, current on the date of the invitation to tender.

PM_60_90_70/70 Incomplete documentation

1. **Products and executions:** Where and to the extent that products or executions are not fully documented, they are to be as follows.
2. **Requirements**
 - 2.1. **Standard:** Of a kind and quality appropriate to the nature and character of the part of the works where they will be used.
 - 2.2. **Suitability:** Suitable for the purposes stated or to be reasonably inferred from the project documents.
3. **Contract documents:** Omissions or errors in description and/ or quantity shall not vitiate the contract, nor discharge any obligations or liabilities under it.

PM_60_90_70/90 Workmanship skills

1. **Operatives:** Appropriately skilled and experienced for the type and quality of work.
It is compulsory under current Safety, Health and Welfare at Work (Construction) (Amendment) Regulations for all persons accessing the site to have site rules explained, and to undertake any necessary induction training (safe pass certification).
2. **Registration:** With current Construction Skills Certification Scheme or programme recognized by CIF.
3. **Evidence:** All workers undertaking specified critical duties must have training under the Construction Skills Certification Scheme (CSCS), and be in possession of CSCS registration cards or equivalent.

When requested, operatives must produce a card containing the name and contact details of the registering body, registration number, expiry date, and holder's name and photograph.

PM_60_90_70/140 Quality of products

1. **Generally:** New.
2. **Supply:** Each product from the same source or manufacturer.

Employers Requirements, Architectural & Landscaping Specification

3. **Quantity:** Whole quantity of each product required to complete the works is to be of a consistent kind, size, quality and overall appearance.
4. **Tolerances:** Where critical, measure a sufficient quantity to determine compliance.
5. **Deterioration:** Prevent: order in suitable quantities to a programme and use in appropriate sequence.
6. **Recycling:** Proposals for recycled products may be considered.

PM_60_90_70/200 Quality of execution

1. **Generally:** Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
2. **Colour batching:** Do not use different colour batches where they can be seen together.
3. **Dimensions:** Check on site.
4. **Finished work:** Not defective, damaged, disfigured, dirty, faulty or out of tolerance.
5. **Appearance :** Adjust joints open to view so that they are even and regular.

PM_60_90_70/260 Samples

1. **Products or executions:** Comply with specification requirements and, in respect of the stated or implied characteristics, either to an express approval or to match a sample expressly approved as a standard for the purpose.

PM_60_90_70/270 Approval of products

1. **Programme:** Undertake or arrange submissions, samples, inspections and tests to suit the works programme.
2. **Approval:** Relates to a sample of the product and not to the product as used in the works. Do not confirm orders or use the product until approval of the sample has been obtained.
3. **Complying sample:** Retain on site in good, clean condition. Remove when no longer required.

PM_60_90_70/280 Approval of execution

1. **Programme:** Undertake or arrange submissions, samples, inspections and tests to suit the works programme.
2. **Approval:** Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required, this is specified separately.) Do not conceal or proceed with affected work until compliance with requirements is confirmed.
3. **Complying sample:** Retain on site in good, clean condition. Remove when no longer required.

PM_60_90_70/300 Accuracy of instruments

1. **Accuracy:** Maintain

PM_60_90_70/310 Critical dimensions

1. **Critical dimensions:** Set out and construct the works in accordance with the critical dimensions and tolerances stated.

PM_60_90_70/340 Quality control

1. **Procedures:** Establish and maintain to ensure that the works, including the work of subcontractors, comply with specified requirements.
2. **Records:** Maintain full records, keep copies on site for inspection, and submit copies on request.
3. **Content of records**
 - 3.1. **Identification:** Describe each element, item, batch or lot, including location in the works.
 - 3.2. **Inspections, tests and approvals:** Describe purpose and dates.
 - 3.3. **Nonconforming work:** Describe nature and extent of nonconforming work found.
 - 3.4. **Corrective action:** Details of work carried out.

PM_60_90_70/350 Quality control resource statement

1. **Resources:** Describe the proposed organization and resources to control the quality of the works, including the work of subcontractors.
2. **QA staff:** Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.

Ω End of Section

PM_70

Testing, commissioning and completion information

Project management

PM_70_85_13/10 The Building Manual

- Responsibility : Main Contractor
- General: Obtain and provide comprehensive information for owners and users of the completed works, including all buildings and their systems, to enable efficient and safe operation and maintenance.
- Content
 - Building fabric: Manufacturer's instructions for cleaning, repair and maintenance of products.
 - Building services: Description and operation of systems, identification of services, product details, equipment settings, maintenance schedules, consumable items, spares and emergency procedures.
 - Documentation: One Electronic Copy - Issued to Employer
One Hardcopy arranged in an A4 Binder provided to each house.
Both formats are to be clearly indexed by Product / Manual type for ease of access.
- Specific Requirements:
 - - 1. all relevant operation manuals
 - 2. all relevant product information for future replacement.
- Format: Documents must be placed in A4 plastic wallets to ensure longevity. The plastic folders to contain single sheets (double sided acceptable) but not multiple pages stapled together, however, professionally bound documents, for example Air Source Heat Pump instructions etc can be placed whole in expandable plastic wallets. Manufacturer's literature should not consist of a "brochure" carrying a range of products.
If a brochure is the only information then the contractors will extract **The Relevant** information and clearly identify the particular product(s) used.
- Delivery to: Employers Representative / Architect
- Latest date for delivery: Two weeks before the date for completion stated in the contract to ensure that an unacceptable delay does not occur.

PM_70_85_20 Defects rectification report

1. Non-compliant items
 - 1.1. Opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution: Submit proposals
 - 1.2. Submittal date: As soon as possible after discovery of items which are, or appear to be, non-compliant.
2. Acceptability: Such proposals may be unacceptable, and contrary instructions may be issued.

PM_70_85_20/30 Measures to establish acceptability

1. General: Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract, and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures will be at the expense of the contractor, and will not be considered as grounds for revision of the completion date.

PM_70_85_30/20 Tests and inspection schedule

1. Timing: Agree and record dates and times of tests and inspections to enable affected parties to be represented.
2. Confirmation: Provide one working day prior to each test or inspection. If sample or test is not ready, agree a new date and time.
3. Records: Submit a copy of test certificates and retain copies on site.

PM_70_85_35/30 Partial or phased possession by employer

1. General: Ensure necessary access is provided, and that services and other associated facilities are also complete.

PM_70_85_35/80 Completion in sections or parts

1. General: Where it is proposed to take possession of a section or part of the works and such section or part will, after its completion, depend for its adequate functioning on work located elsewhere on the site, complete such other work in time to permit such possession to take place.
2. Remainder of the Works: Ensure that completed sections or parts of the works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

PM_70_85_35/110 Work before completion

1. General: Make good damage consequent upon the work. Remove temporary markings, coverings and protective wrappings unless otherwise instructed.

Employers Requirements, Architectural & Landscaping Specification

2. **Cleaning:** Clean the works thoroughly inside and out, including accessible ducts and voids. Remove splashes, deposits, efflorescence, rubbish and surplus materials.
3. **Cleaning materials and methods:** As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
4. **Minor faults:** Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
5. **Moving parts of new work:** Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.
6. **Security at completion**
 - 6.1. **General:** Leave the works secure with accesses closed and locked, where appropriate.
 - 6.2. **Keys:** Account for and adequately label keys. Hand over to the duly authorized person with an itemized schedule. Retain a duplicate schedule signed by that person as a receipt.

PM_70_85_40/10 Safety file

1. **Purpose:** To provide information about the structure or materials used which might affect the health or safety of anyone if construction work (including cleaning, maintenance, alterations, refurbishment and demolition) is carried out.
2. **Content**
 - 2.1. **Generally:** Obtain and prepare all information as required by PSDP in compiling the Safety File as required under SHWW Regs.

Safety file information is to be issued by the PSCS in writing to the PSDP including all relevant information necessary for that project supervisor to complete the safety file under the Safety, Health and Welfare at Work (Construction) Regulations.

The PSCS must:

 1. coordinate arrangements among contractors to ensure the provision of relevant information, in writing, necessary for the project supervisor for the design process to complete the safety file
 2. monitor the implementation of the arrangements
 3. take any necessary corrective action if the contractors fail to provide the relevant information to the PSDP
 4. Each item is to be clearly named and indexed.
 5. provide documents and drawings in PDF and DWG format.
 - 2.2. **Submit to Project Supervisor Design Process:** Construction drawings, specification and pricing documents used and produced throughout the construction process for all design work the contractor is responsible for. The following is a non-exhaustive list.
 1. Maintenance facilities, procedures and requirements for the structure.
 2. The nature, location and markings of utilities and services, including emergency and firefighting.
 3. Manuals and certificates produced by specialist contractors and suppliers which outline operating and maintenance procedures and schedules for products and equipment installed as part of the structure (typically electrical and mechanical installations, control and instrumentation systems).
 4. Guarantees, warranties, maintenance agreements, test certificates and reports.
 5. Description and operation of systems, diagrammatic drawings, record drawings, identification of services, product details, equipment settings, maintenance schedules, consumable items, spares and emergency procedures.
 6. Manuals, certificates and instructions for dismantling and removal of products, equipment and systems. Details of hazards associated with products and executions used in the construction. Access requirements/ restrictions. Authorities and statutory undertakers plus copies of consents and approvals.
 7. all relevant operation manuals
 8. insurance, testing and commissioning certificates for all equipment
 9. all relevant maintenance contracts
 10. Contractors, subcontractors, suppliers and manufacturers including name and number of individuals to be contacted in case of emergency.
 11. The fire safety strategy for the buildings and site: include drawings showing fire appliance routes, emergency escape routes, fire resisting doors, location of emergency and firefighting systems, services shut-off valves, switches, etc.
3. **Latest date for submission:** On completion of the works.

PM_70_85_45/10 Tools and consumables

1. **General:** Provide tools and portable indicating instruments for the operation and maintenance of all services plant and equipment (except any installed under named subcontracts) together with suitable means of identifying, storing and securing.
2. **Quantity:** Two complete sets.
3. **Consumables:** Supply a complete list of all consumables necessary for the operation.
4. **Submittal date:** At completion.

PM_70_85_45/30 Schedule for spare parts

1. **General:** Before completion, submit a priced schedule of spare parts that the Contractor recommends should be obtained and kept in stock for maintenance of the services installations.

Employers Requirements, Architectural & Landscaping Specification

2. **Content:** Include in the priced schedule for:
Manufacturers' current prices, including packaging and delivery to site.
Checking receipts, marking and numbering in accordance with the schedule of spare parts.
Referencing to the plant and equipment list in the Safety File.
Painting, greasing, etc. and packing to prevent deterioration during storage.
3. **Latest date for submission:** Four weeks before completion.

PM_70_85_52 Manufacturer information

- **General:** Comply with manufacturer's printed recommendations and instructions current on the date of the invitation to tender.
- **Exceptions:** Submit details of changes to recommendations or instructions.
- **Execution:** Use ancillary products and accessories supplied or recommended by main product manufacturer.

PM_70_85_64 Project completion report

1. **Adoption procedure:** It is intended that roads and/ or sewers from the development are intended to be offered for adoption to the relevant statutory authority and subsequently maintained at the public expense.

Prior to connection to the infrastructure network under the Roads Act & Water Services Act, all relevant drawings and documents are to be prepared and issued by the Main Contractor to the approving authority for review.
2. **Details:** Roads.
Footpaths outside the curtilage of the site.
Street lighting.
Foul and surface water sewers.
3. **Standard:** To the technical approval of the relevant statutory authority.
See also code of practice for wastewater infrastructure published by Irish Water.
4. **Defects liability and rectification period:** 12 months.
5. **Maintenance:** Undertake to the satisfaction of the relevant statutory authority, including:

Making good of damage due to reasonable wear and tear occurring during the period.

Clean at the end of the period.

PM_70_85_64/30 Mechanical and electrical services

1. **Final tests and commissioning:** Carry out so that services are in full working order at completion of the works.
2. **Commissioning & Testing at Completion::** Main Contractor is responsible for delivering all commissioning and test certificates, to satisfy Assigned Certifier that the complete project has been constructed in compliance with the Building Regulations and that all systems are operating to achieve a building which is compliant.
 - 2.1. **Test Certificates::** Specialists engaged to test and certify compliance of construction / fabrication has been carried out in compliance with the Building Regulations including but not limited to:
 1. Water Testing and certification
 2. Pressure Testing and certification
 3. Chlorination Testing and certification
 4. Ventilation Commissioning certification & Testing in line with TGD - Refer Installation and Commissioning of Ventilation Systems for Dwellings - Achieving Compliance with Part F 2019
 5. BER Certification
3. **Confirmation:** Provide a notice confirming that systems have been commissioned in accordance with approved procedures.
4. **Records:** *Include in the Building Manual.*

PM_70_85_90/20 Training

1. **Objective:** Before completion, explain and demonstrate to designated maintenance staff the purpose, function and operation of the installations including items and procedures listed in the safety file.
2. **Time allowance (minimum):** Four days.

PM_70_85_96 Works completion certificate

1. **Requirement:** Give notice of the anticipated dates of completion of the whole or parts of the works.
2. **Associated work:** Ensure necessary access, and that services and facilities are complete.
3. **Period of notice (minimum):** One month.

PM_70_90 Record information

1. **Availability:** Retain on site for reference by supervisory personnel.
2. **Information:** Manufacturer's current information and relevant Irish Standards and codes of practice, relating to products to be used in the works.
3. **Copies:** To be lodged in building manual.

PM_70_90/10 Record drawings and information

1. Record drawings
 - 1.1. Drawings scope: All utilities, underground ducting & pipework, overhead lines, manhole / access chamber locations (incl invert levels).
All building as built plans sections and elevations.
 - 1.2. Drawings format: CAD and PDF

Ω End of Section

PM_80 Asset management information Project management

PM_80_10_25 Energy performance certificate

1. Assessment: Undertaken by a person registered with the National Register of BER Assessors.

Submit BER Assessor registration details and evidence of qualifications when requested.

A2 energy rating performance is the minimum requirement for dwellings.
2. Building type: Dwellings.
3. Certificate: Include in the Safety File

BER certificate and associated BER Advisory Report is to be issued for each individual unit.
4. Submittal date: *Min 4 weeks prior to substantial completion.*

PM_80_10_50/10 Maintenance instructions and guarantees

1. Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the works.
2. Information location: In 'Building Manual'.
3. Emergency call-out services
 - 3.1. Telephone numbers: Provide for use after completion.

Ω End of Section

Ro Roles Roles

Ro_10_20_26 Employer

- Name: The Employer is **Mayo County Council**.

Delivery team roles

Assigned Certifier

1. As appointed by the Employer in accordance with the Contract and under the Building Control (Amendment) Regulations 2014, S.I. No. 9 of 2014 and the associated Code of Practice for Inspecting and Certifying Buildings and Works, including any subsequent amendments or alterations to this code.

Ro_30_10_13 Clerk of works

1. Name: The Employer will appoint a Clerk of Works.
2. New Item: Provide and maintain a separate temporary office on site for the Clerk of Works. The internal floor area of the office shall be not less than 16 square metres and the floor to ceiling height shall be not less than 2.40m. The office shall have a boarded timber floor, one window not less than 1.5 square metres with an opening sash and a lockable door.

Provide the following furniture fittings:

1. An A1 size plan chest or cabinet with four drawers.
2. A table and three chairs.
3. Fixed shelving not less than 3m long and 300mm deep.

Provide adequate lighting and heating and maintain the office in a clean condition. Provide bin for rubbish and daily removal of rubbish.

The Contractor shall provide a separate telephone, data and fax line for the Clerk of Works office and pay all installation costs & charges and remove on completion.

Employers Requirements, Architectural & Landscaping Specification

Provide use of 30m steel tape, automatic level, total station and metric staff for the Architect or his representative as required. The equipment shall be maintained in proper adjustment. Provide the necessary attendance for the Architect and his representative.

Ro_30_10_27 Employer's Representative

1. Name: The architect or other person appointed by the Employer as its representative in accordance with the Contract.

Ro_30_10_42 Project Supervisor Design Process

1. Name: Mayo County Council

Official roles

Ro_30_30_68 Ancillary & Design Certifier(s)

1. Design: Architects Department, Mayo Co. Council
2. Civil & Structural: SDS Design Engineers
3. Mechanical & Electrical: FLN Consulting Engineers

Design roles

Ro_50_10_03 Architect (A)

1. Name: The Architect as stated in this Contract shall mean the Director of Services or the authorised Employers Representative.

Ro_50_20_11 Civil engineer (C)

Name: Engineers
Address:
Phone:
Email:

Ro_50_20_30 Mechanical & Electrical services engineer (M+E)

Name: Engineers
Address:
Email:

Ω End of Section

Architectural Specification

Ac_10_10_25/120

Demolitions

Activities

Ac_10_10_25/120 Demolitions

5. Description: Refer to Architects drawings for location and extent of demolitions. - (09)Series Demolition Drawings.

All to be read in conjunction with Structural Engineers drawings & other relevant drawings.

Schedule of Site Demolition Works include but are not limited to the following:

10. Take up and remove existing foul and surface pipework and AJ's.
11. Take down and remove surface water down pipes where necessary.
12. Take up and remove existing inspection chambers, stop cocks and water meters where required.
13. Remove waste material to an authorised waste facility.
14. E.S.B. to be contacted before commencement of works.
15. Irish Water to be contacted before commencement of works.
16. Make good to all areas disturbed by works and leave ready for new finishes.
17. Existing Mechanical / Electrical services: Cut off power before commencing works. Remove all defunct fittings/wiring from existing stone walls. All electrical services including (but not limited to) lighting, cables, wiring and power points to be removed.

Any items to be removed for storage must be agreed in writing with Mayo County Council and a carefully annotated detailed inventory prepared by the specialist conservation joinery company for approval to be moved to a suitable location with appropriate environmental controls to ensure the stability of the historic built fabric.

6. Removals:

12. **Remove debris:** Remove resulting debris and material containing toxins, pathogens or other extraneous substances potentially harmful to plant, animal or human life - generally off site to licenced waste disposal sites- All in compliance with all current legislation and Construction Management Waste Plan.
13. **Overgrown vegetation:** Remove all overgrown vegetation
7. Retention and setting aside: Contractor shall review and compare existing building with demolition and proposal drawings to ensure full understanding of scope of alterations. Review details of alterations with Design Team
Prior to any demolition and/or works commencing, the Contractor and relevant persons from Mayo County Council, Architects Section, shall meet on-site to agree the methodology and protections to be put in place before any demolition takes place (to ensure that there is no damage to fabric and that the items and/or finishes to be retained are protected for the duration of the works) and provide method statements for same prior to commencement on site.
8. System performance: [Ac_10_10_20/210 Demolition and deconstruction objectives](#); [Ac_10_10_20/205 Information submittals](#); [Ac_10_10_20/220 Site clearance objectives](#); [Ac_10_10_25/230 Site reinstatement objectives](#)
9. The Site (see also Public Works Contract - Section 7 The Site): **The Contractor is advised to visit the site and ascertain all local conditions and restrictions likely to affect the execution of the Works. No claims arising from failure to do so will be considered.**
10. Requirement: [Ac_10_10_20/205 Information submittals](#); [Ac_10_10_20/210 Demolition and deconstruction objectives](#); [Ac_10_10_20/220 Site clearance objectives](#); [Ac_10_10_25/230 Site reinstatement objectives](#)
11. Execution: [Ac_10_10_20/615 Demolition generally](#); [Ac_10_10_20/618 Contractor](#); [Ac_10_10_20/620 Bench marks](#); [Ac_10_10_20/625 Statutory and private services affected by demolition](#); [Ac_10_10_20/630 Location and marking of existing services](#); [Ac_10_10_20/635 Disconnection of services](#); [Ac_10_10_20/640 Bypass connections for supplies before demolition](#); [Ac_10_10_20/660 Health hazards during demolition](#); [Ac_10_10_20/665 Gas and vapour risks during demolition](#); [Ac_10_10_20/670 Dust control](#); [Ac_10_10_20/675 Removal of asbestos-containing materials](#); [Ac_10_10_20/680 Unforeseen hazards](#); [Ac_10_10_20/690 Treatment of adjoining property affected by demolition](#); [Ac_10_10_20/695 Structures and services to be retained](#); [Ac_10_10_20/700 Partly demolished structures](#); [Ac_10_10_20/705 Management of water on the site during demolition](#); [Ac_10_10_25/710 Groundworks during demolition](#); [Ac_10_10_20/715 Components and materials arising from demolition](#); [Ac_10_10_20/720 Recycled components and materials](#); [Ac_10_10_25/730 Grading and laying site surfaces on completion](#)
12. System completion: [Ac_10_10_25/820 Site condition following completion](#); [Ac_10_10_20/810 Condition of services on completion](#)
13. Completion: [Ac_10_10_25/820 Site condition following completion](#); [Ac_10_10_20/810 Condition of services on completion](#)

System performance

Ac_10_10_20/205 Information submittals

3. Method statement
- 3.1. Purpose: To demonstrate compliance with performance requirements.
 - 3.2. Contents: Drawings, technical information, calculations and manufacturers' literature as appropriate. Methods of removal of flammable, toxic or hazardous materials, including asbestos; Arrangements for disconnection and removal of services;

Sequence and method of demolition including details of specific pre-weakening;
Arrangements for protection of personnel and the public, including exclusion of unauthorized persons;
Arrangements for control of site transport and traffic;
Disposal of hazardous waste;
Site waste management plan development and proposals;
Structural calculations in support of method statements;
and Statutory risk assessments.

- 3.3. Format: Drawings and specification in BIM-compliant format.
- 3.4. Timing: Submit two weeks before starting work.

Ac_10_10_20/210 Demolition and deconstruction objectives

- 2. **Demolitions:** The Contractor is advised to visit the site and ascertain all local conditions and restrictions likely to affect the execution of the Works. No claims arising from failure to do so will be considered.
- 3. **Description:** Such work shall be carried out in the presence of the Employers Representative or their agent and shall be in accordance with the recommendations of BS 6187:2011

The Contractor is to take proper precautions for the prevention of nuisance arising from dust or excessive noise.

- 4. **Scope of the demolition works:** [Ac_10_10_20/615 Demolition generally](#)
- 5. **Structures to be retained:** As per Architects demolition drawings and Structural Engineer's details. Refer to Architectural Demolition Drawings (09) Series for details.
- 6. **Designated items to be retained:** All stonework, brickwork, slate, suitable salvaged timber & ironmongery removed during works to the existing building should be retained in a separate compound for inspection by the architect/structural engineer prior to agreed removal from site.

Ac_10_10_20/220 Site clearance objectives

- 2. **Required outcome:** Site to be clear of materials, animal species and vegetation that may potentially impact on future development of the site, or potentially harm occupants;
Site to be clear of all below ground obstructions, including existing foundations, that may affect construction;
All buried services to be either removed and disposed of or diverted in accordance with the requirements of the respective statutory authorities.
- 3. **Protected species:** Refer EIA / AAS reports as appropriate. Determine on site. Give notice immediately.
 - 3.1. **Species to be protected:** Determine on site.
- 4. **Limitations**
 - 4.1. **Prohibited operations:** Use of explosives.
 - 4.2. **Timing:** Refer to statutory authorities on permissible windows to carry out operations.
e.g during breeding season or Between March and November.
- 5. **Considerations for vegetation**
 - 5.1. **Species to be protected:** Determine on site. Refer EIA / AAS reports as appropriate. Give notice immediately.
 - 5.2. **Trees, hedgerows and conservation areas:** Check for Tree Preservation Orders (TPO). Check for protected hedgerows. Check for conservation area requirements and planning conditions relating to protection of existing trees and landscaping.
 - 5.2.1. **Required actions:** Check for Tree preservation orders;
Check for protected hedgerows;
and Check for Conservation Area requirements and planning conditions relating to protection of existing trees and landscaping.

Ac_10_10_25/230 Site reinstatement objectives

- 3. **Protection of existing services, structures and features:** Refer Demolition Drawings and associated schedules
- 4. **Adjacent buildings or structures:** Safe, stable, weathertight and secure.

Execution

Ac_10_10_20/615 Demolition generally

- 4. **Standard:** To [BS 6187](#).

Ac_10_10_20/618 Contractor

- 2. **Quality control:** To EN ISO 14001.
- 3. **Personnel**
 - 3.1. **Supervisory staff:** Experienced in the assessment of risks involved and methods of demolition to be used.
 - 3.1.1. **Required qualifications:** Demolition work should only be undertaken by persons competent and experienced in such work and should be carried out in accordance with BS 6187.

- 3.2. Operatives: Appropriately skilled and experienced in the type of work. Holding, or in training to obtain, relevant Construction skills certificates of competence.

Ac_10_10_20/620 Bench marks

4. Unrecorded benchmarks and other survey information: *Give notice when found.*
5. Protection: *Do not remove or destroy.*

Ac_10_10_20/625 Statutory and private services affected by demolition

3. **Description:** Public Authorities, such as electricity, telephone, water, etc., will be informed by the Council of their intention to construct the works and will be supplied with drawings of proposed works. This will not in any way relieve the Contractor of responsibility for giving due notice to the aforementioned authorities and for ensuring that all the cable ducts, pipe crossings, etc., are completed.

The Contractor shall take every precaution and bear every expense necessary to preserve from damage and leave in working condition, all surface fittings of waterworks, drainage or other undertaking. All such fittings shall be left in clean usable condition.

4. **Statutory services:** Execute work which may affect statutory services in accordance with the by-laws or regulations of the relevant statutory authority or statutory undertaker. Inform ER and Consultant Engineer prior to commencing.
5. **Private services:** Execute work which may affect the operation of privately supplied services in accordance with the requirements of the individual service providers. Inform ER and Consultant Engineer prior to commencing.

Ac_10_10_20/630 Location and marking of existing services

3. **Description:** The contractor is responsible for determining the exact location of all services and service runs directly affecting this development. This shall include Eir, E.S.B, Bord Gais, Drainage, Watermains etc.

The contractor shall allow for the following:

Any redundant services such as disused oil tanks, drains, ducts etc, shall be removed at the contractors expense and filled with lean mix under the Architects / Engineers supervision.

4. **Services affected by the Works:** *Locate and mark positions.*
5. **Existing Drains:** If it is deemed necessary, the contractor shall excavate holes to locate exact run of existing drain(s). Excavate and lay new drains, as necessary.
6. **Mains services:** Arrange with the appropriate authorities for location and marking of positions.
7. **Marking:** Mark services in accordance with [National Joint Utilities Group \(NJUG\) publication Street works UK guidance on the positioning and colour coding of underground utilities' apparatus. Volume 1. Issue 9.](#)

Ac_10_10_20/635 Disconnection of services

3. **Disconnection of supplies and removal of fittings and equipment :** *Arrange with the appropriate authorities and responsible private organizations. Remove fittings and equipment where agreed or Gas supply terminated at boundary meter chamber, meters removed or Water supply shut-off at stopcock.*
4. **Drains:** Locate, disconnect and seal disused drain connections. Agree where drains are to be sealed. Obtain approval from the relevant Local Authority and Consultant Engineer.
5. **Person or organization responsible for arranging disconnection of supplies with appropriate authorities:** Contractor.
6. **Timing:** *Before demolition works start.*

Ac_10_10_20/640 Bypass connections for supplies before demolition

4. **Temporary bypass of services**
- 4.1. **Required actions:** *Provide as necessary to maintain continuity of services to occupied areas of the site and adjoining properties.*
- 4.2. **Timing:** Complete all necessary bypass of services before demolition works start. Obtain approval from the relevant Local Authority and Consultant Engineer.
5. **Temporary shutdown of supplies**
- 5.1. **Communications:** *Give notice to occupiers.* Inform Design Team and ER.
- 5.2. **Notice to occupiers (minimum):** 72 hours.

Ac_10_10_20/660 Health hazards during demolition

4. **Precautions:** *Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the works.*
5. **Dangerous openings:** *Illuminate and protect. Keep safe outside of working hours.*
6. **Unauthorized persons:** *Prevent access.*

Ac_10_10_20/665 Gas and vapour risks during demolition

10. Description: The Contractor is to take proper precautions for the prevention of nuisance arising from gas & vapour arising from demolition works.
11. Requirement: *Prevent fire or explosion caused by gas or vapour.*

Ac_10_10_20/670 Dust control

15. Description: The Contractor is to take proper precautions for the prevention of nuisance arising from dust.
16. Requirement: Minimize airborne dust. Keep public roadways and footpaths clear of mud and debris.
Dust mitigation & monitoring measures are to be put in place as follows:
Areas likely to produce dust during the works, (demolishing / excavating / crushing / broken / dismantling etc), are to be wetted down using a combination of large and small droplets, (to capture particles of different sizes).
Spoil heaps on the ground are to be wetted down as required. It is noted that weather conditions may alleviate the need for wetting down external spoil heaps but all sources of dust shall be continuously wetted down to reduce the number and size of particles that become airborne.
The contractor shall comply with any request by the ER to wet down areas of the Works.

Ac_10_10_20/675 Removal of asbestos-containing materials

5. Recorded asbestos
 - 5.1. Position of asbestos: Refer Asbestos Report provided as part of Tender documentation where applicable.
 - 5.2. Requirement: Submit method statement
 - 5.3. Timing: Prior to commencing any demolitions
6. Discovered asbestos: Give notice immediately. Do not disturb.
7. Managing personnel or organization: A contractor licensed by the Health and Safety Authority.
8. Timing: Before other works start in these locations. Following a statutory risk assessment.

Ac_10_10_20/680 Unforeseen hazards

5. Unrecorded voids, tanks, chemicals, etc. discovered during demolition: Give notice immediately.
6. Removal of unforeseen hazards: *Submit proposals and method statement for approval prior to commencing any removals.*

Ac_10_10_20/690 Treatment of adjoining property affected by demolition

- Requirements: Minimize disturbance. Remove unnecessary or unstable projections. Make safe, secure and weathertight.

Work outside the site shall not be undertaken without express agreement with the Employers Representative.

Take adequate precautions at all times to prevent trespass on adjoining property by employers or by sub-contractor's employees.

Obtain permission from the owner of adjoining property if it is necessary to use that property for any purpose in connection with the works. **Indemnify the Employer against all charges arising there from.**

Take all reasonable precautions to prevent damage to adjoining property and to avoid causing a nuisance to adjoining occupants and to the public. Make good any damage caused to adjoining property.

- Foundations of adjoining property: Do not disturb.
- Defects exposed or becoming apparent: Submit report.

Ac_10_10_20/695 Structures and services to be retained

3. Removal of structures and services to be retained: Cut away and strip out with care. Minimize the amount of making good needed. All in accordance with Consulting Engineer and Architectural Drawings, Specification and details.
4. Damage to structures and services to be retained: Give notice and notify service authority or owner of damage arising from the execution of the works.
5. Repairs: Submit proposals for the repair to any damaged structures or services.

Ac_10_10_20/700 Partly demolished structures

- Requirement: Leave in a stable condition. Provide adequate temporary support at each stage. Prevent uncontrolled collapse. Keep safe outside working hours.

Ac_10_10_20/705 Management of water on the site during demolition

- DISPOSAL OF WATER: The Contractor shall provide, maintain and operate suitable pumping equipment and plant and shall, if necessary, construct such drains etc., as may be necessary to remove water from the excavations or prevent entry thereto. Water in the excavations shall be dealt with in such a manner so as to prevent the deterioration of the surface on which foundations or other work will be constructed

Where continuous pumping is proposed, notify the Architect. Prevent silt from entering the permanent drainage system when disposing of water from excavation. Where temporary sumps are required, construct them clear of excavations for permanent work and fill them with suitable filling when no longer required. Indicate location of sumps on "as built" drawings. No water will be permitted to flow into the Moy River under any circumstance.

- Disposal of excess water
 - Approvals to discharge: Seek approval from the appropriate regulatory authority.
 - Requirements: In accordance with statutory requirements and Local Authority specification.

Ac_10_10_20/715 Components and materials arising from demolition

4. Components and materials arising from demolition work: Notify the Architect and notify the responsible authority and obtain instructions.
5. Employer's property

- 5.1. Designated items: As Demolitions schedule.

The owner of materials, sand, gravel or archaeological objects discovered in the course of excavation shall be deemed to be the Employer.

When archaeological objects are discovered, stop work in the immediate vicinity of the find and inform the Architect at once.

Divert all surface water channels and field drains as shown on the drawings.

Notify the Architect and notify the responsible authority and obtain instructions when underground services other than those shown on the drawings are encountered.

Contractor to take all necessary precautions to avoid silting of adjacent watercourses.

- 5.2. Protection of designated items: Protect designated items until the end of the Contract.

Ac_10_10_20/720 Recycled components and materials

- Materials arising from demolition work: Recycling or reuse elsewhere in the project is permitted, subject to compliance with the appropriate specification, and in accordance with the site waste management plan / resource and waste management plan.
- Compliance
 - Evidence of compliance: Submit full details and supporting documentation.
 - Verification: *Allow adequate time in programme for verification of compliance.*

Ac_10_10_25/710 Groundworks during demolition

3. **GENERAL EXCAVATION MUST BE READ IN CONJUNCTION WITH THE STRUCTURAL ENGINEERS SPECIFICATION:** Excavate to the dimensions, levels, lines and profiles outlined in the documentation and cart away from site.

Excavate for strip, pad and underpinning of foundation to depths shown on documents.

Excavate to the dimensions, levels, lines and profiles outlined in the project documents and deposit at a designated area – to be agreed. Surplus shall be carted away from site. Level and consolidate the bottom of excavations in earth. Reinstatement to formation level with approved, hardcore filling in solidly compacted layers – refer to Structural Engineers Specification

Any additional excavation required to accommodate the temporary support of sides of excavations shall be provided and backfilled at the Contractor's expense.

Contractor shall not excavate for foundations in waterlogged areas or during wet/rainy conditions. Council will not reimburse Contractor for areas of unnecessary over dig.

Backfill unauthorised or excess excavations with approved filling at no expense to the Employer.

Support sides of excavations as necessary and in accordance with statutory requirements.

Trim bottoms of excavations in rock. Rock shall be not excavated until the Architect has determined its nature and quantity. No claim for extras due to rock excavation will be considered by the Architect.

The use of explosives is not permitted.

Do not excavate substrata in the direct vicinity of existing building or boundary walls to the site (or any walls to be retained as a part of the site landscaping) in such a way as would cause instability of those walls. The lines of demarcation at which bulk excavation shall terminate in the vicinity of existing walls or other structures shall be agreed with the Architect.

Any additional excavation required to accommodate the temporary support of sides of excavations shall be provided and backfilled at the Contractor's expense.

Backfill unauthorised or excess excavations and in accordance with statutory requirements. Notify Architect.

4. Removal of contaminated material: Remove and dispose of contaminated material to appropriate licensed site in accordance with resource and waste management plan.
5. Removal of deleterious material: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil and dispose of to appropriate site.

Ac_10_10_25/730 Grading and laying site surfaces on completion

3. Topography: *Grade the site to follow the levels of adjacent areas.* As per Architectural Layouts.

System completion

Ac_10_10_20/810 Condition of services on completion

4. Condition of services: *Clean and in working order.*

Ac_10_10_25/820 Site condition following completion

4. Condition of site: *Clean, tidy and secure.*

Ω End of Activity

Ac_15_55_04/110

Acoustics, Airtightness and Ventilation Testing - Ventilation Certification

Activities

Ac_15_55_04/110 Acoustics, Airtightness and Ventilation Testing - Ventilation Certification

3. Description: Surveys to assess building fabric performance
4. System performance: [Ac_15_55_04/230 Parameters for building fabric performance surveys](#)
5. Survey type: Air Tightness
Ventilation
Sound insulation.
6. Permissible survey techniques: [Ac_15_55_04/620 Air Tightness / Air pressure testing](#);
[Ac_15_55_04/640 Acoustic testing](#);
and
[10-20-60/670 Ventilation testing](#)
7. Submittals:
 - Air pressure test report
 - Noise testing report
 - Ventilation report
8. Execution: [Ac_15_55_02/610 Provision of instructions](#)

System performance

Ac_15_55_04/230 Parameters for building fabric performance surveys

3. Description: Testing in compliance with statutory requirements and Building Regulations, prior to and after construction work.
4. Survey purpose: To establish a building's Acoustic, Air permeability and Ventilation performance against specific criteria, in compliance with statutory requirements and Building Regulations, prior to and after construction work.
5. Survey scope: Complete building envelope and ventilation systems.
6. Timing of survey: Type testing during construction works and prior to completion.

Execution

10-20-60/670 Ventilation testing

5. Description: Domestic Ventilation Testing
6. Function: Performance testing of ventilation systems to ensure they meet the specified or required compliance with building regulations Technical Guidance Document F: Ventilation.
7. Requirement: Ventilation systems shall be installed and commissioned by competent installers to comply with requirements of Installation and Commissioning of Ventilation Systems for Dwellings - Achieving Compliance with Technical Guidance Document F: Ventilation.

Verification of the installed flowrates to the intended design flowrates are to be carried out by independent third parties e.g. NSAI Certified or equivalent.

- 7.1. **Testing Standard:** Shall comply with the guidance given in I.S. EN 14134:2019, Ventilation for buildings – Performance testing and installation checks of residential ventilation systems.
- 7.2. **Number of tests:** Each ventilation system in each unit / house.
8. **Ventilation Validator :** The Contractor shall appoint a competent independent third party to validate that the ventilation system has been installed, balanced and commissioned to meet the minimum requirements of Technical Guidance Document F - Ventilation to the Irish Building Regulations.
- 8.1. **Ventilation Validator Requirements:**
- 8.2.
4. Fully registered Registered Ventilation Validator with NSAI
 5. Compliance with NSAI requirements in relation to Insurance
 6. Minimum qualification in the field of engineering / building construction required e.g., Building Services Engineering, Mechanical Engineering etc.
 7. Competent to carry out the works described herein and has an adequate working knowledge of the requirements of the current Safety Health & Welfare at Work Acts and Regulations and is insured and competent to perform the duties detailed in the Safety, Health and Welfare at Work (Construction) Regulation.
9. **Failure to meet criteria:** In the event of failure (the requirements of the Architectural Specification TGD not being met) a diagnostic test/ review shall be carried by the Contractors out to determine the issues.

Rectification of the works shall be undertaken to the acceptance of the ER and the testing procedure repeated until the requirements of the Specification are achieved.

The Contractor shall be responsible for the making good all defects.

Ac_15_55_02/610 Provision of instructions

Shared by: [Ac_15_55_26/125 Energy assessment surveying - VENTILATION VALIDATOR](#) and [Ac_15_55_26/125 Energy assessment surveying - BER Assessment](#)

2. **Client information**
 - 2.1. **Contact details:** ER as described in Works requirements
3. **Survey copyright:** Copyright will be in Mayo County Council ownership.
4. **Risk assessment and method statement:** Required prior to start on site.

Ac_15_55_04/620 Air Tightness / Air pressure testing

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

3. **Description:** Air pressure testing of a new building.
4. **Purpose of testing:** A minimum of two Air pressure tests are required to be carried out on each house or apartment type. Tests are to be carried out by an NSAI or equivalent approved contractor at a stage in the contract after airtightness works are complete. Minimum airtightness performance level to be achieved is 2m3/h/m2; in the event that this minimum is not achieved re-testing of the building envelope will be required after remedial works to the airtightness envelope has been completed by the contractor.

The external building fabric shall be tested for airtightness on completion of the whole Building shell and shall achieve an air permeability rate as stated in the air permeability section of the specification.

5. **Standard:** Test shall be carried out to meet the requirements of the Building Regulations and its associated Technical Guidance Document L "Thermal performance of buildings; determination of air permeability of buildings: fan pressurization method". Also refer to BSIRA Guide "Airtightness for new dwellings" and the CIBSE Technical Manual TM23 "Testing Buildings for Air Leakage".

The test will require temporary sealing of all openings in accordance with the Building Regulations and its associated Technical Guidance Document L.

Responsibility for the temporary sealing, carrying out the airtightness testing and smoke tests along with preparation of Reports will be the full responsibility of an accepted independent testing authority. However, the Contractor may carry out the temporary sealing under the independent testing authority's supervision.

The air-leakage rate shall meet the requirements of the latest edition of the Building Regulations and its associated Technical Guidance Document L, and the requirements as stated in the Air Permeability section of the general requirements. If a discrepancy exists between the two then the more onerous requirements are to prevail.

All external envelope elements of the building shall be assessed for leakage. Elements including, roofing system (e.g. roof sheeting), walling system (e.g. curtain walling, wall panels, blockwork and service penetrations and vapour barriers), etc. as required.

The final air leakage test shall be carried out prior to Practical Completion. Air pressurisation test reports shall be retained by the contractor as proof of performance, and copies issued to the ER and included in the operating and maintenance instructions to be issued to users.

Responsibility for the temporary sealing, carrying out the airtightness testing and smoke tests along with preparation of Reports will be the full responsibility of an accepted independent testing authority. However, the Contractor may carry out the temporary sealing under the independent testing authority's supervision.

6. **Air permeability:** The building has been designed to achieve a maximum air permeability of 2m³/(h.m²) at an applied pressure difference of 50 Pa.
7. **Surveyor:** The work shall be carried out by an accepted independent testing authority certified by an independent third party to carry out this work, e.g. Irish National Accreditation Board (INAB), National Standards Authority of Ireland (NSAI) certified or equivalent, appointed by the Contractor

The test report should contain at least the information specified in Section 7 of I.S. EN 9972:2015.

8. **Measuring instruments:** The instrumentation used to carry out the building test shall be UKAS certified and have a valid calibration certificate.
9. **Methods of assessing failure:** In the event of failure or the latest edition of the Building Regulations and its associated Technical Guidance Documents Part L requirement not being met during the test, a diagnostic test shall be carried out to determine the leakage path(s). Carry out the re-tests within one week (or as agreed) of the air-leakage test. Once the leakage paths have been rectified or sealed, the pressurisation test and, if required, further smoke tests or as agreed, will be repeated until the required air leakage rate is achieved. The Contractor shall be responsible for the making good or sealing of all leaks to the building envelope.

Ac_15_55_04/640 Acoustic testing

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

10. **Purpose of testing:** Testing of completed buildings or spaces (new or refurbished) to ensure they meet the specified or required acoustic criteria in compliance with the various legislation and criteria for noise levels defined in planning documentation & Building Regulations TGD E .
 - Noise testing of a completed building following construction work.
 - Noise testing of newly completed building elements.
11. **Scope:** Measurement of airborne and impact sound levels between adjacent spaces in new buildings; Airborne sound insulation testing of a random selection of partition and floor types. These tests should be done at the earliest opportunity to identify potential weaknesses before these are replicated in numerous areas; and Impact sound insulation testing of a random selection of floor types, plus specific sensitive areas identified during the design as needing additional impact sound insulation.
12. **Test standards:** TGD E - sound insulation testing for dwellings. Measurements to be taken from a representative sample of rooms in compliance with requirements of TGD E. Measurements to be made for a period of time that represents the use of the room and the nature of the noise sources.
A reduction in the number of tests may be acceptable if there is repetition of design.
13. **Measuring instruments:** Noise and vibration measurements to be made using instrumentation in accordance with [BS EN 61672-1](#) and 2 and following the British and International standards or other appropriate standards. Testing equipment to have calibration certification traceable to national standards. Personnel chosen to carry out the commissioning tests are to be trained in the test procedures and relevant Standards.
14. **Number and position of measurements**
 - 14.1. **General criteria:** Measurements to be taken from a representative sample of rooms in compliance with requirements of TGD E.
Measurements to be made for a period of time that represents the use of the room and the nature of the noise sources.
A reduction in the number of tests may be acceptable if there is repetition of design.

Acoustic Testing of sample units is to be provided by a specialist appointed by the Main Contractor. The following is to be provided in accordance with Part E of the Building Regulations;

At least 2 'sets of tests' (as defined in TGD E) incorporating;
 1. A test of insulation against airborne sound between one pair of rooms. - Living rooms on opposite sides of the separating wall should be chosen, where possible.
 2. A test of insulation against airborne sound between another pair of rooms than in Note 1. Bedrooms on opposite sides of the separating wall should be chosen, where possible.At least one 'set of tests' should be carried out on a dwelling group or sub-group within the first four dwellings which are planned for completion.
 - 14.2. **Intrusive noise:** Where external noise sources are sufficiently constant, measurement time periods of less than one hour are acceptable and Rain noise performance to be proved by calculation based on laboratory-measured rain-noise data for roof system used.
 - 14.3. **Environmental noise:** The measurement time period selected is to represent the use of the room and/or the operation of the plant and equipment. This is to include measurements of noise levels during start-up where this is a noisy operation.
15. **Additional requirements:** Airborne Sound Tests to Walls shall be as per ISO 140 Part 4:1998 and ISO 16283 Part 1:2014 (as per TGD E).

Where it is not possible to test when rooms are furnished, an allowance shall be made for the expected difference in reverberation time when the room becomes furnished.

16. **Failure to meet criteria:** In the event of failure (the requirements of the Architectural Specification not being met) a diagnostic test/ review shall be carried by the Contractors out to determine the issues. Elements that do not meet the agreed performances set out in the acoustic strategy document shall be remedied. Test failures that indicate poor workmanship or design will require testing of other areas, to show whether they meet the standards.

Rectification of the works shall be undertaken to the acceptance of the ER and the testing procedure repeated until the requirements of the Specification are achieved.

The Contractor shall be responsible for the making good all defects.

17. **Test results:** All reports / results are to be expressed as per IS EN ISO 717 Parts 1 & 2 2013.
- ☐ Airborne-sound-insulation ratings (in terms of $D_{nT,w}$).
 - ☐ Impact sound insulation (in terms of $L'_{nT,w}$).
 - ☐ Noise levels generated by mechanical services (in terms of NR).
 - ☐ Intrusive noise levels (in terms of L_{Aeq} , 1hr and L_{Amax} , f as appropriate).
 - ☐ Environmental noise levels (in terms of the appropriate parameter).
 - ☐ Comparison of commissioning results with design criteria, statement of acceptability, details of remedial measures and subsequent changes in results.
 - ☐ Test results are to be included with the project Health and Safety file.
18. **Testing authority:** Sound insulation tests carried out by a person / body certified by an independent third party offering suitable and satisfactory evidence of technical and professional competence and independence to carry out such work in accordance with the requirements of Building Regulations Technical Guidance Document E Sound.

Ω End of Activity

Ac_15_55_26/125

Energy assessment surveying - VENTILATION VALIDATOR

Activities

Ac_15_55_26/125 Energy assessment surveying - VENTILATION VALIDATOR

- Description: Ventilation Validator Assessment of domestic properties.
- System performance: [Ac_15_55_26/240 Parameters for energy audits and assessments - Ventilation Validation](#)
- Preparation: [Ac_15_55_02/610 Provision of instructions](#)
- Risk assessment and method statement: I.S. EN 14134: 2019: Ventilation for buildings – Performance testing and installation checks of residential ventilation systems.
- Methodology: Validate that a ventilation system has been installed, balanced and commissioned to meet the minimum requirements of Technical Guidance Document F - Ventilation (2019) to the Irish Building Regulations.
- Building type: Domestic Residential
- Submittals: Third party "Ventilation validation Certificates" in the NSAI agreed format
- Survey type: As required under Building Regulations and Technical Guidance Document F
- Qualifications of surveyors: Accredited domestic ventilation assessor.
- Execution: [Ac_15_55_02/610 Provision of instructions](#)
- System completion: Certificate and Advisory Report.

System performance

Ac_15_55_26/240 Parameters for energy audits and assessments - Ventilation Validation

3. Survey purpose: Confirm that the installed ventilation system provides for the minimum ventilation requirements as described in TGD to Part F - Ventilation (2019) of the Building Regulations.
4. Survey scope: Inspection of and Validation by a competent independent third party that a ventilation system has been installed, balanced and commissioned to meet the minimum requirements of Technical Guidance Document (TGD) F - Ventilation (2019) to the Irish Building Regulations.

Issue third party "Ventilation validation Certificates" in the agreed format validating that a ventilations system has been installed, balanced, and commissioned to meet the minimum requirements of the Building Regulations.

Checks and measurement methods are to follow the guidance given in I.S. EN 14134: 2019: Ventilation for buildings – Performance testing and installation checks of residential ventilation systems.

5. Qualifications of surveyors: Independent assessors currently registered with SEAI who have completed an accredited training course, national examination

Assessors must be

- Fully registered as a Registered Ventilation Validator with NSAI i.e., a competent independent third party to validate that a ventilation system has been installed, balanced and commissioned to meet the minimum requirements of Technical Guidance Document F - Ventilation (2019) to the Irish Building Regulations.
 - Demonstrate that they are familiar with a range of ventilation systems/approaches that they are likely to encounter in dwellings. Typical systems and approaches are described in TGD to Part F - Ventilation (2019) of the Building Regulations and Section 4 of the NSAI "Ventilation Validation Registration Scheme Master Document".
 - Approved by the NSAI to provide Ventilation Validation Certificate services,
 - comply with NSAI requirements in relation to Insurance and
 - be competent to carry out the works described and have an adequate working knowledge of the requirements of the Safety Health & Welfare at Work Acts and Regulations current and is insured and competent to perform the relevant duties detailed in the Safety, Health and Welfare at Work (Construction) Regulation, 2006.
6. Timing of survey: Inspection and validation following completion and commissioning of M&E works.

Execution

See [Ac_15_55_02/610 Provision of instructions](#) in [Ac_15_55_04/110 Acoustics, Airtightness and Ventilation Testing - Ventilation Certification](#)

Ω End of Activity

Ac_15_55_26/125

Energy assessment surveying - BER Assessment

Activities

Ac_15_55_26/125 Energy assessment surveying - BER Assessment

- **Description:** BER assessments are carried out by independent registered assessor appointed by the Main Contractor in accordance with BER Assessor Code of Practice.
BER assessor must carry out assessments independently of all other suppliers of installers or energy related products or services.
- **System performance:** [Ac_15_55_26/240 Parameters for energy audits and assessments](#)
- **Preparation:** [Ac_15_55_02/610 Provision of instructions](#)
- **Risk assessment and method statement:** Energy assessment. BER
- **Methodology:** DEAP software tool and guidance manuals.
- **Building type:** Domestic Residential
- **Submittals:** Domestic Energy Performance Certificate.
- **Survey type:** Energy audit to [BS EN 16247-1](#).
Energy assessment.
- **Methodology:** BER Assessor must use DEAP to publish Building Energy Rating (BER) certificates and advisory reports for each dwelling unit.
DEAP is the compliance tool specified in Part L of the Irish Building Regulations used to calculate the annual delivered energy consumption, primary energy consumption (kWh/m²/year) and carbon dioxide emissions (kgCO₂/m²/y) for standardised occupancy.
- **Qualifications of surveyors:** Accredited domestic energy assessor.
Registered on SEAI National Register of BER Assessors.
- **Execution:** [Ac_15_55_02/610 Provision of instructions](#)
- **System completion:** BER Certificate
Part L Report

Provide in Softcopy (PDF) format and
1 No Hardcopy format for each dwelling unit.

System performance

Ac_15_55_26/240 Parameters for energy audits and assessments

- **Survey purpose:** To confirm compliance with National Building Regulations.
- **BER Assessor:** The Contractor shall be responsible for appointing a BER Assessor to carry out BER ratings in accordance with the SEAI DEAP (Dwelling Energy Assessment Procedure) methodology and adhering to the SEAI BER Assessors Code of Practice
- **Survey scope:** Provision of a BER based on the calculated energy performance and associated carbon dioxide emissions for the provision of space heating, ventilation, water heating and lighting under standardized operating conditions.

Independent assessor will be required to carry out BER assessment and rating in accordance with the SEAI DEAP (Dwelling Energy Assessment Procedure) methodology & adhering to the SEAI BER Assessors Code of Practice.

- **Minimum Scope of BER Provision:**
 4. Preliminary PBER recommendation / assessment based on design information / data gathering at commencement.
 5. Monitoring and updating Preliminary BER on foot of design changes and construction methods during construction works.
 6. Inspection at milestones during construction
 7. Provisional BER at completion of M&E first fix
 8. Final Domestic BER generation on completion of construction works.
 9. Lodge the BER certificate to statutory database.
 10. Delivery of the BER in the agreed SEAI format.
- **Qualifications of surveyors:**
 2. Fully registered as a BER assessor with THE SUSTAINABLE ENERGY AUTHORITY of IRELAND – All Dwellings (SEAI)
 3. Has completed SEAI exam and attained a minimum of 85% in the exam.
 4. Has completed HETAC approved training on Existing Dwellings.
 5. Comply with SEAI requirements in relation to Insurance
 6. Are actively engaged in provision of BER Certificates and can provide proof of such activity for both new and existing dwellings in the last six months.

7. Minimum qualification in the field of engineering, building construction or architecture required e.g., Building Services Engineering, Architecture, Mechanical Engineering etc.

Competent to carry out the works described and has an adequate working knowledge of the requirements of the Safety Health & Welfare at Work Acts and Regulations current and is insured and competent to perform the duties detailed in the Safety, Health and Welfare at Work (Construction) Regulation.

- Timing of survey: Provide provisional BER at completion of M&E first fix and Final BER following completion of construction works.

Execution

See [Ac_15_55_02/610 Provision of instructions](#) in [Ac_15_55_04/110 Acoustics, Airtightness and Ventilation Testing - Ventilation Certification](#)

Ω End of Activity

Ss_15_10_30_27

Earthworks filling systems - LANDSCAPING

Systems

Ss_15_10_30_27 Earthworks filling systems - LANDSCAPING

- **Description:** The Contractor shall be responsible for the supply, planting and satisfactory establishment of all plant material, maintenance of planting up to the issuance of the Certificate(s), making good defects and reinstatement of losses due to natural causes.
All plant material must comply in all respects with the current edition B.S. 3936 Parts 1, 2 and 4. Any plant material supplied, which does not meet this standard, will be rejected and replaced with suitable plant material with additional costs to the Contractor.

REFER LANDSCAPING SPECIFICATION APPENDIX - A

[Ss_15_10_30/602 Site clearance generally](#)

Execution

Ss_15_10_30/602 Site clearance generally

2. **General:** Clear site of rubbish, debris and vegetation. Do not compact topsoil.

Excavate topsoil from the area indicated for development. Stockpile excavated topsoil in temporary spoil heaps on site at the west end of the site or where directed. Keep separate from other materials.

The contractor shall be responsible by way of site investigation as to the level, nature and extent of contaminants, hidden or visible, to be removed from site. **(Contaminants in this instance refer to deposited rubbish, spoil, unsuitable fill, construction debris, etc).**

Such material must be removed from site and disposed of to a permitted / licensed outlet, in line with the requirements of the Waste Management Act 1996.

3. **Landscaping & Excavations:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

CONTRACTOR SHALL COMPLY WITH THE STRUCTURAL ENGINEERS SPECIFICATION.

The Contractor shall bring any conflicting specification to the notice of the Architect for a decision before commencement of particular works.

4. **Timing:** Before topsoil stripping, if any.

5. **Removal of non-organic matter**

5.1. **Stones:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

5.2. **Contamination:** Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

6. **Application of herbicide**

6.1. **Type of herbicide:** HERBICIDES - The use of herbicides will be permitted subject to the following conditions:

Prior to the use of any pesticides, herbicides or other chemicals on the site the Contractor shall:

(a) Where next to a lake or watercourse; Obtain the written approval to such use together with the times of application.

(b) Produce such approval to the ER at least 48 hrs before application.

(c) Only 'agreed' chemicals are to be used, where foliar applied weedkillers are used, then they must be applied

only when weed growth is young prior to flowering.

(d) All chemicals must be used in accordance with manufacturers instructions, and in accordance with all relevant Health and Safety codes.

(e) Spraying shall only take place in suitable weather conditions.

(f) Care should be taken not to allow 'drift' of chemicals. Any damage caused by such 'drift' shall be rectified at the Contractor's own expense.

(g) All shrub beds, etc., should be hand weeded a minimum of once prior to Substantial Completion.

- The Contractor must only use chemicals specifically approved for the purpose for which it is intended as dictated by the relevant statutory regulations and the conditions of approval for the chemicals and any relevant code of practice.

- The Contractor will consider in every instance whether the use of chemicals is strictly necessary before application.

- Unless stated elsewhere herbicides used to kill perennial weed growth shall be appropriate foliar applied, non-residual, translocated herbicides.

7. **Arisings:** Remove subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings, and other undesirable matter from site.

Ω End of System

Ss_15_10_30_90

Topsoil filling systems - LANDSCAPING

Systems

Ss_15_10_30_90 Topsoil filling systems - LANDSCAPING

6. **Description:** The Contractor shall be responsible for the supply, planting and satisfactory establishment of all plant material, maintenance of planting up to the issuance of the Certificate(s), making good defects and reinstatement of losses due to natural causes.

All plant material must comply in all respects with the current edition B.S. 3936 Parts 1, 2 and 4.

Any plant material supplied, which does not meet this standard, will be rejected and replaced with suitable plant material with additional costs to the Contractor.

REFER LANDSCAPING SPECIFICATION APPENDIX - A

Ω End of System

Ss_15_10_33_34

Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

Systems

Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

3. System performance: [Ss_15_10_33/220 Functional performance](#); [Ss_15_10_33/210 Design submittals](#); [Ss_15_10_33/230 Health and safety performance](#); [Ss_32_20_30/210 Design of floor damp-proofing systems](#)
4. Approval: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. System manufacturer: Submit proposal for approval
6. Substrate:

Radon Sump and Radon Membrane on compacted sand blinding, [Pr_20_31_04_10 Blinding fine aggregates](#) on Venting hardcore layer [Pr_15_31_26_36 Hardcore](#) Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Damp Proofing: Building Regulations require preventing ingress of ground gases.
 - 7.1. DPM: [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#)
 - 7.2. Accessories: [Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE](#)
8. Gas collection
 - 8.1. Collection membrane: [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#)
 - 8.2. Collection pipework: [Pr_65_52_07_88 Unplasticized polyvinyl chloride \(PVC-U\) solid wall below-ground drainage pipes and fittings](#)
 - 8.3. Depressurization sumps
 - 8.3.1. Type: [Pr_65_52_25_23 Depressurization sumps](#)
9. Venting and outlets
 - 9.1. Pipework: [Pr_65_52_07_88 Unplasticized polyvinyl chloride \(PVC-U\) solid wall below-ground drainage pipes and fittings](#)
 - 9.2. External outlets
 - 9.2.1. Outlets: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
[Pr_65_52_61_23 Discharge and ventilating stack terminations](#)
 - 9.3. Fans: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
10. Execution: [Ss_32_20_30/652 Preparation of substrates for flexible sheet underslab damp-proofing](#) [Ss_15_10_33/610 Laying gas proof membrane](#); [Ss_15_10_33/620 Laying horizontal gas collection membrane](#) [Ss_15_10_33/630 Installing venting hardcore layers](#); [Ss_15_10_33/640 Laying collection pipework](#); [Ss_15_10_33/650 Installing plastics depressurization sumps](#); [Ss_15_10_33/670 Applying vertical gas venting membranes](#); [Ss_15_10_33/645 Installing ventilating pipework](#); [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#); [Ss_32_20_30/676 Forming junctions of membrane damp-proofing with dpcs](#); [Ss_32_20_30/260 Condition on completion of flexible sheet damp-proofing](#)
11. System completion: [Ss_15_10_33/820 Documentation for ground gas venting systems](#); [Ss_15_10_33/810 Inspection of ground gas collection and venting system \(16\)](#); [Ss_32_20_30/810 Inspection of damp-proof coatings and membranes](#)

System performance

Ss_15_10_33/210 Design submittals

6. Detailed design
 - 6.1. Requirement: Main Contractor is to complete the design of the system in accordance with Building Regulations and submit to Employers Representative for approval prior to installation.
 - 6.2. Purpose: To demonstrate compliance with performance requirements in accordance with Specification & Building Regulations
 - 6.3. Submittals:
 - Typical plan and section drawings at suitable scales.
 - Drawings, schedules, technical information and manufacturer's literature.
 - Details of Builder's Work.
 - 6.4. Timing: All information is to be submitted to the Employers representative for approval before ordering or commencing installation.

Ss_15_10_33/220 Functional performance

5. Gases to be collected and vented: Radon.

6. Performance criteria: *To seal the building to gas penetration from below, and to collect and ventilate gas to atmosphere currently certified as suitable for their purpose and exposure situation.*

Ss_15_10_33/230 Health and safety performance

26. Gas levels
- 26.1. Measurement: Throughout the site up to 5 m above ground level.
- 26.2. Safe levels (maximum): Carbon dioxide: 1.5% by air volume;
Methane: 1% by air volume;
Radon: 52 Bq/m³;
and Radon: 200 Bq/m³.

Ss_32_20_30/210 Design of floor damp-proofing systems

4. Design: Complete the design of the above floor damp-proofing system.
5. Standard: In accordance with current standards and Building Regulations.
CP 102:1973, BS 8102:1990 and BS 8215:1991.
6. Proposals: Submit drawings, technical information, and manufacturers' literature.

Ss_32_20_30/260 Condition on completion of flexible sheet damp-proofing

29. Appearance: Neat, smooth and fully supported, dressed well into abutments and around intrusions.
30. Condition: Undamaged.
31. Required condition: Impervious to passage of water not under pressure.

Products

Pr_15_31_26_36 Hardcore

- General requirements: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
- Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_20_31_04_10 Blinding fine aggregates

- Description: Sand Blinding
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
- Standard: To [EN 12620](#). To [EN 13242](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER

Shared by: [Ss_20_05_15_72 Reinforced concrete raft foundation systems](#) and [Ss_35_10_25_35 Ground bearing external stair systems](#)

- Manufacturer: Submit proposals
- Product reference: Submit proposals
- Purpose: Radon, Air and Moisture membrane
Damp proof membrane and Gas retardance.
- Standard: To [BS EN 13967](#), type A.
- Performance characteristics
 - Tensile strength (minimum): Machine Direction - 600
Cross Direction - 740
 - Tear resistance: Machine Direction - 475 Minimum
Cross Direction - 425 Minimum
 - Elongation to break: <19%
 - Resistant to underground gases: Radon.
[BS EN 13967](#), type A sheet.
 - Water vapour resistance (minimum): not less than 1000 MN·s/g.
 - Anti-static properties: Required.
- Form: Reinforced.
- Physical properties
 - Weight (minimum): +400 g/m².
 - Dimensions

- Thickness (minimum): 4mm
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: Before commencement of installation.
- Execution: [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#)

Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#) and [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

- Description: Double-sided adhesive tape for sealing lapped joints in DPC's, Radon Barriers, underlays, membranes and sheet waterproofing
- Manufacturer: Submit proposals .
- Bond: Double-sided.
- Core: Butyl rubber to suit application.
- Special requirements: Gas proof.
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: Before commencement of installation.

Pr_65_52_07_88 Unplasticized polyvinyl chloride (PVC-U) solid wall below-ground drainage pipes and fittings

Shared by: [Ss_20_05_15_72 Reinforced concrete raft foundation systems](#)

4. Manufacturer: Submit for approval.
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Standard: To [BS EN 13476-1](#) and [BS EN 13476-2](#). To [BS EN 1852-1](#).
6. Properties
 - 6.1. Form: Solid pipe.
 - 6.2. Sizes (nominal): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Jointing type: Strictly in accordance with Manufacturers details and specification.
8. Integral accessories: Adaptors. Bends. Blank ends. Branch junctions. Couplings. End caps. Junctions. Sealing rings.
9. Verification
 - 9.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 9.2. Timing: Before placement of orders.
Before commencement of installation.
10. Execution: [Pr_65_52_07/640 Jointing below ground drainage pipes of different materials or sizes using clamped flexible couplings](#)

Pr_65_52_25_23 Depressurization sumps

2. Manufacturer: Submit proposals .
3. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Material: Polyethylene.
5. Shape: Manufacturer's standard . Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
6. Size: Manufacturer's standard . Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
7. Sump height (nominal): Manufacturer's standard . Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
8. Inlets and outlets
 - 8.1. Number to be supplied: One outlet and two inlets.
 - 8.2. Diameter: DN 110, Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 8.3. Angle: 90°.

Pr_65_52_61_23 Discharge and ventilating stack terminations

5. Description: Ground level Termination to radon pipework.
6. Manufacturer: Submit proposals.
Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
7. Arrangement: Radon sump cap link which seals the sub-floor network at an appropriate external location, facilitating a gas tight connection with a standard 110 mm PVC-U pipe.
8. Material: Metal cover

Execution

Pr_65_52_07/640 Jointing below ground drainage pipes of different materials or sizes using clamped flexible couplings

3. Ends of pipes to be joined: *Cut cleanly and square*. Strictly in accordance with manufacturers specification and detail.
4. Outer surfaces of pipes to be joined: *Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines*. Strictly in accordance with manufacturers specification and detail.
5. Clamping bands: *Tighten carefully to make gastight and watertight seals*. Strictly in accordance with manufacturers specification and detail.

Ss_15_10_33/610 Laying gas proof membrane

2. Laying: Minimize joints.
3. Fitting: Cut neatly around pile caps, other obstructions and service penetrations.
4. Joints
 - 4.1. Overlap width (minimum): *150 mm* Strictly in accordance with manufacturers specification and detail.
 - 4.2. Treatment: Sealed at all laps, perimeters and penetrations.
5. Testing: [Ss_15_10_33/810 Inspection of ground gas collection and venting system \(16\)](#)

Ss_15_10_33/620 Laying horizontal gas collection membrane

3. Fitting: Cut neatly around pile caps, other obstructions and service penetrations.
4. Joints: Strictly in accordance with manufacturers specification and detail. [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#)
5. Perimeters: Strictly in accordance with manufacturers specification and detail.
6. Penetrations: Strictly in accordance with manufacturers specification and detail. [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#)
7. Trafficking: Prevent.

Ss_15_10_33/630 Installing venting hardcore layers

2. Filling
 - 2.1. Layer depth: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 2.2. Compaction: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_15_10_33/640 Laying collection pipework

4. Position: Lay in top layer of venting hardcore and surround with non-compacted granular material.
Strictly in accordance with manufacturers specification and detail.
5. Connections: Strictly in accordance with manufacturers specification and detail.

Ss_15_10_33/645 Installing ventilating pipework

9. Position: Lay in top layer of venting hardcore and surround with non-compacted granular material.
Strictly in accordance with manufacturers specification and detail.
10. Connections: Socket jointed.

Ss_15_10_33/650 Installing plastics depressurization sumps

3. Position: Centrally below ground floor slab.

Each sump is to be positioned no further than a maximum of 15 m from farthest point of area from which gas is being collected.

Lay in top layer of venting hardcore and surround with non-compacted granular material.
Strictly in accordance with manufacturers specification and detail.

4. Area served (maximum): 250 m².
5. Base and fill thickness: 200mm

Ss_15_10_33/670 Applying vertical gas venting membranes

4. Application: Outside external waterproofing membranes.
5. Condition of adjoining surfaces: Clean and dry.
6. Joints: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Ss_32_20_30/652 Preparation of substrates for flexible sheet underslab damp-proofing

3. Hardcore beds
 - 3.1. Requirement: Blinded to provide smooth consolidated bed, free from sharp protrusions.
 - 3.2. Thickness of blinding: 50 mm (minimum).

Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing

2. Standard: Gas-Resistant Membrane must be installed and fixed in accordance with the Certificate holder's instructions, the relevant clauses of CP 102, BS 8000-0 : 2014 and BS 8000-4 : 1989
3. Installation in accordance with third-party certification: As product Agrément certificate for proposed application.
4. Air and surface temperatures: Do not apply sheets if below minimum ambient or surface temperature recommended by manufacturer.
5. Joints
 - 5.1. Surfaces to be jointed: Clean and dry beyond full width of joint.
 - 5.2. Laps (minimum): End and side, 150 mm.
 - 5.3. Jointing: Double sided jointing tape between lapped sheets; edge of top sheet sealed with gas retardant single sided tape.

Ss_32_20_30/676 Forming junctions of membrane damp-proofing with dpcs

3. Dpcs: Clean, with sufficient projection from inside face of walling to dress down onto slab and allow 150 mm (minimum) horizontal lap joint with membrane.
4. Membranes: Form 150 mm (minimum) lap with dpc.
5. Surfaces to be jointed: Clean and dry beyond full width of joint.
6. Jointing: Double sided jointing tape between lapped sheets; edge of top sheet sealed with gas retardant single sided tape.

System completion

Ss_15_10_33/810 Inspection of ground gas collection and venting system (16)

2. Inspection
 - 2.1. Notice (minimum): Four days.
 - 2.2. Purpose: To demonstrate compliance with drawings and specification. Report any defects immediately
 - 2.3. Timing: Before casting floor slabs.
 - 2.4. Timing: Four days.
3. Test: Contractor will be required to carry out a Radon Barrier Smoke Test on completion of the Radon Membrane installation in order to check the integrity of the Radon Barrier.
 - 3.1. Smoke Test: Contractor will be required to carry out a Radon Barrier Smoke Test on completion of the Radon Membrane installation in order to check the integrity of the Radon Barrier and as a method of ensuring that the Radon membrane is free of holes.

Smoke shall be pumped using colour dye pressurised system through the Radon Sump network while the surface of the membrane is observed for dye percolating through any damaged / unsealed areas / minute holes where the dye/smoke is clearly visible.

During the smoke test, any holes detected are to be immediately repaired.
 - 3.2. Timing: Test is to be carried out prior to the pouring of the sub floor on completion of the Radon Membrane Installation.
 - 3.3. Test Result: Submit test results and details of any remediation / repairs carried out. report shall include but is not limited to:

Name and contact details of specialist testing contractor and name of test engineer responsible
Client name and contact details
Site name and address

Employers Requirements, Architectural & Landscaping Specification

Date and test start and finish times
Observed weather conditions and measured wind speed
Radon barrier installer, position of radon barrier in ground floor construction, jointing method and approximate total area
Number of radon sumps installed
Sketch of radon barrier layout indicating different barrier test areas
For each test area;
Approximate area in m2
Barrier differential pressure achieved
Sketch indicating location of smoke connection points, test smoke egress points, detected leakage areas and remedial works/repairs
Name and contact details of person carrying out repairs/remedial sealing
Name and contact details of client representative/witness to the test

Ss_15_10_33/820 Documentation for ground gas venting systems

3. Operation and maintenance instructions: Submit.
4. Record drawings: Submit.
5. Number of copies: Two.

Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification

Shared by: Pr_30_59_94_26 Eaves fascia grilles, Pr_65_52_24_24 Drainage channels with gratings, Pr_30_59_36_01 Access panels, Pr_65_50_35_06 Aluminium eaves gutters, Pr_35_90_28_72 Roof membrane perimeter trims, Pr_15_31_04_15 Concrete surface retarders, Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC, Pr_30_59_98_15 Composite window units, Pr_25_57_21_27 Ethylene propylene (EP) damp-proof courses and cavity trays, Pr_35_90_43_87 Wood architraves, Pr_40_20_96_63 Pedestal washbasins, Pr_40_20_06_79 Shower enclosures, Pr_80_77_76_53 Mineral wool duct slab insulation - ATTIC TANK, Pr_35_90_87_27 Expanded polyethylene (PE) foam strips, Pr_25_71_52_25 Fibre-reinforced cement boards, Pr_25_71_97_87 Timber floorboards - FIRST FLOOR, Pr_25_71_97_97 Wood-wool boards, Pr_25_71_52_33 Fire-resistant gypsum plasterboards, Pr_30_36_59_25 Door lever handle sets, Pr_25_71_44_53 Mineral fibre joint fillers, Pr_25_71_52_25 Fibre-reinforced cement boards, Pr_25_71_52_15 Compressed mineral wool fire protection boards, Pr_25_71_97_50 Plywood for internal use, Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL, Pr_25_30_36_84 Stainless steel handrails, Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering, Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE DOOR, Pr_40_20_06_84 Shower trays, Pr_25_57_10_94 Vapour permeable sheets, Pr_20_76_88_81 Softwood rafters- Joists-Treated, 45-45-95/450 Marine plywood - 18mm, Ss_30_40_95_55 Natural slate roofing systems, Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS, Pr_30_59_29_64 Plastics rafter ventilator trays, Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor, Pr_30_31_68_42 Intumescent putties, Pr_25_71_52_84 Standard gypsum plasterboards, Pr_25_57_06_53 Mineral wool insulation, Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE, Ss_25_38_20_20 Door hardware systems - EXTERNAL DOOR IRONMONGERY, Ss_40_15_75_79 Shower cubicle systems, Pr_30_36_59_64 Pull handles, Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR, Pr_25_71_52_28 Fibre-reinforced cement weatherboards, Pr_25_71_63_66 Polyisocyanurate (PIR) foam boards - PARTIAL FILL INSULATION, Ss_25_60_30_45 Linear gap fire stopping systems - FIRE BARRIER, Pr_25_57_06_30 Flexible glass wool mat insulation - PARTY WALL, Pr_40_20_93_93 WC pan connectors, Pr_65_52_24_31 Floor gullies, Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY, Ss_40_90_60_95 Waterborne paint systems - GENERALLY, Pr_70_55_96_97 Washbasin wastes, Pr_25_71_97_07 Bitumen-impregnated softboards - Perimeter Protection Board, Pr_40_20_93_97 WC suites, Pr_30_36_59_15 Controlled door closers, Ss_40_15_75_80 Sink systems, Pr_35_90_87_09 Butyl rubber sealant tapes, Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS, Pr_30_59_24_16 Composite doorsets - EXTERNAL DOORS, Pr_40_20_96_96 Wall-hung washbasins, Pr_25_57_21_63 Polyethylene (PE) damp-proof courses and cavity trays, Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH, Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS, Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes, Pr_25_57_65_60 Plastics sheets - Screed / Insulation Separation, Pr_20_31_04_44 Jointing fine aggregates, Pr_20_31_04_62 Permeable laying course aggregates, Pr_30_59_29_82 Strip ventilators, Pr_30_59_29_71 Roof ridge ventilator tiles, Pr_35_90_87_42 Isolating tapes, Pr_25_80_80_96 Wired mineral wool batt flexible cavity barriers, Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING, Pr_35_90_28_92 Unplasticized polyvinyl chloride (PVC-U) finishing trims, Pr_25_71_52_52 Moisture-resistant gypsum plasterboards, Pr_35_90_22_66 Preformed tiling strip joints, Pr_25_57_51_33 Glass fibre fleeces, Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS, Pr_25_30_36_96 Wood handrails, Pr_40_20_93_95 WC seats and covers, Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC, Pr_20_85_09_01 Above-ground drainage pipe brackets, Ss_40_15_90_97 WC systems, Pr_65_52_63_04 Aluminium rainwater pipes and fittings, Pr_35_31_67_59 Organic solvent-borne preservatives, Ss_30_30_72_21 Daylight pipe systems, Pr_25_57_21_64 Polypropylene (PP) damp-proof courses and cavity trays, Pr_25_57_21_68 Preformed damp-proof courses, Pr_35_31_05_05 Asphalt concrete (AC) surface courses, Pr_25_57_21_66 Preformed cavity trays, Pr_25_57_21_48 Lead damp-proof courses and cavity trays, Pr_20_31_02_12 Cementitious adhesives, Pr_25_57_21_48 Lead damp-proof courses and cavity trays, Pr_40_20_60_96 Wet room floor formers, Ss_30_40_30_80 Single layer sheet warm roof covering systems, Pr_35_57_71_32 Foam-backed polyvinyl chloride (PVC) sheets, Pr_25_71_97_50 Marine plywood, Pr_25_71_97_58 Oriented strand boards, Pr_25_80_81_29 Flexible intumescent gap seals, Pr_30_59_97_94 Vision panels, Ss_25_60_30_55 Multiple services penetrations fire stopping systems, Ss_25_60_30_62 Pipe collar fire stopping systems, Pr_35_90_30_46 Lead flashings, Ss_30_14_90_62 Permeable small unit paving systems, Pr_35_90_30_11 Carbon steel flashings, Pr_20_85_07_11 Carbon steel fencing and barrier rails, Ss_40_15_75_94 Washbasin systems, Pr_40_20_60_78 Shower enclosure packages, Pr_70_55_96_83 Shower tray wastes, Pr_40_20_87_75 Shower fittings package, Pr_25_57_06_53 Mineral wool insulation - PARTITION WALLS, Pr_35_90_93_13 Clay tile ridge fittings, Pr_25_80_80_79 Sleeved mineral wool cavity barriers, Ss_30_40_95_30 Fibre cement slate roofing systems,

Mayo County Council

Ss_15_10_33_34
Ground gas collection and venting systems - DPM / RADON BARRIER &
SUMP

Pr_25_57_21_68 Preformed damp-proof courses , Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS , Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7 , Pr_30_59_24_97 Internal Wood doorsets , Pr_25_57_06/310 Insulation products generally , Pr_30_31_76_66 Polyurethane (PUR) expanding foam fillers , Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS , Pr_30_31_76_77 Silicone construction joint sealants , Pr_30_36_59_95 Window latch and lock operating handles , Pr_30_36_59_98 Window restrictor stays , Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY , Ss_25_38_20_33 Gate hardware systems , Pr_30_31_76_02 Acrylic construction joint sealants , Pr_30_31_76_41 Intumescent foam fillers , Pr_20_93_52_01 Aggregate concrete blocks - THERMAL CONCRETE BLOCK , Pr_25_80_81_51 Mineral wool fire stopping , Pr_35_90_50_64 Insulated Plastics cavity closers , 45-25-20/337 Plastics damp proof courses and/ or cavity trays - DPC / CAVITY TRAY , Ss_25_45_88_40 Internal wall tiling systems , Pr_20_31_04_46 Laying course fine aggregates , Pr_35_31_67_98 Water-based organic preservatives , Pr_25_30_85_36 Hardwood loft ladders , Pr_30_59_36_01 Access panels , Pr_40_30_78_45 Kitchen storage units , Ss_32_46_65_55 Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER , Ss_40_15_35_35 General FF&E systems , Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS , Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT , Ss_30_25_10_35 Gypsum board suspended ceiling systems , Ss_30_30_72_72 Rooflight systems , Ss_30_14_90_85 Small unit unbound paving systems - PAVING , Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING , Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL and Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3

4. Requirement: Provide Product Data & Certification as required and outlined in Employers Requirements Section **PM 40 Design and approvals information**

All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.

Product Data & Certification of compliance with the standard shall be provided when requested by the Employers representative, Consultant Engineer or Assigned Certifier.

Samples of products (or parts of products) may be requested to assist with verification of the system, or for reference throughout the project.

Note: Submission of proposed product brochures / information is not sufficient for approval purposes. - **Submission must explicitly indicate and describe the compliance of the proposed product with all project spec and Building Regs requirements.**

5. Submittals

- 5.1. Format: *Electronic Declaration of Performance.*

As required and outlined in Employers Requirements Section **PM 40 Design and approvals information**

- 5.2. Timing: *Prior to ordering the product/ system.*

Approval must be confirmed prior to ordering any product / system /material.

Ss_32_20_30/810 Inspection of damp-proof coatings and membranes

3. Give notice: Before covering any part of damp-proof coatings or membranes with overlying construction.

Ω End of System

Ss_20_05_15_72

Reinforced concrete raft foundation systems

Systems

Ss_20_05_15_72 Reinforced concrete raft foundation systems

3. Description: Ground Floor Slab
4. System performance: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Blinding: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Underlay
 - 6.1. Underlay material: [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#)
7. Reinforcement
 - 7.1. Type of reinforcement: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Concrete: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Cast-in accessories: [Pr_65_52_07_88 Unplasticized polyvinyl chloride \(PVC-U\) solid wall below-ground drainage pipes and fittings](#)
10. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Products

See [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Pr_65_52_07_88 Unplasticized polyvinyl chloride \(PVC-U\) solid wall below-ground drainage pipes and fittings](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Execution

See [Pr_65_52_07/640 Jointing below ground drainage pipes of different materials or sizes using clamped flexible couplings](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_10_30_35

Gypsum board partition systems - TIMBER STUD PARTITION

Systems

Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION

2. Description: INTERNAL PARTITIONS
3. System performance: [Ss_25_10_30/207 Framed partition system design requirements](#); [Ss_25_10_30/210 Structural performance](#); [Ss_25_10_30/230 Fire performance to BS EN 13501](#); [Ss_25_10_30/240 Acoustic performance](#); [Ss_25_10_30/290 Compliance with performance requirements](#)
4. Framing: [Pr_20_85_32_88 Timber Sub frames](#)
5. Insulation: [Pr_25_57_06_53 Mineral wool insulation - PARTITION WALLS](#)
6. Resilient layer: [Pr_35_90_87_27 Expanded polyethylene \(PE\) foam strips](#)
7. Fire separation
 - 7.1. Cavity fire barriers: Where a partition is part of a fire-rated wall, and continues into roof/ ceiling voids or floor voids, cavity fire barriers shall be provided as a means of maintaining fire integrity between separate zones to maintain the integrity of fire compartments.
 - 7.2. Fire-stopping: Refer to fire stopping system requirements in accordance with TGD B 2017
Seal gaps at junctions of partitions with perimeter abutments, cavity barriers, service penetrations, etc.
Prevent penetration of smoke and flame and ensure sealing around penetrating services & linear or gap sealing.
8. Linings: [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#); [Pr_25_71_52_52 Moisture-resistant gypsum plasterboards](#); [Pr_25_71_52_84 Standard gypsum plasterboards](#)
[Pr_25_71_97_50 Plywood for internal use](#)
9. Fasteners: [Pr_20_29_76_65 Plasterboard screws](#)
10. Joint treatment: [Pr_35_90_87_60 Paper jointing tapes](#)
11. Finish: [Pr_35_31_64_35 Gypsum plasters](#); [Pr_35_31_66_63 Plasterboard primers](#); [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#)
12. System accessories: [Pr_30_59_36_01 Access panels](#); [Pr_30_31_76_02 Acrylic construction joint sealants](#); [Pr_35_90_07_24 Dry lining beads](#); [Pr_30_31_76_41 Intumescent foam fillers](#); [Pr_30_31_76_02 Acrylic construction joint sealants](#); [Pr_35_90_87_52 Metal strip reinforced paper tapes](#); [Pr_20_76_88_87 Timber partition battens](#)
13. Execution: [Ss_25_10_30/610 Installing framed partitions generally](#); [Ss_25_10_30/620 Installing partitions onto new concrete and screeds](#); [Ss_25_10_30/630 Installing framing for partitions](#); [Ss_25_10_30/640 Framing to staggered stud partitions](#); [Ss_25_10_30/650 Installing deflection heads](#); [Ss_25_10_30/690 Sealing gaps and air paths around partitions](#)

System performance

Ss_25_10_30/207 Framed partition system design requirements

3. Standard: To [BS 8000-0](#) and [BS 8212](#).
4. Materials, components and details: Use only the same as those tested and identified in assessment reports.

Ss_25_10_30/210 Structural performance

3. Strength: Where stud partitions are designated as structural they are to be constructed and installed strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_25_10_30/230 Fire performance to BS EN 13501

2. Fire resistance: Strictly in accordance with FSC specification and drawings. Refer Architects drawings. Suitable for the purpose, location and detail.
3. Reaction to fire classification: Strictly in accordance with FSC specification and drawings.
4. Fire Performance Partitions Identification: Install fire performance labels to all new fire rated partitions and existing fire performance partitions where identifiable and verified by the appropriate person.

Ss_25_10_30/240 Acoustic performance

2. Sound attenuation
 - 2.1. Standards: Walls - 53 (min) DnT,w dB - Airborne sound insulation.
 - 2.2. Weighted normalized flanking level difference Dnf, w (minimum): Appropriate to location and to comply with Technical Guidance Document E
3. Sound absorption
 - 3.1. Standards: Measured in accordance with [BS EN ISO 354](#) and rated in accordance with [BS EN ISO 11654](#).
 - 3.2. Sound absorption class: Appropriate to location and to comply with Technical Guidance Document E.
4. Other acoustic requirements

- 4.1. Weighted sound reduction index, R_w (minimum): IS EN ISO 10140-1
- 4.2. Weighted standardized level difference, $D_{nT,w}$ (minimum): IS EN ISO 10140-1

Ss_25_10_30/290 Compliance with performance requirements

- 2. Requirement: Proof of compliance with specified performance to be provided by contractor.
- 3. General requirements: Include details of performance related to the particular elements of construction.
- 4. Method
 - 4.1. Previous test results: For structural performance.
For acoustic performance.
- 5. Testing authority: Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
- 6. Submittals
 - 6.1. Format: Test results and certification.
Declaration of Performance.
 - 6.2. Timing: Before commencing installation.

Products

Ac_05_50_91/340 Timber sourcing

Shared by: [Pr_35_90_43_98 Wood skirtings](#) , [Pr_35_90_43_87 Wood architraves](#) , [Pr_25_71_97_87 Timber floorboards - FIRST FLOOR](#) , [Pr_20_76_88_83 Softwood Sections](#) , [45-45-95/450 Marine plywood - 18mm](#) , [Pr_20_76_88_84 Softwood weatherboarding battens](#) , [Pr_35_90_43_95 Wood mounting battens](#) , [Pr_35_90_31_37 Hardwood stair trims](#) , [Pr_25_71_97_58 Oriented strand boards](#) , [Pr_20_76_88_83 Softwood sections - Fascia Board](#) and [Pr_35_90_07_89 Timber fillets](#)

- 2. Timber source
 - 2.1. General requirements: Obtain from well managed forests and/ or plantations.
 - 2.2. Legality and sustainability: Managed in accordance with the laws governing forest management in the producer country or countries and Managed in accordance with international agreements such as the [Convention on International Trade in Endangered Species \(CITES\)](#).
All timber and timber-based products are to be legally harvested and comply with the Forestry Stewardship Council (FSC) certification system or Programme for the endorsement of forest certification schemes (PEFC) if FSC timber is not available. Certification must be confirmed.
Obtained from sources in compliance with Green Public Procurement guidance as well as products with environmental product declarations (EPD).
 - 2.3. Documentation to be submitted: Documentary evidence (which has been or can be independently verified) regarding the provenance of timber supplied.
Documentary evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-derived products.
- 3. Chain of Custody Certification scheme: In accordance with Employer's environmental policy.
- 4. Timing of submissions: Prior to delivery to site.

Pr_20_29_76_65 Plasterboard screws

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) , [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

- 2. Standard: To [EN 14566](#).
- 3. Material: Carbon steel.
- 4. Finish: To IS EN ISO 9227 Class 24;
To IS EN ISO 9227 Class 48;
and To IS EN ISO 9227 Class 96.
- 5. Screw type: Self tapping, THN.
- 6. Head type: Countersunk cross head.
- 7. Length: Manufacturer's standard. Refer to CE Drawings. Strictly in accordance with manufacturers specification and detail.
- 8. Execution: [Pr_20_29_76/620 Fixing with screws](#)

Pr_20_76_88_87 Timber partition battens

- 3. Description: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
- 4. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
- 5. Standard
 - 5.1. Quality: To [IS EN 942](#)
 - 5.2. Class: To [IS EN 942](#), J40 and To [IS EN 942](#), J50

6. Finish: Planed all round.
7. Timber sole plate: Width of partition studding x 38 mm.

Pr_20_85_32_88 Timber Sub frames

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

4. Supplied by: Contractor's choice .
5. Standard: To [BS EN 942](#).
6. Species: Softwood as [BS EN 942](#), National Annex, Table NA1.
7. Quality
 - 7.1. Condition: Free from decay and active insect attack.
 - 7.2. Knot width (maximum): Half the width of the section.
8. Moisture content on delivery: 9–13%.
9. Size: Refer Architectural Details
10. Preservative treatment: [Wood Protection Association](#) Commodity Specification FR1, Type INT 1.

Pr_25_57_06/310 Insulation products generally

Shared by: [Pr_25_57_06_52 Mineral wool flexible insulation](#) , [Pr_25_57_06_53 Mineral wool insulation](#) , [Pr_25_57_06_30 Flexible glass wool mat insulation - PARTY WALL](#) and [Pr_25_80_80_96 Wired mineral wool batt flexible cavity barriers](#)

2. Third-party product certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Environmental Product Declaration (EPD):: EPD Required where available for insulation type in compliance with EN 15804: 2012 standard.
4. U-value: As specified on Architectural detail drawings.
5. Certified effective life (minimum): 30 years.
6. Verification
 - 6.1. Timing: Approval must be received from the ER / relevant Consultant before placement of orders.

Pr_25_57_06_53 Mineral wool insulation - PARTITION WALLS

Shared by: [Ss_25_10_30_70 Rigid sheet partition systems - STRUCTURAL](#)

3. General requirements: [Pr_25_57_06/310 Insulation products generally](#)
4. U-value: 0.04 W/m²·K.
5. Standard: To [BS EN 13162](#).
6. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Form: Batts;
Pads;
and Quilt.
8. Thickness (minimum): 75 mm and 100 mm.
9. Width (nominal): As stud centres.
10. Thermal conductivity (maximum): 0.032 W/m·K. (to BS EN 13162)
11. Fire performance: Euroclass A1.
As per requirements of TGD B
12. Sound insulation rating: In line with performance required by TGD E

Walls - 53 (min) DnT,w dB - Airborne sound insulation

Pr_25_71_52_33 Fire-resistant gypsum plasterboards

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#) , [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

- Manufacturer: Submit proposals .
- Standard: To [IS EN 520](#), type F.
- Thickness (nominal): 15 mm.
- Edge profile: Square.

Employers Requirements, Architectural & Landscaping Specification

- Execution: [Pr_25_71_52/605 Installing gypsum based board](#); [Pr_25_71_52/645 Joints between gypsum based boards](#); [Pr_25_71_52/640 Level of dry lining across joints](#); [Pr_25_71_52/655 Open joints](#); [Pr_25_71_52/660 Repairs to plasterboard](#); [Pr_25_71_52/650 Seamless jointing to gypsum boards](#)
- Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Submittals: Test results, report and certification from an accredited testing facility.
 - Timing: Before placement of orders. Before commencement of installation. To comply with programme.

Pr_25_71_52_52 Moisture-resistant gypsum plasterboards

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

4. Description: Plasterboard Ceiling / Wall in Wet rooms & WC's
5. Manufacturer: Submit proposals .
6. Standard: 12.5 mm board (IS EN 12572): 0.625 MNs/g.
Mean water vapour resistance factor (μ): 10.
7. Thermal conductivity (maximum): 0.19 W/m·K.
8. Core: Moisture resistant.
9. Paper facings: Moisture resistant.
10. Thickness (nominal): 12.5 mm.
11. Edge profile: Tapered.
12. Execution: [Pr_25_71_52/605 Installing gypsum based board](#); [Pr_25_71_52/635 Installing additional supports](#); [Pr_25_71_52/645 Joints between gypsum based boards](#); [Pr_25_71_52/640 Level of dry lining across joints](#); [Pr_25_71_52/655 Open joints](#); [Pr_25_71_52/660 Repairs to plasterboard](#); [Pr_25_71_52/650 Seamless jointing to gypsum boards](#)
13. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 13.1. Submittals: Product information as specified, including for integral accessories.
 - 13.2. Timing: Before placement of orders. Before commencement of installation.

Pr_25_71_52_84 Standard gypsum plasterboards

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) , [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

19. Description: Plasterboard Generally
20. Manufacturer: Submit proposals .
21. Standard: To [BS EN 520](#), type A.
22. Thickness (nominal): 12.5 mm.
23. New clause item 1: 0.19 W/m·K.
24. Edge profile: Square.
25. Execution: [Pr_25_71_52/605 Installing gypsum based board](#); [Pr_25_71_52/645 Joints between gypsum based boards](#); [Pr_25_71_52/650 Seamless jointing to gypsum boards](#); and [Pr_25_71_52/660 Repairs to plasterboard](#).
26. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 26.1. Submittals: Product information as specified, including for integral accessories.
 - 26.2. Timing: Before placement of orders. Before commencement of installation.

Pr_25_71_97_50 Plywood for internal use

6. Description: Plywood for Internal buttress walls
7. General requirements: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
8. Standard: To [BS 1088-1](#) but excluding plywood made of gaboone veneers.
9. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
10. Class: Standard. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
11. Reaction to fire classification: To [BS EN 13501-1](#), class C-s3, d2 or better.
12. Edges: Square.
13. Thickness: Thickness determined by location (25mm, 18mm, 15mm, 12mm). Refer to Architectural details.
14. Preservative treatment: Refer [Ss_40_90_95_65\(4-\)](#) Preservative treatment systems
15. Recycled content:

Employers Requirements, Architectural & Landscaping Specification

16. Execution: [Pr_25_71_97/620](#) Installing wood-based panels; [Pr_25_71_97/630](#) Panel edge supports; [Pr_25_71_97/625](#) Moisture content of supports - First Floor; [Pr_25_71_97/635](#) Treated timber
17. Verification
 - 17.1. Submittals: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification

Pr_30_31_76_02 Acrylic construction joint sealants

Shared by: [Ss_30_25_10_80](#) Soffit lining and beam casing systems - BULKHEADS , [Ss_40_90_60_95](#) Waterborne paint systems - TIMBER JOINERY , [Ss_40_90_60_95](#) Waterborne paint systems - GENERALLY , [Ss_25_25_45_35](#) Gypsum board wall lining systems - ACOUSTIC LINING and [Ss_40_90_60_95](#) Waterborne paint systems - WALLS + CEILINGS

- Standard: To EN ISO 11600.
- Third-party certification: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification
- Sealant type: Mastic.
Water based acrylic.
Water based acrylic intumescent.
- Execution: [Pr_30_31_76/610](#) Suitability of joints for sealant application; [Pr_30_31_76/620](#) Joint preparation for sealant application; [Pr_30_31_76/630](#) Applying joint sealants

Pr_30_31_76_41 Intumescent foam fillers

Shared by: [Ss_30_25_10_80](#) Soffit lining and beam casing systems - BULKHEADS , [Ss_25_30_20_25](#) Doorset systems - INTERNAL TIMBER DOORS , [Ss_25_60_30_62](#) Pipe collar fire stopping systems , [Ss_25_30_95_26](#) External window systems - EXTERNAL ALUCLAD WINDOWS and [Ss_25_25_45_35](#) Gypsum board wall lining systems - ACOUSTIC LINING

7. Manufacturer: Submit proposals
8. Material: Submit proposals
9. Execution: [Pr_30_31_76/610](#) Suitability of joints for sealant application; [Pr_30_31_76/620](#) Joint preparation for sealant application
10. Verification
 - 10.1. Submittals: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification

Pr_30_59_36_01 Access panels

Shared by: [Ss_25_25_45_35](#) Gypsum board wall lining systems - ACOUSTIC LINING

3. Manufacturer: Submit proposals .
4. Fire performance
 - 4.1. Fire resistance: EI 60 to [BS EN 13501-2](#) and To match adjacent construction.
 - 4.2. Reaction to fire classification: To [BS EN 13501-1](#), class A1_{fl} or better.
5. Airtightness: All access hatches shall incorporate efficient vapour seals which limit the transfer of moisture-laden air into the service area / roof space and comply with the air leakage requirement of BS 5250 Clause H.3.2, and meet the requirements of Technical Guidance Document C- Site Preparation and Resistance to Moisture
6. Position: Ceiling mounted and Wall mounted.
7. Size: Refer Architects drawings
8. Frame: Bead for taping and jointing.
9. Panel
 - 9.1. Material: To architects approval
 - 9.2. Integral finish: Painted / Powder coated. To architects approval
10. Latch or lock type: Tamper proof and operated by castellated key.
11. Operation: Concealed steel hinges, downward opening and Swing down.
12. Integral accessories: Acoustic sealing strips to frame and Intumescent sealing strips to frame.
13. Verification
 - 13.1. Submittal: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification

Pr_35_31_64_32 Finish plasters - SKIM FINISH

Shared by: [Ss_32_46_65_55](#) Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER , [Ss_25_25_45_35](#) Gypsum board wall lining systems - ACOUSTIC LINING and [Ss_30_25_10_35](#) Gypsum board suspended ceiling systems

2. Standard:

Final gypsum plaster coating- skim finish.
To [ISEN 13279-1](#).

3. Classification: B1/20/2.

4. Execution: [Pr_35_31_64/715 Finish to plaster](#);
[Pr_35_31_64/620 Preparation for thin coat plaster](#)

Pr_35_31_64_35 Gypsum plasters

4. Standard: To [BS EN 13279-1](#).

Pr_35_31_66_63 Plasterboard primers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

3. Manufacturer: *Submit proposals*.

4. Material: Primer and Sealer.

5. Composition: As recommended by the plasterboard manufacturer to :
provide vapour control
OR
prepare surface for paint finish

Pr_35_90_07_24 Dry lining beads

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

2. Material: Stainless steel.

3. Form: Angle bead. Edging bead. Corner movement bead.

4. To suit plasterboard thickness: 9.5 mm. 12 mm.

5. Finish: Galvanized.

6. Execution: [Pr_35_90_07/650 Installing beads](#)

Pr_35_90_87_27 Expanded polyethylene (PE) foam strips

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

- Description: Expanded polyethylene strong resilient semi-rigid closed cell foam backing strip to studs.
- Manufacturer: Submit proposals.
- Properties
 - Fire resistance: To comply with wall rating and requirements of TGD B
- Weathering test: No disintegration.
- Recovery: Greater than 70%.
- Material: Cross-linked closed cell polyethylene foam.
- Density: 150 kg/m³ (min)
- Compression in joint (minimum): 6mm
- Size
 - Thickness: 13mm
 - Width: to match stud
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: Before placement of orders and commencement of installation.

Pr_35_90_87_52 Metal strip reinforced paper tapes

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

3. Manufacturer: Submit proposals .

4. Width: 70 mm.

Pr_35_90_87_60 Paper jointing tapes

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

- Manufacturer: *Submit proposal*
- Standard: To [BS EN 13963](#), Type 1.
- Width: 75 mm.

Execution

Pr_20_29_76/620 Fixing with screws

Shared by: [Pr_20_29_76_98 Wood screws](#)

6. Finished level of screw heads
 - 6.1. Exposed: Recessed.
 - 6.2. Concealed (holes filled or stopped): Sink minimum 2 mm below surface.

Pr_25_71_52/605 Installing gypsum based board

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

7. General: Use fixing, jointing, sealing and finishing installation methods recommended by board manufacturer.
8. Cutting plasterboard: Neat and accurate. Do not damage core or tear paper facing.
9. Cut edges: Minimize. Position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
10. Fixing boards: Securely, to suitably prepared and accurately levelled backgrounds.
11. Finishing: Neat. Provide flush, smooth, flat surfaces free from bowing and abrupt changes of level.

Pr_25_71_52/635 Installing additional supports

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

4. Support to board edges and perimeters: *At board edges and lining perimeters, as recommended by board manufacturer to suit type and performance of lining.*
5. Fixtures and fittings: *For all fixtures, fittings and service outlets, mark framing positions clearly and accurately on linings. Accurately position all additional framing and fix securely.*

Pr_25_71_52/640 Level of dry lining across joints

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

3. Sudden irregularities: Not permitted.
4. Joint deviations
 - 4.1. General: Measure from faces of adjacent boards using methods and straight edges (450 mm long with feet/ pads) to BS 8212 British Standards link.
 - 4.2. Tapered edge joints: 3 mm maximum permissible deviation across joints when measured with feet resting on boards.
 - 4.3. External angles: 4 mm maximum permissible deviation for both faces.
 - 4.4. Internal angles: 5 mm maximum permissible deviation for both faces.

Pr_25_71_52/645 Joints between gypsum based boards

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

4. Surfaces exposed to view: Horizontal joints not permitted. Seek instructions from ER if partition height exceeds maximum available board dimensions.
5. Multilayer boarding: Stagger joints between layers by at least 600 mm.
6. Board edges: Support with additional framing. In multi-layer boarding, support edges of outer layer.
7. Joints: Centre on studs. Stagger joints on opposite sides of studs. In multi-layer boarding, stagger joints between layers.
8. Edge profile
 - 8.1. Tapered: Butt.
 - 8.2. Square: 3 mm for gypsum plasterboard and 5 mm for fibre reinforced gypsum board.
 - 8.3. Cut or unbound edges: 3 mm gap.

9. Finish: Tape and fill.

Pr_25_71_52/650 Seamless jointing to gypsum boards

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

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

Pr_25_71_52/655 Open joints

Shared by: [Pr_25_71_52_25 Fibre-reinforced cement boards](#) and [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

4. Perimeter joints, expansion joints and joints between boards: *Free from plaster, mortar droppings and other debris.*
5. Temporary wedges and packings: *Remove on completion of board fixing.*

Pr_25_71_52/660 Repairs to plasterboard

Shared by: [Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards](#)

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

Pr_25_71_97/620 Installing wood-based panels

Shared by: [45-45-95/450 Marine plywood - 18mm](#), [Pr_25_71_97_50 Marine plywood](#) and [Pr_25_71_97_58 Oriented strand boards](#)

7. Number of layers: Two layers 19 mm board, screwed and glued together with staggered joints to provide 30 mm overall thickness.
8. Setting out of long edges: Run across supports.
9. Gap between adjacent boards: 1–2 mm.
10. Fixing centres (maximum)
 - 10.1. General: Boards and sheets to be fixed securely to each support without distortion and true to line and level. Fixings to be evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints
 - 10.2. Around board edges: 100 mm.
 - 10.3. Along intermediate supports: 150 mm.
11. Fixing distance from edges (minimum): 25 mm.
12. Joints: Butted.

Pr_25_71_97/625 Moisture content of supports - First Floor

Shared by: [Pr_25_71_97_87 Timber floorboards - FIRST FLOOR](#) and [Pr_25_71_97_58 Oriented strand boards](#)

2. Moisture content
 - 2.1. Final: 12–14%
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 2.2. At time of fixing boards: 18% maximum
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Test results: Submit record of tests and results.

Pr_25_71_97/630 Panel edge supports

Shared by: [45-45-95/450 Marine plywood - 18mm](#) , [Pr_25_71_97_50 Marine plywood](#) and [Pr_25_71_97_58 Oriented strand boards](#)

3. Provision: In accordance with board manufacturer's recommendations.
4. Tongued-and-grooved jointed rigid board areas: To unsupported perimeter edges.
5. Butt-jointed rigid board areas: To unsupported edges.
6. Size (minimum): 50 mm wide and of adequate thickness.
7. Quality: As for adjacent timber supports.
8. Treatment: As for adjacent timber supports.

Pr_25_71_97/635 Treated timber

Shared by: [45-45-95/450 Marine plywood - 18mm](#) , [45-45-95/340 Softwood fence boards](#) and [Pr_25_71_97_58 Oriented strand boards](#)

5. Surfaces exposed by minor cutting and drilling: Treat with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

Pr_30_31_76/610 Suitability of joints for sealant application

Shared by: [Pr_30_31_68_42 Intumescent putties](#) , [Pr_30_31_76_66 Polyurethane \(PUR\) expanding foam fillers](#) and [Pr_30_31_76_77 Silicone construction joint sealants](#)

3. Joint dimensions: Within limits specified for the sealant.
4. Substrate quality: Surfaces regular, undamaged and stable.
5. Joints not fit to receive sealant: Submit proposals for rectification.

Pr_30_31_76/620 Joint preparation for sealant application

Shared by: [Pr_30_31_68_42 Intumescent putties](#) , [Pr_30_31_76_66 Polyurethane \(PUR\) expanding foam fillers](#) and [Pr_30_31_76_77 Silicone construction joint sealants](#)

3. Surfaces to which sealant must adhere: Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
4. Cleaning: Use materials and methods recommended by sealant manufacturer.
5. Vulnerable surfaces adjacent to joints: Mask. Do not stain or smear with primer or sealant.

Pr_30_31_76/630 Applying joint sealants

2. Substrate: As recommended by sealant manufacturer.
Dry and unaffected by frost, ice or snow.
 3. Environmental conditions: Do not dry or raise temperature of joints by heating.
 4. Sealant application: Completely and neatly fill joints. Provide firm adhesion to substrates.
- Protection: Do not contaminate or damage finished joints.

Pr_35_31_64/620 Preparation for thin coat plaster

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

Pr_35_31_64/715 Finish to plaster

4. Finish: Smooth.
5. Appearance
 - 5.1. Smooth finish
 - 5.1.1. Generally: A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. No crazing.
 - 5.1.2. Standard of finish: To [BS EN 13914-2](#), level 3.
 - 5.2. Wood float finish: An even overall texture. Finish with a dry wood float as soon as wet sheen has disappeared.
 - 5.3. Textured and patterned finishes: Consistent and even. Carry out work on each surface as one continuous operation.

Pr_35_90_07/650 Installing beads

Shared by: [Pr_35_90_07_63 Plaster beads](#) and [Pr_35_90_07_72 Render beads](#)

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

Ss_25_10_30/610 Installing framed partitions generally

- **Standard:** To BS 8000-0 and BS 8212.
- **Deviations and tolerances**
 - **Vertical deviation (maximum):** ± 5 mm measured above or below the setting out position, in accordance with BS 8212 clause 3.3.2.
 - **Horizontal deviation (maximum):** ± 3 mm measured at the setting out level (ceiling or floor), in accordance with BS 8212 clause 3.3.2.
 - **Finished surfaces:** Maximum deviation band of 10 mm in accordance with BS 8212 clause 3.3.3.
- **Coordination:** *Check designated routes for service runs and outlets, lighting positions and other services in floors, walls and ceilings, etc. Do not obstruct floor or wall outlets and access panels. Do not obstruct lighting positions, sprinkler heads, smoke detectors, etc.*
- **General environmental conditions:** *Before, during and after installation, maintain consistent temperature and humidity levels.*
- **Humidity levels:** *9–13% for timber sole plates, battens and inserts for plasterboard panel partitions.*

Ss_25_10_30/620 Installing partitions onto new concrete and screeds

4. **Dpcs**
 - 4.1. **Laps (minimum):** 150 mm and bonded
 - 4.2. **Abutments:** Turn up a minimum of 150 mm where partition frames abut perimeter walls.
5. **Wall linings:** *Partition lining to be kept short of floor by 2mm (min.) where new concrete slabs or floor screeds are installed. Gap to be filled with an appropriate jointing material to maintain acoustic and fire performance prior to installation of second fix joinery or edge trims.*

Ss_25_10_30/630 Installing framing for partitions

5. **Partition height:** Room height.
6. **Head condition:** Concrete slab;
Plastered soffits;
and Timber joists.
7. **Layout:** Single row studs and Staggered studs.
8. **Stud centres (nominal):** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. **Setting out**
 - 9.1. **General:** Accurately align and plumb.
 - 9.2. **Frame and stud positions:** Equal centres, to suit linings. Maintain sequence across openings.
 - 9.3. **Additional supports:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
10. **Fixing perimeter framing to supporting structures:** Fix at maximum 600 mm centres.
11. **Head deflection allowance (maximum):** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
12. **Openings**
 - 12.1. **General:** Form accurately.
 - 12.2. **Openings for doorsets:** Provide sleeved or boxed metal studs and/ or suitable timber framing to achieve strength grade requirements for framing assembly and adequately support weight of door.
 - 12.3. **Services penetrations:** Allow for associated fire stopping.

Ss_25_10_30/640 Framing to staggered stud partitions

3. **Horizontal members :** Fix noggins, bearers and boards between alternate studs and not touching adjacent offset studs.

Ss_25_10_30/650 Installing deflection heads

8. **Deflection head detail:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. **Head movement allowance:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
10. **Fixing:** Do not fix boards to head framing channels. Do not fix head framing directly to soffit linings or metal decking.

Ss_25_10_30/690 Sealing gaps and air paths around partitions

3. Location of sealant: To perimeter abutments and around openings. At board-to-board and board to frame junctions.
4. Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.
After sealing, fill gaps greater than 6 mm between floor and underside of plasterboard with jointing compound.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_10_30_70

Rigid sheet partition systems - STRUCTURAL

Systems

Ss_25_10_30_70 Rigid sheet partition systems - STRUCTURAL

4. Description: Internal Timber Stud Partitions - Butress Walls
5. System performance: Fire performance to IS EN 13501;
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Framing: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Insulation: [Pr_25_57_06_53 Mineral wool insulation - PARTITION WALLS](#)
8. Cavity fire barriers: As required - refer FSC drawings and Specification.
9. Linings: [Pr_25_71_97_86 Structural veneer plywoods](#)
10. Fasteners: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
11. Joint treatment: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Products

See [Pr_25_57_06/310 Insulation products generally](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_57_06_53 Mineral wool insulation - PARTITION WALLS](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_25_71_97_86 Structural veneer plywoods

4. General requirements: Structural veneer plywood to buttress walls- Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Standards: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Third-party certification: Provide Product Data & Certification as required and Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Sheet size: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Nominal thickness: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_13_50_51

Masonry wall leaf systems - EXTERNAL CAVITY WALL

Systems

Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL

3. Description: External Masonry Cavity Walls
4. System performance: [Ss_25_13_50/200 Accuracy of brick and block walling](#); [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#)

Mayo County Council

Ss_25_10_30_70

Rigid sheet partition systems - STRUCTURAL

5. Masonry units: [Pr_20_93_52_01 Aggregate concrete blocks](#)
6. Thermal Blockwork: [Pr_20_93_52_01 Aggregate concrete blocks - THERMAL CONCRETE BLOCK](#)
7. Masonry units – specific applications
 - 7.1. Below dpc: [Pr_20_93_52_01 Aggregate concrete blocks - THERMAL CONCRETE BLOCK](#); [Pr_20_93_52_01 Aggregate concrete blocks](#)
8. Concrete fill: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Tanking: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
10. Dpcs
 - 10.1. Dpcs – general applications: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)
 - 10.2. Dpc joint sealant: [Wetted and sealed with double-sided adhesive tape. Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE](#)
11. Cavity trays
 - 11.1. Cavity tray type: [Pr_25_57_21_66 Preformed cavity trays](#)
 - 11.2. Cavity tray joint sealant: Adhesive recommended by cavity tray manufacturer.
12. External Render: [Ss_25_45_72_28 External wall insulation systems - Roughcast Render / Wet Dash](#)
13. Wall ties
 - 13.1. Wall ties – general applications: [Pr_20_85_84_19 Cavity wall ties](#)
14. Sills: [Pr_25_93_52_15 Concrete sills](#)
15. Lintels
 - 15.1. Lintels – general applications: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
16. Insulation: Refer Architects Details [Pr_25_71_63_66 Polyisocyanurate \(PIR\) foam boards - PARTIAL FILL INSULATION](#)
17. Cavity fire barriers: [Pr_25_80_80_79 Sleeved mineral wool cavity barriers](#); [Ss_25_60_30_45 Linear gap fire stopping systems - FIRE BARRIER](#)
18. Cavity closers: [Pr_35_90_50_64 Insulated Plastics cavity closers](#)
19. Ancillary structural components: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
20. Movement joint components: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
21. System accessories: [Ss_25_13_50/627 Bed/ perpend joint weep holes](#); [Pr_25_71_52_25 Fibre-reinforced cement boards](#); [Pr_25_71_44_53 Mineral fibre joint fillers](#); [Pr_35_90_50_62 Perpend joint plastics weep holes](#); [Pr_30_59_96_92 Ventilation ducts](#); [Pr_30_59_96_93 Ventilation gratings](#)
22. Samples required: [Ss_25_13_50/305 Product samples](#)
23. Execution: [Pr_35_31_64/610 Applying renders generally](#); [Pr_35_31_64/720 Finishes to render](#) [Ss_25_13_50/600 Adverse weather](#); [Ss_25_13_50/601 Cleanliness](#); [Ss_25_13_50/605 Execution Standards for masonry structures](#); [Ss_25_13_50/621 Installing cavity wall insulation](#); [Ss_25_13_50/674 Masonry movement joints](#); [Ss_25_13_50/685 Pointing in flashings](#); [Ss_25_13_50/707 Building in frames](#); [Ss_25_13_50/731 Block bonding new walls to existing](#); [Ss_25_13_50/757 Laying walling below ground level](#); [Ss_25_13_50/758 Levelling of separate leaves in brick and block walling](#); [Ss_25_13_50/708 Openings for frames](#); [Ss_25_13_50/685 Pointing in flashings](#); [Ss_25_13_50/701 Installing wall plates](#); [Ss_25_13_50/627 Bed/ perpend joint weep holes](#)
24. System completion: [Ss_25_13_50/805 Removal of samples](#)

Ss_25_45_72_28 External wall insulation systems - Roughcast Render / Wet Dash

3. Description: Roughcast (also referred to as Wet Dash) cementitious through-colour render incorporating an aggregate of small evenly sized pebbles.
4. System manufacturer: **Submit proposals**
5. Beads and trims: Stainless steel beads, trims and profiles.
6. Movement joints
 - 6.1. Form with: Required. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 6.2. Sealant: Proprietary low modulus silicone sealant. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
7. Render carrier or reinforcement
 - 7.1. Material: Alkali Resistant Scrim Cloth incorporated into Scrim Adhesive. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 7.2. Mesh size: Basecoat. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
8. Render
 - 8.1. Application: Finish coat strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

9. Execution: Install system as per manufacturer's instructions.

Ss_25_60_30_45 Linear gap fire stopping systems - FIRE BARRIER

2. Description: Fire stopping to linear gaps, e.g. between the tops of walls and floor slabs above, and for thermal or construction movement joints in walls.
3. System performance: [Ss_25_60_30/220 Fire performance](#)
[Ss_25_60_30/230 Durability](#); [Ss_25_60_30/290 Compliance with performance requirements](#)
4. System manufacturer: Submit proposals .
5. Gap filler: [Pr_25_80_81_51 Mineral wool fire stopping](#) and [Pr_25_80_81_29 Flexible intumescent gap seals](#).
6. Capping sealant
 - 6.1. Cleaner: De-greaser.
 - 6.2. Primer: As per manufacturers Specification
7. Execution: [Ss_25_60_30/610 Fire stopping systems workmanship generally](#);
[Ss_25_60_30/630 Installing flexible intumescent gap sealer](#);
[Ss_25_60_30/720 Applying fire stopping capping sealant](#);
and [Ss_25_60_30/685 Installing mineral wool flexible stopping](#).
8. System completion: [Ss_25_60_30/810 Cleaning after installation of fire stopping systems](#)
[Ss_25_60_30/820 Inspection of fire stopping systems](#)

System performance

Ss_25_13_50/200 Accuracy of brick and block walling

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

4. Courses: Level and true to line.
5. Faces, angle and features: Plumb
6. Permissible deviations
 - 6.1. Position in plan of any point in relation to the specified building reference line and/ or point at the same level: ± 10 mm.
 - 6.2. Straightness in any 5 m length: ± 5 mm.
 - 6.3. Verticality up to 3 m high: ± 10 mm.
 - 6.4. Verticality up to 7 m high: ± 14 mm.
 - 6.5. Overall thickness of walls: ± 10 mm.
 - 6.6. Level of bed joints up to 5 m (brick masonry): ± 11 mm.
 - 6.7. Level of bed joints up to 5 m (block masonry): ± 13 mm.

Ss_25_13_50/291 Compliance with performance requirements for masonry systems

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

3. Requirement: Proof of compliance with specified performance.
4. Method: *For structural performance.*
For fire performance.
For acoustic performance.
5. Submittals
 - 5.1. Format: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: All products, materials, techniques or equipment used in the works must be approved Before ordering.

Ss_25_60_30/220 Fire performance

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#) and [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

2. Resistance to fire: As required to meet requirements of TGD B
To [BS EN 13501-2, E30](#);
To [BS EN 13501-2, EI 30](#);
To [BS EN 13501-2, EI 60](#);
and To [BS EN 13501-2, EI 120](#).
3. Reaction to fire: [BS EN 13501-1, Class A1](#).

- 3.1. Standard: In accordance with Building Regulations and To [BS EN 13501-1](#).

[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

4. Smoke resistance: Air leakage rate (maximum) 3 m³/m²·hr.

Ss_25_60_30/230 Durability

Shared by: [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

3. Effective design life: 30 years.

Ss_25_60_30/290 Compliance with performance requirements

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#) and [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

2. Requirement: Proof of compliance with specified performance.
3. Method: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Testing authority: Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
5. Timing of submittals: Before commencing installation.

Products

Pr_20_85_84_19 Cavity wall ties

2. Standard: To [IS EN 845-1](#).

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

3. Tie type: [PD 6697](#) Type 2 (Masonry – general purpose) Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Material: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
5. Tie-mounted insulation retaining clips: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
6. Execution: [Pr_20_85_84/610 Fixing ties in masonry cavity walls](#).
7. Verification
- 7.1. Submittals: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_20_93_52_01 Aggregate concrete blocks - THERMAL CONCRETE BLOCK

2. Description: Thermal Blockwork
3. Standard: To [BS EN 771-3](#). Strictly in accordance with Consulting Structural Engineers Drawings & Specification. [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Block description: Thermal Block
5. Compressive strength
- 5.1. Mean value: 13 N/mm². Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Freeze-thaw resistance: Suitable for use in **severe exposure** conditions and therefore satisfy the freeze/thaw durability requirements of SR 325: Recommendations for the design of masonry structures in Ireland to Eurocode 6
- Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Thermal conductivity: Max - 0.35 W/mK for 13N
- To meet thermal specification requirements and Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Tolerance category: [IS EN 771-3](#) Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Reaction to fire: Class A1 to [BS EN 13501-1](#).
10. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification. [Pr_20_93_52/625 Brickwork and blockwork appearance](#); [Pr_20_93_52/635 Brickwork and blockwork pointing](#); [Pr_20_93_52/690 Laying brick and block masonry units generally](#)

Pr_20_93_52_01 Aggregate concrete blocks

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

4. **Description:** Standard aggregate concrete blocks, including special shaped units included in manufacturer's range of standard special shapes.
5. **Standard:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
6. **Compressive strength**
 - 6.1. **Mean value:** 13 N/mm². Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 6.2. **Characteristic value:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 6.3. **Category:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. **Freeze-thaw resistance:** Frost-resistant. Not to be left exposed. Suitable for exposed external use below dpc. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. **Accessory and special shape types:** Corner blocks. Coursing blocks. Half reveal blocks. Return blocks. Reveal blocks. Sill blocks.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. **Verification:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 9.1. **Submittals:** Product documentation and Certification to allow for technical evaluation of the proposed product.
 - 9.2. **Timing:** Before placement of orders.
Before commencement of installation.
10. **Execution:**

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

[Pr_20_93_52/635 Brickwork and blockwork pointing](#); [Pr_20_93_52/690 Laying brick and block masonry units generally](#); [Pr_20_93_52/625 Brickwork and blockwork appearance](#)

Pr_25_57_21_12 Cavity closer and damp-proof course supports

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

2. **Manufacturer:** Submit proposals for approval
3. **Standard:** To [BS EN 14967](#).
4. **Class:** To [BS 6398](#), A. To [BS 6398](#), B.
5. **Execution:** [Pr_25_57_21/605 Installing vertical dpcs generally](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#); [Pr_25_57_21/635 Installing horizontal dpcs](#); [Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings](#)

Pr_25_57_21_27 Ethylene propylene (EP) damp-proof courses and cavity trays

2. **Manufacturer:** Submit proposals for ER approval
3. **Standard:** To [BS EN 14909](#). To [BS 6515](#).
4. **Third-party certification:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

4. **Manufacturer:** Submit proposals .
5. **Third-party certification:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. **DPC / Cavity Tray:** Radon DPC to give effective protection where a radon, air and moisture seal must pass through masonry walls.
7. **Material:** Polyethylene to I.S. 57 for Polyethylene DPCs.
8. **Compatibility:** Suitable for use with adjoining gas resistant dpms.
9. **Execution:** Radon DPC ends should be overlapped by 100 mm and joints should be sealed with suitable Tape to provide radon, air and moisture protection.

Cavity Tray / Corner assembly to comprise pre-formed low density polyethylene (LDPE) without seams or joints suitable for sealing various upstand heights of 100–225 mm, including pre-applied sealant strip

Pr_25_57_21_48 Lead damp-proof courses and cavity trays

Shared by: [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

2. **Manufacturer:** Submit proposals .

3. Standards: To [BS EN 12588](#) and [BS 8215](#).
4. Thickness (minimum): 2.24 mm (Code 5).
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: Before commencement of installation.

Pr_25_57_21_48 Lead damp-proof courses and cavity trays

3. Manufacturer: Submit proposals .
4. Standards: To [BS EN 12588](#) and [BS 8215](#).
5. Thickness (minimum): 2.24 mm (Code 5).
6. Execution: [Pr_25_57_21/605 Installing vertical dpcs generally](#); [Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings](#); [Pr_25_57_21/635 Installing horizontal dpcs](#); [Pr_25_57_21/650 Installing site formed cavity trays](#); [Pr_25_57_21/655 Installing stepped dpcs in external walls \(2-\)](#); [Pr_25_57_21/660 Site formed dpc junctions and cavity tray cloaks \(22\)](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#)
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. Timing: Before commencement of installation.

Pr_25_57_21_63 Polyethylene (PE) damp-proof courses and cavity trays

2. Manufacturer: Submit proposals.
3. Standard: To [BS EN 14909](#). To [BS 6515](#).
4. Execution: [Pr_25_57_21/600 Installing sill dpcs](#); [Pr_25_57_21/605 Installing vertical dpcs generally](#); [Pr_25_57_21/620 Installing coping and capping dpcs](#); [Pr_25_57_21/630 Installing ground level dpcs](#); [Pr_25_57_21/635 Installing horizontal dpcs](#); [Pr_25_57_21/650 Installing site formed cavity trays](#); [Pr_25_57_21/655 Installing stepped dpcs in external walls \(2-\)](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#)
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_57_21_64 Polypropylene (PP) damp-proof courses and cavity trays

4. Manufacturer: Submit proposals.
5. Standard: To [BS EN 14909](#). To [BS 6515](#).
6. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_57_21_66 Preformed cavity trays

- Manufacturer: Submit proposals .
- Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- Material: Polyethylene.
- To fit cavity width: 150 mm.
- Attached lead flashings: Required.
- Accessories: Joint supports and Fixing strip.

Pr_25_57_21_68 Preformed damp-proof courses

2. Manufacturer: Submit proposal
3. Material: Polyethelene compatible with DPM and DPC
4. Dimensions (w x h): Manufacturer's standard .
5. Length: Manufacturer's standard .
6. Extension: 115 mm.
7. Execution: [Pr_25_57_21/645 Installing preformed dpc, cavity tray junction cloaks and stop ends](#)
8. Verification
 - 8.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_71_44_53 Mineral fibre joint fillers

3. Description: Mineral fibre joint fillers for both fire resisting and non-fire resisting systems.
4. Manufacturer: Submit proposals .
5. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. Properties
 - 6.1. Standard: To [BS 476-20](#).
 - 6.2. Fire resistance: 120 mins
7. Material: Dense mineral fibre.
8. Size
 - 8.1. Thickness: 35 mm.
 - 8.2. Width: Manufacturer's standard .
9. Verification
 - 9.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
10. Execution: [Pr_35_90_87/610 Installing mineral fibre joint and profile fillers](#) and [Pr_35_90_87/620 Installing movement joint fillers in masonry](#).

Pr_25_71_52_25 Fibre-reinforced cement boards

Shared by: [Ss_25_45_88_40 Internal wall tiling systems](#)

- Manufacturer: Submit proposals .
- Standard: CE marked in accordance with BS EN 12467
To BS EN 12467 category A, class 2.
- Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- Fire rating: To comply with TGD B4 - The external walls and roof of a building shall be so designed and constructed that they afford adequate resistance to the spread of fire to and from neighbouring buildings.
Fire rated to EN 13501-1, class A2-s1, d0
- Thermal conductivity (maximum): 0.36 W/m·K.
- Weather resistance: To [EN 12467](#), category A and To [EN 12467](#), category B.
- Bending strength: To [EN 12467](#), class 4.
- Sheet size
 - Nominal thickness: 18 mm.
- Edges: Square.
- Finish as delivered: Uncoated.
- Execution: [Pr_25_71_52/615 Installing non-gypsum-based panels](#).
- Verification: Provide adequate information for technical evaluation of the specified product.
 - Submittals: Product sample as specified, with certification demonstrating compliance with performance requirements of the system.
 - Timing: Before placement of orders. Before commencement of installation.

Pr_25_71_63_66 Polyisocyanurate (PIR) foam boards - PARTIAL FILL INSULATION

7. Product reference: Submit proposals .
8. Description: High performance foil faced rigid polyisocyanurate (PIR) foam boards (with max lambda value of 0.018 W/m·K) suitable for partial fill cavity wall applications.
9. Manufacturer: Submit proposals.
10. Standard: To [BS EN 13165](#).
11. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
12. Fire performance: In accordance with European fire standards EN 13501 and European fire resistance testing in EN 13501-2.
13. Thermal conductivity (maximum): 0.018 W/mK.
14. Cross section: Uniform thickness.
15. Thickness (nominal): Manufacturer's standard to achieve required U-Value & Thermal performance.
16. Face size (length x width): To suit wall tie spacing. Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

17. **Density:** Strictly in accordance with manufacturers specification, suitable for the purpose location and detail.
18. **Facing:** Faced both sides with a low emissivity composite foil autohesively bonded to the insulation core during manufacture.
Profiled high impact Polystyrene sheet on the outer Face
19. **Edges:** Rebated.

Pr_25_80_80_79 Sleeved mineral wool cavity barriers

Shared by: [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

3. **Description:** Fire barriers in cavities to meet requirements of TGD B and FSC technical report / specification.
4. **General requirements:** Non-combustible insulation encapsulated in a protective polythene sleeve. Fitted under compression to inhibit the passage of smoke and fire within masonry constructions.
Suitable for both vertical and horizontal installations installed under a compression fit of 10mm.
5. **Manufacturer:** Submit proposals.
6. **Cavity barriers**
 - 6.1. **Sleeves:** Submit proposals suitable for the purpose, location and detail.
 - 6.2. **Attachment:** Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
7. **Size:** Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail. To achieve required fire stopping in compliance with TGD documentation and diagrams.
8. **Residual cavity width:** Manufacturer's standard .
9. **Fire performance:** Reaction to fire classification of A1, as defined in IS EN 13501-1
EI 60 to IS EN 1363-1.
Non-combustible, achieving a classification of A1 in accordance with IS EN 13501-1.
Tested and assessed for up to 60 minutes fire resistance (integrity and insulation) in accordance with BS 476: Part 20.
10. **Verification**
 - 10.1. **Submittals:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_80_81_29 Flexible intumescent gap seals

Shared by: [Ss_25_60_30_62 Pipe collar fire stopping systems](#) and [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

5. **Manufacturer:** Submit proposals.
6. **Fire performance:** Reaction to fire classification of A1, as defined in IS EN 13501-1
7. **Verification**
 - 7.1. **Submittals:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. **Timing:** Before commencement of installation.

Pr_25_80_81_51 Mineral wool fire stopping

3. **Manufacturer:** Submit proposals .
4. **Material**
 - 4.1. **Standard:** To [IS EN 13162](#).
 - 4.2. **Type:** Flexible.
5. **Fire performance:** EI 60 to IS EN 1363-1.
Reaction to fire classification of A1, as defined in IS EN 13501-1
6. **Sound insulation rating:** min 43 dB sound insulation.
7. **Verification**
 - 7.1. **Submittals:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. **Timing:** Before commencement of installation.

Pr_25_93_52_15 Concrete sills

5. **Description:** Precast concrete sill
Refer to Architects Drawings
6. **Manufacturer:** Submit proposals .
7. **Standard:** To [BS 5642-1](#).

Refer to Architects Drawings & Specification

8. Dimensions: Refer to Architects & Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

9. Finish: Smooth.

10. Execution: [Pr_25_93_52/610 Installing sills in mortar bed](#)

Pr_30_59_96_92 Ventilation ducts

2. Manufacturer: Submit proposals .

Strictly in accordance with Consulting Mechanical & Electrical Engineers Drawings & Specification.

3. Execution: [Pr_30_59_96/610 Installing ventilation ducts in external walling](#)

Pr_30_59_96_93 Ventilation gratings

3. Standard: To [BS 493](#).

4. Class: 2.

5. Apertures: Circular hole.

6. Work sizes: To coordinate with surrounding masonry.

7. Material: Strictly in accordance with Mechanical / Electrical Engineers Drawings & Specification.

8. Colour: Match adjoining masonry.

9. Accessories: Insect proof screen.

10. Execution: [Pr_35_90_50/605 Installing air bricks, gratings and ventilators in walling](#).

Pr_35_90_50_62 Perpend joint plastics weep holes

3. Description: Proprietary plastics weepholes built into masonry perpend joints.

4. Manufacturer: Submit proposals

5. Colour: To match adjoining masonry.

6. Execution: [Pr_35_90_50/600 Installing perpend joint plastics weep holes](#).

Pr_35_90_50_64 Insulated Plastics cavity closers

2. Description: Insulated cavity closer consisting of a strip of insulation encapsulated in weather-resistant polyethylene within a rigid PVC-U profile.

3. Manufacturer: Submit proposals .

4. Fire: 60 minutes integrity and up to 60 minutes insulation, to BS 476-20.

5. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

6. Accessories: Integral insulation.

7. To fit cavity width: 150 mm.

8. Length (effective): Manufacturer's standard .

9. Execution: [Pr_25_57_21/605 Installing vertical dpcs generally](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#)

See [Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_25_13_50/305 Product samples

4. Manufacturer: Submit proposals .

5. Submittals: Confirm with Consulting Structural Engineer / Employers representative.

6. Purpose: For use as a reference sample.

7. Labelling: Clearly label all submitted samples.

8. Timing: Before ordering for project.

Execution

Pr_20_85_84/610 Fixing ties in masonry cavity walls

4. Wall arrangement: Partial fill cavity insulation.

5. Embedment in mortar beds (minimum): Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

6. Placement: Sloping slightly downwards towards outer leaf, without bending. Centre drip in the cavity and pointing downwards.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

7. Spacing

- 7.1. Pattern: Stagger in alternate courses. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
- 7.2. Horizontal centres: 900 mm.
- 7.3. Vertical centres: 450 mm.
- 7.4. Centres of top row: Not more than 450 mm.

8. Additional ties

- 8.1. Provision: One row to support lowest row of insulation batts and Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry. Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
- 8.2. Spacing: In every course. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_20_93_52/625 Brickwork and blockwork appearance

- 7. Brick/ block selection: Do not use units with damaged faces or arises.
- 8. Cut masonry units: Where cut faces or edges are exposed, cut with table masonry saw.
- 9. Quality control: Lay masonry units to match relevant reference panels.
- 10. Setting out: To produce satisfactory junctions and joints with built-in features and components.
- 11. Coursing: Evenly spaced using gauge rods.
- 12. Lifts: Complete in one operation.

Pr_20_93_52/635 Brickwork and blockwork pointing

- 6. Joint preparation: Remove debris. Dampen surface.
- 7. Profile: Bucket handle.

Pr_20_93_52/690 Laying brick and block masonry units generally

- 2. Mortar joints: Lay units on a full bed. Fill vertical joints and voids.
- 3. Thin mortar joints
 - 3.1. Generally: Lay blocks on a full bed. Fill vertical joints.
 - 3.2. Clay block vertical joints: Interlock without mortar.
- 4. Joint appearance: Neat and consistent.
- 5. Bond where not specified: Half lap stretcher.
- 6. Vertical joints in brick and concrete block facework: Plumb at every fifth cross joint.
- 7. Cleanliness
 - 7.1. Facework: Keep clean.
 - 7.2. Mortar on facework: Removed.
 - 7.3. Removal of marks and stains: Rubbing and other abrasive or chemical cleaning methods not permitted.

Pr_25_57_21/600 Installing sill dpcs

- 4. Form and placement: In one piece. Turn up at back when sill is in contact with inner leaf.

Pr_25_57_21/605 Installing vertical dpcs generally

- 4. Form: In one piece wherever possible.
- 5. Joints: Upper part overlapping lower at least 100 mm.

Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings

Shared by: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)

- 2. Length: Extend at least 150 mm beyond ends of lintels and bridgings.

Pr_25_57_21/620 Installing coping and capping dpcs

- 2. Placement: Bed in one operation. Maximize bond between masonry units, mortar and dpc.
- 3. Dpcs crossing cavity: Provide rigid support to prevent sagging.

Pr_25_57_21/630 Installing ground level dpcs

4. Joint with damp-proof membrane: Continuous. Seal effectively.

Pr_25_57_21/635 Installing horizontal dpcs

3. Placement: In continuous lengths on full even bed of fresh mortar, with 100 mm laps at joints and full laps at angles.
4. Width: At least full width of leaf unless otherwise specified. Do not cover edges of dpc with mortar or project into cavity.
5. Overlying construction: Immediately cover dpc with full even bed of mortar to receive next masonry course.
6. Overall finished joint thickness: As close to normal as practicable.

Pr_25_57_21/645 Installing preformed dpc, cavity tray junction cloaks and stop ends

- Placement: Provide a free-draining and watertight installation. Seal laps with dpcs and/ or cavity trays.

Pr_25_57_21/650 Installing site formed cavity trays

Shared by: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)

3. Profiles
 - 3.1. Joint treatment: Use continuous length wherever possible, otherwise lap at least 100 mm and seal to produce a free draining and watertight installation.
 - 3.2. Horizontal cavity trays: Support with cavity closer.
 - 3.3. Sloping cavity trays: Prevent sagging.
 - 3.4. Cleanliness: Free from debris and mortar droppings.

Pr_25_57_21/655 Installing stepped dpcs in external walls (2-)

Shared by: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)

3. External walls on sloping ground: Install dpcs not less than 150 mm above adjoining finished ground level.
4. External walls above pitched roof abutment: Install dpcs not less than 150 mm above adjoining finished roof level.

Pr_25_57_21/660 Site formed dpc junctions and cavity tray cloaks (22)

Shared by: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)

2. Three-dimensional changes in shape: Form to provide a free-draining and watertight installation. Seal laps.

Pr_25_57_21/665 Installing jamb dpcs at openings

Shared by: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#)

4. Joint with cavity tray: Full underlap.
5. Joint with lintel at head: Full underlap.
6. Joint with sill: Full overlap.
7. Joint with horizontal dpc at base: Full overlap.
8. Projection into cavity (minimum): 25 mm.
9. Relationship with frame: In full contact.

Pr_25_71_52/615 Installing non-gypsum-based panels

Shared by: [Pr_25_71_52_25 Fibre-reinforced cement boards](#) and [Pr_25_71_52_15 Compressed mineral wool fire protection boards](#)

2. Setting out of long edges: Perpendicular to supports.
3. Gap between adjacent boards: 1–2 mm.
4. Fixing centres (maximum)
 - 4.1. General: Boards and sheets to be fixed securely to each support without distortion and true to line and level. Fixings to be evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints.
 - 4.2. Around board edges: fixing centres between 200 and 400 mm
 - 4.3. Along intermediate supports: fixing centres between 200 and 400 mm
5. Fixing distance from edges (minimum): Refer to manufacturer for fixing guidance
6. Joints: Butted and Taped and filled.

Pr_25_93_52/610 Installing sills in mortar bed

Shared by: [Pr_25_93_52_56 Natural stone sills](#)

3. Bedding one piece sills: Leave bed joints open except under end bearings and masonry mullions. On completion, point to match adjacent work.
4. Joints: Flush.

Pr_30_59_96/610 Installing ventilation ducts in external walling

7. Placement: Across cavity, sloping away from inner leaf. Full mortar joints to seal cavity.
8. Protection from water penetration to inner leaf: Where barrier is not integral to duct, form stepped dpc cavity tray with stop ends above duct, extending 150 mm on each side.

Pr_35_31_64/610 Applying renders generally

Shared by: [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

4. Generally: Clean all dirt and debris from masonry surfaces.
Rake back mortar joints to provide an additional mechanical key, particularly if using closer textured blocks.
Mortar joints should be left rough and not struck off or tooled.
Movement joints in the background blockwork should be carried through the render and be formed using stainless steel stop beads.
Provision should be made for external fixings, brackets and supports prior to commencing rendering work.
Corner beads and stop beads suitable for external work should be used.
Cement, lime, sand mixes without air entrainment are preferred.
Sands in accordance with IS EN 13139 should be used.
Mixes should be accurately gauged; the ingredients being thoroughly mixed before adding the water. The minimum amount of water required to provide a workable mix should be used.
Rendering must not bridge the dpc.
5. Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
 - **Scud Coat** - Throw the mixture onto the surface of the wall from a hand scoop. The wall surface should be covered with a single layer of scud coat 3 to 5mm thick and no steps should be taken to smooth the surface. This provides a good key and uniform suction for later work.
 - **Undercoat** should not exceed 12mm in thickness. Always comb fresh undercoats to provide a sufficient key for the next coat.
 - **Outer Coat** This should be a weaker mix than the under coat generally less than 10mm in thickness.
6. Undercoats on metal lathing: Work well into interstices to obtain maximum key.
7. Continuity of coats: Continuous, without putlog holes and other breaks.
8. Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
9. Accuracy of finish coat: 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.
10. Drying: Prevent excessively rapid or localized drying out.
11. Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

Pr_35_31_64/720 Finishes to render

Shared by: [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

6. Standard: To [BS EN 13914-1](#).
7. Finish: Roughcast
8. Extent: Finish flush with raised margins at quoins and windows and Form rounded external angles, without metal beads.

Pr_35_90_50/600 Installing perpend joint plastics weep holes

12. Placement: Through outer leaf immediately above base of cavity, at cavity trays, stepped dpcs and external openings. 75 mm above top of concrete fill at base of cavity.
13. Spacing (maximum): At not greater than 1000 mm centres and not less than two over each opening.

Pr_35_90_50/605 Installing air bricks, gratings and ventilators in walling

5. Placement: Build in with no gaps at joints.

Pr_35_90_87/610 Installing mineral fibre joint and profile fillers

4. Installation: Compress profile and insert into position and For steel beam or column protection compress profile filler to finish flush with cladding both sides of structure.
5. Finishing: Paint exposed faces with specialist coating provided by profile supplier.

Pr_35_90_87/620 Installing movement joint fillers in masonry

- Application: Movement joints that do not use sealant and Movement joints that use sealant.
- Filler placement: Compress and insert into place in open joint;
Build in as work proceeds filling joint with no projections into cavities;
and Build in as work proceeds filling joint with no projections into cavities, and to correct depth to receive sealant system.

Ss_25_13_50/600 Adverse weather

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

6. Freezing conditions: Do not use frozen materials or lay on frozen surfaces.
7. Air temperature
 - 7.1. Cement-gauged mortars: Do not lay units at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and walling is thoroughly protected).
 - 7.2. Hydraulic lime:sand mortars: Do not lay units at or below 5°C and falling or below 3°C and rising, or as manufacturer's/ supplier's recommendations.
 - 7.3. Thin-joint mortar glue: Do not lay units outside the temperature limits set by the mortar manufacturer.
8. Temperature of masonry during curing: Above freezing until mortar hardens/ has fully set.
9. Newly erected walling
 - 9.1. Protect from precipitation: At all times.
 - 9.2. Protect from drying out too rapidly: At all times in hot conditions and in drying winds.

Ss_25_13_50/601 Cleanliness

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

5. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

Ss_25_13_50/605 Execution Standards for masonry structures

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

6. Standard: To [BS EN 1996-2](#).

Ss_25_13_50/621 Installing cavity wall insulation

3. Cavity fill: Partial fill insulation.
Refer to Architects Drawings & Specification.
4. Placement: Continuous.
5. Residual cavity: Clear and unobstructed.
6. Joints: No gaps between boards at closures and penetrations. Free from mortar and debris.

Ss_25_13_50/627 Bed/ perpend joint weep holes

4. Form: Open 10 mm diameter hole.
5. Placement: Through outer leaf immediately above base of cavity, at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity.
6. Spacing (maximum): At not greater than 1000 mm centres and not less than two over each opening

Ss_25_13_50/674 Masonry movement joints

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#) , [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

4. Joint frequency: BS EN 1991-1-1 Category B
5. Joint width: Strictly in accordance with Consulting Structural Engineers specification and detail.
6. Joint location: Strictly in accordance with Consulting Structural Engineers specification and detail.

Ss_25_13_50/685 Pointing in flashings

2. Joint preparation: Free of debris and lightly wetted.
3. Pointing mortar: As for adjacent walling.
4. Placement: Fill joint and finish flush.

Ss_25_13_50/701 Installing wall plates

5. Placement: On full bed of mortar to correct horizontal level.

Ss_25_13_50/707 Building in frames

4. Preparation: Remove horns and provide support.
5. Fixing cramps: Fully bed in mortar.

Ss_25_13_50/708 Openings for frames

- Formation: Use accurate, rigid templates to required size.

Ss_25_13_50/731 Block bonding new walls to existing

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

2. Pocket requirements
 - 2.1. Width: Full thickness of new wall.
 - 2.2. Depth (minimum): 100 mm.
3. Pocket vertical spacing
 - 3.1. Brick to brick: Four courses high at eight course centres.
 - 3.2. Block to block: Every other course.
4. Pocket joints: Fully filled with mortar.

Ss_25_13_50/757 Laying walling below ground level

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

3. Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.

Ss_25_13_50/758 Levelling of separate leaves in brick and block walling

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

4. Locations for equal levelling of cavity wall leaves: Every course containing vertical twist type ties or other rigid ties, every third tie course for double triangle/ butterfly ties and courses in which lintels are to be bedded.

Ss_25_60_30/610 Fire stopping systems workmanship generally

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#) and [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

2. Preparation: Remove loose dust and combustible materials.
3. Openings and gaps: Seal between building elements and services, to provide effective resistance to fire and the passage of smoke. Allow for capping sealants where required. Finish flush with surrounds.
4. Adjacent surfaces: Prevent overrun of filler, sealant or mortar on to finished surfaces.

Ss_25_60_30/630 Installing flexible intumescent gap sealer

Shared by: [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

2. Fitting of strips: Compress strips and fit into gap so that, as they decompress, the strips wedge themselves in the void.
3. Joints
 - 3.1. Ends of strips: Fit intumescent 'end piece' at both ends of run of fire stop laminate.
 - 3.2. Joints between strips: Fit two intumescent 'end pieces' at each butt joint.

Ss_25_60_30/685 Installing mineral wool flexible stopping

4. Packing: Compress mineral wool and fit into full depth of opening or gap. Pack until fully filled.

Ss_25_60_30/720 Applying fire stopping capping sealant

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#) and [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

2. Backing strips: As required by sealant manufacturer to suit gap size and achieve specified fire resistance
3. Width of sealant: Within limits set by sealant manufacturer.
4. Excessive gaps: Submit proposals .

5. Depth of sealant: Strictly in accordance with manufacturers specification and detail.
6. Width to depth ratio: Strictly in accordance with manufacturers specification and detail.
7. Temperature: Do not apply water based sealants when they could be damaged by frost.

System completion

Ss_25_13_50/805 Removal of samples

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

1. Items for removal: Product samples;
Prototypes;
and Sample panels.
2. Timing: At completion of work in this section.

Ss_25_60_30/810 Cleaning after installation of fire stopping systems

Shared by: [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

1. Masking tapes: Remove.
2. Cleaning: Clean off splashes and droppings. Wipe down finishes.

Ss_25_60_30/820 Inspection of fire stopping systems

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#) and [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

1. Notice for inspection (minimum): 5 working days.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_13_50_54

Masonry free-standing wall leaf systems - B5 & B6

Systems

Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6

1. Description: WALL TYPE B5 & B6
2. System performance: [Ss_25_13_50/200 Accuracy of brick and block walling](#);
[Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems](#)
Construction and associated materials and accessories Strictly in accordance with Consulting Structural Engineers specification and detail.
3. Masonry units: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
[Pr_20_93_52_57 Natural rubble stones](#); [Pr_20_93_52_01 Aggregate concrete blocks](#)
4. Execution: [Ss_25_13_50/600 Adverse weather](#);
[Ss_25_13_50/601 Cleanliness](#);
[Ss_25_13_50/674 Masonry movement joints](#);
5. System completion: [Ss_25_13_50/805 Removal of samples](#).

System performance

See [Ss_25_13_50/200 Accuracy of brick and block walling](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#) and [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

1. Standard: To IS EN 1991-1-1 and In accordance with BS 7818.
2. Location of posts: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Accessories to parapets and barriers: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Products

See [Pr_20_93_52_01 Aggregate concrete blocks](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_20_93_52_57 Natural rubble stones

Shared by: [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3](#)

1. Supplied by: Provide sample and seek approval to proceed - in accordance with ER & Consulting Structural Engineer on site. Refer Consulting Structural Engineer Drawings & Specification.

Contractor/sub-contractor to provide colour samples for agreement with Architect
2. Standard: IS EN 771-6:2011
3. Appearance: Match existing local stone.
To ER approval
4. Denomination
 - 4.1. Name (traditional): Submit proposals .
5. Finish: Roughly dressed square and Undressed.

Take suitable measures to provide protection to the stone from frost action on the finished building and during the course of the works.

Ensure that the finished stone paneling is free from efflorescence.

The stone selected shall be of proven suitability for this cladding on external faces of buildings and for use in close proximity to concrete. The stone shall be free from rents, cracks, large fissures, sand and clay holes and other defects likely to affect durability.
6. Dimensions: 150 mm on bed; random length and height.
7. Verification: Declaration of Performance or Conformity.
CE Mark Declaration of Performance.
Manufacturer's certification.
Safety data sheet.
 - 7.1. Submittals: Samples.
 - 7.2. Timing: Before placement of orders.
Before commencement of installation.

8. Execution: [Pr_20_93_52/640 Brushed finish to natural stone rubble joints](#)
[Pr_20_93_52/710 Laying natural rubble stone generally](#);
[Pr_20_93_52/730 Natural rubble stone joints](#);
and [Pr_20_93_52/740 Natural rubble stone walling pointing](#)

Execution

See [Pr_20_93_52/625 Brickwork and blockwork appearance](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/635 Brickwork and blockwork pointing](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_20_93_52/640 Brushed finish to natural stone rubble joints

1. Brushed finish
 - 1.1. Timing: After the initial set has taken place
 - 1.2. Completion: Brush joints. Remove laitance and excess fines and give coarse texture.

See [Pr_20_93_52/690 Laying brick and block masonry units generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_20_93_52/710 Laying natural rubble stone generally

1. Orientation for natural bed of stones: Appropriate to properties of stones and positions in walling and dressings.
2. Appearance and bonding: Consistent overall appearance and good bond.
 - 2.1. Appearance and bonding: Consistent overall appearance and good bond.
 - 2.2. Random walling: Distribute different shapes, sizes and colours evenly throughout the face of the wall. Avoid long continuous vertical joints.
3. Accuracy: Plumb, unless specified otherwise.

Pr_20_93_52/730 Natural rubble stone joints

1. Joint type: Flush; brushed.

All joints and expansion joints to be true, aligned and of equal thickness throughout. Include for channeled and vee joints in accordance with the drawings. The Contractor shall make due allowance for the thermal movement of the structure during and after the construction period.
2. Width: Joints between stones generally should not be less than 12mm and not greater than 18mm wide. Joints to masonry background are to be recessed in matching stone dust mortar.

Materials for mortar should comply with the requirements of IS EN 1996-2:2006 Eurocode 6: Design of masonry structures.

The position of horizontal and vertical movement joints are to be indicated on the contractor's detailed drawings. These joints, both butt joints and overlap joints, are to be of minimum width and filled with mastic (colour as above).

Pr_20_93_52/740 Natural rubble stone walling pointing

1. Joint preparation: Rake out to depth of 7–10 mm as work proceeds. Remove debris. Dampen surface.
2. Joint type: Flush; brushed.
3. Mortar application: Neat and consistent.

See [Ss_25_13_50/600 Adverse weather](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/601 Cleanliness](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/674 Masonry movement joints](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

See [Ss_25_13_50/805 Removal of samples](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ω End of System

Ss_25_13_50_54

Masonry free-standing wall leaf systems - B1 & B7

Systems

Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7

1. Description: Wall Type B1 & B7
2. System performance: [Ss_25_13_50/200 Accuracy of brick and block walling](#); [Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems](#); [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#)

All Strictly in accordance with Consulting Structural Engineers specification and detail.
3. Cappings and copings: [Pr_25_93_50_14 Cast stone coping units](#)
4. Execution: [Ss_25_13_50/600 Adverse weather](#); [Ss_25_13_50/601 Cleanliness](#); [Ss_25_13_50/605 Execution Standards for masonry structures](#); [Ss_25_13_50/674 Masonry movement joints](#); [Ss_25_13_50/731 Block bonding new walls to existing](#); [Ss_25_13_50/757 Laying walling below ground level](#); [Ss_25_13_50/758 Levelling of separate leaves in brick and block walling](#)
5. System completion: [Ss_25_13_50/895 Verification of performance](#)

System performance

See [Ss_25_13_50/200 Accuracy of brick and block walling](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Products

Pr_25_93_50_14 Cast stone coping units

1. Standard: To [BS 5642-2](#) and [BS 1217](#).
2. Appearance: Refer Architectural details
3. Form: Homogeneous.
4. Coping type: Clip.
5. Dimensions: Refer Architectural details
6. Finish: To match sample.
7. Holes for fixing: Dowel holes required.
8. Execution: [Pr_25_93_50/605 Installing coping and capping units](#)

Execution

Pr_25_93_50/605 Installing coping and capping units

Shared by: [Pr_25_93_50_22 Concrete capping units](#)

1. Placement: Lay on a full bed of mortar to line and level.
2. Joints: Full and finished flush.

See [Ss_25_13_50/600 Adverse weather](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/601 Cleanliness](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/605 Execution Standards for masonry structures](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/674 Masonry movement joints](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/731 Block bonding new walls to existing](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/757 Laying walling below ground level](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/758 Levelling of separate leaves in brick and block walling](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

Ss_25_13_50/895 Verification of performance

Shared by: [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#) , [Ss_30_14_90_62 Permeable small unit paving systems](#) , [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) , [Ss_40_15_35_35 General FF&E systems](#) , [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#) , [Ss_25_45_88_40 Internal wall tiling systems](#) , [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#) , [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#) , [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#) and [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Requirements: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out DoP and certification of compliance.
 - 2.2. Timing: At completion of work.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_13_50_54

Masonry free-standing wall leaf systems - B2 & B3

Systems

Ss_25_13_50_54 Masonry free-standing wall leaf systems - B2 & B3

1. System performance: [Ss_25_13_50/200 Accuracy of brick and block walling](#); [Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems](#); [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#)
Construction and associated materials and accessories Strictly in accordance with Consulting Structural Engineers specification and detail.
2. Masonry units: [Pr_20_93_52_01 Aggregate concrete blocks](#); [Pr_20_93_52_57 Natural rubble stones](#)
3. Execution: [Ss_25_13_50/600 Adverse weather](#); [Ss_25_13_50/601 Cleanliness](#); [Ss_25_13_50/605 Execution Standards for masonry structures](#); [Ss_25_13_50/674 Masonry movement joints](#)

System performance

See [Ss_25_13_50/200 Accuracy of brick and block walling](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/238 Impact loads upon parapets and barriers for masonry systems](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Products

See [Pr_20_93_52_01 Aggregate concrete blocks](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52_57 Natural rubble stones](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

Execution

See [Pr_20_93_52/625 Brickwork and blockwork appearance](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/635 Brickwork and blockwork pointing](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/640 Brushed finish to natural stone rubble joints](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Pr_20_93_52/690 Laying brick and block masonry units generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/710 Laying natural rubble stone generally](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Pr_20_93_52/730 Natural rubble stone joints](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Pr_20_93_52/740 Natural rubble stone walling pointing](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B5 & B6](#)

See [Ss_25_13_50/600 Adverse weather](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/601 Cleanliness](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/605 Execution Standards for masonry structures](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/674 Masonry movement joints](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_13_50_56

Masonry internal partition systems - BLOCK INTERNAL WALLS

Systems

Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS

1. Description: 100mm / 215mm masonry internal block walls
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. System performance: Strictly in accordance with Consulting Structural Engineers Design, Drawings & Specification.

Blocks to be certified Pyrite Free

[Ss_25_13_50/200 Accuracy of brick and block walling](#); [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#)

3. Masonry units: [Pr_20_93_52_01 Aggregate concrete blocks](#)
4. Mortar
5. Dpcs: [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#); [45-25-20/337 Plastics damp proof courses and/ or cavity trays - DPC / CAVITY TRAY](#)
[Pr_25_57_21_48 Lead damp-proof courses and cavity trays](#); [Pr_25_57_21_68 Preformed damp-proof courses](#)
6. Dpc joint sealant: [Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE](#)
7. Movement joint components: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. System accessories: [Pr_25_57_21_12 Cavity closer and damp-proof course supports](#)
9. System completion: [Ss_25_13_50/895 Verification of performance](#)

System performance

See [Ss_25_13_50/200 Accuracy of brick and block walling](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_13_50/291 Compliance with performance requirements for masonry systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Products

45-25-20/337 Plastics damp proof courses and/ or cavity trays - DPC / CAVITY TRAY

1. Manufacturer: Submit proposals .
2. Material: Polyethylene.
3. Standard: To [ISEN 14909](#)
4. Third party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_20_31_04_53 Mortar fine aggregates - FINE SAND

Shared by: [Ss_32_46_65_55 Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER](#) and [Ss_25_45_88_40 Internal wall tiling systems](#)

1. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
To [BS EN 13139](#)
2. Certification: Strictly in accordance with Consulting Structural Engineers specification and detail.
3. Material: Washed and processed marine sand Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_20_31_12_60 Portland cements

Shared by: [Ss_25_45_88_40 Internal wall tiling systems](#)

1. Description: Normal Portland Cement (NPC) shall comply with I.S. 1
White Portland Cement (WPC) shall comply with I.S. 1

Manufacturers or suppliers certificates of compliance with the standard shall be provided when requested by the Architect (Ref. 6.03)

All ready mixed concrete shall contain 50% GGBS replacement of Ordinary Portland Cement, to BS EN 15167-1:2006
2. Standard: I.S. EN 197-1:2011

3. Cement type: Portland cement, CEM I.
White Portland cement, CEM I.
4. Strength class: Strictly in accordance with Consulting Structural Engineers Drawings & Specification suitable for the purpose and location and detail.

Pr_20_31_53_11 Cement-gauged mortars

1. Standard: To [BS EN 998-2](#).
2. Reaction to fire classification: Class A1.
3. Additional requirements: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

See [Pr_20_93_52_01 Aggregate concrete blocks](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21_12 Cavity closer and damp-proof course supports](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21_48 Lead damp-proof courses and cavity trays](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_25_57_21_68 Preformed damp-proof courses

1. Manufacturer: Submit proposal
2. Material: Polyethylene compatible with DPM and DPC
3. Dimensions (w x h): Manufacturer's standard .
4. Length: Manufacturer's standard .
5. Extension: 115 mm.
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

See [Pr_35_90_87_07 Butyl rubber adhesive tapes - DPC / DPM JOINT TAPE](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Execution

See [Pr_20_93_52/625 Brickwork and blockwork appearance](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/635 Brickwork and blockwork pointing](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_20_93_52/690 Laying brick and block masonry units generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/605 Installing vertical dpcs generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/635 Installing horizontal dpcs](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/665 Installing jamb dpcs at openings](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ss_25_13_50/710 Site mixed cement gauged mortar

1. Mortar type: Site batched and mixed masonry cement:sand.
2. Components: [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#); [Pr_20_31_12_60 Portland cements](#)
3. Mix: 1:3 (cement:sand).

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_14_63_51

Metal post and rail fencing systems - B4

Systems

Ss_25_14_63_51 Metal post and rail fencing systems - B4

1. Description: RAILINGS - B4
2. System performance: [Ss_25_14_63/265 Visual performance](#);
[Ss_25_14_63/205 Design submittals](#);
and [Ss_25_14_63/210 Accessibility](#).
3. System manufacturer: Submit proposals .
4. Posts: [Pr_20_76_64_12 Carbon steel posts](#).
5. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Rails: [Pr_20_85_07_11 Carbon steel fencing and barrier rails](#).
7. Samples required: [Ss_25_14_63/520 Prototypes](#)
8. Execution: [Ss_25_14_63/605 Alignment of fences](#);
[Ss_25_14_63/607 Fencing work generally](#);
[Ss_25_14_63/612 Fixing fence post base plates to concrete pads and strips](#);
[Ss_25_14_63/613 Fixing fence posts into preformed holes in concrete pads and strips](#);
[Ss_25_14_63/616 Compacted hardcore settings for fence posts](#);
9. System completion: [Ss_25_14_63/870 Inspection of fencing systems](#).

System performance

Ss_25_14_63/205 Design submittals

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Detailed design
 - 1.1. Purpose: To demonstrate compliance with performance requirements and for aesthetic evaluation.
 - 1.2. Submittals: Typical plan, elevation and section drawings at suitable scales.
 - 1.3. Timing: Before manufacture.
 - 1.4. Format: Drawings and specification in BIM compliant format.

Ss_25_14_63/210 Accessibility

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Inclusive design: Erect in accordance with Building Regulations [TGD M](#)
2. Finished surfaces on accessible areas: Free of irregularities capable of inflicting personal injury.
3. Designed gaps: To [BS 5709](#).
4. Prohibited features: Barbed wire;
Electric fencing;
Projecting posts above top rail;
Protruding clips, screws and bolts;
and Struts on public side of fence.

Ss_25_14_63/265 Visual performance

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Colour: To be approved by ER
2. Intervisibility: To [BS 7818](#).
3. Sight lines: In accordance with [BS 6180](#).
4. Transparency: To [BS EN 1794-2](#).

Products

Pr_20_29_03_13 Carbon steel post base plates

Shared by: [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#) and [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Material: Carbon steel.
2. Finish: Galvanized.
3. Shoe dimensions: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Post fixing: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_20_29_03_28 Expansion anchors

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Description: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Certification: Where a European Assessment Document (EAD) or European Technical Assessment Guideline (ETAG) is available, provide a European Technical Assessment (ETA) with CE marking and a Declaration of Performance (DoP). Otherwise provide third party certification by an approved independent laboratory.
3. Format: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Material: Carbon steel, property class 8.8 to [BS EN ISO 898-1](#) and Stainless steel, grade A4 to [BS EN ISO 3506-1](#).
5. Finish: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Execution: [Pr_20_29_03/610 Fixing with anchors](#).

Pr_20_29_08_38 Holding down bolt assemblies

Shared by: [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#) and [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Bolts
 - 1.1. Standard: To [BS 7419](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 1.2. Size
 - 1.2.1. Thread diameter: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 1.2.2. Nominal length: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Nuts
 - 2.1. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
To [BS EN ISO 4032](#) and To [BS EN ISO 4034](#).
3. Washers
 - 3.1. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Execution: [Pr_20_29_08/620 Fixing holding down bolts](#).

Pr_20_76_64_12 Carbon steel posts

Shared by: [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#) and [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Standards: To [IS EN 1317-1](#) and [IS EN 1317-5](#) and [IS EN 12899-1](#).
2. Posts
 - 2.1. Type: Corner;
End;
Gate;
and Intermediate.
 - 2.2. Size and profile: Refer drawings
 - 2.3. Length: Refer drawings
3. Finish as delivered
 - 3.1. Applied finish: Galvanized to [IS EN ISO 1461](#).
4. Additional requirements: Lugs positioned to accommodate slope.

Pr_20_85_07_11 Carbon steel fencing and barrier rails

Shared by: [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#)

Employers Requirements, Architectural & Landscaping Specification

1. **Description:** Metal pedestrian restraint systems must have a minimum serviceable life of 15 years, guardrails for parapets a minimum serviceable life of 60 years. Steel must be galvanized. Strictly in accordance with Consultant Engineers Specification & Detail
2. **Standards:** In accordance with [BS 6180](#) and To [BS 7818](#) for pedestrian restraint systems.
3. **Duty:** Heavy.
4. **Dimensions**
 - 4.1. Section size: Refer to Architects Drawings.
 - 4.2. Length: Refer to Architects Drawings.
5. **Finishes**
 - 5.1. Worked finish: None.
 - 5.2. Applied finish: Galvanized to [IS EN ISO 1461](#).
 - 5.3. Film thickness (minimum): 60 micrometres.
6. **Verification**
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.2. Timings: Before commencement of installation.

Ss_25_14_63/520 Prototypes

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. **Requirement:** *Sample system for ER approval.*
2. **Purpose:** *For use as a reference sample. To demonstrate compliance with performance requirements.*
3. **Timing:** *Construct during detailed design. Obtain approval of appearance before proceeding. Retain undisturbed until completion of installation.*

Execution

Pr_20_29_03/610 Fixing with anchors

1. **Preparation:** Protect threaded length from damage. Drill pilot hole, and prepare for insertion of anchor. Place washers, packings, ferrules as required.
2. **Initial fix:** Tighten sufficiently to hold unloaded components – check line and level of components before final tightening.
3. **Final fix:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. **Torque:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. **Finishing:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. **Inspection:** Inspection of the installation of mechanical fixings by appropriately qualified personnel required and to be recorded in accordance with agreed protocol.

Pr_20_29_08/605 Fixing with bolts generally

1. **Preparation:** Protect threaded length from damage, place washers, packings, ferrules as required.
2. **Initial fix:** Tighten sufficiently to hold unloaded components – check line and level of components before final tightening.
3. **Final fix:** Tighten nut to specified torque and Tighten nuts to hold components in final position when fully loaded.

Pr_20_29_08/620 Fixing holding down bolts

1. **General requirements:** [Pr_20_29_08/605 Fixing with bolts generally](#) Strictly in accordance with Consultant Engineers Specification & Detail
2. **Preparation:** Set bolt assemblies into position and hold in template.
3. **Bolt tightening:** Allow concrete to reach the required strength before tightening nuts.
4. **Grouting of bolt boxes:** Fill void around bolts.

Ss_25_14_63/605 Alignment of fences

Shared by: [Ss_25_14_63_97 Wood post and rail fencing systems - B11](#) , [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. **Alignment of fences and barriers:** Straight lines or smoothly flowing curves, following profile of the ground.
2. **Tops of posts:** Follow ground profile.
3. **Verticality:** Plumb.
4. **Tolerances:** ±30 mm of prescribed alignment and, within any 10 m length, ±15 mm from the straight or required radius.

5. Changes of direction: Obtuse angles such that no angle is less than 130°.

Ss_25_14_63/607 Fencing work generally

Shared by: [Ss_25_14_63_97 Wood post and rail fencing systems - B11](#) , [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Metal fixings: Protect from corrosion.
2. In situ welding: Not permitted.
3. Treatment of minor damage to galvanized surfaces
 - 3.1. Repairs to areas of damage less than 40 mm²
 - 3.1.1. Method: Low melting point zinc alloy repair rods or powders.
 - 3.1.2. Zinc coating thickness (minimum): Thickness of the original layer.
4. Site cutting of wood
 - 4.1. Components generally: Minimize cutting.
 - 4.2. Wood below or near ground level: Do not cut.
 - 4.3. Treatment of surfaces exposed by minor cutting and drilling
 - 4.3.1. Method: Apply sufficient material to provide a coating equal to the original preservative.
 - 4.3.2. Number of coats: Two.
5. Site applied finishes
 - 5.1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.
6. Disposal of arisings
 - 6.1. Biodegradable arisings: Remove to recycling facility.
 - 6.2. Tree roots and stumps: Remove from site.
 - 6.3. Litter and nonbiodegradable arisings: Remove from site.

Ss_25_14_63/612 Fixing fence post base plates to concrete pads and strips

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Post fasteners: [Pr_20_29_03_28 Expansion anchors](#); [Pr_20_29_03_13 Carbon steel post base plates](#); and [Pr_20_29_08_38 Holding down bolt assemblies](#).
2. Fixing: Securely fix components. *Construct during detailed design. Obtain approval of appearance before proceeding. Retain undisturbed until completion of window installation.*

Ss_25_14_63/613 Fixing fence posts into preformed holes in concrete pads and strips

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Post centres (maximum): 1500 mm.
2. Setting method: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_25_14_63/616 Compacted hardcore settings for fence posts

Shared by: [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

1. Post settings
 - 1.1. Hole plan size (minimum): Make as small as practicable to allow refilling and ramming. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 1.2. Hole depth (minimum): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Excavating: Excavate neatly, with vertical sides.
3. Filling: Position posts/ struts. Fill with hardcore. Ram well as filling proceeds. Consolidate.

System completion

Ss_25_14_63/870 Inspection of fencing systems

Shared by: [Ss_25_14_63_97 Wood post and rail fencing systems - B11](#) and [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Timing: Two weeks after request by ER
2. Period of notice (minimum): Three working days.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_14_63_85

Steel palisade panel fencing systems - B8

Systems

Ss_25_14_63_85 Steel palisade panel fencing systems - B8

1. Description: STEEL FRAMED PALLISADE FENCE - B8
2. System performance: [Ss_25_14_63/205 Design submittals](#);
[Ss_25_14_63/210 Accessibility](#);
[Ss_25_14_63/265 Visual performance](#);
and [Ss_25_14_63/220 Design working life](#).
3. System manufacturer: Submit proposals .
4. Standard: To [BS 1722-12](#).
5. Designation: GP 18.
6. Posts: [Pr_20_76_64_12 Carbon steel posts](#).
7. Post foundations: . Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Base boards: [Pr_25_71_57_16 Concrete fence panels](#)
9. Panels: [45-45-95/340 Softwood fence boards](#)
10. System accessories: [Pr_20_76_88_74 Softwood fencing rails - FENCING](#)
11. Samples required: [Ss_25_14_63/520 Prototypes](#)
12. Execution: [Ss_25_14_63/605 Alignment of fences](#);
[Ss_25_14_63/607 Fencing work generally](#);
[Ss_25_14_63/612 Fixing fence post base plates to concrete pads and strips](#);
[Ss_25_14_63/613 Fixing fence posts into preformed holes in concrete pads and strips](#);
and [Ss_25_14_63/616 Compacted hardcore settings for fence posts](#).
13. System completion: [Ss_25_14_63/845 Certificates for steel palisade fencing systems](#).

System performance

See [Ss_25_14_63/205 Design submittals](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/210 Accessibility](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ss_25_14_63/220 Design working life

Shared by: [Ss_25_14_67_12 Chain link fencing systems - B10](#)

1. Standard: To [BS EN 1990](#).
2. Design working life category: 40 years.

See [Ss_25_14_63/265 Visual performance](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Products

45-45-95/340 Softwood fence boards

1. Profile: To [BS 1722-5](#), feather edge.
2. Timber: Refer to Architects Drawings.
 - 2.1. Species: Softwood.
 - 2.2. Source: European.
 - 2.3. Quality class: To [BS EN 942](#), class J40.
3. Dimensions: Refer to Architects Drawings.
 - 3.1. Length: 1800mm - Refer to Architects Drawings.
 - 3.2. Width: 100mm
 - 3.3. Thickness: 25mm
4. Finish as delivered: Refer to Architects Drawings.
 - 4.1. Worked finish: Sanded.
 - 4.2. Treatment: To WPA Commodity Specification C12, to provide a 30 year service life.
 - 4.3. Applied finish: Stained.

All cutting, machining, profiling and notching must be completed prior to treatment. Any cutting of treated surfaces & all exposed surfaces shall be retreated with a liberal brush or spray application of a suitable preservative. [Pr_35_31_67_96 Waterborne preservatives](#)

5. Execution: [Pr_25_71_97/635 Treated timber](#).

See [Pr_20_29_03_13 Carbon steel post base plates](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_03_28 Expansion anchors](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_08_38 Holding down bolt assemblies](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_76_64_12 Carbon steel posts](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Pr_20_76_88_74 Softwood fencing rails - FENCING

Shared by: [Ss_25_14_63_97 Wood post and rail fencing systems - B11](#)

1. Standards: In accordance with [BS 6180](#);
To [BS 1722-5](#);
and To [BS 1722-7](#).
2. Section: Rectangular.
3. Dimensions
 - 3.1. Section size: Refer detail drawings
4. Timber
 - 4.1. Species: Softwood.
 - 4.2. Source: European.
 - 4.3. Quality class: To [BS EN 942](#), J40.
 - 4.4. Strength class: To [BS EN 338](#), C16.
5. Finishes
 - 5.1. Worked: Manufacturer's standard .
 - 5.2. Applied: Preservative treatment.

Pr_25_71_57_16 Concrete fence panels

1. Description: Based board where difference in Ground Levels occur
2. Panel type: Solid.
3. Standards: To [BS EN 12839](#).
4. Height: 300 mm. 400 mm.
5. Width: 1900 mm.
6. Thickness: 50 mm.
7. Finishes
 - 7.1. Formed finish : To [BS EN 13670](#), plain finish.
8. Panel ends: Flat.
9. Additional requirements: Interlocking surfaces to be free from flaws or burrs which may hinder assembly.

Pr_35_31_67_96 Waterborne preservatives

Shared by: [Ss_25_14_63_97 Wood post and rail fencing systems - B11](#) and [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

1. Manufacturer: *Submit proposals*.
2. Third-party certification: Manufactured under a quality system complying with [BS EN ISO 9001](#).
Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate.
Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Performance classification: Fungicide and Insecticide.
4. Preservative
5. HSE re-entry classification: 1 hour.
6. Execution: [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#); [Pr_35_31_67/610 Treatment procedures](#); [Pr_35_31_67/615 Retrospective application of water borne preservative treatment](#)

See [Ss_25_14_63/520 Prototypes](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Execution

See [Pr_20_29_03/610 Fixing with anchors](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_08/605 Fixing with bolts generally](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_08/620 Fixing holding down bolts](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_25_71_97/635 Treated timber](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides

Shared by: [Pr_35_31_67_59 Organic solvent-borne preservatives](#)

1. Approvals: Registered by the Health and Safety Executive (HSA) and listed on the HSE website under 'Non-agricultural pesticides'.

Pr_35_31_67/610 Treatment procedures

Shared by: [Pr_35_31_67_59 Organic solvent-borne preservatives](#) and [Pr_35_31_67_98 Water-based organic preservatives](#)

1. Timing: After cutting and machining timber, and before assembling components.
2. Processor: Licensed by manufacturer of treatment solution.
3. Cutting and machining: Carry out as much as possible before treatment.
4. Extensively processed timber: Retreat timber sawn lengthways, thicknesses, planed, ploughed, etc.
5. Surfaces exposed by minor cutting or drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.
6. Site-cut timber surfaces: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
Liberally brush with a compatible preservative treatment and Liberally brush with a compatible fire retardant treatment.

Pr_35_31_67/615 Retrospective application of water borne preservative treatment

1. Preparation of timber: Remove all loose or affected timber, dust and debris.
2. Preservative application: Applied by brush or sprayed depending on formulation and situation/ location of the timber to be treated.
Contractor Selection
3. Loading of preservative: Consult manufacturer for details as loading varies with need and condition of timber.

See [Ss_25_14_63/605 Alignment of fences](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/607 Fencing work generally](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/612 Fixing fence post base plates to concrete pads and strips](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/613 Fixing fence posts into preformed holes in concrete pads and strips](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/616 Compacted hardcore settings for fence posts](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

System completion

Ss_25_14_63/845 Certificates for steel palisade fencing systems

1. Standard: To [BS 1722-12](#).
2. Certificates
 - 2.1. Fence manufacturer
 - 2.1.1. Statement of conformity: Confirmation that fence and/ or gates are manufactured in accordance with client's instructions.
 - 2.1.2. Format: Contract or order number;
Date;
Purchaser's name and address;
and Supplier's name and address.
 - 2.2. Fence installer
 - 2.2.1. Statement of conformity: Confirmation that materials and execution are in accordance with client's instructions.
 - 2.2.2. Format: Contract or order number;
Date;
Purchaser's name and address;
and Supplier's name and address.

Ω End of System

Ss_25_14_63_97

Wood post and rail fencing systems - B11

Systems

Ss_25_14_63_97 Wood post and rail fencing systems - B11

1. Standard: To [BS 1722-7](#).
2. Designation: MPR 11/3. MPR 11/4. MPR 13/4.
3. Posts: [Pr_20_76_64_77 Softwood posts](#)
4. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
5. Rails: [Pr_20_76_88_74 Softwood fencing rails - FENCING](#)
6. Site applied finishes: [Pr_35_31_67_96 Waterborne preservatives](#)
7. Execution: [Ss_25_14_63/605 Alignment of fences](#); [Ss_25_14_63/607 Fencing work generally](#); [Ss_25_14_63/635 Erecting morticed wooden post and rail fencing systems](#); [Ss_25_14_63/633 Rammed earth post settings for wooden post and rail fencing systems](#); [Ss_25_14_63/632 Driven post settings for wooden post and rail fencing systems](#)
8. System completion: [Ss_25_14_63/870 Inspection of fencing systems](#)

Products

Pr_20_76_64_77 Softwood posts

Shared by: [Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE](#)

1. Standards: In accordance with [BS 6180](#). To [BS 1722](#)
2. Posts
 - 2.1. Type: Corner. End. Intermediate. Straining.
 - 2.2. Section: Square sawn.
3. Timber
 - 3.1. Species: Softwood.
 - 3.2. Source: European.
 - 3.3. Quality class: J40 to BS EN 942.
 - 3.4. Strength class: C16 to [BS EN 338](#).

See [Pr_20_76_88_74 Softwood fencing rails - FENCING](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67_96 Waterborne preservatives](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

Execution

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/615 Retrospective application of water borne preservative treatment](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Ss_25_14_63/605 Alignment of fences](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/607 Fencing work generally](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ss_25_14_63/632 Driven post settings for wooden post and rail fencing systems

1. Standard: To [BS 1722-7](#).

Ss_25_14_63/633 Rammed earth post settings for wooden post and rail fencing systems

1. Standard: To [BS 1722-7](#).
2. Post centres (maximum): 1.8 m.

Ss_25_14_63/635 Erecting morticed wooden post and rail fencing systems

1. Standard: To [BS 1722-7](#).

2. Fence height: 1350 mm.
3. Number of rails: Refer Drawings
4. Post centres (maximum): Refer Drawings

System completion

See [Ss_25_14_63/870 Inspection of fencing systems](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ω End of System

Ss_25_14_67_12

Chain link fencing systems - B10

Systems

Ss_25_14_67_12 Chain link fencing systems - B10

1. Description: BOUNDARY FENCE - B10
2. System performance: [Ss_25_14_63/205 Design submittals](#);
[Ss_25_14_63/210 Accessibility](#);
[Ss_25_14_63/220 Design working life](#);
and [Ss_25_14_63/265 Visual performance](#).
3. System manufacturer: Submit proposals .
4. Standard: To comply with I.S. 252. & TII CC-SCD-00306
and relevant parts of [BS 1722-2](#).
5. Posts: [Pr_20_76_64_20 Concrete posts](#) @ max 3000mm c/c.
6. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
7. Wire: [Pr_20_96_97_15 Carbon steel high tensile line wires](#)
3.15mm DIA GALVANISED HIGH TENSILE STEEL STRAINING WIRES FIXED TO INTERMEDIATE POSTS WITH STIRRUP WIRE
8. Mesh infill
 - 8.1. Lower: [Pr_25_57_56_15 Continuous chain link metal mesh](#).
 - 8.2. Upper: [Pr_25_57_56_15 Continuous chain link metal mesh](#).
9. System accessories: [Pr_20_96_96_15 Carbon steel fencing stretcher bars](#)
M.S. STIFFENING ROD
TYING WIRE
In accordance with relevant parts of [BS 1722-2](#).
10. Execution: [Ss_25_14_63/605 Alignment of fences](#) and [Ss_25_14_63/607 Fencing work generally](#).
11. System completion: [Ss_25_14_63/870 Inspection of fencing systems](#)

System performance

See [Ss_25_14_63/205 Design submittals](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/210 Accessibility](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/220 Design working life](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Ss_25_14_63/265 Visual performance](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Products

Pr_20_76_64_20 Concrete posts

1. Manufacturer: Contractor's choice .
2. Standards: To [BS EN 12839](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Wind load performance: To [BS EN 12839](#), class B.
4. Posts
 - 4.1. Type: Corner. End. Gate. Intermediate. Straining.
 - 4.2. Size and profile: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 4.3. Length: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Steel reinforcement: Required.

6. Formed elements
 - 6.1. Post top: Half-rounded. Four times weathered.
 - 6.2. Post base: Flat.
 - 6.3. Features: Panel slots. Holes for line wires. Holes for straining fittings. Mortices.
 - 6.4. Surface finishes: Smooth.
7. Struts
 - 7.1. Section: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 7.2. Length: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Finishes
 - 8.1. Formed finish: To [BS EN 13670](#), plain finish.

Pr_20_96_96_15 Carbon steel fencing stretcher bars

1. Standards: In accordance with relevant parts of [BS 1722-10](#).
2. Finishes: To [BS EN ISO 1461](#), galvanized.

Pr_20_96_97_15 Carbon steel high tensile line wires

1. Standard: To [BS EN 10244-2](#), Class A.
2. Tensile strength: 1200 N/mm² in accordance with [BS EN ISO 6892-1](#).
3. Shape: Cylindrical.
4. Diameter (minimum): 3.15 mm.
5. Applied finish: Hot-dip-galvanized to [BS EN ISO 1461](#).

Pr_25_57_56_15 Continuous chain link metal mesh

1. Manufacturer: Submit Proposals
2. Standard: BS 1722-1
3. Material: Mild steel wire to BS 4102
4. Dimensions
 - 4.1. Mesh size: 63 mm.
 - 4.2. Wire or core wire diameter: 3.15mm dia
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Finishes
 - 5.1. Applied: Galvanized and PVC coated.
6. Colour: to ER approval

Execution

See [Ss_25_14_63/605 Alignment of fences](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Ss_25_14_63/607 Fencing work generally](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

System completion

See [Ss_25_14_63/870 Inspection of fencing systems](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ω End of System

Ss_25_15_60_05

Balustrade and guarding systems - STAIRS BALUSTRADE

Systems

Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE

1. Description: Timber Balustrade and guarding system. Refer to Architectural drawings for details and dimensions.
2. System performance: [Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems](#); [Ss_25_15_60/290 Compliance with performance requirements](#)
3. System manufacturer: Contractor's choice- specialist manufacturer.
4. Newels

- 4.1. Material: [Ss_35_10_40/560 Custom made dressed timber newel posts](#)
Dimensions - Refer Architects Drawings with plain profile and chamfered corners - to specialist manufacturer's detail.
5. Infills: [Pr_20_76_06_88 Timber spindles](#)
6. Rails
 - 6.1. Handrails: [Pr_25_30_36_96 Wood handrails](#)
7. Fixing to parent structure: To specialist manufacturer's design and detail.
8. Samples required: [Ss_25_60_05/505 Prototypes or mock-ups - STAIRS](#)
9. Shop drawings. : Required before fabrication for Architects approval.

Drawings must include graphic illustrations (including dimensions) of all stairs / handrail / guarding arrangements indicating details of fixing, sizes and heights, terminations, materials, finishes and visual contrast.

10. Execution: [Ss_25_15_60/620 Control inspections of balustrade and handrail systems](#); [Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally](#); [Ss_25_15_60/610 Preconstruction survey](#); [Ss_25_15_60/605 Preliminary installation](#)
11. System completion: [Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems](#); [Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems](#); [Ss_25_15_60/895 Verification of performance](#)

System performance

Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Structure and associated features: Complete the detailed design in accordance with [BS 8300-2](#).
2. Horizontal uniformly distributed line loads on balustrade or handrail (maximum): As prescribed in Building Regulations TGD K.

Ss_25_15_60/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method: Submit evidence of required structural performance.
3. Testing authority: Submit details approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
4. Submittals
 - 4.1. Format: Submit proposals .
 - 4.2. Timing: Before commencing installation.

Products

Pr_20_76_06_88 Timber spindles

1. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
2. Species: Red Deal
3. Appearance class: To [IS EN 942](#), Class J2.
4. Section: 41 mm.
5. Finish: Manufacturer's standard .

Pr_25_30_36_96 Wood handrails

Shared by: [Ss_35_10_40_42 Internal stair systems](#)

1. Description: Provide handrail to stairs as per Architects drawing and details.

Handrail shall be mounted so that the centre line of handrail shall be between 840mm & 900mm above the step in compliance with TGD K.

Final Height shall be agreed on site with Architect.
2. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
3. Species: Red Deal
4. Appearance class: To [IS EN 942](#), Class J2.
5. Size: Refer architects drawings and detail

6. Profile: Shaped profile to Architects approval.
Where wall mounted handrails are required handrail shall be mounted with a clear space of 50mm between wall & inner face of handrail.
7. Finish: Primed and painted
8. Accessories
 - 8.1. Posts:

Refer architects drawings and detail [Ss_35_10_40/560 Custom made dressed timber newel posts](#)
9. Execution: [Ss_35_10_40/505](#) Prototypes or mock-ups(24)
10. Verification
 - 10.1. Submittals: [Ss_35_10_40/830](#) Documentation for internal ramps and stair systems
[Ss_25_15_60/820](#) Documentation for handrail, balustrade and guarding systems
[Ss_25_15_60/810](#) Inspection of handrail, balustrade and guarding systems
and [Ss_25_15_60/895](#) Verification of performance. [Ss_35_10_40/840](#) BCaR Certification

Ss_25_60_05/505 Prototypes or mock-ups - STAIRS

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#)

1. Requirement: Balustrade and guarding system.
2. Purpose: For use as a reference sample.

To demonstrate compliance with performance requirements.
3. Timing: Before ordering for project.

Construct during detailed design. Obtain approval of appearance before proceeding. Retain undisturbed until completion of installation.

Ss_35_10_40/560 Custom made dressed timber newel posts

1. Description: Timber newel posts
2. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
3. Appearance class: To [BS EN 942](#), Class J10.
4. Size: Refer Architects drawings - with plain profile and chamfered corners -to specialist manufacturer's detail.
5. Finish: Water based PU/ acrylate. Colour to be confirmed by Architect.

Execution

Ss_25_15_60/605 Preliminary installation

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Required samples
 - 1.1. Types: Balustrade and guarding system.
 - 1.2. Purpose: For use as an installation reference sample.
 - 1.3. Locations: Submit proposals .
 - 1.4. Features to be included: Straight flight, single side, to include balustrade and fixings
 - 1.5. Timing: Construct during preliminary installation. Obtain approval of appearance before proceeding.

Ss_25_15_60/610 Preconstruction survey

1. Procedure: Before starting work take site dimensions, record on shop drawings and use to ensure accurate fabrication.
2. Primary support structure: Carry out survey sufficient to verify that required accuracy and security of erection can be achieved.
3. Timing: Before fabrication.

Ss_25_15_60/620 Control inspections of balustrade and handrail systems

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#)

1. Location of inspections: Site.
2. Notice before inspection and testing: 14 days.
3. Required inspections: At completion of fabrication and prior to installation.

Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Design: Complete the detailed design and obtain approval before fabrication.
2. Frameworks: Assemble and brace, including temporary members required for installation.
3. Contact between dissimilar metals: Avoid.
4. Fixings: Fully bolt together. Tighten bolts.
5. Temporary support: Do not subject members to non-design loadings.

System completion

Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Timing: Two weeks prior to date when principal contractor expects work to be practically complete.
Two weeks after request by ER
2. Period of notice (minimum): Three working days.

Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems

Shared by: [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Contents: Copies of structural design calculations and test reports. General product information. Installation information. Inspection and maintenance reports.
2. Submission: Two weeks prior to date when principal contractor expects work to be practically complete.
Two weeks after request by ER

Ss_25_15_60/895 Verification of performance

Shared by: [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#) , [Ss_25_60_05_05 Balustrade and guarding systems - External](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: Two weeks prior to date when principal contractor expects work to be practically complete.
Two weeks after request by ER

Ss_35_10_40/830 Documentation for internal ramps and stair systems

Shared by: [Ss_35_10_40_42 Internal stair systems](#)

1. Contents: Copies of structural design calculations and test reports. General product information. Installation information. Inspection and maintenance reports.
2. Number of copies: Two
3. Submission: Before commencing installation.

Ss_35_10_40/840 BCaR Certification

Shared by: [Ss_35_10_40_42 Internal stair systems](#)

1. Requirement: Check completed system and confirm compliance with specified performance under Building Control (Amendment) Regulations, BC(A)R, published as S.I. No.9 and S.I. No.105.

Ancillary Certification is to be provided by Subcontractors and Sub-Sub-Contractors who undertake construction and supervision work and related elements of design for that work.

2. Submittals
 - 2.1. Format: Copies of structural design calculations and test reports. General product information. Installation information. Inspection and maintenance reports. Description of inspections, remedial works carried out and certification of compliance.

ANCILLARY CERTIFICATE OF COMPLIANCE: DESIGN

The following Ancillary Certificates will be required to be signed by competent persons or specialists (i.e. Stairs Designer, Facade Designer, Fire Systems Designer, Lift Specialist, etc.) for their Design at Design Stage and at Completion Stage. Note there are two certificates required at Completion Stage, one covering Design and the other covering Inspection.

ANCILLARY CERTIFICATE OF COMPLIANCE: DESIGN (COMMENCEMENT NOTICE / 7 DAY NOTICE) to be completed by a specialist or unregistered consultant.

ANCILLARY
CERTIFICATE OF COMPLIANCE: DESIGN (COMPLETION) to be completed by a specialist or unregistered consultant.

ANCILLARY
CERTIFICATE OF COMPLIANCE ON COMPLETION (ANCILLARY COMPLETION CERTIFICATE – INSPECTION -) to be completed by a specialist or unregistered consultant.

2.2. Note:

Ancillary Certificates are required to be signed off by a Principal or Director of the company employing the individual who prepared the Ancillary Certificate.

The selection of the person who signs off on the Ancillary Certificate is a matter for the company concerned in compliance with their own Professional Indemnity Insurance.

2.3. Timing: On completion of design and on completion of installation / construction and inspection.

Ω End of System

Ss_25_15_60_56

Metal post and rail barrier systems - EXTERNAL RAILINGS

Systems

Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS

1. Description: External Ramp / Stairs Balustrade
2. System performance: [Ss_25_15_60/206 Design submittals](#); [Ss_25_15_60/250 Accessibility](#); [Ss_25_15_60/221 Design working life](#); [Ss_25_15_60/255 Visual performance](#); [Ss_25_15_60/211 Structural performance requirements for pedestrian safety barrier and guarding systems](#); [Ss_25_15_60/225 Performance of barriers around buildings](#); [Ss_25_15_60/225 Performance of barriers around buildings Type A](#)
3. System manufacturer: Contractor's choice .
4. Standard: To [BS 6180](#).
5. Posts: [Pr_20_76_64_12 Carbon steel posts](#).
6. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Base boards: Submit proposals .
8. Rails: [Pr_20_85_07_11 Carbon steel fencing and barrier rails](#)
9. Samples required: [Ss_25_15_60/306 Product samples](#)
10. Execution: [Ss_25_15_60/605 Alignment of barriers](#); [Ss_25_15_60/607 Work on barriers generally](#); [Ss_25_15_60/613 Fixing barrier post base plates to concrete pads and strips](#); [Ss_25_15_60/615 Fixing barrier posts into preformed holes in concrete pads and strips](#); [Ss_25_15_60/617 Formation of holes for cast-in barrier posts](#); [Ss_25_15_60/619 Formation of holes for in situ concrete pad or strip foundations for barrier posts](#); [Ss_25_15_60/653 Erection of barriers around buildings generally](#)
11. System completion: [Ss_25_15_60/811 Documentation](#); [Ss_25_15_60/815 Tests for barrier systems in and about buildings](#)

System performance

Ss_25_15_60/206 Design submittals

1. Detailed design
 - 1.1. Requirement: Complete the design of the guardrail system to ramps / steps.
 - 1.2. Purpose: To demonstrate compliance with performance requirements and for aesthetic evaluation.
 - 1.3. Submittals: The layout and design of handrails / guarding. Including design calculations.
 - 1.4. Timing: Before manufacture.
 - 1.5. Format: Drawings and specification in BIM compliant format.

Ss_25_15_60/211 Structural performance requirements for pedestrian safety barrier and guarding systems

1. Eurocodes and National Annexes: Reference to a Eurocode or to an execution or a material standard referenced therein, is deemed to include the appropriate Irish National Annex, to the Eurocode or referenced standard. Nationally determined parameters shall apply.

2. Substitution of alternative design rules for Eurocode Application Rules: Permitted. Demonstrate that the alternative rule is in accordance with the relevant principles and that structural safety, serviceability and durability of the resulting structure will be at least that required by the appropriate Eurocodes.

Ss_25_15_60/221 Design working life

1. Standard: To [IS EN 1990](#).
2. Design working life: Category 4 and 50 years.

Ss_25_15_60/225 Performance of barriers around buildings

Shared by: [Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE](#)

1. Standard: In accordance with [BS 6180](#).
2. Functions: Prevent accidental trespass.

Ss_25_15_60/225 Performance of barriers around buildings Type A

1. Standard: In accordance with [BS 6180](#).
2. Functions: Footways or pavements adjacent to sunken areas;
Guide pedestrians, cyclists and equestrians;
Horizontal loads imposed by vehicles;
Indicate an entry point;
Indicate routes to pedestrians and/ or drivers;
Pedestrian areas in car parks, steps ramps, edges, footways;
Prevent accidental trespass;
Protect against steep slopes;
and Separate pedestrians from traffic.
3. Design loading: To comply with TGD K
4. Imposed loading
 - 4.1. Height of application: Generally 1.1 m above ground level, but 1.2 m on ramps.
 - 4.2. Category: To [IS EN 1991-1-1](#) for pedestrian barriers - Generally category B, but 2.0 kN/m for railings to escape route across roof.
To [BS EN 1991-1-7](#) and [BS EN 1991-2](#) - Forces due to vehicle impact

Ss_25_15_60/250 Accessibility

1. Inclusive design: Complete detailed design in accordance with Building Regulations [Approved document M](#).
2. Finished surfaces on accessible areas: Free of irregularities capable of inflicting personal injury.
3. Designed gaps: To [BS 5709](#).
4. Prohibited features: Barbed wire;
Electric fencing;
Projecting posts above top rail;
Protruding clips, screws and bolts;
and Struts on public side of fence.

Ss_25_15_60/255 Visual performance

1. Colour: To contrast with edge of pavement.
2. Intervisibility: in accordance with Building Regulations [Approved document M](#).
3. Sight lines: in accordance with Building Regulations [Approved document M](#).
4. Transparency: To [IS EN 1794-2](#).

Products

See [Pr_20_29_03_13 Carbon steel post base plates](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_08_38 Holding down bolt assemblies](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Pr_20_31_53_52 Metal anchor and fixings grouts

1. Description: Sherardized carbon steel and Stainless steel.
Ensure compatibility between the fastener material and the item to be fixed. Aluminium screws will corrode if used with timber treated with CCA preservative.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
2. Standard: To [BS EN 1504-6](#) and To [BS EN 1504-3](#).
3. Grout type: Manufacturer's standard .

4. Identity requirements: To [BS EN 1504-6](#).

See [Pr_20_76_64_12 Carbon steel posts](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_85_07_11 Carbon steel fencing and barrier rails](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ss_25_15_60/306 Product samples

Shared by: [Pr_45_31_63_64 Playground Rubber mulch](#)

1. Submittals: Confirm with ER type and size of samples for submission.
2. Purpose: For use as a reference sample.
3. Labelling: Clearly label all submitted samples.
4. Timing: Before ordering for project.

Execution

See [Pr_20_29_08/605 Fixing with bolts generally](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

See [Pr_20_29_08/620 Fixing holding down bolts](#) in [Ss_25_14_63_51 Metal post and rail fencing systems - B4](#)

Ss_25_15_60/605 Alignment of barriers

1. Alignment of fences and barriers: Straight lines or smoothly flowing curves, following profile of the ground.
2. Tops of posts: Follow ground profile.
3. Verticality: Plumb.
4. Tolerances: ± 30 mm of prescribed alignment and, within any 10 m length, ± 15 mm from the straight or required radius.
5. Changes of direction: Obtuse angles such that no angle is less than 130° .

Ss_25_15_60/607 Work on barriers generally

1. Metal fixings: Protect from corrosion. Strictly in accordance with Consultant Engineers Specification & Detail
2. In situ welding: Not permitted.
3. Treatment of minor damage to galvanized surfaces
 - 3.1. Repairs to areas of damage less than 40 mm^2
 - 3.1.1. Method: Low melting point zinc alloy repair rods or powders.
 - 3.1.2. Zinc coating thickness (minimum): Thickness of the original layer.
4. Site cutting of wood
 - 4.1. Components generally: Minimize cutting.
 - 4.2. Wood below or near ground level: Do not cut.
 - 4.3. Treatment of surfaces exposed by minor cutting and drilling
 - 4.3.1. Method: Apply sufficient material to provide a coating equal to the original preservative.
 - 4.3.2. Number of coats: Two.
5. Site applied finishes
 - 5.1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.
6. Disposal of arisings
 - 6.1. Biodegradable arisings: Remove to recycling facility.
 - 6.2. Tree roots and stumps: Remove from site.
 - 6.3. Litter and nonbiodegradable arisings: Remove from site.

Ss_25_15_60/613 Fixing barrier post base plates to concrete pads and strips

1. Post fasteners: [Pr_20_29_08_38 Holding down bolt assemblies](#);
[Pr_20_29_03_13 Carbon steel post base plates](#);
2. Fixing: Securely fix components. Strictly in accordance with Consultant Engineers Specification & Detail

Ss_25_15_60/615 Fixing barrier posts into preformed holes in concrete pads and strips

1. Post centres (maximum): 1500 mm.
2. Setting method: [Pr_20_31_53_52 Metal anchor and fixings grouts](#) Strictly in accordance with Consultant Engineers Specification & Detail

Ss_25_15_60/617 Formation of holes for cast-in barrier posts

1. Dimensions

- 1.1. Post settings
 - 1.1.1. Hole plan size (minimum): 75 mm surrounding post.
 - 1.1.2. Hole depth (minimum): 500 mm.
 - 1.1.3. Concrete depth (minimum): Full depth.
- 1.2. Struts
 - 1.2.1. Hole plan size (minimum): 450 x 300 mm.
 - 1.2.2. Hole depth (minimum): 450 mm.
2. Formation: Excavate neatly, with vertical sides.

Ss_25_15_60/619 Formation of holes for in situ concrete pad or strip foundations for barrier posts

Shared by: [Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE](#)

1. Formation: Excavate neatly, with vertical sides.

Ss_25_15_60/653 Erection of barriers around buildings generally

Shared by: [Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE](#)

1. Standard: In accordance with [BS 6180](#).
2. Barrier height: 1100 mm.
3. Post centres (maximum): 1500mm

System completion

Ss_25_15_60/811 Documentation

Shared by: [Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE](#)

1. Contents: Installation information and Inspection and maintenance reports.
2. Number of copies: Two
3. Submission: Two weeks prior to date when principal contractor expects work to be practically complete.

Ss_25_15_60/815 Tests for barrier systems in and about buildings

1. Performance verification: Submit a certificate of the barrier system's conformity In accordance with [BS 6180](#), issued by an independent laboratory approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA), prior to ordering materials.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_15_60_68

Post and wire barrier systems - TIMBER POST AND WIRE FENCE

Systems

Ss_25_15_60_68 Post and wire barrier systems - TIMBER POST AND WIRE FENCE

1. System performance: [Ss_25_15_60/225 Performance of barriers around buildings](#)
2. Standard: To [BS 6180](#).
3. Posts: [Pr_20_76_64_77 Softwood posts](#)
4. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Wire: [Pr_20_96_97_19 Carbon steel wires](#)
6. Execution: [Ss_25_15_60/619 Formation of holes for in situ concrete pad or strip foundations for barrier posts](#);
[Ss_25_15_60/653 Erection of barriers around buildings generally](#)
7. System completion: [Ss_25_15_60/811 Documentation](#)

System performance

See [Ss_25_15_60/225 Performance of barriers around buildings](#) in [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#)

Products

See [Pr_20_76_64_77](#) Softwood posts in [Ss_25_14_63_97](#) Wood post and rail fencing systems - B11

Pr_20_96_97_19 Carbon steel wires

1. Standard: Carbon steel wire to [BS 1052](#).
2. Tensile strength: To [BS EN 10218-1](#).
3. Shape: Cylindrical.
4. Applied finish: Hot dip galvanized to [BS EN ISO 1461](#) and Galvanized to [BS EN 10244-2](#).

Execution

See [Ss_25_15_60/619](#) Formation of holes for in situ concrete pad or strip foundations for barrier posts in [Ss_25_15_60_56](#) Metal post and rail barrier systems - EXTERNAL RAILINGS

See [Ss_25_15_60/653](#) Erection of barriers around buildings generally in [Ss_25_15_60_56](#) Metal post and rail barrier systems - EXTERNAL RAILINGS

System completion

See [Ss_25_15_60/811](#) Documentation in [Ss_25_15_60_56](#) Metal post and rail barrier systems - EXTERNAL RAILINGS

Ω End of System

Ss_25_20_08_95

Weatherboarding systems - CEMENT BOARD TO SOFFITS

Systems

Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS

1. Description: EXPOSED CEMENT BOARD TO u/s OF CANOPY / PEND / SOFFITS
2. System performance: [Ss_25_20_08/210 Weatherboarding system design and installation](#); [Ss_25_20_08/230 Fire performance to BS EN 13501](#); [Ss_25_20_08/295 Compliance with performance requirements](#)
3. System manufacturer: Submit proposals.
4. Thermal insulation: Refer Architects detail drawings
5. Breather membrane
 - 5.1. Material: [Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE](#)
 - 5.2. Fasteners: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

Where the weatherboarding system is placed over insulation, confirm with Manufacturer if special, extended fixings may be required to secure the membrane and to avoid compression of the insulation.
6. Cladding support
 - 6.1. Counter battens : [Pr_20_76_88_84 Softwood weatherboarding battens](#).
 - 6.2. Battens: [Pr_20_76_88_84 Softwood weatherboarding battens](#).
 - 6.3. Fasteners: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

Where the weatherboarding system is placed over insulation, confirm with Manufacturer if special, extended fixings may be required to secure the membrane and to avoid compression of the insulation.
 - 6.4. Sheathing: [Pr_25_71_97_50 Marine plywood](#)
7. Cavity fire barriers
 - 7.1. Horizontal: [Pr_25_80_80_79 Sleeved mineral wool cavity barriers](#)
8. Weatherboarding
 - 8.1. Material: [Pr_25_71_52_25 Fibre-reinforced cement boards](#)
 - 8.2. Fasteners: [Pr_20_29_76_98 Wood screws](#)
9. System accessories: [Pr_25_57_56_61 Perforated metal mesh](#) and [Pr_35_90_28_92 Unplasticized polyvinyl chloride \(PVC-U\) finishing trims](#)
10. Execution: [Ss_25_20_08/610 Pre-installation survey](#) and [Ss_25_20_08/650 Installing fibre reinforced cement weatherboarding](#)
11. System completion: [Ss_25_20_08/895 Verification of performance](#).

System performance

Ss_25_20_08/210 Weatherboarding system design and installation

1. Appearance and fit: Ensure that position and alignment of parts and features are as shown on preliminary design drawings. Accommodate all deviations in the primary support structure.
2. Related works: Coordinate in the detailed design.
3. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Ss_25_20_08/230 Fire performance to BS EN 13501

1. Combustibility: Limited combustibility, as defined in Building Regulations Approved Documents B
2. Reaction to fire classification
 - 2.1. External surfaces: To [BS EN 13501-1](#), Class A2-s1, d0.
 - 2.2. Cavity surfaces: To [BS EN 13501-1](#), Class A2-s1, d0.
3. Fire resistance
 - 3.1. External walls: In compliance with TGD B

Ss_25_20_08/295 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method: Submit test results for fire performance.
Submit declaration of performance
3. Testing authority: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Timing of submittals: Before commencing work on site.

5. Submittals

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_20_29_76_98 Wood screws

Shared by: [Ss_40_15_35_50 Minor joinery systems](#) , [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_40_15_35_35 General FF&E systems](#)

1. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
To [BS EN 14592](#).
2. Material: Sherardized carbon steel and Stainless steel.
Ensure compatibility between the fastener material and the item to be fixed. Aluminium screws will corrode if used with timber treated with CCA preservative.
3. Finish: Sherardized.
4. Screw cups: Required.
5. Execution: [Pr_20_29_76/620 Fixing with screws](#)

Pr_20_76_88_84 Softwood weatherboarding battens

Shared by: [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Timber: Regularized softwood free from decay, insect attack (except ambrosia beetle damage) and with no knots wider than half the section width.
3. Moisture content (maximum) at time of installation: 19%.
4. Treatment: To WPA [Manual: Industrial wood preservation. Specification and practice C8](#).

Pr_25_57_56_61 Perforated metal mesh

1. Standards: In accordance with the manufacturer's standards. Suitable for purpose and location.
2. Material: Stainless steel 1.4401 (316).
3. Finish: Hot dip galvanized.
4. Open area (%): Manufacturer's standard .

Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE

Shared by: [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Accessories: Double Sided Acrylic Tape, Butyl Tape, Tape [Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#)
2. Material: Polypropylene.
3. Purpose: Vapour control layer.
4. Standard: BS EN 13859-1 (A)
BS EN 1931
BS EN 1849-2
BS EN ISO 12572
5. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. Performance characteristics
 - 6.1. Tensile strength (minimum): 340 N/5 cm / 220 N/5 cm
 - 6.2. Tear resistance: 200 N / 200 N
 - 6.3. Elongation to break: 15 % / 15 %
 - 6.4. Water vapour resistance (minimum): Water vapour resistance factor μ 35000 to BS EN 1931
 - 6.5. Fire performance: EN 13501-1 E
 - 6.6. Anti-static properties: Required.
7. Form: Reinforced.
8. Physical properties
 - 8.1. Weight (minimum): 110 g/m²
 - 8.2. Dimensions
 - 8.2.1. Thickness (minimum): 0.4 mm

8.2.2. Width (minimum): Manufacturer's standard .

8.2.3. Roll length (minimum): Manufacturer's standard .

9. Execution: [Pr_25_57_65/610 Installing vapour control layers](#)

Pr_25_71_52_25 Fibre-reinforced cement boards

1. Standard: CE marked in accordance with BS EN 12467
To BS EN 12467 category A, class 2.
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
2. Fire rating: To comply with TGD B4 - The external walls and roof of a building shall be so designed and constructed that they afford adequate resistance to the spread of fire to and from neighbouring buildings.
Fire rated to EN 13501-1, class A2-s1, d0
3. Thermal conductivity (maximum): 0.36 W/m·K.
4. Weather resistance: To [EN 12467](#), category A and To [EN 12467](#), category B.
5. Bending strength: To [EN 12467](#), class 4.
6. Sheet size
 - 6.1. Nominal thickness: 18 mm.
 - 6.2. Length: Manufacturer's standard .
 - 6.3. Width: Manufacturer's standard .
7. Edges: Square.
8. Finish as delivered: Uncoated.
9. Execution: [Pr_25_71_52/615 Installing non-gypsum-based panels](#); [Pr_25_71_52/655 Open joints](#)

Pr_25_71_97_50 Marine plywood

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) , [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#) and [Ss_30_40_95_74 Roofing edges and junction systems](#)

1. Manufacturer: Submit proposals .
2. Standard: To [BS 1088-1](#) but excluding plywood made of gaboone veneers.
3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Class: Standard.
5. Service class: To [BS EN 636 -2](#), S.
6. Bonding quality: To [BS EN 314-2](#), Class 2.
7. Surface appearance: To [BS EN 635-2](#), Grade III.
8. Reaction to fire classification: To [BS EN 13501-1](#), class C-s3, d2 or better.
9. Edges: Square.
10. Thickness: 19 mm.
11. Preservative treatment: Refer [Ss_40_90_95_65\(4-\)](#)Preservative treatment systems
12. Execution: [Pr_25_71_97/620 Installing wood-based panels](#); [Pr_25_71_97/630 Panel edge supports](#)

See [Pr_25_80_80_79 Sleeved mineral wool cavity barriers](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_35_90_28_92 Unplasticized polyvinyl chloride (PVC-U) finishing trims

1. Profiles: Drip trim;
External corner trim;
Variable angle trim;
Internal corner trim;
and Universal trim.
2. Colour and finish: To match weatherboarding.
3. Verification
 - 3.1. Submittal: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 3.2. Timing: Before placement of order.

Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes

Shared by: [Ss_30_42_15_30 Floating cementitious levelling screed systems](#) and [Pr_35_31_77_46 AIRTIGHT SEAL - Liquid-applied membranes](#)

Employers Requirements, Architectural & Landscaping Specification

1. Description: Proprietary Airtight sealing tape for element junctions in the building structure.
2. Function: To provide airtightness seal at junctions between inner faces of external masonry walls and ancillary elements (openings / frames)/ concrete floors as well as airtight vapour control membranes.
 1. Vapour resistant
 2. Suitable as substrate for direct internal plastering
 3. Direct bonding to masonry/ concrete.Life Expectancy: 60+ years
3. Manufacturer: Submit Proposal for approval
4. Airtightness: : EN 12114 a-value less than 0.1 m3/(jmdaPA2/3) Q1000-value less than or equal to 0.25m3/ (mh)
5. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. Tensile Properties: : EN 12311-1
 1. Max tensile strength lengthwise 220 N/50mm,
 2. max tensile strength crosswise 140 N/50mm,
 3. elongation at max tensile strength lengthwise
 4. 70%
 5. elongation at maximum tensile strength crosswise 80%
7. Temperature Resistance: : -40 degrees C to + 90 degrees C
8. Material: Self-adhesive tape consisting of synthetic resin film with fleece suitable as substrate for direct internal plastering

Coated on one side with a waterproof adhesive backed with a slit release film.

Polypropylene backing fleece & Polypropylene copolymer membrane
9. Air permeability: Air and water vapour tight.

Execution

See [Pr_20_29_76/620 Fixing with screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_25_57_65/610 Installing vapour control layers

Shared by: [Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL](#) and [Pr_25_57_65_60 Plastics sheets - Screed / Insulation Separation](#)

1. Continuity: No breaks. Minimize joints.
2. Penetrations and abutments: Tape to vapour control membrane. Prime substrates to achieve full bond. Strictly in accordance with manufacturers specification, suitable for the purpose location and detail.
3. Joints and edges: Overlap joints 150 mm and seal with vapour-resistant adhesive tape. Perimeter edges sealed. Prime substrates to achieve full bond.

Strictly in accordance with manufacturers specification, suitable for the purpose location and detail.
4. Sheet repairs and punctures: Fix and seal lapped patch of vapour control membrane with continuous band of tape on edges.

Strictly in accordance with manufacturers specification, suitable for the purpose location and detail.

See [Pr_25_71_52/615 Installing non-gypsum-based panels](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_71_52/655 Open joints](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/620 Installing wood-based panels](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/630 Panel edge supports](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Ss_25_20_08/610 Pre-installation survey

1. Primary support structure (substrate): Carry out a sufficiently detailed survey to verify that required accuracy of erection can be achieved.
2. Survey results: Submit. Confirm that structure will allow accuracy and security or erection required by specification. Give notice of all areas of structure that do not meet the requirements.
3. Timing: Before commencement of installation on-site.

Ss_25_20_08/650 Installing fibre reinforced cement weatherboarding

1. Laps (minimum): 30 mm.

2. Fixing distance from board edges (minimum): Vertical edges 15 mm. Horizontal edges 20 mm. Where the weatherboard abuts another material and when no end trims are required, the end of the weatherboard must not be more than 100 mm past the last fixing point.
3. Perimeter details: Boards trimmed at external corners;
Boards trimmed at internal corners;
Boards trimmed along bottom edge to form drip;
and Boards trimmed at abutments and gables.

System completion

Ss_25_20_08/895 Verification of performance

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Method: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Submittals
 - 3.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 3.2. Timing: At completion of Cement boarding work

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_25_45_35

Gypsum board wall lining systems - ACOUSTIC LINING

Systems

Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING

1. Description: Acoustic lining at Party Walls - Refer Architectural Drawings
2. System performance: [Ss_25_25_45/225 Fire performance of wall lining system to BS EN 13501](#); [Ss_25_25_45/250 Airtightness performance of wall lining systems](#); [Ss_25_25_45/255 Acoustic performance of wall lining systems](#); [Ss_25_25_45/290 Compliance with performance requirements](#)
3. Support: [Pr_20_85_32_88 Timber Sub frames](#)
4. Resilient layer: [Pr_35_90_87_27 Expanded polyethylene \(PE\) foam strips](#)
5. Linings: [Pr_25_71_52_84 Standard gypsum plasterboards](#)
 - 5.1. Face layer: [Pr_25_71_52_52 Moisture-resistant gypsum plasterboards](#)
6. Fasteners: [Pr_20_29_76_65 Plasterboard screws](#)
7. Joint treatment: [Pr_35_90_87_60 Paper jointing tapes](#)
8. Finish: [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#)
9. Samples required: [Ss_25_25_45/605 Preliminary installation -ACOUSTIC LINING](#)
10. System accessories: [Pr_30_59_36_01 Access panels](#); [Pr_30_31_76_02 Acrylic construction joint sealants](#); [Pr_35_90_07_24 Dry lining beads](#); [Pr_30_31_76_41 Intumescent foam fillers](#); [Pr_30_31_76_02 Acrylic construction joint sealants](#); [Pr_35_90_87_52 Metal strip reinforced paper tapes](#)
11. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
12. Execution: [Ss_25_25_45/607 Installing gypsum board linings generally](#); [Ss_25_25_45/610 Preparation of substrates to receive wall linings](#); [Ss_25_25_45/615 Installing linings adjacent to new concrete and screeds](#); [Ss_25_25_45/635 Installing gypsum-based boards to resilient acoustic bars](#); [Ss_25_25_45/640 Installing gypsum-based boards to timber](#); and [Ss_25_25_45/660 Installing insulation and cavity barriers in linings](#). [Ss_25_25_45/655 Sealing gaps and air paths around linings and casings](#)
13. System completion: [Ss_25_15_60/895 Verification of performance](#)

System performance

Ss_25_25_45/225 Fire performance of wall lining system to BS EN 13501

1. Fire resistance: To EN 13501-2, class EI 30.
2. Reaction to fire: To EN 13501-1, class B-s3, d2 or better.
3. Fire performance wall lining Identification: *Install fire performance labels as per [ASFP recommendations](#).*

Ss_25_25_45/250 Airtightness performance of wall lining systems

1. Air permeability: 50 Pascals.
2. Air leakage rate (m3/hr): 2
3. Test standards: [Ac_15_55_04/620 Air Tightness / Air pressure testing](#)

Ss_25_25_45/255 Acoustic performance of wall lining systems

1. Sound attenuation
 - 1.1. Standards: [Ac_15_55_04/640 Acoustic testing](#)
2. Sound absorption
 - 2.1. Standards: Measured in accordance with [BS EN ISO 354](#) and rated in accordance with [BS EN ISO 11654](#).

Ss_25_25_45/290 Compliance with performance requirements

1. Purpose: Proof of compliance with specified performance
2. Requirements: Include details of performance related to the particular elements of construction.
3. Method:
 - 3.1. Laboratory project testing : For structural performance.
For fire performance.
For acoustic performance.
 - 3.2. Previous test results: For structural performance.
For fire performance.
For acoustic performance.

4. Testing authority: Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark. Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
5. Submissions
 - 5.1. Format: Test results and certification.
Declaration of Performance.
 - 5.2. Timing: Before commencing installation.

Products

See [Pr_20_29_76_65](#) Plasterboard screws in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_20_85_32_88](#) Timber Sub frames in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52_52](#) Moisture-resistant gypsum plasterboards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52_84](#) Standard gypsum plasterboards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76_02](#) Acrylic construction joint sealants in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76_41](#) Intumescent foam fillers in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_59_36_01](#) Access panels in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_31_64_32](#) Finish plasters - SKIM FINISH in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_90_07_24](#) Dry lining beads in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_90_87_27](#) Expanded polyethylene (PE) foam strips in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_90_87_52](#) Metal strip reinforced paper tapes in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_90_87_60](#) Paper jointing tapes in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

Execution

See [Ac_15_55_04/620](#) Air Tightness / Air pressure testing in [Ac_15_55_04/110](#) Acoustics, Airtightness and Ventilation Testing - Ventilation Certification

See [Ac_15_55_04/640](#) Acoustic testing in [Ac_15_55_04/110](#) Acoustics, Airtightness and Ventilation Testing - Ventilation Certification

See [Pr_20_29_76/620](#) Fixing with screws in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/605](#) Installing gypsum based board in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/635](#) Installing additional supports in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/640](#) Level of dry lining across joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/645](#) Joints between gypsum based boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/650](#) Seamless jointing to gypsum boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/655](#) Open joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/660 Repairs to plasterboard](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64/620 Preparation for thin coat plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64/715 Finish to plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_07/650 Installing beads](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Ss_25_25_45/605 Preliminary installation -ACOUSTIC LINING

1. Installation requirements: Complete an area of lining or casing in an agreed location.
2. Position: Confirm with Architect kitchen wall to be completed.
3. Extent: One sample wall area.
4. Size: *Full height and minimum 3 m long.*
5. Timing: Construct and obtain approval of appearance before proceeding with general installation. Retain undisturbed until completion of demountable suspended ceiling installation.

Ss_25_25_45/607 Installing gypsum board linings generally

1. Standard: In accordance with [BS 8000-0](#), [BS 8000-8](#) and [BS 8212](#).
2. Deviations and tolerances
 - 2.1. Vertical deviation (maximum): ± 5 mm measured above or below the setting out position, in accordance with [BS 8212](#) clause 3.3.2.
 - 2.2. Horizontal deviation (maximum): ± 3 mm measured at the setting out level (ceiling or floor), in accordance with [BS 8212](#) clause 3.3.2.
 - 2.3. Finished surfaces: Maximum deviation band of 10 mm in accordance with [BS 8212](#) clause 3.3.3.

Ss_25_25_45/610 Preparation of substrates to receive wall linings

1. Suitability of substrates: Suitable to receive lining system. Remove redundant fixtures and services. Complete cutting, chasing and making good.
2. Sealing: Seal all holes, gaps, service penetrations, perimeter junctions and around openings.
3. Adhesive fixings: Prepare substrate to achieve effective bonding.
4. Contaminants: Remove loose material, dirt, grease, oil, paper, etc.
5. Absorption: Control by dampening, priming or applying bonding agents as necessary.

Ss_25_25_45/615 Installing linings adjacent to new concrete and screeds

1. Dpcs
 - 1.1. General: Lay loose onto subfloor for full width and length of linings between floor and sole of framing.
 - 1.2. Laps (minimum): 150 mm and bonded.
 - 1.3. Abutments: Turn up a minimum of 150 mm where lining frames abut perimeter walls.
2. Wall linings: Keep short of floor level with a minimum gap of 20 mm.

Ss_25_25_45/635 Installing gypsum-based boards to resilient acoustic bars

1. Fixing: Screw fix securely.
2. Fixing centres (maximum): 300mm

Ss_25_25_45/640 Installing gypsum-based boards to timber

1. Fixing centres (maximum)
 - 1.1. Nails: maximum fixing centres for nails 150 mm.
 - 1.2. Screws to partitions and wall linings: 300 mm. Reduce to 200 mm at external angles.
 - 1.3. Screws to ceilings: maximum fixing centres for screws to ceilings 250 mm.

Ss_25_25_45/655 Sealing gaps and air paths around linings and casings

Shared by: [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Location of sealant: To perimeter abutments and around openings. 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. After sealing, fill gaps greater than 6 mm between floor and underside of plasterboard with jointing compound.

Ss_25_25_45/660 Installing insulation and cavity barriers in linings

1. Insulation
 - 1.1. Fitting: Secure with closely butted joints and no gaps.
 - 1.2. Rigid insulation: Fit tightly between studs.
 - 1.3. Non-rigid insulation: Fix at head of frame using timber battens or metal clips.
2. Cavity barriers
 - 2.1. Generally: Form accurately with no gaps at joints and perimeters. Mechanically fix securely across full width of cavity.
 - 2.2. Fire-rated partitions: Include cavity barriers to ceiling or floor void above, below or between partitions. Provide same rating for barrier as partition.
 - 2.3. Junctions: Prevent penetration of smoke and flame.

System completion

See [Ss_25_15_60/895 Verification of performance in Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_30_20_25

Doorset systems - EXTERNAL ALUCLAD DOORS

Systems

Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS

1. Description: External Composite AluClad doors. Refer Architects drawings, door schedule and Ironmongery schedule
2. Generally : Doors shall be fabricated so as to achieve an **assembled U value of 0.8 W/m²K**, to the sizes as shown on Door & Window Schedule.

Prior to the Contractor placing an order for the doors, provide the Architect with the following non-exhaustive list of details relating to the window manufacturer / product, for examination/approval.

List of recent projects within County Mayo
Warranty -
10 year parts and labour warranty on frame and sash
10 year parts and labour warranty on glazing units
10 year parts and labour warranty on all hardware
Detailed specification of the product

Workshop drawings. Drawings must include fixing details to door reveals.

Doors shall consist of

1. Robust durable ironmongery easy to operate.
2. Unobtrusive weather strip fitted in one length all around frame. Minimum of 2no. weather strips
3. Durable double Sealing of opening to ensure compliance with air pressure test requirements.
4. All edges which are visible in the closed position shall be rounded
5. Contractor to arrange for a door sample to be fitted on site for approval prior to placing any joinery order.
6. Check all glazing units for defects upon delivery to site and for plaster burns when plastering completed.
7. Report all defects to supplier and Architect immediately.
8. Protect all door & glazing units as directed by manufacturer during site works.
9. 'high security' impact resistant doors (and vision panel)
10. 5 point locking system operated internally with a non-removable thumb turn

Prior to the Contractor placing an order for the external doors, provide the ER with the following non-exhaustive list of details relating to the door manufacturer / product, for examination/approval.

Contractor to arrange for a door sample to be fitted on site for approval prior to placing any order.
Check all external doors for defects upon delivery to site and for plaster marks when plastering completed.
Report all defects to supplier and ER immediately.
Protect all external doors as directed by manufacturer during site works

3. System performance: [Ss_25_30_20/210 Performance requirements generally](#); [Ss_25_30_20/225 Weathertightness performance to BS 6375-1](#); [Ss_25_30_20/230 Resistance to wind load](#); [Ss_25_30_20/235 Air permeability](#); [Ss_25_30_20/240 Acoustic performance](#); [Ss_25_30_20/250 Mechanical strength requirements to BS EN 1192](#); [Ss_25_30_20/265 Inclusive design](#); [Ss_25_30_20/218 Fire performance requirements to BS EN 13501](#); [Ss_25_30_20/290 Compliance with performance requirements](#); [Ss_25_30_20/205 Design submittals - Windows & Doors](#)
4. Doorset
 - 4.1. Type: [Pr_30_59_24_16 Composite doorsets - EXTERNAL DOORS](#)
 - 4.2. Fasteners: Frames shall be fixed to the masonry walls with Galvanized carbon steel frame cramps (4 No. to each frame) 25 x 0.3 x 300mm long holed and nailed to the frame and bedded in mortar joints.

Provide vertical dpc to return.
 - 4.3. Glazing: [Pr_30_59_97_94 Vision panels](#)
 - 4.4. Seals or inserts
 - 4.4.1. Frame: [Pr_35_90_33_22 Door and window weatherstrips and seals - EXTERNAL OPES](#)
 - 4.4.2. Door: [Pr_35_90_33_22 Door and window weatherstrips and seals - EXTERNAL OPES](#)
5. Classification and certification labelling
 - 5.1. Standards: To [BS EN ISO/IEC 27001](#). In accordance with [BS EN ISO/IEC 27002](#). In accordance with [BS EN ISO/IEC 27017](#). In accordance with [BS EN ISO/IEC 27018](#). To [BS EN ISO/IEC 27701](#).
6. Thresholds
 - 6.1. Base: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Confirm with Architect type and size and provide samples for approval.
 - 6.2. Weather or seal stripping: Required
7. Over panels: Refer Architects drawings, door schedule and Ironmongery schedule

Employers Requirements, Architectural & Landscaping Specification

8. Side panels: Refer Architects drawings, door schedule and Ironmongery schedule
9. Hardware: [Ss_25_38_20_20 Door hardware systems - EXTERNAL DOOR IRONMONGERY](#)
10. Samples required: [Ss_25_30_20/505 Prototypes or mock-ups](#)
11. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
12. Execution: [Ss_25_30_20/610 Preconstruction survey](#); [Ss_25_30_20/620 Priming and sealing](#); [Ss_25_30_20/630 Installing damp-proof courses](#); [Ss_25_30_20/642 Installing external doorsets or frames](#); [Ss_25_30_20/645 Installing fire resisting and smoke control doorsets, door assemblies or doors](#); [Ss_25_30_20/650 Fixing of loose thresholds](#); [Ss_25_30_20/655 Fixing hardware](#); [Ss_25_30_20/675 Installation of emergency and panic exit devices](#); [Ss_25_30_20/680 Frame sealant joints](#); [Ss_25_30_20/685 Timing of fixing of doorsets](#); [Ss_25_30_20/690 Building-in permissions](#); [Ss_25_30_20/695 Protection of components](#)
13. System completion: [Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets](#); [Ss_25_13_50/895 Verification of performance](#)

Ss_25_38_20_20 Door hardware systems - EXTERNAL DOOR IRONMONGERY

1. System performance: [Ss_25_38_20/210 Inclusive design](#); [Ss_25_38_20/290 Compliance with performance requirements - Hardware](#)
2. Hanging: [Pr_30_36_36_09 Hinges](#)
3. Operating: [Pr_30_36_59_25 Door lever handle sets](#)
4. Securing: [Pr_30_36_08_54 Multipoint door locks](#)
5. Plates and stops: [Pr_30_36_33_27 Escutcheons](#); [Pr_30_36_33_24 Door stops](#)
6. Furniture: [Pr_30_36_33_76 Security viewers](#)
7. Samples required: [Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE](#)
8. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
9. Execution: [Ss_25_38_20/610 Installing door hardware](#)
10. System completion: [Ss_25_38_20/805 Removal of samples](#); [Ss_25_38_20/810 Documentation relating to hardware](#); [Ss_25_38_20/810 Documentation relating to hardware](#)

System performance

Ss_25_30_20/205 Design submittals - Windows & Doors

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) , [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Purpose: *To demonstrate compliance with performance requirements & for aesthetic evaluation.*
2. Design submittals: Shop drawings including Typical plan, elevational and section drawings of each unit at suitable scales.
3. Validation submittals: Test certification for doors / window assemblies to show proposals for meeting performance requirements. Approved installer validation.
4. Timing: *Before manufacture.*
5. Format: *Drawings and specification*

Ss_25_30_20/210 Performance requirements generally

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Requirement: Complete relevant areas in respect of emergency egress and door function.

Ss_25_30_20/218 Fire performance requirements to BS EN 13501

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Fire resistance
 - 1.1. Standard: To [IS EN 1634-1](#); classification to [IS EN 13501-2](#) and To [IS EN 1634-3](#).
 - 1.2. Integrity: As per schedule and relevant Fire Safety Certificate report
 - 1.3. Insulation: As per schedule and relevant Fire Safety Certificate report
 - 1.4. Radiation: As per schedule and relevant Fire Safety Certificate report
2. Smoke leakage
 - 2.1. Ambient temperature smoke: To [IS EN 13501-2](#), Class S_a.
 - 2.2. Medium temperature smoke: To [IS EN 13501-2](#), Class S_m.
3. Reaction to fire: To [IS EN 13501-1](#), class B-s3, d2 or better.

Ss_25_30_20/225 Weathertightness performance to BS 6375-1

1. Standard: [BS 6375-1](#)
2. UK exposure category: 2000 Pa.
3. Door performance: Fulfil classification parameters given in [BS 6375-1](#) for weathertightness relating to specified UK exposure category.

Ss_25_30_20/230 Resistance to wind load

1. Resistance to wind load: To EN 12210, Class 5.

Ss_25_30_20/235 Air permeability

1. Air permeability: To EN 12207, Class 4.

Ss_25_30_20/240 Acoustic performance

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Sound insulation rating: To EN ISO 717-1, 55 dB(A).

Ss_25_30_20/250 Mechanical strength requirements to BS EN 1192

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Standard: To EN 1192.
2. Category of duty: Class 4.

Ss_25_30_20/265 Inclusive design

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Design standards: Building Regulations – TGD [M](#).
Refer to the DAC certificate and drawings, and DAC safety compliance report.
2. Design considerations
 - 2.1. Occupancy: Includes children under five years of age and Special needs.
 - 2.2. Additional requirements: As Disability Access Certificate and associated drawings / documents.
3. Inclusive design: Complete design in accordance with recommendations in Building Regulations [TGD M](#) and Submit proposals.
4. Best practice design
 - 4.1. Manifestation of glazing: Provide two zones: 850 - 1000 mm and 1400 - 1600 mm from ffl. Manifestation to cover 10% of each zone and to contrast visually with background under both natural and artificial lighting.
 - 4.2. Visual contrast: Operating controls, LRV 20 points contrast.
 - 4.3. Door furniture
 - 4.3.1. Operability: Knobs not permitted. Operable with clenched fist.
 - 4.3.2. Projection: 70 mm maximum.
 - 4.3.3. Maximum torque: Oval cross-section handle: 8 N m to depress and 5.5 N to lift and Rectangular cross-section handle: 4 N m to depress and lift.

Ss_25_30_20/290 Compliance with performance requirements

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Requirement: Proof of compliance with specified performance.
2. General requirements: Include details of performance related to the particular elements of construction.
3. Method: Acoustic performance.
Security performance.
Fire performance.
Weathertightness performance.
4. Testing authority: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Submittals
 - 5.1. Format: Test results and certification.
Declaration of Performance.
 - 5.2. Timing: Before commencing installation.

Ss_25_38_20/210 Inclusive design

1. Inclusive design: Complete design in accordance with recommendations in TGD Document M1 and submit proposals.
2. Best practice design
 - 2.1. Door controls
 - 2.1.1. Operability: Knobs not permitted.
 - 2.1.2. Handle projection (minimum): 45 mm between door and handle.
 - 2.1.3. Handgrip zone (minimum): 95 mm.
 - 2.1.4. Visual contrast between door panel and hardware (minimum): LRV 15.
 - 2.2. Height (finished floor level to underside of equipment)
 - 2.2.1. Lever and horizontal pull handles: 800–1050 mm.
 - 2.2.2. Vertical pull handles: 700–1000 mm for base and 1300 mm for top.

Ss_25_38_20/290 Compliance with performance requirements - Hardware

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#) and [Ss_25_38_20_33 Gate hardware systems](#)

1. Purpose: Proof of compliance with specified performance.
2. Requirement: Include details of performance related to the particular elements of construction.
3. Method: For fire performance.
4. Testing authority: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Submittals
 - 5.1. Format: Test results and certification.
Declaration of Performance.
 - 5.2. Timing: Before commencing installation.

Products

Pr_30_36_08_54 Multipoint door locks

1. Lock type: Multipoint mortice lock.
2. Category of use
 - 2.1. Standard: To [BS EN 1192](#).
 - 2.2. Duty: Heavy duty.
3. Keying : In master keyed suite.
4. Execution: [Pr_30_36_08/610 Fasteners for hardware](#)

Pr_30_36_33_24 Door stops

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#)

- Form: Confirm with Architect type and size.
Floor mounted black rubber centre fixing.
- Fasteners for hardware: Colour and finish to match hardware.
- Execution: [Pr_30_36_33/620 Fixing door stops](#)

Pr_30_36_33_27 Escutcheons

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#)

1. Material and finish: Satin stainless steel, grade 1.4401 (316).
2. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_33_76 Security viewers

1. Angle of vision: 180°.
2. Fire resistance (minimum): To Match door
3. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_36_09 Hinges

- Category of use: Heavy duty.

- **Size:** Refer to Architects Drawings.
Strictly in accordance with manufacturers specification and detail.
- **Material and finish:** Satin stainless steel, grade 1.4401 (316).
- **Execution:** [Pr_30_36_36/610 Fasteners for hardware](#)

Pr_30_36_59_25 Door lever handle sets

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#)

1. **Description:** Refer to Architects Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
2. **Standard:** To [BS EN 1906](#).
3. **Third-party certification:** Ironmongery must be currently certified as suitable for purpose and exposure situation.

All construction products must bear a CE mark, where a harmonised standard exists for the product.
 1. Products / materials shall either be certified as complying with latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.
 2. Where works involve systems, products, materials, techniques or equipment, for which published national standards do not yet exist, third party certification demonstrating compliance with Irish Building Regulations and durability requirements shall be required by the contracting authority.
 3. Such certification may include, in part or in total, a European Technical Assessment or Agrément certification e.g. NSAI Agrément or equivalent.
4. **Classification grades (minimum)**
 - 4.1. **Category of use:** 3.
 - 4.2. **Durability:** 7.
 - 4.3. **Door mass:** No requirement.
 - 4.4. **Fire resistance:** 1.
 - 4.5. **Safety:** 1.
 - 4.6. **Corrosion resistance:** 3.
 - 4.7. **Security:** 4.
5. **Style:** Refer to Architects Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
6. **Size:** Refer to Architects Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
7. **Material and finish:** Refer to Architects (31) Series Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
8. **Fasteners for hardware:** Colour and finish to match hardware.
9. **Verification**
 - 9.1. **Submittals:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_30_59_24_16 Composite doorsets - EXTERNAL DOORS

1. **Description:** Timber Door, with external aluminium cladding.
2. **Manufacturer:** [Submit proposals](#)
3. **Standard:** To EN 14351-1:2006 + A2:2016.
External fire rated composite doorset CE marked in accordance with BS EN 14351-1 and BS EN 16034.
4. **Configuration:** Single leaf, single action.
Double leaf, single action.
Refer to Architectural External Door Schedule for details.
5. **Doorset size:** Refer to Architectural External Door Schedule for details.
6. **Performance**
 - 6.1. **Acoustic performance:** NPD.
 - 6.2. **Strength and durability:** Operating forces to EN12046-1/ EN 13115 Class 1; EN 1191/ EN 12400 Repeated open/close, 50 000 cycles: Class 4.
 - 6.3. **Thermal:** To achieve an assembled U value of 1.0 W/m2K,
 - 6.4. **Intruder resistance**

- 6.4.1. Minimum requirement: To Loss Prevention Standard: Requirements and testing procedures for the LPCB approval and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers. Issue 7.3, SR 6.
- 6.4.2. Conformity: Certification by accredited third-party certification body. Type testing not permitted.
- 7. Frame
 - 7.1. Materials: Wood core with aluminium sleeve.
 - 7.2. Threshold: To be supplied as part of the frame.
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 7.3. Finish: Manufacturer's standard.
 - 7.4. Colour: Submit proposals
Colour to be agreed with Architect prior to manufacture.
 - 7.5. Film thickness (minimum): 60–120 µm.
- 8. Door leaf
 - 8.1. Thickness: Manufacturer's standard, according to panel specified.
 - 8.2. Core: Manufacturer's standard, according to panel specified.
 - 8.3. Panel details: As schedule.
 - 8.4. Facings
 - 8.4.1. External: Manufacturer's standard, according to panel specified.
 - 8.4.2. Internal: As External.
 - 8.5. Glazing
 - 8.5.1. Type: In accordance with BS 6262-4 clear 48 mm thick triple glazing.
 - 8.6. Beading
 - 8.6.1. Type: External.
 - 8.6.2. Material: Aluminium alloy.
 - 8.6.3. Fixing: Screwed/ screw and clips.
 - 8.7. Finish: Powder coating to BS EN 12206-1. Film thickness (minimum): 25 micrometres.
To comply with Standard requirements specified above.
 - 8.8. Colour
 - 8.8.1. External: RAL.
 - 8.8.2. Internal: As External.
 - 8.9. Door accessories: Door viewer. Door chain.
- 9. Hardware: 180° hinges.
- 10. Preservative treatment: Manufacturers standard, suitable for the purpose, certification, location and detail.
- 11. Accessories: As schedule
- 12. Air permeability: Generally 600 Pa to BS EN 1026/ BS EN 12207 Class 4.
- 13. Watertightness: Generally, inward opening doors: 600 Pa; outward opening doors: 300 Pa to BS EN 1027/ BS EN 12208 class 9A.
- 14. Wind load resistance: Generally 1600 Pa to BS EN 12211/ BS EN 12210 class 4C.
- 15. Third-party certification: PAS24:2022; Secured by Design;
Q-Mark product certification,
FSC, Danish window verification and indoor climate label.

[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

- 16. Frame
 - 16.1. Generally:
 - 1. Standards: To BS EN 942 and To BS EN 14220.
 - 2. Profile: Manufacturer's standard.
 - 16.2. Materials: Wood core with aluminium sleeve.
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 16.3. Threshold: To be supplied as part of the frame.
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 16.4. Perimeter seals or inserts: EPDM weather seal.
 - 16.5. Colour: Submit proposals
Colour to be agreed with Architect prior to manufacture.
- 17. Door leaf
 - 17.1. Thickness: Refer to Architectural External Door Schedule for details.

17.2. Finish:

1. External finish: Coating: Powder coating to BS EN 12206-1. Film thickness (minimum): 25 micrometres. To comply with Standard requirements specified above.
2. Internal finish: Submit proposals.

Wood species: Manufacturer's standard.

1. Appearance class: For opaque finishing: to BS EN 942, J10 for glazing beads, drip mouldings and the like. J40 or better for all other members and For clear finishing: to BS EN 942, J2 for glazing beads, drip mouldings and the like. J30 or better for all other members.
2. Finger jointing and knots on arrises not permitted where exposed to view.

Wood finishes: Submit proposals.

1. Factory fully painted or varnished finish (allowing for internal & external colours to differ). Colour to be agreed with Architect prior to manufacture.

18. Execution: [Pr_30_59_23/630 Installing hardware](#)

Pr_30_59_97_94 Vision panels

1. Manufacturer: Submit proposals .
2. Third-party certification: Board of Agrément Certificate (IAB) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Performance: To Match door rating
 - 3.1. Fire resistance
 - 3.1.1. Integrity: To Match door rating
 - 3.1.2. Insulation: To Match door rating
4. Frame
 - 4.1. Material: Wood.
5. Glazing
 - 5.1. Glazing: Required.
 - 5.2. Type: In accordance with [BS 6262-4](#), clear fire resisting safety glazing and In accordance with [BS 6262-4](#), obscure fire resisting safety glazing.
 - 5.3. Size: Refer to Architects (31) Series Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
6. Beading
 - 6.1. Type: Internal.
 - 6.2. Material: Hardwood.
7. Manifestation: TGD M
8. Verification
 - 8.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_35_90_33_22 Door and window weatherstrips and seals - EXTERNAL OPES

Shared by: [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

1. Standard: To [BS EN 12365-1](#).
2. Third-party certification: Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Functions: Draught seals;
Fire and smoke seals;
and Weather seals.
4. Classification grades (minimum)
 - 4.1. Category of use: Type G. Type W.
 - 4.2. Working range: Grade 5.
 - 4.3. Linear compression force: Grade 5.
5. Seal type: Rebated elastomeric compression strip;
Rebated elastomeric wiping strip;
6. Size: To suit performance requirements.
7. Materials
 - 7.1. Seals: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

- 7.2. Carriers: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
8. Execution: [Pr_35_90_33/610 Installing weatherstripping or seals](#)

Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#) and [Ss_25_38_20_33 Gate hardware systems](#)

1. Submittals: Small fabricated samples incorporating particular features of the system. Confirm with Architect type and size of samples for submission.
2. Purpose: For use as a reference sample.
3. Labelling: Clearly label all submitted samples.
4. Timing of submission: *Before ordering for project.*

Execution

Pr_30_36_08/610 Fasteners for hardware

Shared by: [Pr_30_36_08_63 Panic exit devices](#) , [Pr_30_36_08_61 Padlock hasps and staples](#) , [Pr_30_36_08_34 Gate latches and catches](#) and [Pr_30_36_08_29 Espagnolette bolts](#)

- Colour and finish: Match hardware.

Pr_30_36_33/620 Fixing door stops

Shared by: [Pr_30_36_33_24 Door stops](#)

1. Position: To walls receiving door opening other than where doors are fitted with closers with a back check facility to prevent fouling of hardware with other adjacent surfaces.
Seek confirmation of positioning before installation.

Pr_30_36_36/610 Fasteners for hardware

Shared by: [Pr_30_36_36_28 Field gate hinges](#) and [Pr_30_36_36_22 Door pivots](#)

1. Colour and finish: To match hardware.

Pr_30_59_23/630 Installing hardware

Shared by: [Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE DOOR](#) , [Pr_30_59_24_97 Internal Wood doorsets](#) and [Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE RATED SERVICES ACCESS DOOR](#)

1. Standard: In accordance with third party certification for doors, door assembly or doorsets.
2. Submissions: Evidence of compliance with certification.

Pr_35_90_33/610 Installing weatherstripping or seals

Shared by: [Pr_35_90_33_22 Door and window weatherstrips and seals - INTERNAL DOORS](#)

1. Fixing method: Strictly in accordance with manufacturers specification.
2. Fitting: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
3. Continuity: Form weatherstripping or seals in a complete frame with sealed joints.

Ss_25_30_20/505 Prototypes or mock-ups

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Requirement: Confirm with Architect type and size of Typical door samples required for inspection / approval.
2. Purpose: *For use as a reference sample.*
To demonstrate compliance with performance requirements.
3. Timing: *Before ordering for project.*
Obtain approval of appearance before proceeding.

Ss_25_30_20/610 Preconstruction survey

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Procedure: Before starting work, take the site dimensions, record them on shop drawings and use them to ensure accurate fabrication.

2. Primary support structure: Survey sufficiently to verify that the required accuracy and security of erection can be achieved.
3. Timing: Before fabrication.

Ss_25_30_20/620 Priming and sealing

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Application: Prepare and prime and Prepare and seal.
2. Wood surfaces inaccessible after installation: Prime or seal before fixing components.

Ss_25_30_20/630 Installing damp-proof courses

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Prepared openings: Correctly position in relation to door frames. Do not displace during fixing operations.

Ss_25_30_20/642 Installing external doorsets or frames

1. Standard: In accordance with [BS 8213-4](#).
2. Fixings and fasteners: Door frames to be factory-prepared for fixings.

Ss_25_30_20/645 Installing fire resisting and smoke control doorsets, door assemblies or doors

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Standard: In accordance with [IS EN 16034](#).
2. Installer: A firm currently registered under a third party accredited fire door installer scheme.
3. Installation: In accordance with instructions supplied with the product conformity certificate, test report or engineering assessment.
4. Gaps between frames and supporting construction: Fill as necessary in accordance with requirements for certification, and/or door and doorset manufacturer's instructions.
The gap between the door and frame must be suitable for the intumescent seal. It should not exceed 3 mm along the two long edges and along the top of the of the door leaf (tolerance of +1 mm).
5. Labelling: In accordance with third party certification scheme and To include manufacturer's name, fire rating and traceable serial number.

Ss_25_30_20/650 Fixing of loose thresholds

1. Spacing of fixings (maximum): 100 mm from each end and at 450 mm centres.
2. Position and level: Ensure threshold is level and square to door frame and leaf.
3. Sealing: Ensure that voids are minimal and are sealed adequately.

Ss_25_30_20/655 Fixing hardware

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Holes for components: No larger than required for satisfactory fit and operation.
2. Adjacent surfaces: Do not damage.
3. Integrity of the assembly, as established by testing: Do not compromise.
4. Cutting: Cut accurately.
5. Clearances (maximum): 8 mm, unless protected by intumescent paste or similar.
6. Hinges
 - 6.1. Primary hinge positions: Hinges to fire doors may need additional intumescent protection by pads or mastic, unless specified by the door fire certificate, and should be positioned in accordance with door leaf manufacturer's recommendations.
 - 6.2. Third hinge position: On centre line of door leaf. With centre line 250 mm below centre line of top hinge. Consult the door manufacturer's recommendations.

Ss_25_30_20/675 Installation of emergency and panic exit devices

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Installation: Emergency exit devices in accordance with [IS EN 179](#) and Panic exit devices in accordance with [IS EN 1125](#).

Ss_25_30_20/680 Frame sealant joints

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. Application: Prepare joints. Form triangular fillets finished to a flat or slightly convex profile.

Ss_25_30_20/685 Timing of fixing of doorsets

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Timing: After rooms served have been made weathertight and the work of wet trades locally is finished and dried out.

Ss_25_30_20/690 Building-in permissions

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

1. General: Not permitted unless indicated on drawings.

Ss_25_30_20/695 Protection of components

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry, floored and covered storage.
2. Stored components: Stack on level bearers, separate with spacers to prevent damage by and to projecting hardware, beads, etc.

Ss_25_38_20/610 Installing door hardware

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#)

1. Location of information : As schedule.

System completion

See [Ss_25_13_50/895 Verification of performance in Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets

Shared by: [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#) and [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Fire safety information: Location of every fire door in the building, the fire door certificate relevant to the installed door, fire safety strategy, maintenance information for each component, frequency of inspection and maintenance depending on expected usage of the door.
2. Fire performance evidence: Provide third party certification of product conformity with the specified fire performance for each door or doorset supplied. Include identifier schedule or similar to allow individual doors to be located; Test evidence must be in the name of the door or doorset manufacturer; and All wood doors should be plugged to BM TRADA [Q Mark](#) requirements and/ or any [CERTIFIRE](#) metal foil labels where applicable.
3. Smoke performance: Provide third party certification of product conformity with the specified smoke performance for each door or doorset supplied. Include identifier schedule or similar to allow individual doors to be located. Test evidence must be in the name of the door or doorset manufacturer.
4. Acoustic performance evidence: Provide third party certification of product conformity for specified acoustic performance for sound attenuating door or doorset supplied.
5. Submittals
 - 5.1. Manufacturer's operation and maintenance instructions for the following products: All products used throughout this system.
 - 5.2. Record layout drawings indicating: General arrangement drawings showing the location of doors, shutters or hatches. Drawings may be cross-referenced to schedule Schematic drawing of any power supplies or linkages to overall door collection
 - 5.3. Drawing and schedule format: A1 paper print and Electronic.
 - 5.4. Number of copies: Two.

Ss_25_38_20/805 Removal of samples

- Items to be removed: Mock-up. Control samples. Prototype.
- Timing: At completion of work in this section.

Ss_25_38_20/810 Documentation relating to hardware

Shared by: [Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY](#) and [Ss_25_38_20_33 Gate hardware systems](#)

1. Fire safety information: Details of hinges, closers and other essential building hardware (CE marked), maintenance information for each component, and frequency of inspection and maintenance, depending on expected usage of the door.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_30_20_25

Doorset systems - INTERNAL TIMBER DOORS

Systems

Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS

- Description: All internal doors are to be 44mm thick, flush solid core, with 10mm solid timber lipping all round.
 - Door frames to be nominally 100*50mm softwood, rebated frame to receive 44mm door.
 - All doors shall have 3 no. 100mm satin finished stainless steel ball bearing hinges with brushed stainless steel level handles on roses & escutcheon plates to both sides.
 - Two lever mortice locks with handles to be provided to all internal doors (except Bathroom and Shower Room) throughout.
 - Bathroom and Shower Room doors to be provided with thumb turn type locks openable from the outside, as well as 2 no. stainless steel clothes hooks.
 - All internal doors to be constructed to allow for full width architraves to be 100*20mm on each side.
 - All internal doors to be paint finished including base coat / primer, undercoat and final satin coat painted on completion.
- System performance: [Ss_25_30_20/205 Design submittals - Windows & Doors](#); [Ss_25_30_20/210 Performance requirements generally](#); [Ss_25_30_20/240 Acoustic performance](#); [Ss_25_30_20/250 Mechanical strength requirements to BS EN 1192](#); [Ss_25_30_20/265 Inclusive design](#); [Ss_25_30_20/290 Compliance with performance requirements](#); [Ss_25_30_20/218 Fire performance requirements to BS EN 13501](#)
- Doorset
 - Type: [Pr_30_59_24_97 Internal Wood doorsets](#); [Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE RATED SERVICES ACCESS DOOR](#); [Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE DOOR](#)
 - Fasteners: [Pr_20_29_76_98 Wood screws](#)
 - Seals or inserts
 - Frame: [Pr_35_90_33_22 Door and window weatherstrips and seals - INTERNAL DOORS](#)
 - Door: [Pr_35_90_33_22 Door and window weatherstrips and seals - INTERNAL DOORS](#)
- Thresholds
 - Base: [Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM](#)
- Side panels: Submit proposals .
- Hardware: [Ss_25_38_20/610 Installing door hardware](#)
- Breakout facility: Required.
- Filler between frame and reveal: [Pr_30_31_76_41 Intumescent foam fillers](#)
- Trim: [Pr_35_90_43_94 Wood mouldings and trims](#)
- Samples required: [Ss_25_30_20/505 Prototypes or mock-ups](#)
- Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- Execution: [Ss_25_30_20/610 Preconstruction survey](#); [Ss_25_30_20/620 Priming and sealing](#); [Ss_25_30_20/630 Installing damp-proof courses](#); [Ss_25_30_20/640 Fixing of wood frames](#); [Ss_25_30_20/645 Installing fire resisting and smoke control doorsets, door assemblies or doors](#); [Ss_25_30_20/655 Fixing hardware](#); [Ss_25_30_20/670 Positioning of hardware to glass doors](#); [Ss_25_30_20/675 Installation of emergency and panic exit devices](#); [Ss_25_30_20/680 Frame sealant joints](#); [Ss_25_30_20/685 Timing of fixing of doorsets](#); [Ss_25_30_20/690 Building-in permissions](#); [Ss_25_30_20/695 Protection of components](#)
- System completion: [Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets](#); [Ss_25_13_50/895 Verification of performance](#)

System performance

See [Ss_25_30_20/205 Design submittals - Windows & Doors](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/210 Performance requirements generally](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/218 Fire performance requirements to BS EN 13501](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/240 Acoustic performance](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/250 Mechanical strength requirements to BS EN 1192](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/265 Inclusive design](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/290 Compliance with performance requirements in Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Products

See [Pr_20_29_76_98 Wood screws in Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_30_31_76_41 Intumescent foam fillers in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_30_59_24_97 Internal Wood doorsets

1. Manufacturer: Submit proposals .
2. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Standard: Internal non-fire rated doorset third party accredited

Internal doors shall provide a clear open width of 800mm minimum.

1. All door leaves and door rebated frames shall be by the same manufacturer. Alternatively, the frames may be manufactured by a source recommended in writing by the door leaf manufacturer. All doorsets shall be pre- hung and be certified to achieve the performance criteria.
2. The works shall be securely fixed and sealed in strict accordance with the manufacturer's recommendations, not compromising the performance and certification of the doorset.
3. The doorset manufacturer shall ensure that the ironmongery does not negate the certification of the works.
4. All doorsets shall be checked at all levels with regards to security and the relevant security symbols.
5. Post fitting of signage shall be undertaken by methods that do not compromise the performance and integrity of the doorsets.
6. Doorsets shall be factory pre-machined, and reinforced as necessary, for all specified ironmongery, prior to the application of factory finishes. Ensure that the doorset manufacturer is in receipt of specimen furniture at the earliest opportunity after order placement to enable configurations of machinery.
7. The Contractor in liaison with the manufacturer shall ensure that the works as specified incorporate all necessary seals, sealants, fixings, accessories and ancillary items are supplied as required in accordance with and to achieve the requirements of the Architectural Specification.
8. Ensure that door leaf(ves) and associated panels arrive on site with adequate surface protection. Material used for surface protection shall be of low flammability and shall be in accordance with the requirements of Performance Requirements
9. Performance, as indicated on the associated Door Schedule, of the doorset/ assembly type will vary dependent on location. The Contractor shall use the applicable manufacturer's details of the required visual range to achieve the stated performance.
10. Acoustic seals to suit acoustic ratings as scheduled shall be included.
11. Industry recognised independent third party certification is required indicating compliance of individual doorsets with the specified performance.
12. Duty categories as described shall be in accordance with BS DD 171.
13. Ensure that all doorsets are clearly marked on the hinge edge with permanent discs (stickers will not be accepted), with their door number and performance, enabling them to be reconciled with their intended location.
4. Wood in joinery standard: To [IS EN 942](#).
5. Configuration: Double leaf, single action;
Leaf and part leaf, single action;
and Single leaf, single action,
Double lead, sliding action - Door frame to be rebated
6. Doorset size: Refer schedule
7. Format: Double leaf, single action;
Leaf and part leaf, single action;
and Single leaf, single action,
Double lead, sliding action - Door frame to be rebated
8. Performance
 - 8.1. Acoustic performance: To [IS EN ISO 10140-2](#), sound reduction index Rw 55 dB minimum.
 - 8.2. Strength and durability: To [IS EN 1192](#), Class 3.
 - 8.3. Intruder resistance
 - 8.3.1. Minimum requirement: To [Loss Prevention Standard: Requirements and testing procedures for the LPCB approval and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers. Issue 7.3, SR 3.](#)
 - 8.3.2. Application: Both sides.
 - 8.3.3. Conformity: Certification by accredited third party certification body. Type testing not permitted.
 - 8.4. Accessibility: In accordance with TGD M
9. Frame

- 9.1. Material: Softwood.
- 9.2. Species: Submit proposals .
- 9.3. Appearance class: J10.
- 9.4. Perimeter seals or inserts: Acoustic seal
- 9.5. Finish: Primed ready for site finish.
- 9.6. External: As Finishes schedule.
- 9.7. Internal: As Finishes schedule.
- 9.8. Frame accessories: Integral fixing lugs.
- 10. Door leaf
 - 10.1. Thickness: 44 mm;
52 mm;
and 54 mm.
 - 10.2. Core: Solid core.
 - 10.3. Appearance class: J10.
 - 10.4. Facings: Wood veneer.
 - 10.5. Cut: Crown cut veneer.
 - 10.6. Lippings: Hardwood to match facing veneers and 10 mm hardwood lipping all round.
 - 10.7. Perimeter seals: Acoustic
 - 10.8. Finish: Primed ready for site finish.
 - 10.9. Colour
 - 10.9.1. External: As schedule.
 - 10.9.2. Internal: As schedule.
 - 10.10. Glazing
 - 10.10.1. Type: As schedule.
 - 10.10.2. Manifestation: As schedule.
 - 10.10.3. Glazing accessories:
 - 10.11. Beading
 - 10.11.1. Type: Internal.
 - 10.11.2. Material: Hardwood.
 - 10.11.3. Fixing: *Manufacturer's standard, or Screw and pellet.*
- 11. Hardware: Manufacturer's standard .
- 12. Architraves
 - 12.1. Material: To Match door
 - 12.2. Wood appearance class: To [IS EN 942](#), Class J10.
 - 12.3. Finish: Primed ready for site finish.
 - 12.4. Colour
 - 12.4.1. External: As schedule.
 - 12.4.2. Internal: As schedule.
- 13. Preservative treatment: Manufacturer's standard .
- 14. Accessories: Manufacturer's standard .
- 15. Execution: [Pr_30_59_23/605 Moisture content of wood products](#); [Pr_30_59_23/630 Installing hardware](#); [Pr_30_59_23/640 Workmanship in joinery](#)

Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE RATED SERVICES ACCESS DOOR

- 1. Description: Fire Rated Access Panel Door
- 2. Manufacturer: **Submit proposals**
- 3. Standard: To ISO 14001:2015 Environmental Management System and ISO 9001:2015 Quality Management System.
- 4. Configuration: As schedule.
- 5. Doorset size: As schedule.
- 6. Format: Single leaf, single action, non-rebated in Microflush frame.
- 7. Frame
 - 7.1. Material: Timber
 - 7.2. Perimeter seals or inserts: Intumescent seals to meet fire rating
 - 7.3. Finish: Factory Painted Finish

- 7.4. Frame accessories: Manufacturer's standard.
- 8. Door leaf
 - 8.1. Thickness: 44 mm.
 - 8.2. Core: Solid core.
 - 8.3. Panel details: As Schedule
 - 8.4. Finish: Factory Painted Finish
 - 8.5. Door accessories: As Schedule. Manufacturer's standard.
- 9. Hardware: Manufacturer's standard.
- 10. Locking: Dead lock.
- 11. Execution: [Pr_30_59_23/605 Moisture content of wood products](#); [Pr_30_59_23/630 Installing hardware](#); [Pr_30_59_23/640 Workmanship in joinery](#)

Pr_30_59_24_97 Wood doorsets - INTERNAL FIRE DOOR

- 1. Description:

Internal fire rated doorset third party accredited
- 2. Manufacturer: Submit proposals .
- 3. Third-party certification:: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- 4. Standard: Internal fire-rated doorset to [BS 8214](#) and third-party-certified.

Internal doors shall provide a clear open width of 800mm minimum.

 - 1. All door leaves and door rebated frames shall be by the same manufacturer. Alternatively, the frames may be manufactured by a source recommended in writing by the door leaf manufacturer. All doorsets shall be pre- hung and be certified to achieve the performance criteria.
 - 2. The works shall be securely fixed and sealed in strict accordance with the manufacturer's recommendations, not compromising the performance and certification of the doorset.
 - 3. The doorset manufacturer shall ensure that the ironmongery does not negate the certification of the works.
 - 4. All doorsets shall be checked at all levels with regards to security and the relevant security symbols.
 - 5. Post fitting of signage shall be undertaken by methods that do not compromise the performance and integrity of the doorsets.
 - 6. Doorsets shall be factory pre-machined, and reinforced as necessary, for all specified ironmongery, prior to the application of factory finishes. Ensure that the doorset manufacturer is in receipt of specimen furniture at the earliest opportunity after order placement to enable configurations of machinery.
 - 7. The Contractor in liaison with the manufacturer shall ensure that the works as specified incorporate all necessary seals, sealants, fixings, accessories and ancillary items are supplied as required in accordance with and to achieve the requirements of the Architectural Specification.
 - 8. Ensure that door leaf(ves) and associated panels arrive on site with adequate surface protection. Material used for surface protection shall be of low flammability and shall be in accordance with the requirements of Performance Requirements
 - 9. Performance, as indicated on the associated Door Schedule, of the doorset/ assembly type will vary dependent on location. The Contractor shall use the applicable manufacturer's details of the required visual range to achieve the stated performance.
 - 10. Acoustic seals to suit acoustic ratings as scheduled shall be included.
 - 11. Industry recognised independent third party certification is required indicating compliance of individual doorsets with the specified performance.
 - 12. Duty categories as described shall be in accordance with BS DD 171.
 - 13. Ensure that all doorsets are clearly marked on the hinge edge with permanent discs (stickers will not be accepted), with their door number and performance, enabling them to be reconciled with their intended location.
- 5. Wood in joinery standard: To IS EN 942
- 6. Configuration: Refer Door Schedule and Drawings
Double leaf, single action; Leaf and part leaf, single action; and Single leaf, single action,
Double leaf, sliding action - Door frame to be rebated
- 7. Doorset size: Refer Door Schedule and Drawings
- 8. Performance
 - 8.1. Fire resistance
 - 8.1.1. Integrity: Refer Door Schedule, Drawings and FSC Report
 - 8.1.2. Insulation: Refer Door Schedule, Drawings and FSC Report
 - 8.1.3. Radiation: Refer Door Schedule, Drawings and FSC Report
 - 8.2. Smoke leakage: Refer Door Schedule, Drawings and FSC Report

- 8.3. Reaction to fire: Refer Door Schedule, Drawings and FSC Report
- 8.4. Acoustic performance: To IS EN ISO 10140-2, sound reduction index Rw 55 dB minimum.
- 8.5. Strength and durability: To IS EN 1192, Class 3.
- 8.6. Intruder resistance
 - 8.6.1. Minimum requirement: To [LPS 1175](#), SR 3.
To Loss Prevention Standard: Requirements and testing procedures for the LPCB approval and listing of intruder resistant building components, strongpoints, security enclosures and free-standing barriers.
 - 8.6.2. Application: Both sides.
 - 8.6.3. Conformity: Certification by accredited third-party certification body. Type testing not permitted.
- 8.7. Accessibility: In accordance with TGD M
- 9. Frame
 - 9.1. Material: Softwood.
 - 9.2. Species:
 - 9.3. Appearance class: J10.
 - 9.4. Perimeter seals or inserts: Fire and smoke seal as required to Fire Doors to meet TGD-B requirements
 - 9.5. Finish: Primed ready for site finish.
 - 9.6. Installation fasteners: All Door Frames to Be Fixed to Structure With 6mm Dia. Galvanised Steel Frame Fixers At 600mm C/S with Heads Countersunk and Pelleted.
- 10. Door leaf
 - 10.1. Thickness: 44 mm.
 - 10.2. Core: Solid core.
 - 10.3. Appearance class: J10.
 - 10.4. Facings: Wood veneer.
 - 10.5. Cut: Crown cut veneer.
 - 10.6. Lippings: 10 mm hardwood lipping all round.
 - 10.7. Perimeter seals: Fire and smoke as required to comply with TGD-B
 - 10.8. Finish: Primed ready for site finish.
 - 10.9. Beading
 - 10.9.1. Type: Internal.
 - 10.9.2. Material: Hardwood.
 - 10.9.3. Fixing: Manufacturer's standard, or Screw and pellet.
- 11. Hardware: Refer Door / Ironmongery Schedule
- 12. Architraves
 - 12.1. Material: To Match door
 - 12.2. Wood appearance class: To IS EN 942, Class J10.
 - 12.3. Finish: Primed ready for site finish.
- 13. Execution: [Pr_30_59_23/605 Moisture content of wood products](#); [Pr_30_59_23/630 Installing hardware](#); [Pr_30_59_23/640 Workmanship in joinery](#)
- 14. Verification
 - 14.1. Submittals: [Ss_30_12_85/845](#) Certification & Verification of Performance(--) Product Data & Certification

Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

- 1. Manufacturer: Submit proposals .
- 2. Profile: The threshold strip must not form an obstacle to wheelchair users, or persons with limited mobility.
- 3. Material: Aluminium.
- 4. Finish: Submit proposals .
- 5. Colour: to ER approval
- 6. Width: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
- 7. Thickness: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
- 8. Predrilled: Manufacturer's standard .
- 9. Matching fasteners: Required.

Pr_35_90_33_22 Door and window weatherstrips and seals - INTERNAL DOORS

1. Standard: To EN 12365-1.
2. Third-party certification: Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Functions: Draught seals;
4. Seal type: Rebated brush strip;
and Rebated intumescent strip where required to comply with Fire Regulations.
5. Size: To suit performance requirements.
6. Materials
 - 6.1. Seals: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 6.2. Carriers: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
7. Execution: [Pr_35_90_33/610 Installing weatherstripping or seals](#)

Pr_35_90_43_94 Wood mouldings and trims

1. Standard: To IS EN 942.
2. Species: To IS EN 942, hardwood as Table NA.2.
3. Appearance class: To IS EN 942, class J5.
4. Moisture content on delivery: 9–13%.
5. Execution: [Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims](#); [Pr_35_90_43/610 Finished wall and ceiling trim](#)

Execution

See [Pr_20_29_76/620 Fixing with screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_30_59_23/605 Moisture content of wood products

1. Standard: To [BS EN 942](#).
2. Moisture content on delivery: 13–19% for external joinery.
12–16% for unheated buildings.
9–13% for buildings with heating providing room temperatures in the range 12–21°C.
6–10% for buildings with heating providing room temperatures in excess of 21°C.

See [Pr_30_59_23/630 Installing hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_30_59_23/640 Workmanship in joinery

1. Standard: To [BS 1186-2](#).

See [Pr_35_90_33/610 Installing weatherstripping or seals](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims

Shared by: [Pr_35_90_43_98 Wood skirtings](#) and [Pr_35_90_43_87 Wood architraves](#)

1. Lengths: Unjointed between angles or ends of runs.
2. Running joints: Submit proposals for location and method of jointing where unavoidable.
3. Angle joints: Mitred.
4. Conditioning regime: During delivery, storage, fixing and to handover maintain conditions to suit specified moisture contents of timber components.
5. Environmental conditions: Control ambient temperature and humidity conditions to maintain moisture content at average level specified in [BS EN 942](#), Table B.1 for the relevant service condition until completion and Do not fix when ambient temperature is at or below 0°C, or above 30°C.
6. Fixing
 - 6.1. General: Fix securely.
 - 6.2. Secret fixing: Secret nailed, first and last rows surface nailed.
 - 6.3. Surface fixing: Face nailed.
 - 6.4. Exposed nail heads: Neatly punch below surface.

Pr_35_90_43/610 Finished wall and ceiling trim

Shared by: [Pr_35_90_43_87 Wood architraves](#) , [Pr_35_90_43_93 Custom made window sill boards - WINDOW BOARDS](#) and [Pr_35_90_43_66 Preformed casings](#)

1. Exposed fastener heads: Punch or set below surface. Fill with stopping to match wood.
2. Finish prior to decoration: Sand to give a clean, smooth and flush surface free from score marks.
3. Finished work: Free of dirt, stains and damage.

See [Ss_25_30_20/505 Prototypes or mock-ups](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/610 Preconstruction survey](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/620 Priming and sealing](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/630 Installing damp-proof courses](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ss_25_30_20/640 Fixing of wood frames

Shared by: [Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS](#)

1. Spacing of fixings (frames not pre-drilled) (maximum): 150 mm from ends of each jamb and at 600 mm centres.

See [Ss_25_30_20/645 Installing fire resisting and smoke control doorsets, door assemblies or doors](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/655 Fixing hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ss_25_30_20/670 Positioning of hardware to glass doors

1. Diameter of fixing holes (minimum): *Glass thickness*. - Consult manufacturer's recommendations.
2. Distance from the edge of fixing hole to the door edge (minimum): $1.5 \times \text{Glass thickness}$. - Consult manufacturer's recommendations.
3. Distance from the edge of fixing hole to a corner (minimum): $4 \times \text{Glass thickness}$. - Consult manufacturer's recommendations.
4. Distance from edge of adjacent fixing holes (minimum): $4 \times \text{Glass thickness}$. - Consult manufacturer's recommendations.

See [Ss_25_30_20/675 Installation of emergency and panic exit devices](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/680 Frame sealant joints](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/685 Timing of fixing of doorsets](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/690 Building-in permissions](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/695 Protection of components](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_38_20/610 Installing door hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_30_20_77

Sliding doorset systems - INTERNAL CUPBOARD DOORS

Systems

Ss_25_30_20_77 Sliding doorset systems - INTERNAL CUPBOARD DOORS

1. Description: BYPASSING SLIDING CUPBOARD DOORS
2. System performance: [Ss_25_30_20/205 Design submittals - Windows & Doors](#)
3. System manufacturer: *Submit proposals.*
4. Doorset
 - 4.1. Type: All internal doors are to be 44mm thick, flush solid core, with 10mm solid timber lipping all round.
 1. Door frames to be nominally 100*50mm softwood, rebated frame to receive 44mm door.
 2. All Bypassing sliding cupboard doors shall have
 3. All sliding doors to be constructed to allow for full width architraves to be 100*20mm on outer side.
 4. All sliding doors to be paint finished including base coat / primer, undercoat and final satin coat painted on completion.
5. Hardware: All hardware to be Grade 13 ss & CE marked and tested.

Frame to accommodate grade 13 ss top trackset for doors including :

 1. - 4no. Guides, 2no. Tracks 1.8m, 2no. Hanger packs, 1no door stop & 1no. Soft closer
 2. 1no ss rectangular flush pull handle set for sliding doors to EN1906. Handle height two thirds from bottom.
6. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Execution: [Ss_25_30_20/610 Preconstruction survey](#); [Ss_25_30_20/640 Fixing of wood frames](#); [Ss_25_30_20/620 Priming and sealing](#); [Ss_25_30_20/655 Fixing hardware](#); [Ss_25_30_20/685 Timing of fixing of doorsets](#); [Ss_25_30_20/695 Protection of components](#)
8. System completion: [Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets](#); [Ss_25_13_50/895 Verification of performance](#)

System performance

See [Ss_25_30_20/205 Design submittals - Windows & Doors](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Execution

See [Ss_25_30_20/610 Preconstruction survey](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/620 Priming and sealing](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/640 Fixing of wood frames](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

See [Ss_25_30_20/655 Fixing hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/685 Timing of fixing of doorsets](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_30_20/695 Protection of components](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_25_30_20/810 Documentation relating to doors, door assemblies and doorsets](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_30_95_26

External window systems - EXTERNAL ALUCLAD WINDOWS

Systems

Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS

1. Description: External Composite AluClad windows. Refer Architects drawings & window schedule.
2. Generally: Windows shall be fabricated so as to achieve an assembled U value of 0.8 W/m²K, to the sizes as shown on Door & Window Schedule.
Prior to the Contractor placing an order for the windows, provide the Architect with the following non-exhaustive list of details relating to the window manufacturer / product, for examination/approval.
List of recent projects within County Mayo
Warranty - 10 year parts and labour warranty on the frame and sash - 10 year parts and labour warranty on the glazing unit - 10 year parts and labour warranty on all hardware
Detailed specification of the product
Workshop drawings. Drawings must include fixing details to dry-lined window reveals.
Windows shall consist of

Robust durable ironmongery easy to operate.
Concealed adjustable hinges with integrated child proof lock
Sash shall be capable of setting / locking at any opening position
Child restrictors are to be fitted to all large opening sections of first floor level windows. Sample of restrictor to be approved by Architect.
Unobtrusive weather strip fitted in one length all around frame. Minimum of 2no. weather strips
Durable double Sealing of all opening sashes to ensure compliance with air pressure test requirements.
All edges which are visible in the closed position shall be rounded
Contractor to arrange for a window sample to be fitted on site for approval prior to placing any joinery order.
Please note that some opening lights may be required to open inward where directed by the Architect.
Check all glazing units for defects upon delivery to site and for plaster burns when plastering completed.
Report all defects to supplier and Architect immediately.
Protect all glazing units as directed by manufacturer during site works.
3. System performance: [Ss_25_30_95/210 Weathertightness by design wind load](#); [Ss_25_30_95/212 Weathertightness by test standard](#); [Ss_25_30_95/215 Resistance to wind load](#); [Ss_25_30_95/216 Air permeability](#); [Ss_25_30_95/218 Operation and strength characteristics \(31\)](#); [Ss_25_30_95/220 Thermal transmittance \(U-value\)](#); [Ss_25_30_95/222 Window energy rating \(WER\)](#); [Ss_25_30_95/224 Solar energy transmittance \(Solar factor\)](#); [Ss_25_30_95/232 View out](#); [Ss_25_30_95/234 Glare control](#); [Ss_25_30_95/250 Emergency egress](#); [Ss_25_30_95/255 Inclusive design](#); [Ss_25_30_95/260 Protection from falls](#); [Ss_25_30_95/275 Safety in use](#); [Ss_25_30_95/295 Compliance with performance requirements](#); [Ss_25_30_20/205 Design submittals - Windows & Doors](#)
4. System manufacturer: Submit proposals . A firm currently registered under a third party quality assurance scheme.
5. Product reference: Submit Proposals
6. Product performance
 - 6.1. Weather performance
 - 6.1.1. Exposure category: 1200 Pa.
 - 6.1.2. Air permeability: To EN 12207, Class 4, 600 Pa.
 - 6.1.3. Watertightness: To EN 12208, Class E2100, 2100 Pa.
 - 6.1.4. Resistance to wind load: To EN 12210, Class C5, 2000 Pa.
 - 6.2. Durability
 - 6.2.1. Operation and strength characteristics: EN 14351.
 - 6.2.2. Loadbearing capacity of safety devices: EN 14351 & EN 14609.
 - 6.3. Safety
 - 6.3.1. Security level: Tested to PAS 24.
 - 6.4. Environmental
 - 6.4.1. Acoustic performance rating: Rw 37 dB.
 - 6.5. Thermal
 - 6.5.1. Whole window U-value: 0.8 W/m²K.
7. Frame
 - 7.1. Wood species: Pinus sylvestris.
 - 7.2. Chain of custody: FSC.
 - 7.3. Finish as delivered: Approved water-based micro porous opaque paint finish to specified RAL colour.
 - 7.4. Preservative treatment to wood components: Vacuum impregnated to give desired service life of 60 years based on EN 599-1.
 - 7.5. Ventilator: None adjustable draft proof ventilator.
8. Glazing or infill

- 8.1. Requirements: 44 mm sealed triple glazing unit.
9. Hardware: Propriety one-handle system.
10. Operation
 - 10.1. Type: Manual.
11. Fixing features: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
12. Colour: To Architects selection and approval.
13. Third-party certification: PEFC/FSC Chain of Custody Certification (UKAS) / BBA Agrément Certificate.
14. Window units
 - 14.1. Material: [Pr_30_59_98_15 Composite window units](#)
 - 14.2. Fixings:

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

The frames shall be secured to jambs with 4 No cranked steel ties, 85 x 0.3 x 300mm long, nailed to the frame and bedded in mortar joints.
15. Joint components
 - 15.1. Filler: [Pr_30_31_76_66 Polyurethane \(PUR\) expanding foam fillers](#); [Pr_30_31_76_41 Intumescent foam fillers](#); [Pr_25_80_81_29 Flexible intumescent gap seals](#)
 - 15.2. Sealant: To IS EN 14188-2:2004
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
[Pr_30_31_76_77 Silicone construction joint sealants](#)
16. Additional features
 - 16.1. Linings: [Pr_35_90_43_93 Custom made window sill boards - WINDOW BOARDS](#)
 - 16.2. Connecting members, aprons, flashings, etc.: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 16.3. Weatherstripping: [Pr_35_90_33_22 Door and window weatherstrips and seals - EXTERNAL OPES](#)
17. Samples required
 - 17.1. Product samples
 - 17.1.1. Submittals: Complete window.
Hardware suite.
 - 17.1.2. Purpose: For use as a reference sample. *To demonstrate compliance with performance requirements.*
 - 17.1.3. Labelling: Clearly label all submitted samples.
 - 17.1.4. Timing: *Before ordering for project.*
Obtain approval of appearance before proceeding. Retain undisturbed until completion of window installation.
18. Execution: [Ss_25_30_95/610 Preconstruction survey](#); [Ss_25_30_95/615 Workmanship generally](#); [Ss_25_30_95/625 Preparation](#); [Ss_25_30_95/630 Protection of components](#); [Ss_25_30_95/655 Window installation generally](#); [Pr_30_59_98/675 Backfilling of steel frame sections](#); [Ss_25_30_95/700 Frame sealant joints](#); [Ss_25_30_95/705 Fixing window hardware](#)
19. System completion: [Ss_25_30_95/810 Verification of performance](#)

System performance

See [Ss_25_30_20/205 Design submittals - Windows & Doors](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ss_25_30_95/210 Weathertightness by design wind load

1. Design wind load: Calculate design wind actions to [BS EN 1991-1-4](#).
2. Window performance: Fulfil classification parameters given in [BS 6375-1](#) for weathertightness relating to UK exposure categories determined by design wind load.

Ss_25_30_95/212 Weathertightness by test standard

1. Air permeability: To EN 1026, 600 Pa (positive and negative pressure).
2. Watertightness: To EN 1027, 600 Pa (positive and negative pressure).
3. Resistance to wind load: To BS 6375-1, Class A5.

Ss_25_30_95/215 Resistance to wind load

1. Resistance to wind load: To EN 12210, Class 4.

Ss_25_30_95/216 Air permeability

1. Air permeability: To EN 12207, Class 4.

Ss_25_30_95/218 Operation and strength characteristics (31)

1. Operation and strength characteristics: To [BS 6375-2](#).

Ss_25_30_95/220 Thermal transmittance (U-value)

1. Standards
 - 1.1. Calculation: In accordance with EN ISO 10077-1.
 - 1.2. U-value (maximum): Thermal transmittances for vertical windows with fraction of the frame area 20 % of the whole window area, glazing spacer bars with improved thermal performance 1.3 W/m²K.

Manufacturer to provide documentary evidence that the window has a thermal performance of 1.3 W/m²K or better.

Ss_25_30_95/222 Window energy rating (WER)

1. Standard
 - 1.1. Calculation: In accordance with [GGF](#) Guidance Note 'BFRC rating calculations'.
 - 1.2. Verification: Irish / EU approved Independent Agency.

Ss_25_30_95/224 Solar energy transmittance (Solar factor)

1. Standard: To [IS EN 410](#).
2. Solar factor, g (maximum): 0.50 to 0.80

Ss_25_30_95/232 View out

1. Window opening sizes and positions: Designed to meet [BREEAM](#) 'View out' criteria for relevant building type.
2. Submit design plan and elevation drawings showing the following: All [BREEAM](#) defined 'relevant areas' dependent on building type and room depths.

Actual or notional workstation/ desk layouts.

Window/ open areas.

Ss_25_30_95/234 Glare control

1. Glazed units, integral provision: Designed to meet [BREEAM](#) 'Glare control' criteria for relevant building type where alternative, compliant provision is not made.

Ss_25_30_95/250 Emergency egress

1. Risk assessment: Required to establish appropriate emergency egress measures and implications. To be cross-referenced with fire prevention, accessibility, security and prevention of falls measures. Submit for agreement.
2. Emergency egress windows
 - 2.1. Opening area: Minimum unobstructed openable area 0.33 m², minimum 450 mm high and 450 mm wide. Opening area to be maintained without being held open during escape.
 - 2.2. Maximum height above floor level: 1100 mm to bottom of openable area. Guard as necessary to prevent falls, as required by building regulations.
 - 2.3. Locks and child restraint stays: Permitted where fitted with child-resistant release catch. Submit proposals.

Ss_25_30_95/255 Inclusive design

1. Design: Complete the design of window systems taking into account the requirements of building regulations and in particular TGD M & B
2. Design standards: TGD M & B
3. Submit proposals: Design of the window system in accordance with TGD statement. Complete relevant areas in respect of emergency egress and window function.
4. Design considerations
 - 4.1. Occupancy: Residential. Includes children under five years of age.
5. Risk assessment
 - 5.1. Scope: Required to establish appropriate measures and implications. To be cross-referenced with fire prevention, security, emergency egress and safety in use measures. Submit for agreement.

6. Inclusive design: Complete design in accordance with requirements of TGD highlighting any conflicts, and submit proposals.
7. Best practice design
 - 7.1. Lowest point of glazing: *800 mm maximum above finished floor level where indicated on drawings.*
 - 7.2. Height of transoms: *Not permitted within range 800–1200 mm above finished floor level where indicated on drawings.*
 - 7.3. Glazing below 800 mm from finished floor level: In accordance with [BS 6262-4](#).
 - 7.4. Safety glazing beyond critical areas
 - 7.4.1. Locations: As drawings
 - 7.4.2. Glazing type: As drawings
 - 7.5. Projection of opening lights when open: 100 mm maximum where opening onto pedestrian access route, where not guarded to prevent collision with pedestrians of all abilities.
 - 7.6. Upper floor top-hung or horizontal pivot opening lights: Restricted to 100 mm maximum opening using restrictor stay conforming to [BS 8213-1](#) with capacity to be disengaged in emergencies and for cleaning.
 - 7.7. Provision of electrical spur for future use: Required adjacent to windows as drawing.
 - 7.8. Controls
 - 7.8.1. Operability: Knobs not permitted. Operable with clenched fist.
 - 7.8.2. Positioning: 800 to 1000 mm from finished floor level. Reach of 400 mm max at 90° to window; 360 mm at 60° to window.
 - 7.9. Manifestation of glazing: Provide two zones: 850–1000 mm and 1400–1600 mm from finished floor level. Manifestation to cover 10% of each zone and to contrast visually with background under both natural and artificial lighting.

Ss_25_30_95/260 Protection from falls

1. Occupancy: Residential. Includes children under five years of age.
2. Risk assessment: Required to establish appropriate measures and implications. To be cross-referenced with fire prevention, inclusive design and egress measures. Submit for agreement.

Ss_25_30_95/275 Safety in use

1. Standard: In accordance with [BS 8213-1](#).
2. Risk assessment: Highlight any conflicts with fire prevention, inclusive design and egress measures. Submit for agreement.

Ss_25_30_95/295 Compliance with performance requirements

- Requirement: Proof of compliance with specified performance.
- Testing authority: Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.
Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
Independently certified by NSAI / IAB or equivalent approved Board of Agrément Certificate.
- Submittals
 - Format: *Test results and certification.*
Detailed specifications and certifications of the product.
 - Timing: **Contractor to arrange for all certification to be provided for approval prior to placing any joinery order.**

Products

See [Pr_25_80_81_29 Flexible intumescent gap seals](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_30_31_76_41 Intumescent foam fillers](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_30_31_76_66 Polyurethane (PUR) expanding foam fillers

1. Material: One part plastics expanding foam.
2. Execution: [Pr_30_31_76/620 Joint preparation for sealant application](#); [Pr_30_31_76/610 Suitability of joints for sealant application](#)
3. Verification
 - 3.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_30_31_76_77 Silicone construction joint sealants

Shared by: [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#)

- Standard: To [BS EN ISO 11600](#).
- Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- Material: alkoxy cure silicone
- Class: To suit anticipated moisture and thermal movement.
- Execution: [Pr_30_31_76/610 Suitability of joints for sealant application](#); [Pr_30_31_76/620 Joint preparation for sealant application](#); [Pr_30_31_76/630 Applying joint sealants Generally](#)

Pr_30_59_98_15 Composite window units

1. Manufacturer: Submit proposals .
2. Standard: Non-fire- and/ or smoke-rated windows to [IS EN 14351-1](#) and Fire- and/ or smoke-rated opening windows to [IS EN 14351-1](#) and [BS EN 16034](#).
3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Dimensions and configurations: Refer window schedule
5. Product performance
 - 5.1. Weather performance
 - 5.1.1. UK exposure category: 2000 Pa
 - 5.1.2. Air permeability: To EN 1026, 600 Pa (positive and negative pressure).
 - 5.1.3. Watertightness: Class 7A.
 - 5.1.4. Resistance to wind load: Class A6.
 - 5.2. Durability
 - 5.2.1. Operation and strength characteristics: To [EN 14351](#)
 - 5.2.2. Loadbearing capacity of safety devices: *In accordance with EN 14351.*
 - 5.3. Safety
 - 5.3.1. User design standards: In accordance with [BS 8300-2](#).
 - 5.3.2. Security level: To EN 1627, RC 6.
 - 5.4. Environmental
 - 5.4.1. Acoustic performance rating: To EN ISO 717-1, 36 dB.
 - 5.5. Thermal
 - 5.5.1. Whole window U-value: MAX. COMPONENT U-VALUE OF 0.80W/m²K
6. Frame
 - 6.1. Standards: To [IS EN 942](#) and To [IS EN 14220](#).
 - 6.2. Profile: Refer Schedule
 - 6.3. Wood species: Manufacturer's standard .
 - 6.4. Appearance class: For opaque finishing: To [BS EN 942](#), J10 for glazing beads, drip mouldings and the like. J40 or better for all other members and For clear finishing: To [BS EN 942](#), J2 for glazing beads, drip mouldings and the like. J30 or better for all other members. Finger jointing and knots on arrises not permitted where exposed to view.
 - 6.5. Wood finishes: Submit proposals .
 - 6.6. Metal finishes
 - 6.6.1. Coating: Submit proposals .
 - 6.6.2. Colour: Submit proposals .
7. Glazing or infill
 - 7.1. Standard: Relevant parts of IS EN 1279.
 - 7.2. Requirements: Triple-glazed units, manufactured with insulated glazing and covered by the glass supplier's standard five-year guarantee.
All the glazing units are to be safety sealed.
All panes are to be approved to BS EN 1279 and have a warm-edge spacer.
8. Hardware: For security purposes, all windows to houses, and to ground and first floor in apartments should be fitted with locks as part of the handle. However, window opening sections required for escape or rescue purposes (see TGD B Fire Safety), should not be fitted with lockable handles or restrictors, which can only be released by removable keys or other tools.
Ironmongery to come pre-fitted by window supplier:

Brushed chrome standard aluminium handles throughout.

Concealed adjustable Heavy duty stainless steel friction stay hinges as recommended by manufacturer and shootbolt locking.

All opening sashes to have approved safety stay limiter.

Child restrictors are to be fitted to all first floor windows. Sample restrictor to be approved by Architect.

9. Operation

9.1. Type: Manual.

10. Fixing features: Manufacturer's standard .

11. Execution: [Pr_30_59_98/640 Fixing of composite frames.](#)

See [Pr_35_90_33_22 Door and window weatherstrips and seals - EXTERNAL OPES](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_35_90_43_93 Custom made window sill boards - WINDOW BOARDS

Shared by: [Ss_40_15_35_50 Minor joinery systems](#)

1. Description: Window Boards
2. Standard: To IS EN 942.
3. Species: To IS EN 942, hardwood as Table NA.2.
4. Appearance class: To IS EN 942, class J5.
5. Moisture content at time of fixing: 9–13%.
6. Preservative treatment: Water-based microemulsion, service life 60 years.
7. Thickness: 25 mm.
8. Width: Refer window schedule
9. Edge profile: Bullnosed.
10. Finish as delivered: Prepared and primed.
11. Execution: [Pr_35_90_43/610 Finished wall and ceiling trim](#)
12. Verification
 - 12.1. Submittals:
 1. Drawings, schedules, technical information, calculations, and manufacturer's literature.
 2. Sample of wood lining boards to be provided.
 - 12.2. Timing: Before placement of orders.
Before commencement of installation.

Ss_25_30_95/305 Product samples

1. Submittals: Confirm with ER type and size of samples for submission.
2. Purpose: For use as a reference sample.
3. Labelling: Clearly label all submitted samples.
4. Timing: *Before ordering for project.*

Ss_25_30_95/505 Mock-ups or prototypes

1. Requirement: Complete window.
2. Purpose: For use as a reference sample.
To demonstrate compliance with performance requirements.
3. Siting: On site.
4. Timing: Before ordering for project.
Obtain approval of appearance before proceeding. Retain undisturbed until completion of window installation.

Execution

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_30_31_76/630 Applying joint sealants Generally

Shared by: [Pr_30_31_68_42 Intumescent putties](#)

1. Substrate: As recommended by sealant manufacturer and Dry and unaffected by frost, ice or snow.
2. Environmental conditions: Do not dry or raise temperature of joints by heating.
3. Sealant application: Completely and neatly fill joints. Provide firm adhesion to substrates.

4. Sealant profiles
 - 4.1. Butt and lap joints: Slightly concave.
 - 4.2. Fillet joints: Slightly convex.
5. Protection: Do not contaminate or damage finished joints.

Pr_30_59_98/640 Fixing of composite frames

1. Fasteners
 - 1.1. Type: Submit proposals .
 - 1.2. Spacings: For windows under 1200 mm wide - Fasteners positioned not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 600 mm centres

For windows over 1200 mm wide - Fasteners positioned not more than 150 mm from ends of each jamb, head and sill, adjacent to each hanging point of opening lights, and at maximum 600 mm centres.

Pr_30_59_98/675 Backfilling of steel frame sections

1. Windows fixed direct into openings: After fixing, fill back of steel frame with waterproof cement fillet or specified filler.

See [Pr_35_90_33/610 Installing weatherstripping or seals](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Pr_35_90_43/610 Finished wall and ceiling trim](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

Ss_25_30_95/610 Preconstruction survey

1. Procedure: Take site dimensions, record on shop drawings and use to ensure accurate fabrication.
2. Primary support structure: Carry out survey sufficient to verify that required accuracy and security of erection can be achieved.
3. Timing: Before fabrication.

Ss_25_30_95/615 Workmanship generally

- Standard: In accordance with [BS 8000-7](#) generally.
- Integrity: Window system installations must be wind and watertight under all conditions with full allowance made for deflections and other movements.
- Materials
 - Compatibility: No contact between glazing panes and/ or units and alkaline materials such as cement and lime.
 - Protection: Materials dry until fixed. Protect insulating glass units and plastics glazing units from the sun and other heat sources.

Ss_25_30_95/625 Preparation

- Surrounds, rebates, grooves and beads: Clean and prepare safely before installing subframe or window units. Take necessary precautions for minimizing exposure where lead-based paint is present and execute work in accordance with method statements.
- Dpc position: Ensure correct positioning in relation to window frames.
- Surfaces inaccessible after installation: Prime or seal before fixing components.

Ss_25_30_95/630 Protection of components

1. Requirement: In accordance with any product or installer warranties, and under conditions to prevent warp, twist, damage to component structure, fittings and surfaces, including damage caused by exposure to temperature extremes and contact with deleterious materials.
2. Plastics, metal and board glazing sheet protection
 - 2.1. Condition: Free from scratches, edge splits and other defects.
 - 2.2. Preparation for use: Peel protective coverings carefully back from edges and trim off to facilitate glazing. Retain remainder in place until completion.
3. Corrosion protection
 - 3.1. Surfaces to be protected: Aluminium alloy components in contact with preservative-treated timber.
 - 3.2. Protective coating: Two coats of bitumen solution, or a mastic-impregnated tape.
 - 3.3. Timing of application: Before fixing components.

Ss_25_30_95/655 Window installation generally

Shared by: [Pr_30_59_98_97 Wood frame roof window units](#)

1. Installation: Into prepared openings.
2. Standard
 - 2.1. Wood windows: In accordance with [British Woodworking Federation \(BWF\)](#) publication [Installing timber windows. 2014 revision.](#)
3. Distortion: Windows installed without twist or diagonal racking.

Ss_25_30_95/700 Frame sealant joints

1. Siting: To perimeter of external frame.
2. Application: Finish triangular fillets to a flat or slightly convex profile.

Ss_25_30_95/705 Fixing window hardware

1. Fixing: Assemble and fix carefully and accurately using recommended fasteners and methods. Do not damage hardware and adjacent surfaces.

System completion

Ss_25_30_95/810 Verification of performance

Shared by: [Ss_30_30_72_72 Rooflight systems](#)

1. Performance evidence
 - 1.1. Generally: Test evidence must be in the name of the window unit or system manufacturer, or approved installer.
 - 1.2. Fire: Provide third-party certification of product conformity for specified fire and smoke performance for each applicable window unit supplied. Include identifier schedule or similar to allow individual windows to be located.
 - 1.3. Weathertightness: Provide third-party certification of product conformity for specified weathertightness performance for each applicable window unit supplied. Include identifier schedule or similar to allow individual windows to be located.
2. Submittals
 - 2.1. Manufacturer's operation and maintenance instructions for the following products : *All products used throughout this system.*

Typically the literature shall provide the following information:

 1. Product description.
 2. Date of purchase.
 3. Performance characteristics.
 4. Application (suitability for use).
 5. Method of operation and control.
 6. Cleaning and maintenance requirements.
 - 2.2. Record layout drawings indicating: General arrangement drawings showing the location windows. Drawings may be cross-referenced to schedule. Schematic drawing of any power supplies or linkages to windows.
 - 2.3. Drawing and schedule format: Electronic.
 - 2.4. Number of copies: One.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_32_35_37

Hinged gates - G1 + G3

Systems

Ss_25_32_35_37 Hinged gates - G1 + G3

1. Description: GATE - G1 + G3
2. System performance: [Ss_25_32_35/210 Accessibility](#);
[Ss_25_32_35/220 Gate systems to match fencing](#);
[Ss_25_32_35/230 Inclusive design](#);
and [Ss_25_32_35/240 Performance of designed gaps](#).
3. System manufacturer: Contractor's choice .
4. Standard: To [BS 1722-7](#);
To [BS 4092-1](#);
and To [BS 5709](#).
5. Method of operation: Manual.
6. Gate assembly: [Pr_30_59_34_20 Composite gates](#).
7. Post foundations: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Execution: [Ss_25_32_35/602 Alignment](#) and [Ss_25_32_35/605 Work on gates generally](#).
9. System completion: [Ss_25_32_35/810 Documentation](#) and [Ss_25_32_35/820 Certificates for gates](#).

System performance

Ss_25_32_35/210 Accessibility

1. Standard: To TGD M

Ss_25_32_35/220 Gate systems to match fencing

1. General: Match performance of associated fence and/ or wall.

Ss_25_32_35/230 Inclusive design

1. Inclusive design: Complete design in accordance with recommendations in TGD M and Submit proposals.
2. Best practice design
 - 2.1. Operability
 - 2.1.1. Operability: Operable with clenched fist and Knobs not permitted.
 - 2.1.2. Handle projection (minimum): 45 mm between gate and handle.
 - 2.1.3. Hand grip zone (minimum): 95 mm.
 - 2.1.4. Visual contrast between gate panel and hardware (minimum): LRV 15.

Ss_25_32_35/240 Performance of designed gaps

1. Standard: To [BS 5709](#).

Products

Pr_30_59_34_20 Composite gates

1. Configuration: Hinged.
2. Dimensions
 - 2.1. Span: Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
 - 2.2. Height: Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
3. Posts: Pre-cast concrete.
4. Gate leaves: Carbon steel frame section and Wood board gate leaves.
5. Hardware
 - 5.1. Hinges: Required.
 - 5.2. Securing: Gate latches and catches. [Pr_75_75_27_01 Access control digital keypads – stand-alone](#)
 - 5.3. Operating: Gate springs.
6. Finish as delivered: *Frame Galvanized to* [BS EN ISO 1461](#)

Pr_75_75_27_01 Access control digital keypads – stand-alone

1. Description: Refer Mechanical / Electrical Engineers Drawings & Specification.

2. Security grading: To [BS EN 60839-11-1](#), Grade 3.
3. Environmental classification: To [BS EN 60839-11-1](#), Class IV.
4. Material and finish: Aluminium anodized.
5. Impact protection (minimum): To [BS EN 62262](#), IK07.
6. Type of operation: Standalone.
7. Communication interface: Manufacturer's standard .
8. Keypad arrangement: Manufacturer's standard .
9. Mounting position: Surface.
10. Execution: Strictly in accordance with Mechanical / Electrical Engineers Drawings & Specification.

Execution

Ss_25_32_35/602 Alignment

1. Alignment of gates: Following profile of surrounding fence or barrier.
2. Verticality: Plumb.
3. Tolerances: ± 30 mm of prescribed alignment and, within any 10 m length, ± 15 mm from the straight or required radius.

Ss_25_32_35/605 Work on gates generally

Shared by: [Ss_25_38_20_33 Gate hardware systems](#)

1. Metal fixings: Protect from corrosion.
2. In situ welding: Not permitted.
3. Treatment of minor damage to galvanized surfaces
 - 3.1. Repairs to areas of damage less than 40 mm²
 - 3.1.1. Method: Low melting point zinc alloy repair rods or powders.
 - 3.1.2. Zinc coating thickness (minimum): Thickness of the original layer.
4. Site cutting of wood
 - 4.1. Components generally: Minimize cutting.
 - 4.2. Wood below or near ground level: Do not cut.
 - 4.3. Treatment of surfaces exposed by minor cutting and drilling
 - 4.3.1. Method: Apply sufficient material to provide a coating equal to the original preservative.
 - 4.3.2. Number of coats: Two.
5. Site applied finishes
 - 5.1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.
6. Disposal of arisings
 - 6.1. Biodegradable arisings: Remove to recycling facility.
 - 6.2. Tree roots and stumps: Remove from site.
 - 6.3. Litter and nonbiodegradable arisings: Remove from site.

System completion

Ss_25_32_35/810 Documentation

1. Contents: General product information;
Installation information;
and Inspection and maintenance reports.
2. Number of copies: Two
3. Submission: Two weeks after request by ER

Ss_25_32_35/820 Certificates for gates

1. Submittals
 - 1.1. Gate manufacturer (on delivery)
 - 1.1.1. Certificate of conformity: Confirmation that fence and/ or gates are manufactured in accordance with client's instructions.
 - 1.1.2. Format: Supplier's name and address.
Contract or order number.
Date.
Purchaser's name and address.

1.2. Gate installer (on completion)

- 1.2.1. Certificate of conformity: Confirmation that materials and execution are in accordance with client's instructions.
- 1.2.2. Format: Supplier's name and address.
Contract or order number.
Date.
Purchaser's name and address.

Ω End of System

Ss_25_38_20_20

Door hardware systems - INTERNAL DOOR IRONMONGERY

Systems

Ss_25_38_20_20 Door hardware systems - INTERNAL DOOR IRONMONGERY

1. Description: INTERNAL DOORS

- 1. Generally: Bathrooms / shower rooms and w.c. doors to be fitted Privacy Mortice with brass lever furniture
- 2. All non-protruding ironmongery items to be fitted to doorsets in factory, where possible.
- 3. All locks to doorsets shall be Under Master key
- 4. Provide 3 no. keys per cylinder stamped with suite or sub-site reference and tagged with door reference number.
- 5. All ironmongery shall be fitted in a workmanlike manner ensuring correct positioning and alignments and firm fixing to prevent working loose.
- 6. Hinges, lock plates, striking plates, etc. shall be neatly recessed into door frame or leaf to be flush with the finished surface.
- 7. Ironmongery which forms an integral part of any fire door and frame assembly must be suitable for the rating of the fire door set for which it is specified. Allow for provision of fire & smoke seal material to be provided behind hinge leaves, lock plates, etc, as necessary for fire rated doors.

2. System performance: [Ss_25_38_20/210 DOORS - Inclusive design](#) and [Ss_25_38_20/290 Compliance with performance requirements - Hardware](#)

Ironmongery shall comply in all respects with;

- 1. BS 6100-6:2008-Building and civil engineering. Vocabulary. Construction parts
- 2. IS EN 12209:2016-Building hardware. Mechanically operated locks and locking plates. Requirements and test methods
- 3. IS EN 1906:2012-Building hardware. Lever handles and knob furniture. Requirements and test methods
- 4. Doors and windows including frames and liners CP 151
- 5. IS EN 1935:2002-Building hardware. Single-axis hinges. Requirements and test methods
- 6. IS EN 1154:1997-Building hardware. Controlled door closing devices. Requirements and test methods
- 7. Fire tests BS 476

3. System manufacturer: Submit proposals .

4. Hanging: [45-25-42/340 Door hinges](#).

5. Operating:

[Pr_30_36_59_25 Door lever handle sets](#)

6. Securing: [Pr_30_36_08_77 Single point bolts](#);
[45-25-18/310 Door and window locks and latches](#);
and [Pr_30_36_08_26 Door privacy indicator bolts](#).

7. Plates and stops:

[Pr_30_36_33_24 Door stops](#); [Pr_30_36_33_27 Escutcheons](#); [Pr_30_36_33_24 Door stops](#); [Pr_30_36_33_27 Escutcheons](#); [Pr_30_36_33_45 Kick plates](#)

8. Furniture: [Pr_30_36_59_24 Door limiting stays](#); [Pr_40_30_78_16 Coat hooks](#)

9. Samples required: [Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE](#)

10. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

11. Execution: [Ss_25_38_20/610 Installing door hardware](#)

12. System completion: [Ss_25_38_20/810 Documentation relating to hardware](#)

System performance

Ss_25_38_20/210 DOORS - Inclusive design

1. Inclusive design: Complete design in accordance with recommendations in TGD M.

Mayo County Council

Ss_25_38_20_20

Door hardware systems - INTERNAL DOOR IRONMONGERY

2. Best practice design
 - 2.1. Door controls
 - 2.1.1. Operability: Operable with clenched fist and Knobs not permitted.
 - 2.1.2. Handle projection (minimum): 45 mm between door and handle.
 - 2.1.3. Handgrip zone (minimum): 95 mm.
 - 2.1.4. Visual contrast between door panel and hardware (minimum): LRV 15.
 - 2.2. Height (finished floor level to underside of equipment)
 - 2.2.1. Lever and horizontal pull handles: 800–1050 mm.
 - 2.2.2. Vertical pull handles: 700–1000 mm for base and 1300 mm for top.

See [Ss_25_38_20/290 Compliance with performance requirements - Hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Products

45-25-18/310 Door and window locks and latches

1. Standard: To EN 12209.
2. Classification grades (minimum): Durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted
 - 2.1. Category of use: EN 1192 grade 3. high frequency of use.
 - 2.2. Durability: EN 12209, grade L.
 - 2.3. Door mass and closing force: EN 12209, grade 5.
 - 2.4. Suitability for use on fire resisting and/or smoke control doorset: grade 1: suitable for use on fire/smoke door assemblies tested to EN 1634-1 etc.
 - 2.5. Safety: EN 12209, grade 0.
 - 2.6. Corrosion resistance and temperature: EN 12209, grade D.
 - 2.7. Security and drill resistance: EN 12209, grade 5.
 - 2.8. Key identification requirement: EN 12209, grade F.
3. Latch or lock type: Seven lever mortice lock and Bathroom lock.
4. Material and finish: To Architects Approval
5. Keying: In master keyed suite.
6. Latch spring strength: Select to prevent un-sprung lever handles drooping.

45-25-42/340 Door hinges

1. Manufacturer: Submit proposals .
2. Form: Butt and Cranked.
3. Category of use: Heavy duty.
4. Size: Manufacturer's standard. appropriate to door type and weight.
5. Material and finish: Satin stainless steel, grade 1.4401 (316).

Pr_30_36_08_26 Door privacy indicator bolts

1. Manufacturer: Submit proposals .
2. Standard: Manufacturer's standard .
3. Third-party certification: Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark. Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
4. Bolt type: Knob slide.
5. Category of use
 - 5.1. Standard: To [BS EN 1192](#).
 - 5.2. Duty: Medium duty.
6. Material and finish: Refer schedule
7. Emergency-release facility: Required.
8. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_08_77 Single point bolts

1. Manufacturer: Submit proposals .
2. Standard: To [IS EN 12051](#).
3. Third-party certification: Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
Products / materials shall either be certified as complying with the latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark. Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.
4. Classification grades (minimum)
 - 4.1. Category of use: To EN 12051, grade 3.
 - 4.2. Durability (number of test cycles): To [BS EN 12051](#), grade 4.
 - 4.3. Door mass: No requirement.
 - 4.4. Fire safety: To EN 12051, grade 1.
 - 4.5. Safety in use: To EN 12051, grade 1.
 - 4.6. Corrosion resistance: To EN 12051, grade 1.
 - 4.7. Security: To EN 12051, grade 4.
5. Bolt type: refer schedule
6. Material and finish: Satin stainless steel, grade 1.4401 (316).
7. Integral accessories: Dirt-excluding sockets for wood;
Easy clean receiver sockets;
Keeps;
and Receiver plates.
8. Fasteners for hardware: Colour and finish to match hardware.

See [Pr_30_36_33_24 Door stops](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Pr_30_36_33_27 Escutcheons](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_30_36_33_45 Kick plates

1. Form: Full width.
2. Edge treatment: Rounded edges and radiused corners.
3. Size (nominal): Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
4. Material and finish: Satin stainless steel, grade 1.4401 (316).
5. Colour: Architects Approval
6. Mounting: Face fix.
7. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_59_24 Door limiting stays

1. Manufacturer: Submit proposals .
2. Category: Surface fixed friction stay with hold open.
3. Size: To suit door width.
4. Material and finish: Satin stainless steel, grade 1.4401 (316).
5. Fasteners for hardware: Colour and finish to match hardware.

See [Pr_30_36_59_25 Door lever handle sets](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_40_30_78_16 Coat hooks

1. Description: Individual coat hooks
2. Form: Coat hook, rubber buffered.
3. Material and finish: Satin stainless steel, grade 1.4401 (316).
4. Execution: Reference to missing clause Fasteners for hardware

See [Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Execution

See [Pr_30_36_33/620 Fixing door stops](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See Ss_25_38_20/610 Installing door hardware in Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS

System completion

See Ss_25_38_20/810 Documentation relating to hardware in Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS

See Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

Ω End of System

Ss_25_38_20_33

Gate hardware systems

Systems

Ss_25_38_20_33 Gate hardware systems

1. Description: Side Access Gates
2. System performance: [Ss_25_38_20/290 Compliance with performance requirements - Hardware](#)
3. System manufacturer: Submit proposals .
4. Hanging: [Pr_30_36_36_28 Field gate hinges](#).
5. Operating: [Pr_30_36_59_33 Gate closers](#) and [Pr_30_36_59_35 Gate springs](#).
6. Securing: [Pr_30_36_08_34 Gate latches and catches](#);
[Pr_30_36_59_34 Gate handles](#);
7. Furniture: [Pr_30_36_59_38 Holders and hooks](#);
and [Pr_30_36_08_61 Padlock hasps and staples](#).
8. Samples required: [Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE](#)
9. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
10. Execution: [Ss_25_32_35/605 Work on gates generally](#)
11. System completion: [Ss_25_38_20/810 Documentation relating to hardware](#)

System performance

See [Ss_25_38_20/290 Compliance with performance requirements - Hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Products

Pr_30_36_08_34 Gate latches and catches

1. Manufacturer: Submit proposals .
2. Latch type: Auto catch and striker.
3. Size or duty: Manufacturer's standard .
4. Material and finish: Hot-dip galvanized carbon steel, black powder coated.
5. Execution: [Pr_30_36_08/610 Fasteners for hardware](#)
6. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_08_61 Padlock hasps and staples

1. Manufacturer: Submit proposals .
2. Form: Hasp and staple.
3. Size: Manufacturer's standard .
4. Material and finish: Carbon steel, hot dip galvanized.
5. Execution: [Pr_30_36_08/610 Fasteners for hardware](#)
6. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_36_28 Field gate hinges

1. Supplier: Manufacturer's standard .
2. Gate hinge fittings: Return and Self closing.
3. Duty: Heavy.
4. Length or size (nominal): Manufacturer's standard .
5. Gate stile width: 75 mm.
6. Material and finish: Carbon steel, hot-dip galvanized and powder-coated.
7. Colour: Self-coloured.
8. Execution: [Pr_30_36_36/610 Fasteners for hardware](#)

Pr_30_36_59_33 Gate closers

1. Manufacturer: Submit proposals .
2. Operation: Manufacturer's standard .
3. Category: Adjustable speed.

4. Duty: Heavy.
5. Material and finish: Carbon steel, hot-dip galvanized. Carbon steel, hot-dip galvanized and powder coated.
6. Colour: Manufacturer's standard .
7. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_59_34 Gate handles

1. Manufacturer: Submit proposals .
2. Form: Manufacturer's standard .
3. Size: Manufacturer's standard .
4. Finish: Carbon steel, hot-dip galvanized and powder coated.

Pr_30_36_59_35 Gate springs

1. Manufacturer: Submit proposals .
2. Material and finish: Carbon steel, hot-dip galvanized and powder coated.

Pr_30_36_59_38 Holders and hooks

- Manufacturer: Submit proposals .
- Category: Adjustable spring ball holder and Magnetic.
- Size: Manufacturer's standard .
- Material and finish: Carbon steel, hot-dip galvanized and powder coated.

See [Ss_25_38_20/305 Product samples - DOOR IRONMONGERY / HARDWARE](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Execution

See [Pr_30_36_08/610 Fasteners for hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Pr_30_36_36/610 Fasteners for hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_25_32_35/605 Work on gates generally](#) in [Ss_25_32_35_37 Hinged gates - G1 + G3](#)

System completion

See [Ss_25_38_20/810 Documentation relating to hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_38_20_95

Window hardware systems

Systems

Ss_25_38_20_95 Window hardware systems

1. System performance: [Ss_25_38_20/211 Inclusive design](#) and [Ss_25_38_20/206 Design submittals](#).
2. System manufacturer: Submit proposals .
3. Hanging: and [Pr_30_36_36_96 Window friction pivot hinges](#).
4. Securing: [Pr_30_36_08_29 Espagnolette bolts](#).
5. Operating: [Pr_30_36_59_95 Window latch and lock operating handles](#)
6. Furniture: [Pr_30_36_59_98 Window restrictor stays](#).
7. Samples required: [Ss_25_38_20/306 Product samples](#)
8. Execution: [Ss_25_38_20/611 Installing hardware](#).
9. System completion: [Ss_25_38_20/811 Documentation](#); and [Ss_25_38_20/815 Maintenance](#).

System performance

Ss_25_38_20/206 Design submittals

1. Submittals: Drawings, schedules, technical information, calculations and manufacturer's literature.
2. Timing: Before manufacture.
3. Format: Drawings and specification in BIM-compliant format.

Ss_25_38_20/211 Inclusive design

1. Inclusive design: Complete design in accordance with recommendations in TGD M and Submit proposals.
2. Best practice design
 - 2.1. Upper floor top-hung or horizontal pivot opening lights: Restricted to 100 mm maximum opening using restrictor stay conforming to [BS 8213-1](#), with capacity to be disengaged in emergencies and for cleaning.
 - 2.2. Height of window-opening devices: 800–1000 mm from finished floor level.
 - 2.3. Operability: Knobs not permitted and Operable with clenched fist.

Products

Pr_30_36_08_29 Espagnolette bolts

1. Bolt type: Manufacturer's standard .
2. Size: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
3. Backset: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
4. Material and finish: Manufacturer's standard .
5. Window lever handles: Integral.
6. Execution: [Ss_25_38_20/611 Installing hardware](#) & [Pr_30_36_08/610 Fasteners for hardware](#)
7. Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_36_96 Window friction pivot hinges

1. Manufacturer: Submit proposals .
2. Form: Reversible horizontal pivots with integral restrictor and Reversible vertical pivots with integral restrictor.
3. Material and finish: Extruded aluminium, powder coated.
4. Colour: Manufacturer's standard .
5. Execution: Installing hardware & Fasteners for hardware

Pr_30_36_59_95 Window latch and lock operating handles

1. Form: Locking handle with ventilation tongue and Plain handle with ventilation tongue.
2. Material and finish: Satin brass and Satin stainless steel, grade 1.4401 (316). To ER approval.
3. Colour: Manufacturer's standard . To ER approval.
4. Execution: Installing hardware & Fasteners for hardware
5. Fasteners for hardware: Colour and finish to match hardware.
6. Verification

- 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_30_36_59_98 Window restrictor stays

1. Manufacturer: Submit proposals .
2. Third-party certification: Manufacturer's standard .
3. Standard: In accordance with [BS 6375-2](#) and In accordance with [BS 8213-1](#).
4. Restrictor type: Submit proposals .
5. Restricted opening (maximum): 100 mm.
6. Operation: Manual.
7. Cavity: Consult window unit manufacturer.
8. Size: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
9. Material: Stainless steel grade 1.4301 (304).
10. Number of keys to be supplied: Two universal keys per window.
11. Execution: Installing hardware & Fasteners for hardware
12. Fasteners for hardware: Colour and finish to match hardware.
13. Verification
 - 13.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Ss_25_38_20/306 Product samples

Shared by: [Ss_35_10_40_42 Internal stair systems](#)

1. Submittals: Confirm with Architect type and size of samples for submission.
2. Purpose: For use as a reference sample.
3. Labelling: Clearly label all submitted samples.
4. Timing of submittals: Before ordering for project.

Execution

See [Pr_30_36_08/610 Fasteners for hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ss_25_38_20/611 Installing hardware

1. Locations and layout: As schedule.

System completion

Ss_25_38_20/811 Documentation

1. Operation and maintenance instructions
 - 1.1. Scope: All products used throughout this system.
 - 1.2. Requirements:
 1. A full set of construction drawings, updated to include any changes made up to the time of completion;
 2. Contact details for subcontractors and suppliers;
 3. Copies of material, components and finishes certification and test report;
 4. Method statement for means of access for maintenance and for use of any permanent equipment;
 5. Method statement covering the procedures for replacement of parts;
 6. Product information for components and materials, including manufacturers' literature, COSSH data sheets and recommendations for cleaning maintenance and repair;
 7. Recommendations for routine maintenance and cleaning, including suitable cleaning agents and lubrication or adjustments to working parts;
 8. Record book for listing defects, maintenance and repairs; and the terms and conditions of any guarantee.
 - 1.3. [Record layout drawings indicating](#): General arrangement drawings showing the location of window hardware systems. Drawings may be cross-referenced to schedule.
 - 1.4. Drawing and schedule format: A1 paper print;
Electronic Drawings and specification in BIM-compliant format;
 - 1.5. Number of copies: Two.

Ss_25_38_20/815 Maintenance

1. Servicing and maintenance: Undertake.
2. Duration: Until 12 months after substantial completion.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_45_70_55

Multicoat render systems - EXTERNAL WET DASH FINISH

Systems

Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH

- Manufacturer: **Submit proposals**
- Product reference: Submit Proposal
- Coverage: 1.8 kg/ mm thick/ m².
- Temperature: 5–35°C. The product must not be used in frozen conditions.
- Description: Traditional render which incorporates an aggregate of small evenly sized pebbles into the mix with painted finish.
- Render below DPC:: Render below DPC to be Frost & moisture resistant.
- System performance: [Ss_25_45_70/210 Resistance to rain penetration](#) and [Ss_25_45_70/230 Thermal conductivity](#); [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- Standard: To Comply with IS EN 13914-1:2016 Design, preparation and application of external rendering and internal plastering-part 1: external rendering.
- Substrate preparation: [Pr_35_31_66_09 Bonding coats](#); [Pr_35_31_64/625 41 Applying keying coat](#)
- Lathing:: [Pr_20_85_46_28 Expanded metal lathings](#) where required on non masonry substrates.
- Render: Render finish strictly in accordance with manufacturers specification, suitable for the purpose, location and detail. [Ss_25_45_70/630 Site mixed rendering mortar - External Wet Dash](#)
- Min Overall Render thickness:: Min 20mm excluding pre-treatment coatings and should be less than 40mm.
- Beads: [Pr_35_90_07_72 Render beads](#)
Stainless steel beads, trims and profiles.
- Sealant movement joints
 - Beads: [Pr_35_90_07_72 Render beads](#); [Pr_35_90_07_63 Plaster beads](#)
- Painting: [Pr_35_31_22_96 Waterborne masonry paints](#)
- Execution: [Ss_25_45_70/728 Crack control at junctions between dissimilar solid substrates](#); [Pr_35_31_64/610 Applying renders generally](#)
[Pr_35_31_64/720 Finishes to render](#) and [Pr_35_31_64/730 Finish to tiling or mosaic substrate](#)
- System completion: [Ss_25_45_70/820 Defective areas](#).

System performance

Ss_25_45_70/210 Resistance to rain penetration

- Standard: To [BS EN 998-1](#).
- Capillary water absorption class: W2.

Ss_25_45_70/230 Thermal conductivity

1. Standard: To [BS EN 998-1](#).

Products

Pr_20_85_46_28 Expanded metal lathings

Shared by: [Ss_32_46_50_53 Metal lathing on solid substrate systems](#) and [Ss_32_46_50_50 Metal lathing casing systems](#)

1. Material: Carbon steel.
2. Material standard: To [IS EN 13658-2](#), external rendering and To [IS EN 13658-1](#), internal plastering.
3. Form: Diamond lath;
Ribbed lath (RL);
and Square mesh.
4. Aperture size: 9 x 16 mm.
5. Execution: [Ss_32_46_50/675 Fixing metal lath with tying wire](#); [Ss_32_46_50/685 Fixing expanded ribbed metal lath](#)

6. Finish: Galvanized.

Pr_35_31_22_96 Waterborne masonry paints

1. Description: Permeable paint finish suitable for application to external renders.
2. Manufacturer: *Submit proposal for ER approval*
3. Texture: Smooth.
4. Colour: Submit range for colour selection so that Architect can confirm final colour(s).

Pr_35_31_66_09 Bonding coats

1. Composition: As recommended by coating manufacturer.

The bonding coating must be compatible with both the coating and any existing finish on the substrate.

Pr_35_90_07_63 Plaster beads

Shared by: [Ss_32_46_65_55 Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER](#)

1. Manufacturer: Submit proposals for architects approval
2. Material: Carbon steel.
3. Form: Angle bead. Edging bead. Movement bead. Stop bead.
4. Finish: Galvanized.
5. Execution: Fix beads and trims at all joints, junctions and perimeters, straight and with a constant projection.

[Pr_35_90_07/650 Installing beads](#)

Pr_35_90_07_72 Render beads

1. Description: Stainless steel External Render Beads, Angles and Stops
2. Manufacturer: Submit proposals
3. Material: Carbon steel approved galvanised beads.
4. Form: Angle bead;
Movement bead;
Stop bead (standard wing);
and Stop bead (bell cast).
5. Execution: [Pr_35_90_07/650 Installing beads](#).

Execution

See [Pr_35_31_64/610 Applying renders generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_35_31_64/625 41 Applying keying coat

1. Application: Apply proprietary porous factory made key coat spatterdash/ porous undercoat render up to 3mm in strict compliance with manufacturer's instructions.

See [Pr_35_31_64/720 Finishes to render](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_35_31_64/730 Finish to tiling or mosaic substrate

1. Finish: Wood float.

See [Pr_35_90_07/650 Installing beads](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Ss_25_45_70/630 Site mixed rendering mortar - External Wet Dash

1. Components: Masonry cement;
Lime;
Sand;
Bonding agent;
and Waterproofer.

Each additional render coat should be less strong than the previous coat or background.

2. Mix

- 2.1. Scud Coat: Scud finish - cement:sand mix ratio of 1:2 - thickness of 3-5mm

Rendering shall not be applied to blockwork unless an adequate key exists to hold the rendering both during and after its application.

- 2.2. First coat: First undercoat (Scratch Coat) - cement: sand + plasticiser mix ratio of 1:4 - minimum of 12mm in thickness.

Once applied and left long enough to be firm, the scratch coat should then be scratched or combed so as to provide a key for the next coat.

- 2.3. Second coat: Second undercoat - cement: lime: sand mix ratio of 1:0.5:4 - minimum of 10mm in thickness.

Apply using a suitable float (wood or plastic).
A steel trowel is not suitable and should not be used.
Over-working should be avoided also.

- 2.4. Final coat: Final coat – roughcast, wet dash finish – cement: lime: sand: coarse aggregate mix ratio of 1:0.5:3:1.5

Ss_25_45_70/728 Crack control at junctions between dissimilar solid substrates

1. Crack control positions: Where defined movement joints are not required. Where dissimilar solid substrate materials are in same plane and rigidly bonded or tied together.
2. Width of installation over single junctions
 - 2.1. Isolating layer: 150 mm.
 - 2.2. Lathing: 300 mm.
3. Width of installation across face of dissimilar substrate material (column, beam, etc. with face width not greater than 450 mm)
 - 3.1. Isolating layer (minimum): 25 mm beyond junctions with adjacent substrate.
 - 3.2. Lathing (minimum): 100 mm beyond edges of isolating layer.
4. Installation: Fix metal lathing over isolating layer. Stagger fixings along both edges of lathing.

Ss_32_46_50/675 Fixing metal lath with tying wire

Shared by: [Ss_32_46_50_53 Metal lathing on solid substrate systems](#) and [Ss_32_46_50_50 Metal lathing casing systems](#)

1. Generally: Fix securely to give a taut, firm base for plaster or render.
2. Wire ties: Twist ends tightly together, cut off surplus and bend ends of wire away from face of coating.

Ss_32_46_50/685 Fixing expanded ribbed metal lath

Shared by: [Ss_32_46_50_53 Metal lathing on solid substrate systems](#) and [Ss_32_46_50_50 Metal lathing casing systems](#)

1. Generally: Fix securely to give a taut, firm base for plaster or render.
2. Placement
 - 2.1. Orientation: Ribs at right angles to supports.
 - 2.2. Apexes: Bearing on supports.
3. Laps
 - 3.1. Side ribs: Lap, press well together.
 - 3.2. Ends (minimum): 50 mm at supports and 100 mm between supports.
 - 3.3. Angles and bends: Do not locate laps within 100 mm of angles or bends.
4. Fixing centres
 - 4.1. Generally: Every rib.
 - 4.2. Sides (maximum): 150 mm.
 - 4.3. Ends at supports: At each pair of ribs.
 - 4.4. Ends between supports: Two rows wire ties at 100 mm centres.

System completion

Ss_25_45_70/820 Defective areas

1. Cracks
 - 1.1. Critical crack width (maximum): 0.1 mm.
 - 1.2. Cracks wider than critical crack width: Survey frequency and extent. Investigate causes.
 - 1.3. Report: Submit. Include findings and recommendations for rectification.
 - 1.4. Areas of unsatisfactory appearance: Clean and Apply additional render coats.
 - 1.5. Areas of detached render: Submit proposals .

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_25_45_88_40

Internal wall tiling systems

Systems

Ss_25_45_88_40 Internal wall tiling systems

1. Description: Bathrooms & Kitchen Splashbacks
2. System performance: Ss_25_45_88/221 Suitability of backgrounds for wall tiling systems;
Ss_25_45_88/231 Structural performance of wall tiling systems;
Ss_25_45_88/241 Durability of wall tiling systems;
Ss_25_45_88/250 Aesthetic performance of wall tiling systems;
and Ss_25_45_88/291 Compliance with performance requirements.
3. Substrate preparation: Ss_25_45_88/661 (41) Raking out for key;
Pr_35_31_66_62 Plaster primers;
Ss_25_45_88/656 Hacking for key;
4. Intermediate substrate
 - 4.1. Type: Pr_25_71_52_25 Fibre-reinforced cement boards and Pr_35_93_96_87 Tile matting.
 - 4.2. Adhesive: Pr_20_31_02_12 Cementitious adhesives;
Adhesive strips;
5. Joints and seals: 45-45-70/436 Pipe collars
6. Reinforcement: Pr_20_96_71_97 Welded wire mesh reinforcement.
7. Tiles
 - 7.1. Types: Pr_35_93_96_19 Ceramic tiles.
 - 7.2. Adhesives: Pr_20_31_02_12 Cementitious adhesives.
 - 7.3. Application: Thin bed, ribbed and Thin bed for paper-faced mosaic.
8. Movement joints
 - 8.1. Type: Sealant and Pr_35_90_53_86 Strip movement joints
9. Grout: Ss_25_45_88/795 Site-mixed cement:sand grout.
10. System accessories: Pr_35_90_22_66 Preformed tiling strip joints and Pr_35_93_96_92 Tile spacers.
11. Samples required: Ss_40_90_60/610 Control samples of finishes
12. Verification: Ss_25_13_50/895 Verification of performance
13. Execution: Ss_25_45_88/621 Suitability of backgrounds (minimum drying times);
Ss_25_45_88/626 Making good existing backgrounds generally;
Ss_25_45_88/651 Jointing and sealing intermediate substrates;
Ss_25_45_88/686 Site-mixed cement:sand mortar;
Ss_25_45_88/696 Applying site-mixed cement:sand mortar bedding;
Ss_25_45_88/760 Fixing using thin bed adhesive – ribbed;
Ss_25_45_88/775 Fixing using thin bed adhesive – paper faced mosaic;
Ss_25_45_88/785 Forming movement joints generally;
Ss_25_45_88/795 Site-mixed cement:sand grout;
and Ss_25_45_88/797 Grouting.
14. System completion: Ss_25_45_88/806 Cleaning and maintenance of wall tiling systems;
Ss_25_45_88/821 Maintenance manual for wall tiling systems

System performance

Ss_25_45_88/221 Suitability of backgrounds for wall tiling systems

1. Background tolerances: To permit specified flatness and regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.

Ss_25_45_88/231 Structural performance of wall tiling systems

1. Standard: In accordance with BS 5385-4.
2. Requirement: Adequately resist predicted level of abrasion and predicted impact loads.

Ss_25_45_88/241 Durability of wall tiling systems

1. Requirement: System to achieve specified minimum design life, allowing for specified level of acceptable maintenance.
2. Design life (minimum): 25 years.
3. Acceptable maintenance
 - 3.1. Standard: In accordance with BS 7543.

Ss_25_45_88/250 Aesthetic performance of wall tiling systems

1. Colour and shade: Unintended variations within tiles for use in each area/ room are not permitted.
2. Variegated tiles: Mix thoroughly.
3. Visually defective tiles: Do not use.
4. Final appearance: Tiles and joints to have true, regular appearance when viewed under final lighting conditions.

Ss_25_45_88/291 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 2.1. Previous test results: For bond strength adhesive performance.
For structural performance.
For durability.

Products

45-45-70/436 Pipe collars

1. Manufacturer: Submit proposals .
2. Position: Fitted in hole or opening and Surface mounted.
3. Sizes: to suit sizes of pipes and trunkings to be fitted
4. Fire performance: As required to meet requirements of TGD B & BS EN 13501
5. Sound insulation rating: Manufacturer's standard .

Pr_20_31_02_12 Cementitious adhesives

1. Open time (minimum): 15 minutes.
2. Colour: Manufacturer's standard .
3. Fire performance: Manufacturer's standard .
4. Verification
 - 4.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Execution: [Pr_20_31_02/610 Applying adhesives generally](#)

See [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#) in [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

See [Pr_20_31_12_60 Portland cements](#) in [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

Pr_20_96_71_97 Welded wire mesh reinforcement

1. Standard: To [BS EN 13914-1](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

See [Pr_25_71_52_25 Fibre-reinforced cement boards](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_35_31_66_62 Plaster primers

Shared by: [Ss_32_46_65_55 Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER](#)

1. Manufacturer: Submit proposals .
2. Composition: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Pr_35_90_22_66 Preformed tiling strip joints

1. Manufacturer: Submit proposals .
2. Form: Corner quadrant;
Expansion joint;
Square edge;
and Straight edge.
3. Material and finish: Manufacturer's standard .
4. Verification
 - 4.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

- 4.2. Timing: Before placement of orders.
Before commencement of installation.

Pr_35_90_53_86 Strip movement joints

1. Manufacturer: Submit proposals .
2. Joint width: 3 mm.
3. Edging
 - 3.1. Material: Rigid plastics.
 - 3.2. Finish: Natural.
4. Insert
 - 4.1. Material: PVC.

Pr_35_93_96_19 Ceramic tiles

1. Standard: To [IS EN 14411](#).
2. Finish: Glazed and Matt.
3. Size: Submit proposals .
4. Execution: [Pr_35_93_96/610 Fixing tiles](#).

Pr_35_93_96_87 Tile matting

- Product reference: Submit proposals .
 - Type: Waterproof For walling
 - Thickness: 3mm

Pr_35_93_96_92 Tile spacers

1. Material: Plastics.
2. Profile: Designed for over-grouting.

Execution

Pr_20_31_02/610 Applying adhesives generally

1. Surface preparation: Dry, clean, and free from oil, grease and other contaminants.
2. Temporary support and clamping: Do not disturb components. Do not mark surfaces.
3. Finished joints: Fully bonded and free of surplus adhesive.

See [Pr_25_71_52/615 Installing non-gypsum-based panels](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_35_93_96/610 Fixing tiles

1. Setting out: Minimize number of cut tiles, maximize size and locate unobtrusively.
2. Tile cutting: Neat and accurate.
3. Fixing: Fully adhere to substrate.
4. Surplus bedding material in joints and on tile faces: None permitted.
5. Joints in tiling
 - 5.1. General: True to line, continuous and without steps. Horizontal, vertical and aligned round corners.
 - 5.2. Joints in adjoining floors, walls and skirtings: Align.
 - 5.3. Joint width: 4 mm.
 - 5.4. Joint depth: Full thickness of tile.
6. Flatness and regularity of tiling
 - 6.1. Sudden irregularities: Not permitted.
 - 6.2. Deviation of surface
 - 6.2.1. Measurement: From underside of a 2 m straightedge placed anywhere on surface.
 - 6.2.2. Obstruction by tiles: None.
 - 6.2.3. Gap (maximum): 3 mm.
 - 6.3. Deviation between tile surfaces either side of any joint (maximum)
 - 6.3.1. Joints less than 6 mm wide: 1 mm.
 - 6.3.2. Joints greater than 6 mm wide: 2 mm.

7. Movement joints: Do not tile over structural movement joints.
8. Special setting out

Ss_25_45_88/621 Suitability of backgrounds (minimum drying times)

1. Generally: Start tiling work after the minimum drying times specified have expired.
2. Minimum drying times
 - 2.1. Concrete walls: Six weeks.
 - 2.2. Brick/ block walls: Six weeks.
 - 2.3. Rendering: Two weeks.
 - 2.4. Gypsum plaster: Four weeks.

Ss_25_45_88/626 Making good existing backgrounds generally

1. Defective areas of existing substrates
 - 1.1. Loose or hollow areas of concrete: Cut out.
 - 1.2. Loose, soft, friable or badly cracked areas of plaster: Remove. Cut back to straight horizontal and vertical edges.
 - 1.3. Defective areas of glazed brick: Cut out.
 - 1.4. Loose or hollow-sounding areas of tiling: Remove.
 - 1.5. Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.
 - 1.6. Brick walls: Flush point joints.
2. Efflorescence, laitance, dirt and other loose material: Remove.
3. Organic growth: Remove.
4. Deposits of oil, grease, formwork release agents and other surface residues: Remove.
5. Soft or unsound adhesive residues: Remove without damaging backgrounds.
6. Tile, paint and other non-porous surfaces: Clean.
7. Wet backgrounds: Dry before tiling.

Ss_25_45_88/651 Jointing and sealing intermediate substrates

1. Joints
 - 1.1. Joints: Contractor's choice .
 - 1.2. Generally: Butt.
 - 1.3. Treatment: Seal and Seal with waterproof reinforcing tape.
2. Penetrations: Seal.

Ss_25_45_88/656 Hacking for key

1. Keying : Roughen backgrounds thoroughly and evenly to a depth of 3 mm.

Ss_25_45_88/661 (41) Raking out for key

1. Soft joints in existing masonry: Rake out to a depth of 13 mm (minimum).

Ss_25_45_88/686 Site-mixed cement:sand mortar

1. Components: [Pr_20_31_12_60 Portland cements](#) and [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#)
2. Mix (cement:sand)
 - 2.1. Mortar bedding: 1:3–4.
 - 2.2. Mortar for tile skirtings: 1:4.
 - 2.3. Consistency: Uniform.
3. Application
 - 3.1. Usage (at normal temperature): Within two hours.
 - 3.2. Use after initial set and retempering: Not permitted.

Ss_25_45_88/696 Applying site-mixed cement:sand mortar bedding

1. Preparation: Dampen background.
2. Application: Apply floated coat: 1:3–4 cement: sand mortar bedding.
 - 2.1. Thickness (maximum): 10 mm.
 - 2.2. Finish: Equivalent to wood float. Before tiling allow to stiffen slightly.

Ss_25_45_88/760 Fixing using thin bed adhesive – ribbed

1. Application
 - 1.1. Thickness: 3 mm float coat.
 - 1.2. Working area (maximum): 1 m².
2. Tiling: Securely bond.

Ss_25_45_88/775 Fixing using thin bed adhesive – paper faced mosaic

1. Application
 - 1.1. Thickness: 3 mm float coat.
 - 1.2. Surface: Comb.
2. Mosaic sheets
 - 2.1. Preparation: Pre-grout. Remove surplus before fixing.
 - 2.2. Vertical joints: Stagger.
 - 2.3. Width, plane and alignment of joints between sheets: As joints between mosaic tiles.
 - 2.4. Paper face: Remove before adhesive hardens completely. Wash off adhesive from face of mosaic.

Ss_25_45_88/785 Forming movement joints generally

1. Installation
 - 1.1. Generally: Centre over joints in background. Extend through tiles and bedding to background.
 - 1.2. Movement joint locations: Intermediate: At 3 m centres.
Perimeter: At all perimeters including door frames.
At internal corners of all rooms.
2. Joint width: As structural movement joint in background.

Ss_25_45_88/795 Site-mixed cement:sand grout

1. Components: [Pr_20_31_12_60 Portland cements](#); [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#)
2. Mix (cement:sand): Strictly in accordance with manufacturers specification and detail.
3. Pigment; proportion of cement content: 5–10%.
4. Clean water: Minimum needed for workability.
5. Consistency of mix: Uniform.

Ss_25_45_88/797 Grouting

1. Sequence: Grout when bed/ adhesive has set sufficient to prevent disturbance of tiles.
2. Joints: Free from dust and debris.
3. Generally: Fill joints completely. No gaps.
4. Profile: Concave.
5. Polishing: When grout is hard, polish tiling with a dry cloth. Leave tile surfaces free from blemishes and residues.

Ss_40_90_60/610 Control samples of finishes

Shared by: [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

1. Sample areas of finished work: To be agreed on site with ER.
2. Timing: Apply during preliminary installation.
3. Approval of appearance: Obtain before starting general coating work.

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

Ss_25_45_88/806 Cleaning and maintenance of wall tiling systems

1. Standards: In accordance with the recommendations of [BS 5385-1](#), [BS 5385-2](#), [BS 5385-4](#) and [The Tile Association](#) publication [The cleaning of ceramic tiles](#).
2. Cleaning materials and methods
 - 2.1. Generally: Avoid the use of chemicals which may attack or damage tiles, grouts, adhesives or bedding.
 - 2.2. Glazed tiles: Use pH neutral, non-abrasive detergents.

Ss_25_45_88/821 Maintenance manual for wall tiling systems

1. Contents
 - 1.1. Materials: Record source locations of all materials and location of spares.
 - 1.2. Maintenance: Recommended care instructions and Recommended repair methods.
 - 1.3. Test results: All test results relevant to the design and maintenance of the system.
2. Timing of submission: On completion of system.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_60_30_55

Multiple services penetrations fire stopping systems

Systems

Ss_25_60_30_55 Multiple services penetrations fire stopping systems

1. System performance: [Ss_25_60_30/220 Fire performance](#) and [Ss_25_60_30/290 Compliance with performance requirements](#)
2. System manufacturer: Submit proposals .
3. Board barrier: [Pr_25_71_52_15 Compressed mineral wool fire protection boards](#)
4. Framing
 - 4.1. Material: Submit proposals for approval.
5. Sealant
 - 5.1. Sealant type: [Pr_30_31_76_77 Silicone construction joint sealants](#)
 - 5.2. Primer: Required.
6. Execution: [Ss_25_60_30/610 Fire stopping systems workmanship generally](#); [Ss_25_60_30/720 Applying fire stopping capping sealant](#); and [Ss_25_60_30/620 Installing fire stopping boarding](#).
7. System completion: [Ss_25_60_30/820 Inspection of fire stopping systems](#) and [Ss_25_60_30/895 Verification of performance](#).

System performance

See [Ss_25_60_30/220 Fire performance](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/290 Compliance with performance requirements](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Products

Pr_25_71_52_15 Compressed mineral wool fire protection boards

1. Fire rating: Fire rated to EN 13501-1, class A2-s3, d2 or better suitable for the purpose and location and detail in accordance with TGD B
2. Thickness: thickness to achieved required rating as confirmed in manufacturer's literature.
3. Edges: Square.
4. Execution: [Pr_25_71_52/615 Installing non-gypsum-based panels](#)
5. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

See [Pr_30_31_76_77 Silicone construction joint sealants](#) in [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

Execution

See [Pr_25_71_52/615 Installing non-gypsum-based panels](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants Generally](#) in [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

See [Ss_25_60_30/610 Fire stopping systems workmanship generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ss_25_60_30/620 Installing fire stopping boarding

1. Framing: Framing to perimeters and at 450 mm centres, with trimming around openings.
2. Boarding
 - 2.1. Position: Within opening.
 - 2.2. Number of layers: Two.
 - 2.3. Joint arrangement: Stagger joints between layers.

Employers Requirements, Architectural & Landscaping Specification

3. Fixing centres: Strictly in accordance with Manufacturers Instructions in accordance with requirements and suitable for location.

3.1. Centres: 100 mm.

4. Fasteners: Countersink screw heads.

See [Ss_25_60_30/720 Applying fire stopping capping sealant](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

See [Ss_25_60_30/820 Inspection of fire stopping systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ss_25_60_30/895 Verification of performance

Shared by: [Ss_25_60_30_62 Pipe collar fire stopping systems](#)

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_25_60_30_62

Pipe collar fire stopping systems

Systems

Ss_25_60_30_62 Pipe collar fire stopping systems

1. System performance: [Ss_25_60_30/220 Fire performance](#); [Ss_25_60_30/230 Durability](#); [Ss_25_60_30/290 Compliance with performance requirements](#)
2. System manufacturer: Submit proposals .
3. Pipe collars
 - 3.1. Type: [Ss_25_60_30_62 Pipe collar fire stopping systems](#)
 - 3.2. Fixing: Strictly in accordance with manufacturers specification and detail.
 - 3.3. Gap sealer: Strictly in accordance with manufacturers specification and detail, suitable for the purpose, location and detail. [Pr_25_80_81_29 Flexible intumescent gap seals](#); [Pr_30_31_76_41 Intumescent foam fillers](#); [Pr_20_31_53_43 Intumescent mortars](#); [Pr_30_31_68_42 Intumescent putties](#)
4. Capping sealant
 - 4.1. Sealant type: Strictly in accordance with manufacturers specification and detail, suitable for the purpose, location and detail.
 - 4.2. Primer: Required.
5. Execution: [Ss_25_60_30/610 Fire stopping systems workmanship generally](#); [Ss_25_60_30/690 Fixing fire stopping pipe collars](#); [Ss_25_60_30/630 Installing flexible intumescent gap sealer](#); [Ss_25_60_30/640 Applying intumescent foam](#); [Ss_25_60_30/650 Applying intumescent mortar](#); [Ss_25_60_30/670 Applying intumescent putty](#); [Ss_25_60_30/720 Applying fire stopping capping sealant](#)
6. System completion: [Ss_25_60_30/810 Cleaning after installation of fire stopping systems](#); [Ss_25_60_30/820 Inspection of fire stopping systems](#); [Ss_25_60_30/895 Verification of performance](#)

System performance

See [Ss_25_60_30/220 Fire performance](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/230 Durability](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/290 Compliance with performance requirements](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Products

Pr_20_31_53_43 Intumescent mortars

1. Description: To seal penetrations through concrete and masonry constructions as per details. Confirm product and location with architect prior to use.
2. Manufacturer: Submit proposals .
3. Material: Cement based and Gypsum based.
4. Fire resistance: 120 minutes.

See [Pr_25_80_81_29 Flexible intumescent gap seals](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_30_31_68_42 Intumescent putties

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

1. Manufacturer: Submit proposals .
2. Material: One part synthetic elastomeric intumescent putty.
3. Form: Freeform.
4. Execution: [Pr_30_31_76/610 Suitability of joints for sealant application](#); [Pr_30_31_76/620 Joint preparation for sealant application](#); [Pr_30_31_76/630 Applying joint sealants Generally](#)
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

See [Pr_30_31_76_41 Intumescent foam fillers](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Execution

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants Generally](#) in [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

See [Ss_25_60_30/610 Fire stopping systems workmanship generally](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/630 Installing flexible intumescent gap sealer](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ss_25_60_30/640 Applying intumescent foam

1. New joints: Remove builder's debris, mortar droppings, grease, and other contaminants.
2. Old joints: Clean and remove existing sealant from each joint.
3. Priming: Lightly moisten substrate with water.
4. Application: Fill joint to approximately half its depth, and allow foam to expand to face of joint.
5. Trimming: Do not trim or cut the face of the cured foam.

Ss_25_60_30/650 Applying intumescent mortar

1. Sequence: Install mortar after services are permanently installed.
2. Shuttering: Install suitable shuttering panels to the faces of the opening.
3. Temperature: Do not apply mortar when it could be damaged by frost.
4. Mortar cure: Do not disturb mortar before final set has taken place.
5. Shuttering removal: After mortar has cured.

Ss_25_60_30/670 Applying intumescent putty

1. Sequence: Install putty after services are permanently installed.
2. Putty cure: Do not disturb putty before final set has taken place.

Ss_25_60_30/690 Fixing fire stopping pipe collars

1. Opening: Provide an opening nominally 20–50 mm greater in diameter than the collar.
2. Fixing: Secure collar to surround.

See [Ss_25_60_30/720 Applying fire stopping capping sealant](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

See [Ss_25_60_30/810 Cleaning after installation of fire stopping systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/820 Inspection of fire stopping systems](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Ss_25_60_30/895 Verification of performance](#) in [Ss_25_60_30_55 Multiple services penetrations fire stopping systems](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_30_14_15_16

Concrete paving systems - EXTERNAL PATHS

Systems

Ss_30_14_15_16 Concrete paving systems - EXTERNAL PATHS

1. Description: EXTERNAL PATHS

All materials, reinforcement, membranes, formwork and finishes Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

2. System accessories: All strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Accessories cast into concrete: [Pr_65_52_24_24 Drainage channels with gratings](#); [Pr_65_52_24_18 Concrete one-piece gullies](#)
4. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

[Ss_30_14_15/612 Formed finishes in concrete](#) where approved by Architect

5. System completion: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Products

Pr_15_31_04_15 Concrete surface retarders

1. Description: Solvent-free surface retarder for architectonic concrete paving.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

2. Location: As noted Architects Finishes drawings
3. Manufacturer: **Submit proposals**
4. Application: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

To be applied using a pressure spray in a regular, uniform coating at the rate of approx. 4m²/litre onto freshly floated or smoothed concrete surfaces.

The concrete should always be washed the following day, using a cold water pressure washer (pressure 100-200 kg/cm²).

Concrete on pavers, edging stones, kerbstones, etc. should be covered with the product so as to ensure easy removal with the pressure washer during washing.

When the surface of the concrete is washed, ensure that the solid residues (cement, sand) do not enter drains, either:
Channel the water to a temporary soak-away where the sediment can be removed by shovel.
Make a gravel wall at the side of the concrete to filter the water before it gets to the drains.

5. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_65_52_24_18 Concrete one-piece gullies

1. Standards: To [BS 5911-6](#). & Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Properties
 - 2.1. Sizes: & Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Integral accessories: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Pr_65_52_24_24 Drainage channels with gratings

1. Description: Linear drainage channels with removable gratings for use in external paved areas and at thresholds.
2. Manufacturer: Submit proposals .
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Standard: Compliant with Part M of the Building Regulations & Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Properties
 - 5.1. Material: Concrete
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 5.2. Gratings
 - 5.2.1. Material: Concrete. Suitable for the purpose, location and detail. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Integral accessories: Manufacturer's standard .

7. Execution: [Pr_65_52_24/610 Installing channels](#).

Execution

Pr_65_52_24/610 Installing channels

1. Alignment: Grating flush with finished surface.
2. Bedding
 - 2.1. Material: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Surround
 - 3.1. Material: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_14_15/612 Formed finishes in concrete

1. Formed finish: [Pr_15_31_04_15 Concrete surface retarders](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_30_14_80_98 Rubber chip surface finish systems

Systems

Ss_30_14_80_98 Rubber chip surface finish systems

1. Description: Proprietary rubber chip mulch -acts as a Loose Impact Attenuating Surface (LIAS) for play areas.
2. System performance: [Ss_30_14_80/260 Play surfacing performance](#)
3. Depth:: Min 50mm and to Manufacturer's written instructions.
4. Standard: To [BS 7188](#) and [BS EN 1176-1](#).
5. Blinding:: Sand blinding topping to hardcore base to Structural Engineer's specification & detail.
6. Granular sub-base: Hardcore base to Structural Engineer's specification & detail.
7. Geotextile below surface course: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
Position in accordance with manufacturer's written instructions.
8. Surface course: [Pr_45_31_63_64 Playground Rubber mulch](#)
9. Samples required: [Ss_30_14_80/310 Product samples](#)
10. Execution: [Ss_30_14_80/605 Protection of unbound pavements from traffic and plant](#); [Ss_30_14_80/607 Surface characteristics of unbound surfacing](#); [Ss_30_14_80/647 Laying woodchip surface course](#); [Ss_30_14_80/649 Laying loose particulate materials for play surfacing](#)
11. System completion: [Ss_30_14_80/850 Documentation for unbound play surfacing](#)

System performance

Ss_30_14_80/260 Play surfacing performance

1. Performance requirements
 - 1.1. Generally: In accordance with [BS EN 1176-1](#) and [BS 7188](#).
 - 1.2. Critical fall height (minimum) to [BS EN 1177](#): 2.2m
 - 1.3. Safety requirements
 - 1.3.1. Generally: To [BS EN 1176-1](#).
 - 1.3.2. Swings: To [BS EN 1176-1](#).
 - 1.3.3. Slides: To [BS EN 1176-3](#).
 - 1.3.4. Runways: To [BS EN 1176-4](#).
 - 1.3.5. Carousels: To [BS EN 1176-5](#).
 - 1.3.6. Rocking equipment: To [BS EN 1176-6](#).
 - 1.3.7. Spatial network: To [BS EN 1176-11](#).
2. Anticipated usage
 - 2.1. Hours per day: 6

- 2.2. Days per week: 7
- 2.3. Life expectancy (minimum): 10 years.
- 3. Material characteristics
 - 3.1. Standard: To [BS 7188](#).
 - 3.2. Radius of effects of ignition (max): 35 mm, to [BS 7188](#).

Products

Pr_15_57_35_61 Geotextile Weed prevention matt

Shared by: [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#) , [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) , [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

- 1. Description: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
- 2. Standards: BS 7533-13:2009
- 3. Certification:
 - 1. Product CE marking and associated Declaration of Performance (DoP).
 - 2. Board of Agrément Certificate (IAB / BBA).
 - 3. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
 - 4. European Technical Assessment Approval

Products / materials shall either be certified as complying with latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.

Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative

Pr_45_31_63_64 Playground Rubber mulch

- 1. Description: Proprietary rubber chip mulch suitable for play area. Rubber chip resembles natural wood chip mulch.
- 2. Supplied by: Submit proposals.
- 3. Grade: Manufacturer's standard.
- 4. Particle size (nominal): Manufacturer's standard.
- 5. Ease of ignition: To [BS 7188](#).
- 6. Product sample:: [Ss_25_15_60/306 Product samples](#)
- 7. Recycled content:: Required- eg rubber from recycled tyres.
- 8. Additives, dyes or any substance harmful to humans or the environment: Not permitted.

See [Ss_25_15_60/306 Product samples](#) in [Ss_25_15_60_56 Metal post and rail barrier systems - EXTERNAL RAILINGS](#)

Ss_30_14_80/310 Product samples

- 1. Supplied by: Contractor
- 2. Submittals: Reference sample for approval
- 3. Purpose: For use as a reference sample.
- 4. Labelling: Clearly label all submitted samples. State full details of composition of mix.
- 5. Timing: Before ordering product

Execution

Ss_30_14_80/605 Protection of unbound pavements from traffic and plant

- 1. New pavements: Restrict access to prevent damage.

Ss_30_14_80/607 Surface characteristics of unbound surfacing

- 1. Profile: To Structural Engineer's specification.
- 2. Ridges, seams, joints, hollows, bumps and textural variations which might cause a trip hazard: Prevent.
- 3. Finished surfaces
 - 3.1. Lines and levels: To prevent ponding.
 - 3.2. Overall texture: Even.
- 4. Drainage falls

- 4.1. Sealed surfaces
 - 4.1.1. Falls and cross falls (minimum): 1:40.
 - 4.1.2. Camber (minimum): 1:50.
- 4.2. Unsealed surfaces (minimum): 1:30.
- 4.3. Permeable surfaces (minimum): 1:100 in any direction.

Ss_30_14_80/647 Laying woodchip surface course

- 1. Method: Consolidate to produce a firm, regular surface.
- 2. Thickness (minimum)
 - 2.1. Wood chip - after at least 10% settlement and 30 days: 200 mm.

Ss_30_14_80/649 Laying loose particulate materials for play surfacing

- 1. Method: Loose laid and raked to uniform thickness.
- 2. Depth (minimum): 300 mm.

System completion

Ss_30_14_80/850 Documentation for unbound play surfacing

- 1. For all types of surfacing, provide the following:: Manufacturer's recommended cleaning and maintenance methods, where relevant. Type/ description/ reference of products used.
- 2. Timing: Within 14 days of completing the surfacing works.

Ω End of System

Ss_30_14_90_36

Flag and slab unbound paving systems - EXTERNAL PAVING

Systems

Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING

1. Description: Concrete paving flags and Natural stone slabs
2. System performance: [Ss_30_14_90/251 Accessibility of unit pavements](#);
[Ss_30_14_90/255 Slip and skid resistance of unit pavements](#);
and [Ss_30_14_90/271 Compliance with performance requirements for unit paving systems](#)
3. System manufacturer: Submit proposals .
4. Standard: To [BS 7533-8](#)
5. Subgrade improvement layer: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Preparation products: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Geotextile below granular sub-base: The Contractor shall allow for the provision of an approved Geotextile membrane where site investigation indicates a requirement for separation of soil and stone layers in roadways and footpaths. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Granular sub-base: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Geotextile below laying course: Strictly in accordance with manufacturers Specification.
10. Laying course: [Pr_20_31_04_46 Laying course fine aggregates](#).
11. Paving course
 - 11.1. Paving units: [Pr_25_93_60_23 Concrete tactile flags](#)
 - 11.2. Jointing: [Pr_20_31_04_44 Jointing fine aggregates](#).
Jointing material should be as recommended by the manufacturer. Material shall be a free-flowing fine aggregate with a grading of Gf 85 0/1 (FP) to IS EN 12620
12. Applied surface features: [Pr_35_90_60_87 Tactile paving studs](#)
13. Execution: [Ss_30_14_90/601 Installation control samples](#); [Ss_30_14_90/603 Protection of paving during works](#);
[Ss_30_14_90/605 Adverse weather and unit paving construction](#); [Ss_30_14_90/609 Cutting paving units](#);
[Ss_30_14_90/611 Permissible deviations from design levels for unit paving](#); [Ss_30_14_90/613 Regularity of finished paving surface](#); [Ss_30_14_90/614 Regularity of finished paving surface for accessibility](#); [Ss_30_14_90/617 Avoidance of colour banding in unit paving](#); [Ss_30_14_90/619 Disposal of arisings](#); [Ss_30_14_90/626 Laying subgrade improvement layers and sub-base](#); [Ss_30_14_90/633 Condition of sub-bases and bases before spreading laying course](#);
[Ss_30_14_90/705 Laying mortar bedded accessories in unbound pavements](#); [Ss_30_14_90/709 In situ surrounds to obstructions in unit paving](#); [Ss_30_14_90/709 In situ surrounds to obstructions in unit paving](#); [Ss_30_14_90/731 Laying geotextiles below laying course](#); [Ss_30_14_90/741 Concrete for foundations, races and haunching for unit pavements](#);
[Ss_30_14_90/781 Final compaction of unbound paving](#)
14. System completion: [Ss_30_14_90/801 Protection of completed pavements](#); [Ss_25_13_50/895 Verification of performance](#)

System performance

Ss_30_14_90/251 Accessibility of unit pavements

Shared by: [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Finished surfaces on accessible areas: Free of irregularities capable of inflicting personal injury.

Ss_30_14_90/255 Slip and skid resistance of unit pavements

Shared by: [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Slip resistance value – water wet (minimum)
 - 1.1. Level surfaces: To [BS 7976-2](#), PTV of 36.
 - 1.2. Inclined surfaces, up to 1:20 pitch: To [BS 7976-2](#), PTV of 40.
2. Skid resistance: PSV to HA [DMRB 7.5.1](#) of 50.
3. Demonstrating performance
 - 3.1. Submittals: Laboratory test results.
 - 3.2. Testing company: Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)

Ss_30_14_90/271 Compliance with performance requirements for unit paving systems

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Requirement: Proof of compliance with specified performance.

2. Submittals

- 2.1. Format: *Test results and certification.*
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- 2.2. Timing: Before commencing installation.

Products

Pr_20_31_04_44 Jointing fine aggregates

Shared by: [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Supplied by: Submit proposals .
2. Standard: To [BS EN 12620](#).
IS EN 13242:2002+A1:2007 - Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction.
3. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Material: Manufacturer's standard .
BS 7533
I.S. EN 12620:2002+A1:2008
5. Colour: Natural.
6. Aggregate size and grading category: IS EN 1338:2003 Concrete paving flags. Requirements and test methods.
7. Fines content: Category f₂.
8. Drying: Required.

Pr_20_31_04_46 Laying course fine aggregates

1. Supplied by: Submit proposals .
2. Standard: To [BS EN 12620](#)
3. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Material: Crushed gravel sand to IS EN 1339:2003 Concrete paving flags. Requirements and test methods.
5. Aggregate size and grading category: IS EN 1338:2003 Concrete paving flags. Requirements and test methods.
6. Fines content: I.S. EN 12620:2002+A1:2008

Pr_25_93_60_23 Concrete tactile flags

1. Product reference: Tactile Corduroy Flag
2. Standard: To [IS EN 1339](#)
3. Physical properties
 - 3.1. Colour: Refer Good Practice Guidelines on Accessibility of Streetscapes.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 3.2. Profile
 - 3.2.1. Flag type: Regular plan form.
 - 3.2.2. Arrises: Square.
 - 3.2.3. Surface profile arrangement: In compliance with TII Publications - STANDARD CONSTRUCTION DETAILS (SCD)
 - 3.3. Dimensions and associated tolerances
 - 3.3.1. Nominal sizes: •50 mm – Pedestrian/ light vehicular use, e.g. domestic driveways.
•60/65 mm – Light vehicular use/ occasional overrun by heavy vehicles.
•80/100 mm – Heavy vehicles/ heavy duty industrial applications.
•80 mm – Permeable concrete blocks.
•100 mm – Areas subjected to exceptional axle loads.
 - 3.3.2. Tolerances on plan dimension and thickness (nominal): To IS EN 1339
 - 3.3.3. Tolerances on diagonals: To IS EN 1339

Pr_35_90_60_87 Tactile paving studs

Shared by: [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Manufacturer: Submit proposals .
2. Material: Stainless steel.
3. Profile: Manufacturer's standard .

Mayo County Council

Ss_30_14_90_36

Flag and slab unbound paving systems - EXTERNAL PAVING

4. Size: 30 mm diameter.
5. Slip resistance – water wet (minimum): To [BS 7976-2](#), PTV of 40.

Execution

Ss_30_14_90/601 Installation control samples

Shared by: [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Required samples
 - 1.1. Paving types: Concrete slab paving;
Concrete sett paving;
Natural stone cobble paving;
Natural stone slab paving;
and Natural stone sett paving.
 - 1.2. Purpose: For use as an installation reference sample.
 - 1.3. Size (minimum): 1.5 x 1.5 m.
 - 1.4. Location: As directed by Architect
 - 1.5. Features to be included: Channel;
Edging;
Kerb;
Recessed manhole cover infill;
and Junction with building facade.
2. Timing: Construct during preliminary installation. Obtain approval of appearance before proceeding.

Ss_30_14_90/603 Protection of paving during works

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Cleanliness: Keep paving clean and free from mortar droppings, oil and other materials likely to cause staining.
2. Materials storage: Do not overload pavings with stacks of materials.
3. Handling: Do not damage paving unit corners, arrises, or previously laid paving.
4. Access: Restrict access to completed paved areas to prevent damage from site traffic and plant.

Ss_30_14_90/605 Adverse weather and unit paving construction

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Standard: In accordance with [BS 7533-3](#).
2. General
 - 2.1. Temperature: Do not lay or joint paving if the temperature is below 3°C on a falling thermometer or below 1°C on a rising thermometer.
 - 2.2. Frozen materials: Do not use. Do not lay bedding on frozen or frost covered bases.
3. Kerbs edgings, and channels: Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.
4. Paving with mortar joints or bedding: Protect from frost damage, rapid drying out and saturation until mortar has hardened.
5. Paving with fine aggregate bedding and joints
 - 5.1. Stockpiled laying course material: Protect from saturation.
 - 5.2. Exposed areas of laying course material and uncompacted areas of unbound paving: Protect from heavy rainfall.
 - 5.3. Saturated laying course: Remove and replace, or allow to dry before proceeding.
 - 5.4. Laying dry fine aggregate jointed paving in damp conditions : Brush in as much fine jointing aggregate as possible. Minimize site traffic over paving. As soon as paving is dry, top up joints and complete compaction.

Ss_30_14_90/609 Cutting paving units

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Generally: Cut units cleanly, accurately and vertically, without spalling, to give neat junctions with edgings and adjoining finishes. Do not mark or damage visible surfaces.
2. Natural stone: In accordance with [BS 7533-3](#). Cut setts with a disc cutter or masonry saw.
3. Concrete flags: To [Interpave Cutting paving. Cutting precast concrete blocks flags and kerbs - efficient design and managing the risk](#).

Ss_30_14_90/611 Permissible deviations from design levels for unit paving

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Standard: To [BS 7533-3](#).

Ss_30_14_90/613 Regularity of finished paving surface

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

- Standards: In accordance with [BS 7533-3](#), [BS 7533-4](#), [BS 7533-7](#) and [BS 7533-101](#).
- Method of measurement: Under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
- Maximum undulations in the pavement surface
 - Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
 - Precast concrete flags or natural stone slabs: 3 mm.
 - Natural stone setts and cobbles, and rigid construction with precast concrete block pavers: 3 mm.
- Sudden irregularities: Not permitted.
- Difference in level between adjacent paving units (maximum): 2 mm.

Ss_30_14_90/614 Regularity of finished paving surface for accessibility

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Standard: In accordance with [BS 8300-1](#).
2. Method of measurement: Under a 1m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
3. Maximum undulations in the pavement surface: 3 mm.
4. Joints between paving units or utility access covers
 - 4.1. Joints flush with the surface: Difference in level between adjacent units to be no more than twice the joint width (with a 5 mm max difference in level).
 - 4.2. Recessed, filled joints: Difference in level between adjacent units to be no greater than 2 mm; the recess to be no deeper than 5 mm.
 - 4.3. Unfilled joints: Difference in level between adjacent units to be no greater than 2 mm.
5. Sudden irregularities: Not permitted.

Ss_30_14_90/617 Avoidance of colour banding in unit paving

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Number of separate packs: 3.

Ss_30_14_90/619 Disposal of arisings

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Tree roots and stumps: Remove from site.
2. Litter and non-biodegradable arisings: Remove from site.

Ss_30_14_90/626 Laying subgrade improvement layers and sub-base

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Standard: In accordance with Transport Infrastructure Ireland documents
 1. TII publications – NRA Specification for Road Works series
 2. TII publications – NRA Notes for Guidance on the Specification for Road Works series
 3. TII publications – NRA Method of Measurement for Road Works series
 4. TII publications – NRA Standard Construction Details series
2. Condition of sub-bases before spreading laying course

- 2.1. Prepared sub-bases: Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.
- 2.2. Levels and falls: Accurate and within the specified tolerances.
- 2.3. Drainage outlets: Within 0–10 mm of the required finished level.

Ss_30_14_90/633 Condition of sub-bases and bases before spreading laying course

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Trenches and excavation of soft or loose spots in subgrade: Fill. Compact thoroughly.
2. Granular surfaces: Sound, clean, smooth and close-textured enough to prevent migration of laying course materials into the sub-base during compaction and use. Free from movement under compaction plant. Free from compaction ridges, cracks and loose material.
3. Prepared existing and new bound bases (road bases): Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.
4. Subgrade, sub-base and road base presentation: In accordance with [BS 7533](#)
5. Levels and falls: Accurate and within the specified tolerances.
6. Drainage outlets: Within 0–10 mm of the required finished level.
7. Unbound paving features (including mortar-bedded restraints and drainage ironwork) : Complete to required levels. Bed adequately. Haunch in mortar.
8. Sub-bases containing cement or hydraulic binder: Cure for minimum times specified in [BS 7533-4](#). Protect from moisture loss, if not covered by another pavement course within 2 hours of completion.

Ss_30_14_90/705 Laying mortar bedded accessories in unbound pavements

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Standard: In accordance with Interpave [Concrete block paving: guide to the properties, design, construction, reinstatement and maintenance of concrete block pavements](#).
2. In situ mortar or concrete infill: Refer to Consulting Structural Engineers Specification. Strictly in accordance with manufacturers specification and detail.
3. Foundation dimensions (minimum): Refer to Consulting Structural Engineers Specification. Strictly in accordance with manufacturers specification and detail.
4. Finished appearance: Exposed faces clean and free from mortar.

Ss_30_14_90/709 In situ surrounds to obstructions in unit paving

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#)

1. Standard: In accordance with [BS 7533-3](#).
2. Positions: Around circular drainage fittings.
At circular street furniture bases.
Where units cannot be fitted tight up to features.
3. Material: Refer to Consulting Structural Engineers Specification. Strictly in accordance with manufacturers specification and detail.

Ss_30_14_90/731 Laying geotextiles below laying course

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Position: Immediately below the laying course.
2. Edge detail
 - 2.1. Features which interrupt laying course: Fit neatly against perimeters, edge restraints, kerbs and drainage fittings.
Turn sheet up to form an upstand to a height of the thickness of the laying course.
 - 2.2. Over drainage holes
 - 2.2.1. Position: Lay geotextile patches on the base, centrally over each hole.
 - 2.2.2. Size of patches: 150 mm excess beyond drainage hole in every direction.
3. Jointing lap (minimum): 300 mm.

Ss_30_14_90/741 Concrete for foundations, races and haunching for unit pavements

1. Standard: To [BS 8500-2](#).
2. Designated mix: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

3. Consistence: Very low.

Ss_30_14_90/781 Final compaction of unbound paving

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Sand dressing: Leave a thin layer of dry fine aggregate jointing material over the paving, sweep clean before substantial completion.
2. Final compaction of the surface course: In accordance with [BS 7533-3](#).

System completion

See [Ss_25_13_50/895 Verification of performance in Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_14_90/801 Protection of completed pavements

Shared by: [Ss_30_14_90_62 Permeable small unit paving systems](#) and [Ss_30_14_90_85 Small unit unbound paving systems - PAVING](#)

1. Mortar-bedded paving
 - 1.1. Protection: Protect from pedestrian or vehicular traffic for the minimum required periods.
 - 1.2. Traffic-free periods (minimum)
 - 1.2.1. Pedestrian traffic: **48 hours**.
 - 1.2.2. Vehicular traffic: **7 days**.
2. Grass-filled paving: Protect from traffic for six to eight weeks or until grass can tolerate traffic.

Ω End of System

Ss_30_14_90_62

Permeable small unit paving systems

Systems

Ss_30_14_90_62 Permeable small unit paving systems

1. Description: Permeable pavements constructed of small unit paviors
2. System performance: [Ss_30_14_90/271 Compliance with performance requirements for unit paving systems](#)
3. Standard: To [BS 7533-13](#).
4. Granular sub-base: 50mm thickness of 6.3-2mm grit to BS7533-13:2009 and BS 13242:2002

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with manufacturers specification and detail.
5. Base course: 350mm thickness coarse graded aggregate to BS7533-13:2009

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with manufacturers specification and detail.
6. Geotextile below laying course: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
7. Laying course: 50mm Sand Blinding Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Strictly in accordance with manufacturers specification and detail.
8. Paving course
 - 8.1. Paving units: [Pr_25_93_60_19 Concrete pavers](#)
 - 8.2. Jointing: [Pr_20_31_04_62 Permeable laying course aggregates](#)
9. Samples required: [Ss_30_14_90/305 Product samples](#)
10. Execution: [Ss_30_14_90/603 Protection of paving during works](#); [Ss_30_14_90/605 Adverse weather and unit paving construction](#); [Ss_30_14_90/609 Cutting paving units](#); [Ss_30_14_90/611 Permissible deviations from design levels for unit paving](#); [Ss_30_14_90/613 Regularity of finished paving surface](#); [Ss_30_14_90/614 Regularity of finished paving surface for accessibility](#); [Ss_30_14_90/617 Avoidance of colour banding in unit paving](#); [Ss_30_14_90/619 Disposal of arisings](#); [Ss_30_14_90/626 Laying subgrade improvement layers and sub-base](#); [Ss_30_14_90/633 Condition of sub-bases and bases before spreading laying course](#); [Ss_30_14_90/705 Laying mortar bedded accessories in unbound pavements](#);

Ss_30_14_90/709 In situ surrounds to obstructions in unit paving; Ss_30_14_90/731 Laying geotextiles below laying course; Ss_30_14_90/673 Laying permeable unit pavements; Ss_30_14_90/781 Final compaction of unbound paving

11. System completion: Ss_30_14_90/801 Protection of completed pavements; Ss_25_13_50/895 Verification of performance

System performance

See Ss_30_14_90/271 Compliance with performance requirements for unit paving systems in Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING

Products

See Pr_15_57_35_61 Geotextile Weed prevention matt in Ss_30_14_80_98 Rubber chip surface finish systems

Pr_20_31_04_62 Permeable laying course aggregates

1. Standard: To BS EN 12620
2. Certification: Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification
3. Material: Refer to Consulting Structural Engineers Specification. Strictly in accordance with manufacturers specification and detail.

Pr_25_93_60_19 Concrete pavers

1. Description: Interlocking block paving permeable paving units for Sustainable Drainage Schemes (SuDS).
2. Manufacturer: Tobermore Hydropave 240 or equivalent approved
3. Standard: To BS EN 1338.

Installed to BS 7533-3: 2005.
4. Physical properties
 - 4.1. Colour: Charcoal. To Architects approval.
 - 4.2. Finish: As cast.
 - 4.3. Profile
 - 4.3.1. Paver type: Regular plan form. Special shapes.
 - 4.4. Dimensions and associated tolerances
 - 4.4.1. Nominal sizes: 240 x 120 x 80 mm.
 - 4.4.2. Tolerances on diagonals: Class 1.
 - 4.5. Abrasion resistance: Hard wearing surface layer with a minimum layer of 4 mm and >350 kg/m³ cement.

Class 3.
 - 4.6. Slip resistance: Extremely low

USRV to BS EN 1338 of 75
 - 4.7. Skid resistance: PSV to HA DMRB 7.5.1 of 68+.

Ss_30_14_90/305 Product samples

Shared by: Ss_30_14_90_85 Small unit unbound paving systems - PAVING

1. Submittals:

Paving unit samples which will be retained for the duration of the project.
Confirm with Architect type and size of samples for submission.
2. Purpose: For use as a reference sample.
3. Labelling: Clearly label all submitted samples.
4. Timing: *Before ordering for project & at the time of delivery for each manufacturing batch.*

Execution

See Ss_30_14_90/603 Protection of paving during works in Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING

See Ss_30_14_90/605 Adverse weather and unit paving construction in Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING

Ss_30_14_90/607 Laying unit pavings generally

1. Standard: In accordance with TII Specification for Road Works Series
2. Setting out: Start from an edge restraint.

Employers Requirements, Architectural & Landscaping Specification

3. Paving units: Free of damage, mortar and sand stains. Interlocking units to be adequately connected
4. Appearance: Smooth and even with regular joints. Accurate to line, level and profile.
5. Cut edges: Turn inwards where possible. Do not position against edge restraints or other features.
6. Laying course: Grade consistently and accurately. Spread and compact to produce uniform thickness and support for paving units.
7. Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
8. Falls: Prevent ponding.
9. Laying on slopes: Lay paving units upwards from the bottom of slopes.

See [Ss_30_14_90/609 Cutting paving units](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/611 Permissible deviations from design levels for unit paving](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/613 Regularity of finished paving surface](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/614 Regularity of finished paving surface for accessibility](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/617 Avoidance of colour banding in unit paving](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/619 Disposal of arisings](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/626 Laying subgrade improvement layers and sub-base](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/633 Condition of sub-bases and bases before spreading laying course](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

Ss_30_14_90/673 Laying permeable unit pavements

1. General requirements: [Ss_30_14_90/607 Laying unit pavings generally](#)
2. Standard: In accordance with [BS 7533-3](#).
3. Compaction: In accordance with [BS 7533-3](#). Determine by trial the depth of loose bedding material needed to ensure specified bedding course thickness after final compaction of paving.

See [Ss_30_14_90/705 Laying mortar bedded accessories in unbound pavements](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/709 In situ surrounds to obstructions in unit paving](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/731 Laying geotextiles below laying course](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/781 Final compaction of unbound paving](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_14_90/801 Protection of completed pavements](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

Ω End of System

Ss_30_14_90_85

Small unit unbound paving systems - PAVING

Systems

Ss_30_14_90_85 Small unit unbound paving systems - PAVING

1. Description: paving laid flexibly on a fine aggregate laying course with a granular sub-base over a newly excavated subgrade.
2. System performance: [Ss_30_14_90/251 Accessibility of unit pavements](#); [Ss_30_14_90/255 Slip and skid resistance of unit pavements](#); [Ss_30_14_90/271 Compliance with performance requirements for unit paving systems](#)
3. Standard: To [BS 7533-1](#) and To [BS 7533-2](#).
4. Subgrade improvement layer: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
5. Granular sub-base: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Geotextile below laying course: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Laying course: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Paving course
 - 8.1. Paving units: [45-20-64/400 Precast concrete paving blocks](#) and [Pr_25_93_60_57 Natural stone setts](#).
 - 8.2. Jointing: [Pr_20_31_04_44 Jointing fine aggregates](#)
9. Applied surface features: [Pr_35_90_60_87 Tactile paving studs](#)
10. Samples required: [Ss_30_14_90/305 Product samples](#)
11. Execution: [Ss_30_14_90/601 Installation control samples](#); [Ss_30_14_90/603 Protection of paving during works](#); [Ss_30_14_90/605 Adverse weather and unit paving construction](#); [Ss_30_14_90/609 Cutting paving units](#); [Ss_30_14_90/611 Permissible deviations from design levels for unit paving](#); [Ss_30_14_90/613 Regularity of finished paving surface](#); [Ss_30_14_90/614 Regularity of finished paving surface for accessibility](#); [Ss_30_14_90/617 Avoidance of colour banding in unit paving](#); [Ss_30_14_90/619 Disposal of arisings](#); [Ss_30_14_90/626 Laying subgrade improvement layers and sub-base](#); [Ss_30_14_90/633 Condition of sub-bases and bases before spreading laying course](#); [Ss_30_14_90/705 Laying mortar bedded accessories in unbound pavements](#); [Ss_30_14_90/731 Laying geotextiles below laying course](#); [Ss_30_14_90/665 Laying unbound concrete block and clay paver pavements](#); [Ss_30_14_90/667 Laying unbound concrete sett pavements with wide joints](#); [Ss_30_14_90/669 Laying unbound natural stone pavements](#); [Ss_30_14_90/781 Final compaction of unbound paving](#)
12. System completion: [Ss_30_14_90/801 Protection of completed pavements](#); [Ss_25_13_50/895 Verification of performance](#)

System performance

See [Ss_30_14_90/251 Accessibility of unit pavements](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/255 Slip and skid resistance of unit pavements](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

See [Ss_30_14_90/271 Compliance with performance requirements for unit paving systems](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

Products

45-20-64/400 Precast concrete paving blocks

1. Standard: To [BS EN 1338](#).
2. Physical properties: Refer Architects Details
 - 2.1. Profile: Refer Architects Details
 - 2.1.1. Paver type: Regular plan form and Special shapes.
 - 2.1.2. Arrises: Chamfered.
 - 2.2. Dimensions and associated tolerances: Refer Architects Details. To Architects Approval
 - 2.2.1. Nominal sizes: 160, 120 and 80 x 120 x 80 mm thickness, in premixed pallets.
 - 2.2.2. Tolerances on diagonals: Class 1.
 - 2.3. Arrises: Chamfered.
 - 2.4. Weathering resistance: Class 3.
 - 2.5. Abrasion resistance: Class 3.

See [Pr_20_31_04_44 Jointing fine aggregates](#) in [Ss_30_14_90_36 Flag and slab unbound paving systems - EXTERNAL PAVING](#)

Pr_25_93_60_57 Natural stone setts

1. Description: Stone Pavements to Architects approval
2. Standard: To [BS EN 1342](#).
3. Stone denomination
 - 3.1. Colour: To Architects approval
4. Physical properties
 - 4.1. Sett type: Regular plan form and Special shapes.
 - 4.2. Dimensions and tolerances
 - 4.2.1. Nominal sizes: Confirm with Architect prior to ordering.
 - 4.2.2. Tolerances on plan dimension and thickness (nominal): Class 1.
 - 4.2.3. Tolerances on undercut of sides: Class 1.
 - 4.2.4. Tolerances on hewn and coarse textured face irregularities: Class 1.
 - 4.3. Finish: refer finishes schedule
5. Performance requirements
 - 5.1. Slip resistance: PTV to [BS EN 14231](#), 40–74.
 - 5.2. Skid resistance: PSV to HA [DMRB 7.5.1](#) of 50.

See [Pr_35_90_60_87](#) Tactile paving studs in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/305](#) Product samples in [Ss_30_14_90_62](#) Permeable small unit paving systems

Execution

See [Ss_30_14_90/601](#) Installation control samples in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/603](#) Protection of paving during works in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/605](#) Adverse weather and unit paving construction in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

Ss_30_14_90/607 Laying unit pavings generally

1. Standard: In accordance with Highways England [MCHW Volume 1: Specification for highway works](#).
2. Setting out: Start from an edge restraint.
3. Paving units: Free of damage, mortar and sand stains. Interlocking units to be adequately connected
4. Appearance: Smooth and even with regular joints. Accurate to line, level and profile.
5. Cut edges: Turn inwards where possible. Do not position against edge restraints or other features.
6. Laying course: Grade consistently and accurately. Spread and compact to produce uniform thickness and support for paving units.
7. Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
8. Falls: No shallower than 1:80 in any direction.
9. Laying on slopes: Lay paving units upwards from the bottom of slopes.

See [Ss_30_14_90/609](#) Cutting paving units in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/611](#) Permissible deviations from design levels for unit paving in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/613](#) Regularity of finished paving surface in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/614](#) Regularity of finished paving surface for accessibility in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/617](#) Avoidance of colour banding in unit paving in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/619](#) Disposal of arisings in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/626](#) Laying subgrade improvement layers and sub-base in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/633](#) Condition of sub-bases and bases before spreading laying course in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

Ss_30_14_90/665 Laying unbound concrete block and clay paver pavements

1. General requirements: [Ss_30_14_90/607](#) Laying unit pavings generally .
2. Standard: In accordance with [BS 7533-3](#).
3. Bond: 45° herringbone;
90° herringbone;
Running;
and Stretcher.
4. Joint width: 2–5 mm.

Ss_30_14_90/667 Laying unbound concrete sett pavements with wide joints

1. General requirements: [Ss_30_14_90/607](#) Laying unit pavings generally .
2. Bond: Stretcher bond in random courses.
3. Thickness after compaction (nominal): 50 mm.
4. Joint width (nominal): 10 mm.

Ss_30_14_90/669 Laying unbound natural stone pavements

1. General requirements: [Ss_30_14_90/607](#) Laying unit pavings generally .
2. Standard: In accordance with [BS 7533-7](#), as relevant to flexible laying and construction.

See [Ss_30_14_90/705](#) Laying mortar bedded accessories in unbound pavements in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/731](#) Laying geotextiles below laying course in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

See [Ss_30_14_90/781](#) Final compaction of unbound paving in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

System completion

See [Ss_25_13_50/895](#) Verification of performance in [Ss_25_13_50_54](#) Masonry free-standing wall leaf systems - B1 & B7

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

See [Ss_30_14_90/801](#) Protection of completed pavements in [Ss_30_14_90_36](#) Flag and slab unbound paving systems - EXTERNAL PAVING

Ω End of System

Ss_30_20_70_37

Hollow floor systems

Systems

Ss_30_20_70_37 Hollow floor systems

1. Description: Apartment First Floor Slab
2. System performance: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Standards: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Certification: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Accessories: [Pr_35_57_71_32 Foam-backed polyvinyl chloride \(PVC\) sheets](#)

Products

Pr_35_57_71_32 Foam-backed polyvinyl chloride (PVC) sheets

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#)

- Description: ACOUSTIC VINYL TO APARTMENT FIRST FLOOR
- Manufacturer: **Submit proposals**
- Standard: To BS EN 651 and ISO 11638.
- Use class: Class 34 / 42.
- Slip potential
 - Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum): To DIN 51130, R10; to EN 13893 $\mu \geq 0.30$; PTV dry: >50 .
- Recycled content: 0%.
- Width: 2000 mm.
- Thickness: 3.45 mm (0.7 mm wear layer).
- Colour and pattern: **Submit proposals**.
- Impact sound reduction (to EN-ISO 717-2): 19 dB.
- In-room impact noise (to NF S 31-074): $L_{n,e,w} < 65$ dB, Class A.
- Sound absorption (to EN-ISO 354 and EN-ISO 11654): $\alpha_w = \pm 0.05$.
- Total weight (to EN ISO 23997): 2.830 kg/m².
- Dimensional stability (to BS EN ISO 23999): $<0.1\%$.
- Residual indentation (to EN-ISO 24343-1): ~ 0.08 mm (actual); typical value requirement = ≤ 0.20 mm.
- Abrasion resistance (to BS EN 660-2): Group T.
- Castor chair continuous use (to ISO 4918 and EN 425): Yes.
- Lightfastness (to ISO 105-B02): 7.
- Reaction to fire (to BS EN 13501): Bfl-s1, L, NCS.
- Body voltage (to EN 1815): <2 kV.
- Thermal conductivity (to BS EN 12524): 0.25 W/(m·K).
- Indoor Air Emissions (to EN 16516): TVOC after 28 days ≤ 0.01 mg/m³.
- Approvals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_30_20_95_20

Direct-fixed wood floor systems - TIMBER FIRST FLOOR

Systems

Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR

1. Description: TIMBER FIRST FLOOR
2. System performance: [Ss_30_20_95/220 Permanent and imposed loads](#); and [Ss_30_20_95/290 Compliance with performance requirements](#)
3. Insulation to floor voids: As required to provide Thermal or Acoustic Insulation. Refer to Architectural drawings for location and detail.
4. Flooring
 - 4.1. Floor Finish - WC/Wet Rooms: [Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride \(PVC\) sheets](#)
 - 4.2. Underlay Board - WC / Wet Rooms: [Pr_25_71_97_50 Marine plywood](#)
 - 4.3. Underlay Board - Generally: [Pr_25_71_97_58 Oriented strand boards](#)
 - 4.4. Timber Floor Boards - Generally: [Pr_25_71_97_87 Timber floorboards - FIRST FLOOR](#)
 - 4.5. Fasteners: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 4.6. Jointing: Tongue and groove for Timber Boards
Butt jointed for OSB boards
5. System accessories: [Pr_35_90_43_98 Wood skirtings](#)
[Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); [Pr_35_90_43_22 Edge trims](#)
6. Execution: [Ss_30_20_95/610 Installing wood and wood based floor boarding \(43\)](#); [Ss_30_20_95/625 Installing fixtures](#); [Ss_30_20_95/655 Expansion provision](#); [Ss_30_20_95/660 Preparation for finishes](#); [Ss_30_20_95/665 Installing trims](#); [Ss_30_20_95/615 Building environmental conditions prior to and during installation](#); [Ss_30_20_95/610 Installing wood and wood based floor boarding \(43\)](#); [Ss_30_20_95/660 Preparation for finishes](#); [Ss_30_20_95/665 Installing trims](#); [Ss_30_20_95/615 Building environmental conditions prior to and during installation](#)
7. System completion: [Ss_30_20_95/810 Moisture content certification – subfloors, wood and wood based components](#)

System performance

Ss_30_20_95/220 Permanent and imposed loads

1. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Horizontal loads: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Vertical loads: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Permanent loads not discernible from drawings: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Exceptions: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_20_95/290 Compliance with performance requirements

1. Purpose: Proof of compliance with specified performance
2. General requirements: Include details of performance related to the particular elements of construction.
3. Testing authority: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Submissions
 - 4.1. Format: Test results and certification
Declaration of Performance
Laboratory test result
 - 4.2. Timing: Before commencing installation.

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97_50 Marine plywood](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_25_71_97_58 Oriented strand boards

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Standards: CE marking to [BS EN 13986](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

4. Grade: To [IS EN 300](#), type OSB/2. To [BS EN 300](#), type OSB/3. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Reaction to fire classification
 - 5.1. Flooring: Class Dfl-s1 to [BS EN 13986](#), Table 8. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 5.2. Non-flooring applications: Class D-s2, d0 to [BS EN 13986](#), Table 8. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Thickness: 9 mm and 18 mm. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
7. Edges: Tongued and grooved all edges and Tongue and grooved (two edges). Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Flame-retardant treatment: Wood Protection Association Commodity Specification FR3, Type INT 2. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
9. Execution: [Pr_25_71_97/620 Installing wood-based panels](#); [Pr_25_71_97/625 Moisture content of supports - First Floor](#); [Pr_25_71_97/630 Panel edge supports](#); [Pr_25_71_97/635 Treated timber](#); [Pr_25_71_97/610 Moisture content and conditioning of wood-based boards and panels \(4-\)](#); [45-45-95/605 Environmental conditions for installing wood boards and wood-based panels](#)

Pr_25_71_97_87 Timber floorboards - FIRST FLOOR

1. Description: First Floor
2. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
3. Standards: CE-labelled in accordance with EN 14342. Softwood flooring to [BS EN 13990](#).
4. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Quality: To [BS EN 13990](#), Grade A. Blue stain, fissures, knot holes and loose or unsound knots not permitted on face side of flooring.
6. Species: European softwood
7. Moisture content: 9%.
8. Finished size
 - 8.1. Face width: 184 mm.
 - 8.2. Thickness: 25 mm.
9. Edges: Tongued and grooved.
10. Surface finish: Planed. To be sanded and finished on site
[Pr_35_31_68_14 Clear floor varnishes](#)
11. Execution: [Pr_25_71_97/615 Installing strips and boards](#); [Pr_25_71_97/625 Moisture content of supports - First Floor](#); [45-45-95/605 Environmental conditions for installing wood boards and wood-based panels](#); [Pr_25_71_97/610 Moisture content and conditioning of wood-based boards and panels \(4-\)](#)

Pr_35_31_68_14 Clear floor varnishes

1. Description: First Floor T&G Boards
2. Manufacturer: *Submit proposals.*
3. Composition: Water-based.
4. Sheen: Satin.
5. Execution: [Pr_35_31_68/725 Varnishing wood](#)

Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride (PVC) sheets

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor](#)

1. Description: Vinyl Floor Finish - Wet Areas Generally as per Architects Drawing
2. Manufacturer: *Submit proposals.*
3. Colour: Confirm with Architect.
4. Accessories: Co-ordinating weld rods.

[Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); [Pr_35_90_43_22 Edge trims](#)
5. Product reference: **Width:** 2000 mm.
Length: 20 m.
Thickness: 2.0 mm (on grainside)
Wear layer thickness: 1.0 mm.
Weight: 2400 g/m².

BS EN 685 Level of Use class: 34–43 – Commercial, very heavy – Light industrial, heavy.
BS EN 1815 static electricity electrical propensity: <2 kV.
DIN 51130 slip resistance wet: R11.
DIN 51 097 slip resistance bare foot: C.
BS 7976 slip resistance pendulum test: >36 PTV.
BS 7976 surface roughness test: >20 µm.
BS EN 13501-1 fire rating: Cfl-s1.
BS EN 649 wear group: P.
ISO 10582 Type Binder content: I.
EN 433 residual indentation: <0.10 mm.
BS EN 12524 thermal conductivity: 0.25 W/m·K.
ISO 16000-6 TVOC after 28 days: <100 µg/m³. <100 µg/m³.

Pr_35_90_43_22 Edge trims

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor](#)

1. Description: Edge trim To Floor Finishes
2. Manufacturer: **Submit proposals**
3. Finish: Mill finish.
4. Size: 8 mm gauge, 28 mm width, 12 mm height.
5. Fixing: Screws.

Pr_35_90_43_64 Polyvinyl chloride (PVC) cove skirtings

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor](#)

1. Manufacturer: As sheet flooring.
2. Skirting type: Cove former.
3. Upstand: 150 mm.
4. Finish: As flooring.
5. Colour: To match flooring.
6. Top edge seal: Matching capping seal.

Pr_35_90_43_98 Wood skirtings

Shared by: [Ss_40_15_35_50 Minor joinery systems](#)

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Standard: To [IS EN 942](#).
3. Species: Red Deal
4. Appearance class: To [BS EN 942](#), class J2.
5. Moisture content at time of fixing: 9–13%.
6. Preservative treatment: Water-based microemulsion, service life 30 years.
7. Fire rating: To class 0 as defined in Building Regulations Approved Document B.
8. Profile: Refer Architects Draawings / Details
9. Finished size: 150 x 19 mm.
10. Finish as delivered: Prepared and primed.
11. Execution: [Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims](#)

Execution

45-45-95/605 Environmental conditions for installing wood boards and wood-based panels

Shared by: [45-45-95/450 Marine plywood - 18mm](#)

1. General requirements prior to starting work specified in this section: Building weathertight and watertight, wet trades completed and affected areas dried out before fixing boards or sheets internally.
2. Temperature and humidity before, during and after installing strips and boards: Maintain at levels approximating to those prevailing while building is occupied.
3. Protection during and after installation: Keep boards dry.

Pr_25_71_97/610 Moisture content and conditioning of wood-based boards and panels (4-)

1. Moisture content: Maintain within component's specified range during storage and manufacture.
2. Moisture content of boards at time of fixing: In accordance with IS EN1995
3. Conditioning regime: During delivery, storage, fixing and to handover maintain conditions to suit specified moisture contents of timber components.
4. Test regime and equipment: When instructed, test components with approved moisture meter to manufacturer's recommendations.
5. Test results: Submit record of tests and results.

Pr_25_71_97/615 Installing strips and boards

1. Standard: To [BS 1186-3](#).
2. Moisture content at time of fixing: 9–13%.
3. Environmental conditions: Do not fix boards when ambient temperature is at or below 0°C, or above 30°C.
4. Strips and boards
 - 4.1. Joints between boards: Accurately align. Maintain constant width. Set parallel to perimeter edges.
 - 4.2. Surfaces: Flat, true, free from undulations, lippings, splits, hammer marks, scratches and protruding fastenings.
 - 4.3. Timber movement: Allow for when positioning strips/ boards and fastenings. Prevent cupping, springing, opening of joints or other defects.
 - 4.4. Heading joints: End matched and tightly butted. Where applicable, position centrally over supports and distribute across flooring or linings to achieve a random effect. At least two boards widths apart on any one support.
 - 4.5. Edges: Plane off proud edges.
5. Fixing
 - 5.1. General: Fix securely to each support.
 - 5.2. Surface fixing: Face nailed.
 - 5.3. Secret fixing: Secret nailed, first and last rows surface nailed.
 - 5.4. Exposed nail heads: Neatly punch below surface.

See [Pr_25_71_97/620 Installing wood-based panels in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/625 Moisture content of supports - First Floor in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/630 Panel edge supports in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/635 Treated timber in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_31_68/725 Varnishing wood

1. Thinner: *Brush well in and lay off. Avoid aeration. Apply to manufacturer's standard. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.*
2. Subsequent coats: *Rub down lightly along the grain between coats. Apply strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.*

See [Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims in Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

Ss_30_20_95/610 Installing wood and wood based floor boarding (43)

1. Standard: In accordance with [BS 8201](#).
2. Anticipated moisture content (MC): 9–11%.
3. Acclimatization
 - 3.1. Criteria: Acclimatize materials before laying.
 - 3.2. Method: Unpack floor finish materials and spread out in the spaces where they are to be laid.
 - 3.3. Time period: 48 hours.
 - 3.4. Moisture content at time of laying: 6–8%.
4. Moisture content testing
 - 4.1. Test regime and equipment: Submit proposals .
 - 4.2. Test results: Submit record of tests and results as soon as they are available.
5. Maintenance of moisture content: Maintain to completion.

Ss_30_20_95/615 Building environmental conditions prior to and during installation

1. General requirements before starting work specified in this section: Make building weathertight. Complete wet trades and dry out affected areas.
2. Temperature and humidity before, during and after installation: Maintain at levels approximating to those which will prevail while building is occupied - Temperatures in the range 20–22°C and relative humidity level of 50% at all external conditions.
3. Operation of environmental systems: Up to completion
4. Room temperatures for which the system has been designed: 18–20°C.

Ss_30_20_95/625 Installing fixtures

1. Fixtures around which strip flooring is to be fixed: Install before starting flooring.

Ss_30_20_95/655 Expansion provision

1. Expansion gaps
 - 1.1. Edges of flooring: 2 mm, parallel to lie of strips and boards
 - 1.2. Ends of flooring: max 10 mm wide.
2. Spacer blocks and debris: Remove before fixing skirtings and cover fillets.
3. Intermediate expansion and movement joints: Form as recommended by flooring manufacturer/ supplier.

Ss_30_20_95/660 Preparation for finishes

1. Standard: In accordance with [TRADA Technology Report 2/2001 Technology Report: Sealing timber floors: a best practice guide](#).
2. Exposed fastener heads: Punched or set below surface and filled with stopping to match wood.
3. Strips and boards: Sanded to give a clean, smooth and flush surface free from score marks.

Ss_30_20_95/665 Installing trims

1. Position: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
2. Installation: As flooring and trim manufacturers' instructions.
3. Joints: Trim, abut or join as manufacturer's instructions.
4. Excess material: Trim off neatly. Recycle, or return for reprocessing where take back scheme is available.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_20_95/810 Moisture content certification – subfloors, wood and wood based components

1. Moisture content certificate: Submit.

Ω End of System

Ss_30_25_10_10

Board suspended ceiling systems - EXTERNAL SOFFIT Systems

Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT

1. Description: Non-demountable external soffit.
2. System performance: [Ss_30_25_10/206 Board ceiling systems design requirements](#); [Ss_30_25_10/210 Structural performance](#); [Ss_30_25_10/215 Durability](#); [Ss_30_25_10/230 Fire performance to BS EN 13501](#); [Ss_30_25_10/240 Acoustic performance](#); [Ss_30_25_10/250 Airtightness performance](#); [Ss_30_25_10/290 Compliance with performance requirements](#)
3. Suspension grid: [Pr_20_76_88_84 Softwood weatherboarding battens](#)
4. Barriers in ceiling void
 - 4.1. Fire barriers: Strictly in accordance with FSC specification and drawings. Suitable for the purpose, location and detail.
 - 4.2. Acoustic barriers: Strictly in accordance with specification and Architects drawings. Suitable for the purpose, location and detail.
5. Linings

- 5.1. Vapour Control: [Pr_25_57_65_60](#) Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE
- 5.2. Inner layers: [Pr_25_71_97_97](#) Wood-wool boards
- 5.3. Counterbattens: [Pr_20_76_88_84](#) Softwood weatherboarding battens
- 5.4. Face layer: [Pr_25_71_52_28](#) Fibre-reinforced cement weatherboards
- 5.5. Fasteners: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
6. Joint treatment: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
7. System accessories: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
8. Execution: [Ss_30_25_10/615](#) Installing ceiling systems intended for fire protection; [Ss_30_25_10/640](#) Installing boarded ceilings and soffits; [Ss_30_25_10/665](#) Sealing gaps and air paths; [Ss_30_25_10/675](#) Installing integrated services in suspended ceilings
9. System completion: [Ss_30_25_10/895](#) Verification of performance

System performance

Ss_30_25_10/206 Board ceiling systems design requirements

1. Standards: To [BS 8000-0](#) and [BS EN 13964](#).
2. Materials, components and details: Use only the same as those tested and identified in assessment reports.
3. Integrated services fittings: Supported independently of ceiling grid.

Ss_30_25_10/210 Structural performance

1. Standard: To [BS EN 13964](#).
2. Loads
 - 2.1. General: The ceiling system must safely support all specified loads, including services fittings.
3. Deflection of grid between points of support (maximum): 0.0025 x span.

Ss_30_25_10/215 Durability

Shared by: [Ss_30_25_10_35](#) Gypsum board suspended ceiling systems

1. Standard: To [BS EN 13964](#).
2. Exposure classification: Class A.

Ss_30_25_10/230 Fire performance to BS EN 13501

Shared by: [Ss_30_25_10_80](#) Soffit lining and beam casing systems - BULKHEADS and [Ss_30_25_10_35](#) Gypsum board suspended ceiling systems

1. Fire resistance
 - 1.1. Fire resistance of complete floor and ceiling assembly: To EN 13501-2, class REI 30.
 - 1.2. Fire resistance of ceiling system: To EN 13501-2, class EI 30.
 - 1.3. Fire protection to structural beams: To EN 13501-2, class R 60.
 - 1.4. Fire resistance of cavity fire barriers: To EN 13501-2, class EI 60.
2. Reaction to fire: To EN 13501-2, class B-s3, d2 or better.

Ss_30_25_10/240 Acoustic performance

1. Sound attenuation
 - 1.1. Standards: Laboratory tested in accordance with [BS EN ISO 10848-2](#) and rated in accordance with [BS EN ISO 717-1](#).
 - 1.2. Weighted normalized flanking level difference Dnf, w (minimum): 44 dB.
2. Sound absorption
 - 2.1. Standards: Measured in accordance with [BS EN ISO 354](#) and rated in accordance with [BS EN ISO 11654](#).
 - 2.2. Sound absorption class: C.

Ss_30_25_10/250 Airtightness performance

Shared by: [Ss_30_25_10_80](#) Soffit lining and beam casing systems - BULKHEADS and [Ss_30_25_10_35](#) Gypsum board suspended ceiling systems

1. Requirement: Ceiling void below airtightness membrane to act as a service zone.
2. Ceiling voids
3. Ceiling finish or soffit

Employers Requirements, Architectural & Landscaping Specification

- 3.1. Air permeability: 50 Pascal.
- 3.2. Air leakage rate (m3/hr): 2m3/hr/m2
- 3.3. Design pressure (maximum): 50 Pascals.
4. Test standards: In accordance with the requirements detailed in the ATTMA [Technical Standard L1. Measuring air permeability of building envelopes \(dwellings\)](#) and In accordance with CIBSE Technical Memoranda TM23: Testing buildings for air leakage.

Ss_30_25_10/290 Compliance with performance requirements

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Requirement: Proof of compliance with specified performance
2. General requirements: Include details of performance related to the particular elements of construction.
3. Ceilings with integrated luminaires: Test or assess with luminaires in place.
4. Method
 - 4.1. Laboratory project testing : For fire performance.
For airtightness performance.
 - 4.2. Previous test results: For fire performance.
For airtightness performance.
 - 4.3. Computer simulation testing: For fire performance.
For airtightness performance.
5. Testing authority: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. Submissions
 - 6.1. Format: Test results and certification.
Declaration of Performance.
 - 6.2. Timing: Before commencing installation.

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_20_76_88_84 Softwood weatherboarding battens](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_25_71_52_28 Fibre-reinforced cement weatherboards

1. Manufacturer: Submit Proposals
2. Product reference: Submit Proposals
3. Standard: To BS EN 12467.
4. Third-party certification: BBA certified 05/4248.
5. Fire rating: To EN 13501-1, A2-s1, d0.
6. Edges: Square.
7. Finished size: 3048 x 1220 mm.
8. Thickness: 8 mm.
9. Surface texture: Smooth Sand.
10. Colour: Custom colour.
11. Density: 1300 kg/m³.
12. Panel weight: 11.2 kg/m².
13. ThermalConductivity: 0.23 W/m-K.
14. Thermal resistance: 0.024 m²K/W.
15. Standard: To [BS EN 12467](#), category A1.
16. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
17. Verification
 - 17.1. Submittals: Product sample as specified, with certification demonstrating compliance with performance requirements of the system. Safety data sheet (SDS). Manufacturer's certification.
 - 17.2. Timing: Before placement of orders.

Pr_25_71_97_97 Wood-wool boards

1. Description: Wood Wool Board
2. Standard: To [BS EN 13168](#).

Min Bending strength 1650 N/mm²

Fire classification B

Compressive strength 200 kPa

Durability 60+ years (following manufacturer's installation guidance)

Moisture vapour diffusion resistance factor (μ) 5 .

Specific heat capacity 1.81 J/kg K

3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Thickness: Refer Architects drawings and detail

See [Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Execution

See [Pr_25_57_65/610 Installing vapour control layers](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Ss_30_25_10/615 Installing ceiling systems intended for fire protection

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

1. Ceiling perimeters and service penetrations: Seal gaps with intumescent sealant or tightly packed mineral wool to prevent penetration of smoke and flame.
2. Wall and ceiling junctions
 - 2.1. Fire performance: Maintain protective value of ceiling system.
 - 2.2. Fixings and grounds: Non-combustible.
 - 2.3. Metal trim: Provide for thermal expansion.
3. Access and access panels: Maintain continuity of fire protection.

Ss_30_25_10/640 Installing boarded ceilings and soffits

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Standard: To [BS EN 13964](#).
2. Sequence: Fix boards to dry-lined walls and partitions before installing ceilings.
3. Orientation of boards: Fix with long edges at right angles to supports. Stagger ends in adjacent rows.
4. Two-layer boarding: Stagger joints between layers.
5. Cut boards: Cuts to be neat and accurate.
6. Fixings: Dry wall screws at 230 mm. Reduce to 150 mm at board ends and around room perimeter.
7. Board edges: All edges to be fully supported. Set heads of screws [fasteners] below board surface and fill flush with surface prior to decoration.
8. Movement joints: Provide as appropriate for the area of ceiling system and/ or to coincide with movement joints in surrounding structure.
9. Openings: Cuts to be neat and accurate, to suit sizes and edge details of fittings. Do not distort ceiling system.

Ss_30_25_10/665 Sealing gaps and air paths

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

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

Ss_30_25_10/675 Installing integrated services in suspended ceilings

Shared by: [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Criteria: Position services accurately, support adequately. Align and level in relation to the ceiling and suspension system. Do not diminish performance of ceiling system.

2. Small fittings: Support with rigid backing boards or other suitable means. Do not damage or distort the ceiling.
3. Reaction to fire rating of additional supporting material: Not less than ceiling material.
4. Services outlets
 - 4.1. Supported by ceiling system: Provide additional hangers.
 - 4.2. Independently supported: Provide flanges to support ceiling system.
5. Services in ceiling void: Space beneath installed services to be sufficient for installation and removal of ceiling system components and periodic removal and replacement of infill units.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_25_10/895 Verification of performance

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#) and [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

1. Requirements: Check completed system and provide assurance of compliance with specified performance.
2. Submissions
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

Ω End of System

Ss_30_25_10_35 **Gypsum board suspended ceiling systems** **Systems**

Ss_30_25_10_35 Gypsum board suspended ceiling systems

1. Ceiling Types:
 1. Airtight barrier with services zone below is required to all ceilings at Roof Level.
 - 1.1. Plasterboard fixings, electrical wiring, ductwork, pipework etc shall only pass through the airtight membrane utilising the appropriate gromits, tapes, sealants, etc. As recommended by manufacturer.
 2. Fireline Plasterboard Ceiling is required to Ground Floor ceilings (soffit of First Floors)
- 1.1. : **Counterbatten Airtight Plasterboard Ceiling (Roof)**
 - 1.1.1. Airtightness: [Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE](#)
 - 1.1.2. Suspension grid:: [Pr_35_90_43_21 Battens](#)
 - 1.1.3. Face layer: [Pr_25_71_52_84 Standard gypsum plasterboards](#)
- 1.2. : **Plasterboard Ceiling (First Floor)**
 - 1.2.1. Face layer: [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#)
2. System performance: [Ss_30_25_10/207 Gypsum board ceiling systems design requirements](#); [Ss_30_25_10/215 Durability](#); [Ss_30_25_10/230 Fire performance to BS EN 13501](#); [Ss_30_25_10/250 Airtightness performance](#); and [Ss_30_25_10/290 Compliance with performance requirements](#).
3. Suspension grid: [Pr_20_76_88_83 Softwood Sections](#)
4. Linings: *Single-layer gypsum plasterboard*.
5. Fasteners: [Pr_20_29_76_65 Plasterboard screws](#).
6. Joint treatment: [Pr_35_90_87_60 Paper jointing tapes](#).
7. Finish: [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#).
8. System accessories: [Pr_35_90_07_24 Dry lining beads](#)
9. Execution: [Ss_30_25_10/640 Installing boarded ceilings and soffits](#); [Ss_30_25_10/655 Installing plasterboard to timber](#); [Ss_30_25_10/665 Sealing gaps and air paths](#); and [Ss_30_25_10/675 Installing integrated services in suspended ceilings](#). [Ss_25_25_45/655 Sealing gaps and air paths around linings and casings](#)
10. System completion: [Ss_30_25_10/895 Verification of performance](#).

System performance

Ss_30_25_10/207 Gypsum board ceiling systems design requirements

1. Standards: To [BS 8000-0](#), [BS 8212](#) and [BS EN 13964](#).
2. Materials, components and details: Use only the same as those tested and identified in assessment reports.
3. Integrated services fittings: Supported independently of ceiling grid.

See [Ss_30_25_10/215 Durability](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/230 Fire performance](#) to [BS EN 13501](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/250 Airtightness performance](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/290 Compliance with performance requirements](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_20_29_76_65 Plasterboard screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_20_76_88_83 Softwood Sections

Shared by: [Ss_30_40_30_80 Single layer sheet warm roof covering systems](#) and [Ss_35_10_40_42 Internal stair systems](#)

1. Description: Treated SW rafters/ joists / stud frames / battens to Structural Engineer's Specification and detail.
2. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
3. Timber
 - 3.1. Species: European redwood. - Red Deal
 - 3.2. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class or grade specified).
 - 3.3. Appearance class: To [BS EN 942](#), J5.
 - 3.4. Moisture content on delivery: 9–13%.
 - 3.5. Warping (maximum): To [BS EN 14081-1](#) and [BS 4978](#).
4. Treatment
 - 4.1. Preservative: To Wood Protection Association Commodity Specification C8.
 - 4.2. Flame-retardant treatment : To Wood Protection Association Commodity Specification FR2, Type DI and To Wood Protection Association Commodity Specification FR2, Type HR.
5. Finish: Planed all round and Regularized.
6. Applied finish: Primed. Stained.
7. Execution: [Pr_20_76_88/600 Treatment of timber cut on-site](#)
To Structural Engineer's Specification and detail.

See [Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL MEMBRANE](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52_84 Standard gypsum plasterboards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_07_24 Dry lining beads](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_90_43_21 Battens

Shared by: [Ss_40_15_35_50 Minor joinery systems](#) and [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

1. Manufacturer: Contractor's choice .
2. Material: To [BS EN 942](#), planed softwood, class J10.

3. Finish: Contractor's choice .
4. Profile: Rectangular.
5. Size: Refer Architectural details
32 x 44 mm. 21 x 57 mm. 21 x 44 mm. 44 x 44 mm.
6. Fire rating:
 1. As required in accordance with TGD B.
 2. To [BS EN 13501-1](#), class C-s3, d2 or better.
 3. For fire rated ceilings, edge battens to be class 0 non-combustible.
7. Execution: [Ss_30_40_95/616 Fixing battens](#)

See [Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_35_90_87_60 Paper jointing tapes](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Execution

See [Pr_20_29_76/620 Fixing with screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_20_76_88/600 Treatment of timber cut on-site

Shared by: [Pr_20_76_88_81 Softwood rafters- Joists- Treated](#) and [Pr_20_76_88_83 Softwood sections - Fascia Board](#)

1. Requirement
 - 1.1. Cutting and machining: Carry out as much as possible before full treatment of raw material.
 - 1.2. Extensively processed timber: Re-treat timber-sawn lengthways, thickened, planed, ploughed, etc.
 - 1.3. Minor cutting drilling: Treat exposed timber surfaces with two flood coats of a solution recommended by main treatment solution manufacturer.

See [Pr_25_57_65/610 Installing vapour control layers](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_25_71_52/605 Installing gypsum based board](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52/640 Level of dry lining across joints](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52/645 Joints between gypsum based boards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52/650 Seamless jointing to gypsum boards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52/655 Open joints](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_52/660 Repairs to plasterboard](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64/620 Preparation for thin coat plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64/715 Finish to plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_07/650 Installing beads](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Ss_25_25_45/655 Sealing gaps and air paths around linings and casings](#) in [Ss_25_25_45_35 Gypsum board wall lining systems - ACOUSTIC LINING](#)

See [Ss_30_25_10/640 Installing boarded ceilings and soffits](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Ss_30_25_10/655 Installing plasterboard to timber

Shared by: [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

1. Fixing centres (maximum)
 - 1.1. Nails: 150 mm.
 - 1.2. Screws to partitions and wall linings: 300 mm. Reduce to 200 mm at external angles.
 - 1.3. Screws to ceilings: 230 mm.

2. Distance of nails or screws from edges of boards (minimum)
 - 2.1. Bound edges: 10 mm.
 - 2.2. Cut or unbound edges: 13 mm.
3. Distance of nails or screws from edges of timber supports (minimum): 6 mm.

See [Ss_30_25_10/665 Sealing gaps and air paths](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/675 Installing integrated services in suspended ceilings](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Ss_30_40_95/616 Fixing battens

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#) and [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

1. Setting out: Align parallel to ridge in straight horizontal lines to gauge of tiles or slates. Align on adjacent areas.
2. Batten length (minimum): Sufficient to span over three supports.
3. Joints in length: Square cut. Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
4. Additional battens: Provide where unsupported laps in underlay occur between battens.
5. Fixing: Each batten to each support. Splay fix at joints in length.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_25_10/895 Verification of performance](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Ω End of System

Ss_30_25_10_80

Soffit lining and beam casing systems - BULKHEADS

Systems

Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS

1. System performance: [Ss_30_25_10/230 Fire performance to BS EN 13501](#); [Ss_30_25_10/250 Airtightness performance](#); and [Ss_30_25_10/290 Compliance with performance requirements](#)
2. Support
 - 2.1. Suspension grid: [Pr_35_90_43_21 Battens](#)
3. Insulation: [Pr_25_57_06_53 Mineral wool insulation](#)
4. Linings
 - 4.1. Inner layers: [Pr_25_71_52_84 Standard gypsum plasterboards](#) and [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#).
5. Fasteners: [Pr_20_29_76_65 Plasterboard screws](#).
6. System accessories: [Pr_35_90_43_21 Battens](#); [Pr_30_31_76_41 Intumescent foam fillers](#); [Pr_30_31_68_42 Intumescent putties](#); [Pr_30_31_76_02 Acrylic construction joint sealants](#); [Pr_35_90_87_52 Metal strip reinforced paper tapes](#); [Pr_35_90_43_92 Wood fillets](#)
7. Execution: [Ss_30_25_10/640 Installing boarded ceilings and soffits](#); [Ss_30_25_10/615 Installing ceiling systems intended for fire protection](#); [Ss_30_25_10/625 Installing cavity fire barriers above suspended ceilings](#); [Ss_30_25_10/620 Installing insulation above suspended ceilings](#); [Ss_30_25_10/655 Installing plasterboard to timber](#); [Ss_30_25_10/685 Installing encasement systems](#); [Ss_30_25_10/665 Sealing gaps and air paths](#)
8. System completion: [Ss_30_25_10/895 Verification of performance](#).

System performance

See [Ss_30_25_10/230 Fire performance to BS EN 13501](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/250 Airtightness performance](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/290 Compliance with performance requirements](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Products

See [Pr_20_29_76_65 Plasterboard screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_57_06/310 Insulation products generally](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_25_57_06_53 Mineral wool insulation

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#) and [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

1. General requirements: [Pr_25_57_06/310 Insulation products generally](#)
2. Manufacturer: Submit proposals .
3. Standard: To [BS EN 13162](#).
4. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Form: Quilt.
6. Density: Manufacturer's standard . Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
7. Facing: Manufacturer's standard . Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
8. Thickness (minimum): Refer to Architects Drawings.
Strictly in accordance with manufacturers specification and detail to achieve stated thermal performance requirements.
9. Width (nominal): Manufacturer's standard .
10. Thermal conductivity (maximum): 0.035 W/m·K.
11. Fire performance: Euroclass A1 fire rating when classified to BS EN 13501-1.
As per requirements of TGD B

See [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Employers Requirements, Architectural & Landscaping Specification

See [Pr_25_71_52_84](#) Standard gypsum plasterboards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_68_42](#) Intumescent putties in [Ss_25_60_30_62](#) Pipe collar fire stopping systems

See [Pr_30_31_76_02](#) Acrylic construction joint sealants in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76_41](#) Intumescent foam fillers in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_35_90_43_21](#) Battens in [Ss_30_25_10_35](#) Gypsum board suspended ceiling systems

Pr_35_90_43_92 Wood fillets

Shared by: [Ss_40_15_35_50](#) Minor joinery systems

1. Manufacturer: Contractor's choice .
2. Material: To [BS 1186-3](#), hardwood and To [BS 1186-3](#), softwood.
3. Size: 9 mm thick across full width of channel and 6 x 75 mm behind joints at right angles to channels.

See [Pr_35_90_87_52](#) Metal strip reinforced paper tapes in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

Execution

See [Pr_20_29_76/620](#) Fixing with screws in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/605](#) Installing gypsum based board in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/640](#) Level of dry lining across joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/645](#) Joints between gypsum based boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/650](#) Seamless jointing to gypsum boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/655](#) Open joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/660](#) Repairs to plasterboard in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76/610](#) Suitability of joints for sealant application in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76/620](#) Joint preparation for sealant application in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76/630](#) Applying joint sealants in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_30_31_76/630](#) Applying joint sealants Generally in [Ss_25_30_95_26](#) External window systems - EXTERNAL ALUCLAD WINDOWS

See [Ss_30_25_10/615](#) Installing ceiling systems intended for fire protection in [Ss_30_25_10_10](#) Board suspended ceiling systems - EXTERNAL SOFFIT

Ss_30_25_10/620 Installing insulation above suspended ceilings

1. Fitting: Fit accurately and firmly with butted joints and no gaps. Lay insulation in the widest practical widths to suit grid member spacings.
2. Installing mineral wool quilt: Lay with close butted joints aligned end-to-end. Encase in fire-retardant cotton scrim cloth.
3. Sloping and vertical areas of ceiling system: Fasten insulation, to prevent displacement.
4. Services: Do not cover electrical cables that have not been sized for such. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.

Ss_30_25_10/625 Installing cavity fire barriers above suspended ceilings

1. Maximum ceiling void dimension in any direction: In compliance with TGD B

2. Position of barriers: On line of partition and maximum 20 m apart in any direction. or 20 m (maximum) apart in any direction.
3. Service penetrations: Cut barriers neatly to accommodate services. Fit fire-resistant sleeves around flexible materials. Fill gaps around services to fire barrier manufacturer's recommendations to maintain barrier integrity. Independently support services passing through the barrier on both sides of the barrier so that no load is placed on the barrier in the event of a fire.
4. Ceiling systems intended for fire protection: Do not impair fire-resisting performance of ceiling system.
5. Ceiling systems not intended for fire protection: Do not mechanically interlink barriers with ceiling system.

See [Ss_30_25_10/640 Installing boarded ceilings and soffits](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

See [Ss_30_25_10/655 Installing plasterboard to timber](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Ss_30_25_10/665 Sealing gaps and air paths](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Ss_30_25_10/685 Installing encasement systems

1. Framed systems: Sizes and spacing of framing and fixings as recommended by the board manufacturer.
2. Frameless support systems: Sizes and spacings of intermediate backing strips/ noggings/ metal angles and fixings as recommended by board manufacturer.
3. Timber-framed systems: 44 x 44 mm with noggings at 600 mm maximum centres.
4. Extent of protection: Beams – three sides.

See [Ss_30_40_95/616 Fixing battens](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_25_10/895 Verification of performance](#) in [Ss_30_25_10_10 Board suspended ceiling systems - EXTERNAL SOFFIT](#)

Ω End of System

Ss_30_30_72_21

Daylight pipe systems

Systems

Ss_30_30_72_21 Daylight pipe systems

1. System performance: [Ss_30_30_72/205 Design submittals for rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/210 General system performance of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/227 Durability of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/230 Structural performance of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/245 Fire performance to BS EN 13501 of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/252 Weathertightness of rooflights, roof windows and roof ventilators by test standard](#); [Ss_30_30_72/253 Air permeability of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/254 Avoidance of condensation on rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/255 Solar energy transmittance \(solar factor\) of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/256 Solar transmission of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/280 Thermal transmittance \(U-value\) of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/260 Safety performance of rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/265 Protection from falls from rooflights, roof windows and roof ventilators](#)
2. System manufacturer: Submit proposals.
3. Daylight feed assembly: [Pr_30_59_72_21 Daylight pipes](#)
4. Fasteners: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
5. Trim: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
6. Filler: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
7. Hardware: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
8. System accessories: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
9. Execution: [Ss_30_30_72/615 Workmanship for rooflights, roof windows and roof ventilators generally](#); [Ss_30_30_72/620 Protection of rooflight, roof window and roof ventilator components](#); [Ss_30_30_72/625 Plastics, metal and board glazing sheet protection for rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/645 Forming kerbs for rooflights, roof windows and roof ventilators](#)
10. System completion: [Ss_30_30_72/810 Protection and cleaning of rooflight, roof window and roof ventilator systems](#); [Ss_30_30_72/815 Documentation relating to roof glazing systems](#)

System performance

Ss_30_30_72/205 Design submittals for rooflights, roof windows and roof ventilators

Shared by: [Ss_30_30_72_72 Rooflight systems](#)

1. Purpose: *To demonstrate compliance with performance requirements. For aesthetic evaluation.*
2. Provision of information
 - 2.1. Standard: In accordance with [BS 6262-7](#).
 - 2.2. Submittals: Typical plan, elevation and section drawings at suitable scales. Proposed fixing details. Test certification for roof window units, ancillary materials, fasteners, etc. to show proposals for meeting performance requirements. Warrantee criteria and limitations. [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 2.3. Timing: Submit during detailed design. Submit before fabrication.
 - 2.4. Format: Drawings and specification in BIM compliant format. System certification, reports and calculations. Product technical information and certification.
 - 2.5. Validation submittals: Test certification for roof window, rooflight or roof ventilator units, ancillary materials, fasteners, etc. to show proposals for meeting performance requirements.

Ss_30_30_72/210 General system performance of rooflights, roof windows and roof ventilators

1. Standard: [BS EN 14351-1](#).
2. Verification: Certification prior to placing order.

Ss_30_30_72/227 Durability of rooflights, roof windows and roof ventilators

1. Operation and strength characteristics: To [BS 6375-2](#).
2. Minimum design life: 30 years.
3. Secondary components

- 3.1. Component: Glazing sealants and Weatherstripping.
- 3.2. Design life duration: Submit details for each product together with required maintenance regime, replacement periods and methods of replacement.
4. Electrolytic corrosion: Prevent.
5. Submittals: Prior to completion of detailed design, submit required maintenance regime, replacement periods and methods of replacement for approval.

Ss_30_30_72/230 Structural performance of rooflights, roof windows and roof ventilators

1. General criteria: Resist wind loads, dead loads and design live loads.
2. Resistance to wind load: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Deflections and movements: Accommodate without damage.
4. General movement: Accommodate anticipated building movement.
5. Permanent imposed loads: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
6. Temporary imposed loads: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_30_72/245 Fire performance to BS EN 13501 of rooflights, roof windows and roof ventilators

1. External fire exposure: To TGD B
To [BS EN 13501-5](#), class B_{roof}(t4).
2. Reaction to fire: To [BS EN 13501-1](#), class A1.
3. Testing and assessment reports: Submit evidence of successful testing by an accredited laboratory.

Ss_30_30_72/252 Weathertightness of rooflights, roof windows and roof ventilators by test standard

1. Air permeability: To [BS EN 1026](#), 600 Pa (positive and negative pressure).
2. Watertightness: To [BS EN 1027](#), 600 Pa (positive and negative pressure).
3. Resistance to wind load: To [BS 6375-1](#), Class AE

Ss_30_30_72/253 Air permeability of rooflights, roof windows and roof ventilators

1. Air permeability: To EN 12207:2016 Windows and doors - air permeability - classification
Class 4.

Ss_30_30_72/254 Avoidance of condensation on rooflights, roof windows and roof ventilators

1. Standard: To [BS 5250](#) and [BS EN ISO 13788](#).
2. Requirement: The risk of condensation markedly reduced on internal surfaces of framing members or glazing/ infilling in the designated conditions.
3. Condensation risk: Determine risk in accordance with [BS 5250](#), Annex D and provide effective vapour control.

Ss_30_30_72/255 Solar energy transmittance (solar factor) of rooflights, roof windows and roof ventilators

1. Standard: To [BS EN 410](#).
2. Solar factor, g (maximum): Solar factor, g (maximum): 0.50 to 0.80

Ss_30_30_72/256 Solar transmission of rooflights, roof windows and roof ventilators

1. Standard: In accordance with [BS EN 410](#).
2. Total solar energy transmission of normal incident solar radiation (maximum): Technical Guidance Document Part L Dwellings and Part L Buildings other than dwellings.
3. Visible light transmission (glazing only) (minimum): Technical Guidance Document Part L Dwellings and Part L Buildings other than dwellings.
4. Effective light transmission (glazing with shading devices) (minimum): Technical Guidance Document Part L Dwellings and Part L Buildings other than dwellings.

Ss_30_30_72/260 Safety performance of rooflights, roof windows and roof ventilators

1. Hard body impact loads: To EN 1873
2. Soft body impact loads: To EN 12600
3. Finished surfaces in accessible internal and external areas: Free of irregularities capable of inflicting personal injury. Free of release irritant or staining substances.

4. **Thermal stress:** Provide adequate resistance to thermal stress generated by orientation, shading, solar control and construction.

Ss_30_30_72/265 Protection from falls from rooflights, roof windows and roof ventilators

1. **Occupancy:** Includes children under five years of age.
2. **Risk assessment:** Required to establish appropriate measures and implications. Take into account fire prevention, inclusive design and egress measures. Submit for agreement.

Ss_30_30_72/280 Thermal transmittance (U-value) of rooflights, roof windows and roof ventilators

1. **Standards**
 - 1.1. **Calculation:** In accordance with EN ISO 6946;
In accordance with EN ISO 10077-1;
and In accordance with EN ISO 10077-2.
 - 1.2. **Measurements:** In accordance with EN ISO 8990;
In accordance with EN ISO 12567-1;
and In accordance with EN ISO 12567-2.
 - 1.3. **U-value (maximum):** 0.80 W/m²·K.
2. **Zone interfaces:** Coordinate to achieve required average U-value.

Products

Pr_30_59_72_21 Daylight pipes

1. **Manufacturer:** *Submit proposals.*
2. **Fire performance:** Manufacturer's standard .
3. **Material:** Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
4. **Internal finish:** Manufacturer's standard .
5. **Diameter:** 350mm
6. **Length:** As required for location. Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
7. **Bends:** Adjustable.
8. **External terminal:** Manufacturer's standard .
9. **Internal terminal:** polycarbonate insulating frame two-layer light diffuser.
Airtight
10. **Accessories:** Fire collars and Roof flashings.
11. **Execution:** [Pr_30_59_72/670 Installation of daylight pipes.](#)

Execution

Pr_30_59_72/670 Installation of daylight pipes

1. **Method:** As daylight pipe and roof system manufacturers' recommendations

Ss_30_30_72/615 Workmanship for rooflights, roof windows and roof ventilators generally

Shared by: [Pr_30_59_98_97 Wood frame roof window units](#) and [Ss_30_30_72_72 Rooflight systems](#)

1. **Integrity:** Roof window system installations must be wind and watertight under all conditions with full allowance made for deflections and other movements.
2. **Materials**
 - 2.1. **Compatibility:** Glass and plastics, surround materials, sealers, primers and paints and clear finishes to be used together to be compatible. Avoid contact between glazing panes and/ or units and alkaline materials such as cement and lime.
 - 2.2. **Protection:** Keep materials dry until fixed. Protect insulating glass units and plastics glazing units from the sun and other heat sources.

Ss_30_30_72/620 Protection of rooflight, roof window and roof ventilator components

Shared by: [Pr_30_59_98_97 Wood frame roof window units](#) and [Ss_30_30_72_72 Rooflight systems](#)

1. **Requirement:** In accordance with any product or installer warranties, and under conditions to prevent warp, twist, damage to component structure, fittings and surfaces, including damage caused by exposure to temperature extremes and contact with deleterious materials.

Ss_30_30_72/625 Plastics, metal and board glazing sheet protection for rooflights, roof windows and roof ventilators

Shared by: [Ss_30_30_72_72 Rooflight systems](#)

1. Condition: Free from scratches, edge splits and other defects.
2. Preparation for use: Peel protective coverings carefully back from edges and trim off to facilitate glazing. Retain remainder in place until completion.

Ss_30_30_72/645 Forming kerbs for rooflights, roof windows and roof ventilators

Shared by: [Pr_30_59_98_97 Wood frame roof window units](#) and [Ss_30_30_72_72 Rooflight systems](#)

1. Setting out: Form around opening and fix to exact finished level.
2. Components
 - 2.1. Kerbs
 - 2.1.1. Material: To match rooflight or roof window.
 - 2.1.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 2.2. Flashings
 - 2.2.1. Material: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 2.2.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 2.2.3. Setting out: Dress over upstand at least 150 mm and extend over roof covering.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_30_72/810 Protection and cleaning of rooflight, roof window and roof ventilator systems

Shared by: [Ss_30_30_72_72 Rooflight systems](#)

1. Cement and plaster-based spillage: Remove whilst wet.
2. Protection: Prevent staining, scratching and other disfigurement.
3. Completion: Remove protective coverings. Thoroughly clean external and internal surfaces with appropriate agents.

Ss_30_30_72/815 Documentation relating to roof glazing systems

Shared by: [Ss_30_30_72_72 Rooflight systems](#)

1. Performance evidence
 - 1.1. Generally: Test evidence must be in the name of the roof window unit or system manufacturer, or approved installer and Approved installer validation for all performance compliance.
 - 1.2. Acoustic attenuation: Provide third party certification of product conformity for specified acoustic performance for each sound attenuating roof window system installation.
 - 1.3. Fire: Provide third party certification of system conformity for specified fire and smoke performance for each applicable roof window system installation and Include identifier schedule or similar to allow individual roof windows to be located.
 - 1.4. Weathertightness: Provide third party certification of system conformity for specified weathertightness performance for each applicable roof window system installation and Include identifier schedule or similar to allow individual roof windows to be located.
2. Submittals
 - 2.1. Approved installer validation certification: Required.
 - 2.2. Manufacturer's operation and maintenance instructions for the following products: All products used throughout this system.
 - 2.3. Record layout drawings indicating: General arrangement drawings showing the location of daylight pipes, rooflights, roof ventilators or roof windows. Drawings may be cross referenced to schedule.
 - 2.4. Drawing and schedule format: A1 paper print and Electronic.
 - 2.5. Number of copies: Two.

Ω End of System

Ss_30_30_72_72 Rooflight systems Systems

Ss_30_30_72_72 Rooflight systems

1. Description: Rooflights
2. System performance: [Ss_30_30_72/205 Design submittals for rooflights, roof windows and roof ventilators](#)
3. System manufacturer: **Submit proposals**
4. Rooflight: [Pr_30_59_98_97 Wood frame roof window units](#)
5. Installation fasteners: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
6. Trim: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
7. Filler: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
8. Hardware: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
9. Operation: Manual
10. System accessories: Strictly in accordance with manufacturers specification and Certification requirements, suitable for the purpose and location and detail.
11. Verification: [Ss_25_30_95/810 Verification of performance](#)
12. Execution: [Ss_30_30_72/645 Forming kerbs for rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/625 Plastics, metal and board glazing sheet protection for rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/620 Protection of rooflight, roof window and roof ventilator components](#); [Ss_30_30_72/615 Workmanship for rooflights, roof windows and roof ventilators generally](#)
13. System completion: [Ss_30_30_72/815 Documentation relating to roof glazing systems](#); [Ss_30_30_72/810 Protection and cleaning of rooflight, roof window and roof ventilator systems](#)

System performance

See [Ss_30_30_72/205 Design submittals for rooflights, roof windows and roof ventilators](#) in [Ss_30_30_72_21 Daylight pipe systems](#)

Products

Pr_30_59_98_97 Wood frame roof window units

Shared by: [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

1. Description: Rooflight
2. Manufacturer: **Submit proposals**
3. Product reference: Top-Hung Roof Window
4. Standard: BBA Agrément Certificate.
5. Product performance
 - 5.1. Whole window U-value:
 1. Thermal performance (U-value): 1.0 W/m²K.
 2. Sound insulation (Rw): 37 dB.
 3. Light Transmittance (Tv): 0.71.
 4. Total solar energy transmittance (g): 0.52.
6. Hardware: Flashings in materials and finishes to match roof window cladding.
7. Operation
 - 7.1. Type: Manually operated.
8. Internal frame and sash: Lacquered Pine.
9. External cladding: Grey aluminium; RAL colour to ER approval
10. Glazing: 6.8 mm laminated inner pane with low-e coating; 12 mm Argon filled cavity; 3 mm heat strengthened mid pane with low-e coating; 12 mm Argon filled cavity; 4 mm toughened outer pane with easy to clean and low-e coatings.
11. Flashing: to match roof window cladding
12. Execution: [Ss_30_40_95/766 Forming roof window and hatch perimeters](#); [Ss_25_30_95/655 Window installation generally](#); [Ss_30_30_72/645 Forming kerbs for rooflights, roof windows and roof ventilators](#); [Ss_30_30_72/620 Protection of rooflight, roof window and roof ventilator components](#); [Ss_30_30_72/615 Workmanship for rooflights, roof windows and roof ventilators generally](#)

Execution

See [Ss_25_30_95/655](#) Window installation generally in [Ss_25_30_95_26](#) External window systems - EXTERNAL ALUCLAD WINDOWS

See [Ss_30_30_72/615](#) Workmanship for rooflights, roof windows and roof ventilators generally in [Ss_30_30_72_21](#) Daylight pipe systems

See [Ss_30_30_72/620](#) Protection of rooflight, roof window and roof ventilator components in [Ss_30_30_72_21](#) Daylight pipe systems

See [Ss_30_30_72/625](#) Plastics, metal and board glazing sheet protection for rooflights, roof windows and roof ventilators in [Ss_30_30_72_21](#) Daylight pipe systems

See [Ss_30_30_72/645](#) Forming kerbs for rooflights, roof windows and roof ventilators in [Ss_30_30_72_21](#) Daylight pipe systems

Ss_30_40_95/766 Forming roof window and hatch perimeters

Shared by: [Ss_30_40_95_55](#) Natural slate roofing systems and [Ss_30_40_95_30](#) Fibre cement slate roofing systems

1. Underlay: Turn up 100 mm (minimum) at window surrounds under integral flashings or soakers..
2. Roof tiles or slates: Cut as necessary and fix closely all around.

System completion

See [Ss_25_30_95/810](#) Verification of performance in [Ss_25_30_95_26](#) External window systems - EXTERNAL ALUCLAD WINDOWS

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

See [Ss_30_30_72/810](#) Protection and cleaning of rooflight, roof window and roof ventilator systems in [Ss_30_30_72_21](#) Daylight pipe systems

See [Ss_30_30_72/815](#) Documentation relating to roof glazing systems in [Ss_30_30_72_21](#) Daylight pipe systems

Ω End of System

Ss_30_40_30_80 **Single layer sheet warm roof covering systems** **Systems**

Ss_30_40_30_80 Single layer sheet warm roof covering systems

1. Description: Flat Roof Areas
2. System performance: [Ss_30_40_30/270](#) Durability; [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification
3. System manufacturer: **Submit proposals**
4. Preparation
 - 4.1. Horizontal work: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 4.2. Skirtings and vertical work: as horizontal
5. Lower protection layer: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
[Pr_25_57_51_33](#) Glass fibre fleeces
6. Air and vapour control layer
 - 6.1. Type: Multi-layer self-adhesive vapour control layer made of polymer modified bitumen with a glass-fibre mat reinforcement and an aluminium foil as top layer.
 1. Product declaration to EN 13970.
 2. Aluminium foil and a non-woven polyester fabric stabilized with fibreglass.
 3. Thickness, to EN 1849-1: 0.6 mm (±10%).
 4. Weight, to EN 1849-1: 0.6 kg/m² (±0.1 kg).
 5. Surface finish, top: Aluminium matt
 6. Surface finish, underside: White/black with release liner (PE-LD foil)
 - 6.2. Attachment: Self-adhesive.

Employers Requirements, Architectural & Landscaping Specification

7. Insulation
 - 7.1. Type: [Pr_25_71_63_66 Polyisocyanurate \(PIR\) foam boards - FLOOR / ROOF INSULATION](#)
8. Separating layer: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
9. Surface protection: Not required.
10. System accessories: As required to ensure neat and integrated flashing and trim.
[Pr_35_90_30_11 Carbon steel flashings](#); [45-75-35/330 Metal flashings](#)
11. Preparation
 - 11.1. Horizontal work : [45-45-95/450 Marine plywood - 18mm](#)
 - 11.2. Skirtings and vertical work: [Pr_35_90_07_89 Timber fillets](#); [Pr_20_76_88_83 Softwood Sections](#)
12. Lower protection layer: <https://nbs.fyi/oeUkq8>
13. Waterproof covering
 - 13.1. Type:
 1. Product declaration to EN 13956.
 2. Length, to EN 1848-2: 20 000 mm (-0%/ +5%).
 3. Width, to EN 1848-2: 2000 mm (-0.5%/ +1%).
 4. Straightness, to EN 1848-2: ≤30 mm.
 5. Effective thickness, to EN 1849-2: 1.2 mm (-5%/ +10%).
 6. Flatness, to EN 1848-2: ≤10 mm.
 7. Reaction to fire, to EN 13501-1: Class E (EN ISO 11925-2).
 8. External fire performance Part 1–4, to EN 13501-5: BROOF(t1)<20°, BROOF(t3) <10°/<70°.
 9. Mass per unit area, to EN 1849-2: 1.63 kg/m² (-5%/ +10%)
 - 13.2. Joints & Accessories: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
[Pr_35_90_28_72 Roof membrane perimeter trims](#); [Ss_30_40_30/704 Mechanical fixing of waterproof membrane](#); [Ss_30_40_30/712 Tape jointing of waterproof membrane](#); [Ss_30_40_30/716 Forming penetrations through polymeric membranes](#); [Ss_30_40_30/708 Welded jointing of waterproof membrane](#); [Ss_30_40_30/714 Securing perimeters of waterproof membrane](#); [Ss_30_40_30/730 Protecting incomplete membrane work](#)

System performance

Ss_30_40_30/270 Durability

1. System warranty: 25 years.

Products

45-45-95/450 Marine plywood - 18mm

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Manufacturer: Submit proposals .
3. Standard: To BS 1088-1 but excluding plywood made of gaboony veneers.
4. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Class: Plywood compliant with BS EN 13986, suitable for internal use as structural floor decking on joists
6. Service class: To BS EN 636 -2, S.
7. Use class: 3
8. Reaction to fire classification: To BS EN 13501-1 British Standards link, Class C-s3, d2 or better.
9. Edges: Square.
10. Thickness: 18 mm.
11. Preservative treatment: Wood Protection Association Commodity Specification C11. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
12. Execution: [45-45-95/605 Environmental conditions for installing wood boards and wood-based panels](#). Strictly in accordance with Structural Engineer's Design, Detail and Specification. [Pr_25_71_97/620 Installing wood-based panels](#); [Pr_25_71_97/630 Panel edge supports](#); [Pr_25_71_97/635 Treated timber](#)

45-75-35/330 Metal flashings

1. Manufacturer: Submit proposals .
2. Material: Injection moulded corners: Pre-formed pieces for forming corners.
0.6 mm thick galvanized steel coated
3. Item: perimeter flashings, connections and fixings
4. Form of delivery: Preformed items
5. Size: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

- 5.1. Thickness (minimum): 0.6 mm and 0.8 mm.
- 5.2. Width: Manufacturer's standard . providing min 150mm upstand
6. Fixing: Lapped joints.
7. Thermal movement: Joints and fixings must incorporate measures to avoid warping or damage from thermal movement, and maintain the weather resistance of the connection.
8. Support: Manufacturer's standard .
9. Finish: 0.8 mm thick layer of plasticized PVC.
10. Colour: Coloured to match the waterproof membrane.
11. Texture: Plain.

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_20_76_88_83 Softwood Sections](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

Pr_25_57_51_33 Glass fibre fleeces

1. Description: Protecting the underside of waterproof membrane from surface irregularities
2. Product reference: Submit Proposals
3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Weight: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Execution: [Ss_30_40_30/702 Laying glass fibre fleece](#)

Pr_25_71_63_66 Polyisocyanurate (PIR) foam boards - FLOOR / ROOF INSULATION

Shared by: [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

1. Description: PIR floor insulation boards - compressive strength must be adequate for the expected loads.
2. Standard: To BS EN 13165.
3. Third party product certification: Provide Product Data & Certification as required and outlined in Section **PM_40 Design and approvals information**
4. Fire performance: To BS EN 13501-1:2018, Euroclass RtF F.
5. Thermal conductivity (maximum): 0.022 W/mK.
6. Cross section: Uniform thickness.
7. Thickness (nominal): 150mm Min - with perimeter upstands, Min 20mm Thick
8. Face size (length x width): 2400 x 1200 mm.
9. Density: 32 g/cm³.
10. Compressive strength at 10% deformation: 140 kPa.
11. Recycled content: 0% (minimum) to BS EN ISO 14021.
12. Facing: Foil.
13. Edges: Square.
14. Global warming potential (GWP): Less than 5.
15. Ozone depletion potential (ODP): Zero.
16. SpecificHeatCapacity: 1.4 kJ/kg°C.
17. ThermalTransmittance: 0.11W/m²K MAX. FLOOR COMPONENT U-VALUE

Pr_35_90_07_89 Timber fillets

Shared by: [Ss_30_40_95_74 Roofing edges and junction systems](#)

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Supplied by: Contractor's choice .
3. Material: Softwood.
4. Moisture content (maximum) at time of installation: 22%.
5. Treatment: To WPA [Manual: Industrial wood preservation. Specification and practice C8](#).

Pr_35_90_28_72 Roof membrane perimeter trims

1. Description:

Proprietary metal trims.

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

2. Material: Manufacturer's standard .
3. Standard: To [BS EN 12020-1](#), grade EN-AW 6063T4 and To [BS EN 12020-1](#), grade EN-AW 6063T6.
4. Size: Refer to Architects Drawings. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Coating: Powder coating to [BS EN 12206-1](#) and Powder coating to [BS EN 13438](#).
6. Colour: To Architects approval.
7. Corner pieces: Purpose made.
8. Accessories: Manufacturer's standard .
9. Verification
 - 9.1. Submittal: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 9.2. Timing: Before placement of orders.

Pr_35_90_30_11 Carbon steel flashings

Shared by: [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

1. Description: Flashings to Roof System
2. Manufacturer: Submit Proposals
3. Material: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Product samples which will be retained for the duration of the project.

Confirm with Architect type and size of samples for submission.

4. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: Before placement of orders.
Before commencement of installation.

Execution

See [45-45-95/605 Environmental conditions for installing wood boards and wood-based panels in Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_20_76_88/600 Treatment of timber cut on-site in Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Pr_25_71_97/620 Installing wood-based panels in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/630 Panel edge supports in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/635 Treated timber in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Ss_30_40_30/702 Laying glass fibre fleece

1. Laying: Loose, flat and without wrinkles.
2. Overlaps (minimum): 50 mm.
3. Joint treatment: Taped.

Ss_30_40_30/704 Mechanical fixing of waterproof membrane

1. Membrane
 - 1.1. Setting out: Perpendicular to the deck direction.
 - 1.2. Laying: Loose, do not wrinkle or stretch.
2. Fasteners: Inserted in accordance with manufacturer's recommendations.
3. Washers, pressure plates and bars
 - 3.1. Distance from fixed edge (minimum): 20 mm. Strictly in accordance with manufacturers specification and detail.
 - 3.2. Fixing: Flush with membrane.
 - 3.3. Sheet overlaps: Strictly in accordance with manufacturers specification and detail.
4. Extend beyond washers and pressure plates (minimum): Strictly in accordance with manufacturers specification and detail.
5. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/708 Welded jointing of waterproof membrane

1. Side and end laps
 - 1.1. Side laps (minimum): 100mm Strictly in accordance with manufacturers specification and detail.
 - 1.2. End laps (minimum): 100mm Strictly in accordance with manufacturers specification and detail.
 - 1.3. Preparation: Clean and dry surfaces beyond full width of joint.
 - 1.4. Sealing: Weld together.
2. Seam sealant: Even bead to each joint.
3. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/712 Tape jointing of waterproof membrane

1. Side and end laps
 - 1.1. Side laps (minimum) : Strictly in accordance with manufacturers specification and detail.
 - 1.2. End laps (minimum): Strictly in accordance with manufacturers specification and detail.
 - 1.3. Preparation: Prime, clean and dry surfaces beyond full width of joint.
 - 1.4. Sealing: Apply self adhesive tape. Mate and roll together. Do not wrinkle or stretch membrane.
2. Surface condition at completion: Fully sealed, smooth, weatherproof and free draining.

Ss_30_40_30/714 Securing perimeters of waterproof membrane

1. Upstands, edge trims, drips and kerbs: Preformed metal profiles, secure to roof structure with mechanical fasteners.
2. Roof membrane
 - 2.1. Laying: Dress over perimeter profiles and Terminate in horizontal plane immediately adjacent to change in direction and secure with mechanical fasteners.
 - 2.2. Overlap beyond perimeter securement (minimum): 75 mm. Strictly in accordance with manufacturers specification and detail.
 - 2.3. Sealing: Mechanically fix and weld at overlap.

Ss_30_40_30/716 Forming penetrations through polymeric membranes

1. Roof membrane: Cut around penetrations and secure to deck.
2. Flanged sleeve
 - 2.1. Type: Form from roof membrane. Preformed.
 - 2.2. Installation: Dress over and around penetration..
 - 2.3. Seating: Flush to roof membrane.
 - 2.4. Roof membrane overlap to flange (minimum): 75 mm beyond fasteners. Strictly in accordance with manufacturers specification and detail.
 - 2.5. Sealing: Weld flange to roof membrane. Strictly in accordance with manufacturers specification and detail.
 - 2.6. Protection to top edge of sleeve: Flashing or weathering cravat.

Ss_30_40_30/730 Protecting incomplete membrane work

1. End of working day: Provide temporary seal. Prevent water infiltration and protect edges of laid membrane from wind action.
2. Unfinished areas of the roof: Keep dry.
3. On resumption of work: Cut away tail of membrane from completed area and remove from roof.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_30_40_95_30

Fibre cement slate roofing systems

Systems

Ss_30_40_95_30 Fibre cement slate roofing systems

1. System performance: [Ss_30_40_95/250 Thermal design](#); [Ss_30_40_95/210 Local and general fixing areas](#); [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
2. Preparation
 - 2.1. Fire separation: To be carried up to underside of roof covering in compliance with TGD B.

Roof battens may be carried over over separating /compartment walls only where they are bedded in mortar or other non combustible fire stopping material where over the wall .
 - 2.2. Insulation: [Pr_25_57_06_53 Mineral wool insulation](#)
Insulation for thermal insulation placed below, between or over rafters - Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
3. Underlay
 - 3.1. Material: [Pr_25_57_10_94 Vapour permeable sheets](#)
 - 3.2. Attachment: [Pr_20_29_56_15 Copper nails](#)
 - 3.3. Penetrations: Cut underlay to provide a watertight fit. [Pr_35_90_30_64 Polyethylene \(PE\)-based flashings](#)
4. Counter battens
 - 4.1. Material: [Pr_20_76_88_82 Softwood roofing and cladding battens](#)
 - 4.2. Fasteners: [Pr_20_29_56_11 Carbon steel nails](#)
5. Battens
 - 5.1. Material: [Pr_20_76_88_82 Softwood roofing and cladding battens](#)
 - 5.2. Fasteners: [Pr_20_29_56_11 Carbon steel nails](#)
6. General areas of roofing
 - 6.1. Material: [Pr_25_93_72_30 Fibre-cement slates](#)
 - 6.2. Specials: [Pr_35_90_93_34 Roof slope ventilation fittings](#)
 - 6.3. Attachment: [Pr_20_29_56_11 Carbon steel nails](#)
7. Flashings
 - 7.1. Material: [Pr_35_90_30_46 Lead flashings](#); [Pr_35_90_30_11 Carbon steel flashings](#)
8. System accessories: [Pr_30_59_98_97 Wood frame roof window units](#)
9. Verification: [Ss_30_40_95/305 Product samples of unit roofing systems](#)
10. Execution: [Ss_30_40_95/606 Forming fire separating walls](#); [Ss_30_40_95/610 Installing roofing underlay](#); [Ss_30_40_95/614 Fixing counterbattens](#); [Ss_30_40_95/616 Fixing battens](#); [Ss_30_40_95/604 Installing roofing systems](#); [Ss_30_40_95/770 Forming change of roof pitch](#); [Ss_30_40_95/696 Fitting to metal valleys](#); [Ss_30_40_95/766 Forming roof window and hatch perimeters](#)
11. System completion: [Ss_30_40_95/810 Verification of performance](#)

Ss_40_90_95_65 Preservative treatment systems

Shared by: [Pr_20_76_88_82 Softwood roofing and cladding battens](#)

1. Description: All joinery and carpentry timbers and items of assembled joinery shall be pre-treated with a suitable preservative in accordance with "Draft Technical Note No. 1", as issued by the Forest Products Department of EOLAS, to the process recommended by the Consultant Timber Technologist.

Whichever method is chosen to be used shall have prior approval of the Architect and the Consultant Timber Technologist and shall be applied in accordance with the respective manufacturers' written instructions.

Timber preservation treatment should have a 20 year warranty.
2. System performance: [Ss_40_90_95/210 Preservative treatment performance](#); [Ss_40_90_95/270 Compatibility of dual treatments](#)
3. System manufacturer: Submit proposals.
4. Use class: 1. 2. 3 (coated). 3 (uncoated). 4.
5. Preservative: [Pr_35_31_67_98 Water-based organic preservatives](#); [Pr_35_31_67_59 Organic solvent-borne preservatives](#)
6. System completion: All cutting, drilling, profiling and sanding should be carried out before treatment. Where reworking after treatment is unavoidable, this should be limited to cross cutting, boring, drilling and notching. Exposed surfaces should be re-treated in accordance with manufacturer's recommendations.

System performance

Ss_30_40_95/210 Local and general fixing areas

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Definitions
 - 1.1. Local areas: Bands of tiling around edges or obstructions of each plane of the roof. Calculate extent of each band in accordance with [BS 5534](#), section 5 and Annex H.
 - 1.2. General areas: Remaining areas of roof tiling.

Ss_30_40_95/250 Thermal design

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Requirement: Determine type and thickness of insulation to satisfy thermal performance.
2. Thermal transmittance (U-value) of roof (maximum): 0.18 W/m²·K.

Ss_40_90_95/210 Preservative treatment performance

1. Standard: To [BS 8417](#). To WPA Commodity Specification standards.
2. Desired service life: 30 years.

Ss_40_90_95/270 Compatibility of dual treatments

1. Compatibility: Ensure that the flame-retardant and wood preservative treatments are compatible.
2. Sequence: Ensure that sequence of treatments complies with manufacturer's sequence and condition requirements.

Products

Pr_20_29_56_11 Carbon steel nails

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Standard: In accordance with the manufacturer's printed standards. Consult the manufacturer for detail of certification carried by their products.
2. Nail details
3. Execution: [Pr_20_29_56/615 Fixing with nails](#)

Pr_20_29_56_15 Copper nails

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Standard: To [BS EN 1202-2](#).
2. Form: As specified by slate manufacturer. Suitable for their purpose and exposure situation.
3. Roves: To suit shank diameter.
4. Execution: [Pr_20_29_56/615 Fixing with nails](#)

Pr_20_76_88_82 Softwood roofing and cladding battens

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#) and [Ss_30_40_95_74 Roofing edges and junction systems](#)

1. Description: Fix slates on 50mm x 38mm preservative pre-treated battens so spaced that each slate overlaps the slate below by at least 100mm.
2. General requirements: Fix battens with galvanised nails. 3.35mm dia. nails, 80mm long and should penetrate the rafter by a minimum of 40mm.

Battens should be at least 1.2m long and long enough to be nailed at each end and at intermediate points to at least three rafters.

Mortar to be cement mortar (1.3) colour to match slate. Battens fixed to masonry should be in straight horizontal lines with no batten less than 3 m long. Fix at not more than 400 mm centres.

3. Standard: In accordance with [BS 5534](#).
4. Timber
 - 4.1. Species: In accordance with [BS 5534](#), clause 4.11.1.
 - 4.2. Permissible characteristics and defects: Battens shall be free from decay or insect attack, except pinhole borers, splits and shakes, wane, knots (or knot holes) greater than one third width of any sound surface of occurrence
 - 4.3. Grading: Fully factory pre-graded in accordance with [BS 5534](#).

5. Moisture content at time of fixing and covering (maximum): 20% moisture content at time of fixing.
6. Treatment: [Ss_40_90_95_65 Preservative treatment systems](#)
7. Size
 - 7.1. Battens: 50 x 38 mm

See [Pr_25_57_06/310 Insulation products generally](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_57_06_53 Mineral wool insulation](#) in [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

Pr_25_57_10_94 Vapour permeable sheets

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Description: Roof underlay to reduce moisture penetration from the outside and to facilitate the transfer of water vapour from the inside.
2. Manufacturer: **Submit proposals**
3. Standard: To [BS EN 13859-1](#).
4. Performance characteristics:
 1. Breathable (vapour open)
 2. Durability-60+ years (BBA Certification)
 3. Fire classification-E
 4. Moisture vapour diffusion resistance factor (μ)-73 .
 5. Surface weight-170 $\pm$ 5 g/m²
 6. Temperature Resistance -40 °C to 100 °C
 7. Tensile strength CD-350 $\pm$ 40 N/5cm
 8. Thermal conductivity-0.17 W/mK
 9. Thickness-0.55 $\pm$ 0.10 mm.
 10. Warranty-10 years (when correctly installed with Pro Clima system products only),
 11. 6 years (when correctly installed with non-Pro Clima products)
 12. g-value (vapour resistance)-0.20 $\pm$ 0.05 MNs/g
 13. sd-value (humidity variable)-0.03 m to 0.05 m
 14. Backing material-PP fleece
 15. CE labelling-BS EN 13859-1
 16. Elongation CD-15 $\pm$ 5 %
 17. Elongation CD (aged)-15 $\pm$ 5 %
 18. Elongation MD-15 $\pm$ 5 %
 19. Elongation MD (aged)-15 $\pm$ 5 %
 20. Nail tear resistance CD-270 $\pm$ 30 N
 21. Nail tear resistance MD-300 $\pm$ 30 N
 22. Reinforcement layer-Polypropylene (PP) non-woven fabric mesh
 23. Tensile strength CD (aged)-350 $\pm$ 40 N/5cm
 24. Tensile strength MD-495 $\pm$ 40 N/5cm
 25. Tensile strength MD (aged)-495 $\pm$ 40 N/5cm
5. Class (minimum): W1.
6. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Material: Polyolefin.
8. Execution: [Pr_25_57_10/620 Installing breather membranes](#)

Pr_25_93_72_30 Fibre-cement slates

1. Manufacturer: Submit Proposals
2. Product reference: Submit Proposals
3. Standard: To BS EN 492.
4. Mechanical resistance: $\geq$ 45 Nm/m.
5. Fire performance
 - 5.1. External fire performance: Broof.
 - 5.2. Reaction to fire: To EN 13501-1:2018, A2-s1,d0.
6. Impermeability: No water drops.
7. Dimensional tolerances: Length/ width: $\pm$ 3 mm. Thickness: +25% to -10% of nominal value/
8. Durability requirements

- 8.1. Warm water: RL ≥ 0.75 .
- 8.2. Soak-dry: RL ≥ 0.75 .
- 8.3. Freeze-thaw: RL ≥ 0.75 .
- 8.4. Heat-rain: Pass.
9. Shape: Rectangular.
10. Colour: Blue-Black.
11. Size: 600 x 300 x 4 mm.
12. Verification
13. Execution: [Pr_25_93_72/636 Installing fibre-cement roofing slates](#); [Pr_25_93_72/664 Forming mitred hips](#); [Pr_35_90_93/666 Fitting to lead roll on hips](#); [Pr_25_93_72/680 Forming mitred valleys](#); [Pr_25_93_72/696 Fitting to lead roll on ridges](#)

See [Pr_30_59_98_97 Wood frame roof window units](#) in [Ss_30_30_72_72 Rooflight systems](#)

Pr_35_31_67_59 Organic solvent-borne preservatives

1. Manufacturer: Submit proposals.
2. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Performance classification: Combined fungicide and insecticide.
4. Preservative
5. HSE re-entry classification: **48 hours**.
6. Execution: [Pr_35_31_67/640 Applying organic solvent preservative treatment](#); [Pr_35_31_67/642 Retrospective application of organic solvent-borne preservative](#); [Pr_35_31_67/610 Treatment procedures](#); [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#)

Pr_35_31_67_98 Water-based organic preservatives

1. Manufacturer: Submit proposals.
2. Standard: In accordance with [BS EN 599-1](#).
3. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) Manufactured under a quality system complying with EN ISO 9001.
4. Execution: [Pr_35_31_67/610 Treatment procedures](#)

Pr_35_31_68_60 Patination oils

1. Description: Patination Oil to prevent the formation (by rainwater) of white carbonate on (for example) lead sheeting that can stain adjacent building materials, e.g. slate and tile roofs, brick, concrete and stone walling.

The oil contains a flattening agent which allows the gradual percolation of moisture and atmosphere gases as part of the natural weathering process after application.

Only one coat is necessary as over-application will retard the formation of the natural patina and create a patchy appearance to the leadwork. If the patinated surface subsequently becomes scuffed – as in the case of foot traffic over the lead sheet – a second application of oil can be made to the scuffed areas when all the leadwork has been finished.

Once opened, the contents of the can should be used as soon as possible, as a skin will form on the surface, similar to gloss paint and may effect the performance of the product.

The oil should be applied evenly using a soft, absorbent cloth (mutton cloth or similar), working horizontally from top to bottom and keeping a wet lower edge. Avoid using a circular, scrubbing motion. Treatment should be carried out on new lead sheet in a completely clean and dry state and no later than the end of the day's work.

The oil must not be allowed to come into contact with bitumen or rubber products.

See [Pr_35_90_30_11 Carbon steel flashings](#) in [Ss_30_40_30_80 Single layer sheet warm roof covering systems](#)

Pr_35_90_30_46 Lead flashings

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#) and [Ss_30_40_95_74 Roofing edges and junction systems](#)

1. Description: Flashings shall be **Code 6** rolled sheet lead, complying in all respects with B.S. EN 12588 and in accordance with details and the Lead Development Association guidelines.

Carefully shape to the profiles shown on the drawings and fix with clips of the same gauge; laps shall be not less than 150mm and flashings shall be fully turned into grooves wedged and pointed. All flashing strips to be cut in lengths not exceeding 1.5m and to be installed in accordance with C.P. 143, Part 11.

The sheet materials used for gutters, flashings, soakers, saddles should conform to the relevant standards. For each

application, consideration should be given to the type of metal intended for use in flashings and junctions to ensure that any mechanical or chemical properties do not adversely affect durability of the work.

Lead shall not come into contact with any hardwoods. Lead flashing shall be protected with a coat of bitumen paint should this happen. Lead work shall be separated from substrate with an isolating membrane – sarking felt or other similar approved.

2. **Lead Flashings Generally:** All flashings to chimneys and abutments to be stripped and replaced with leadwork to LDA guidelines. Where chimneys are on the ridge allow for two front aprons, side flashings and two saddle pieces.

Refer to Page 8 and notes of the Lead Flashings: A Brief Guide and consult with LDA for the best practice guidelines. Code 6 leadwork to be used for leadwork chimney flashing.

Note leadwork to be stepped to all chimneys and against rising verges and lapped minimum 300mm under slate roofing materials. All noticeable defective timber work/valley boards to be carefully monitored and removed and replaced with pressure treated wood to structural engineer's specification and or pressure treated spliced in as required. All timbers exposed during replacement of leadwork to be treated.

- 2.1. **Maximum Spacing:** Maximum spacing of joints recommended by the LSA for flat and low pitched surfaces are to be:

	Joints parallel with the fall (mm)	Joints across the fall (mm)
Code 5	600	2000
Code 6	675	2250
Code 7	675	2500
Code 8	750	3000
Code 9	790	3600
Code 10	790	4000

- 2.2. **OUTLETS :** Lead: Code 5 in lengths to LSA recommendations.

- 2.3. **APRON FLASHINGS :**

1. Lead: Code 5 in lengths to LSA recommendations.
2. End to end joints: Laps of not less than 100 mm.

Dimensions:

3. Upstand: Not less than 75 mm.
4. Fixing: Copper strip

- 2.4. **COVER FLASHINGS :**

1. Lead: Code 5 in lengths not exceeding LSA recommendations
2. End to end joints: Laps of not less than 100 mm.
3. Cover: Overlap to upstand of not less than 75 mm.

3. **Standard: LEAD SHEET:** Colour marked for thickness and weight and of the type and code specified:

1. Rolled, to BS EN 12588, or
2. Machine cast, Agrément certified and to code thicknesses with a tolerance (by weight) of $\pm 5\%$, or
3. Sand cast, from lead free from bitumen, solder, other impurities, inclusions, laminations, cracks, air, pinholes and blowholes; to code thicknesses but with a tolerance (by weight) of $\pm 10\%$.

4. **Material:** Lead.

5. **Item:** Abutment flashing. Apron. Capping. Corner piece. Cover flashing. Pipe collar. Stepped flashing to chimney. Weathered drip. Weathering.

6. **Size**

7. **Fixing: HEAD FIXING LEAD SHEET:**

Where not specified otherwise, secure top edge of lead sheets with two rows of fixings, 25 mm and 50 mm from top edge of sheet, at 75 mm centres in each row, evenly spaced and staggered. Sheets less than 500 mm deep may be secured with one row of fixings, 25 mm from top edge of sheet and evenly spaced at 50 mm centres.

Oak should not come into contact with lead, because of the action of tannic acid.

To protect lead against possible acidic run-off from lichen-covered roofs, sacrificial lead flashings should be installed. Alternatively, copper strips can be fitted at approximately every tenth slate course, the run-off from which kills the lichens. Free lime or cement from new mortar can initiate a slow corrosive attack on lead and it is advisable to protect new lead with a coat of bituminous paint until the mortar cures.

Lead soakers and flashings should be provided at abutments with chimneystacks etc. The chasing of old masonry for new flashings is to be avoided where possible and should always follow existing course joints.

- 7.1. **FIXINGS:** Where not specified otherwise, fix lead sheet to timber substrates with:

Copper clout nails to BS 1202-2, table 2, with annular ringed, helical threaded or serrated shank, length not less than 20 mm, shank diameter not less than 2.65 mm, or Stainless steel (austenitic) clout nails with annular ringed, helical threaded or serrated shank, length not less than 19 mm, shank diameter not less than 2.65 mm.

Where not specified otherwise, fix lead sheet to concrete or masonry substrates with:

Brass or stainless steel screws to BS 1210, table 3, length not less than 19 mm and diameter not less than 3.35 mm; with washers of the same material and plastics plugs of length and diameter to suit screws.

- 7.2. **CLIPS::** Generally 50 mm wide where not specified to be continuous, length to suit detail.
Lead clips to be cut from sheets of same code as sheet being secured.
Unless specified otherwise fix each clip with two fastenings not more than 50 mm from edge of lead sheet. Clips welted around edges of sheets to be turned over 25 mm.
- 7.3. **CONTINUOUS CLIPS::** Width to suit detail.
Copper continuous clips to be cut from 1.2 mm thick sheet to BS EN 1172, temper designation R220 in welts, seams and rolls, R240 elsewhere.
Unless specified otherwise fix at 300 mm centres.
Welt edge of lead sheet around continuous clip and dress down.
- 7.4. **WELTED JOINTS::** Form with a 50 mm overlap, 25 mm underlap and copper or stainless steel clips (clause 720) at not more than 450 mm centres.
Welt overlap and clips around underlap, loosely turn over and lightly dress down.
- 7.5. **DRIPS WITH SPLASH LAPS::** Dress underlap up full height of drip upstand. Fix to lower level base with two rows of nails 25 mm and 50 mm from face of drip, at 75 mm centres in each row, evenly spaced and staggered. Seal nails over with a soldered or leadwelded dot.
Dress overlap over drip and form a 75 mm splash lap. Secure with lead clips (clause 720), leadwelded to underlap, with not less than one per bay.
- 7.6. **WEDGE FIXING INTO JOINTS/CHASES::** Carefully rake out joint/chase to a depth of not less than 25 mm.
Dress lead into joint/chase and fix with lead wedges at not more than 450 mm centres, at every change of direction and with at least two for each piece of lead.
Prepare joint/chase and apply Lead mastic sealant
8. **Thermal movement:** Joints and fixings must incorporate measures to avoid warping or damage from thermal movement, and maintain the weather resistance of the connection.

Movement in lead sheet is taken up in the joints; generally, the greater the number of joints, the less stress will be developed in each sheet. Where the lead is laid under the slates, it should be dressed over the sarking and the continuous tilting fillet, to lap the slates by at least 150mm. Joints in lead sheet above gutter level should be fully welted. Slates should stop well above (approximately 150mm) the highest step formed in the gutter. Cover flashings to gutter should have a minimum vertical lap of 100mm. Dressing into joints this should follow the original joint finish.
9. Finish: [Pr_35_31_68_60 Patination oils](#)
10. **WORKMANSHIP GENERALLY:** Cut, joint and dress lead neatly and accurately, to provide fully waterproof coverings/flashings, free from ripples, kinks, buckling and cracks.
Comply with BS 6915 and current good practice as described in the latest editions of 'The Lead Sheet Manual'. Do not use scribers or other sharp instruments to mark out lead.
Ensure that finished leadwork is fully supported, adequately fixed to resist wind uplift but also able to accommodate thermal movement without distortion or stress.
Ensure that finished leadwork is protected against staining, discolouration and damage by subsequent works.
11. Verification
 - 11.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 11.2. Timing: Before placement of orders.
Before commencement of installation.

Pr_35_90_30_64 Polyethylene (PE)-based flashings

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Description: Simple aprons and flashings at roof penetrations.
2. Third-party certification:
 1. Product CE marking and associated Declaration of Performance (DoP).
 2. Board of Agrément Certificate (IAB / BBA).
 3. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
 4. European Technical Assessment Approval
3. Item: Pipe collar.
4. Fixing: Screwed to substrate.
5. Colour: Black.

Pr_35_90_93_34 Roof slope ventilation fittings

1. Form: Ventilator terminations. Ventilator slates.
2. Colour: As general area of roof.
3. Verification
4. Execution: [Pr_35_90_93/730 Installing roof slope ventilator fittings](#)

Ss_30_40_95/305 Product samples of unit roofing systems

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

- Manufacturer: **Submit proposals**
- Submittals: Typical slate, fixing and accessories.
- Purpose: For use as a reference sample.
- Labelling: Clearly label all submitted samples.
- Timing: *Before ordering for project.*

Execution

Pr_20_29_56/615 Fixing with nails

1. Fastener spacing: Suitable for their purpose and exposure situation.
2. Finished level of nail heads
 - 2.1. Exposed: Recessed.
 - 2.2. Punched (holes filled or stopped): Sink minimum 2 mm below surface.

Pr_25_57_10/620 Installing breather membranes

1. Installation sequence: Fix membrane neatly to provide a complete barrier to water, snow and wind blown dust. Install from lowest level upwards so that horizontal overlaps shed water away from substrate. Report occurrence of damage to membrane and repair before installing covering.
2. Generally: Secured to battens by the slating battens and lapping 150mm at all joints.

Handle carefully to prevent tears and punctures, repair any which do occur with adhesive tape and cover with underlay patch tucked under the horizontal lap above.
Lay parallel to eaves, maintaining consistent tautness to minimise gaps. Ensure that underlay does not obstruct roof ventilation.
All manufacturers specifications & recommendations should be adhered to when laying roofing felt. It should be laid horizontally and draped between rafters with a 150mm horizontal lap and 100mm vertical lap.
A batten with the bottom edge of the lap projecting, minimum 25mm below the batten should cover horizontal laps.
The underlay on every roof slope adjoining a hip should overlap the line of the hip and be carried across the adjoining roof slope by not less than 150mm.
3. Bottom edges: Extend membrane 25 mm (minimum) below lowest rafter end.
Extend membrane 25 mm (minimum) below lowest frame member in supporting wall.
4. Continuity
 - 4.1. Criteria: No breaks. Minimize number of joints. Bond with tape where required.
 - 4.2. Ridge: Lay top course of underlay from one side of ridge over apex to overlap top course of underlay at other side by not less than 150 mm.
 - 4.3. Horizontal laps: 100 mm minimum. Achieve full bond.
 - 4.4. Vertical laps: 150 mm minimum and staggered with respect to horizontal laps. Achieve full bond.
 - 4.5. Penetrations and abutments: Attach to vapour-permeable membrane with tape. Achieve full bond.
 - 4.6. Openings: Overlap flashings at head and extend membrane into reveals.
 - 4.7. Junctions at flashings, sills, gutters, etc.: Overlap and allow free drainage to exterior.
5. Dpcs: Trim all projections flush with face of wall to avoid snagging breather membrane.
6. Repairs: Fix lapped patch of breather membrane material with continuous band of tape on edges. Report occurrence and complete repairs before installing roof covering.

Pr_25_93_72/636 Installing fibre-cement roofing slates

1. Head lap (minimum): 110 mm.
2. Fixing: Two nails and one disc rivet.

Pr_25_93_72/664 Forming mitred hips

1. Underlay
 - 1.1. Position: Lay courses over hip.
 - 1.2. Overlaps (minimum): 150 mm.
2. Mitred tiles or slates
 - 2.1. Installation: Cut large units and fix to form a straight, close mitred junction.
3. Soakers: Interleave with mitred tiles or slates. Fix by turning down over head of mitred tiles or slates.

Pr_25_93_72/680 Forming mitred valleys

1. Generally: Ensure that bearers or boards provide continuous support for ends of slating battens on each side of valley. Cover valley with a strip of underlay not less than 600 mm wide, underlapping general underlay. Cut extra wide slates, interleave with lead soakers and fix to form a straight, weathertight, close mitred junction. Fix soakers by turning down over the head of mitred slates.
2. Underlay: Lay strips not less than 600 mm wide centred on valleys. Overlap with general roof underlay.
3. Mitred tiles or slates: Cut large units and fix to form a straight, close mitred junction.
4. Soakers: Interleave with mitred tiles or slates. Fix by turning down over head of mitred tiles or slates.

Pr_25_93_72/696 Fitting to lead roll on ridges

1. Underlay
 - 1.1. Position: Lay courses over ridge.
 - 1.2. Overlap (minimum): 150 mm.
2. Top tile or slate courses: Fit close to timber roll.

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

Pr_35_31_67/640 Applying organic solvent preservative treatment

1. Moisture content of wood
 - 1.1. At time of treatment (maximum): As specified for the timber/ component at time of fixing.
 - 1.2. At time of use: Dry on surface.
2. Application: Double-vacuum and low-pressure impregnation or immersion.

Pr_35_31_67/642 Retrospective application of organic solvent-borne preservative

1. Preparation of timber: Remove all loose or affected timber, dust and debris.

Pr_35_90_93/666 Fitting to lead roll on hips

1. Underlay
 - 1.1. Position: Lay courses over hip.
 - 1.2. Overlaps (minimum): 150 mm.
2. Hip tiles or slates: Cut close to timber roll and fix to form a straight junction.

Pr_35_90_93/730 Installing roof slope ventilator fittings

- Underlay: Cut and fix back to form opening as recommended by manufacturer.
- Ventilator fitting: Position over opening in underlay and align any interlock.
- Extract adaptor: Connect to roof slope fitting and flexible adaptor for mechanical extract pipework.

See [Ss_25_30_95/655 Window installation generally](#) in [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

See [Ss_30_30_72/615 Workmanship for rooflights, roof windows and roof ventilators generally](#) in [Ss_30_30_72_21 Daylight pipe systems](#)

See [Ss_30_30_72/620 Protection of rooflight, roof window and roof ventilator components](#) in [Ss_30_30_72_21 Daylight pipe systems](#)

See [Ss_30_30_72/645 Forming kerbs for rooflights, roof windows and roof ventilators](#) in [Ss_30_30_72_21 Daylight pipe systems](#)

Ss_30_40_95/604 Installing roofing systems

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

- Cut tiles or slates: Cut only where necessary, to give straight, clean edges.
- Flashings: Fix with or immediately after tiling or slating. Form neatly.
- Gutters: Keep free of debris.

Ss_30_40_95/606 Forming fire separating walls

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

- Party and separating walls: Completely fill space between top of wall and underside of tiles or slates with mineral wool quilt to provide fire-stopping.
- Boxed eaves: Completely seal air paths in plane of separating wall with wire-reinforced mineral wool, not less than 50 mm thick, fixed to rafters and carefully cut to shape to provide fire-stopping.

Ss_30_40_95/610 Installing roofing underlay

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Direction: Parallel to eaves.
2. Head lap (minimum): 150 mm.
3. Position: Below battens.
4. Ventilation paths: Do not obstruct.

Ss_30_40_95/614 Fixing counterbattens

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

- Fixing: Directly into rafters.
- Centres (maximum): 600 mm.

See [Ss_30_40_95/616 Fixing battens](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

Ss_30_40_95/696 Fitting to metal valleys

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Underlay: Cut to rake. Dress over tilting fillets to lap onto metal valley. Do not lay under metal.
2. Roof tiles or slates
 - 2.1. Large units: Cut those adjacent to valley to fit neatly.
 - 2.2. Bedding: On mortar on fibre cement undercloaks laid loose each side of valleys.
 - 2.3. Valley width between tiles or slates: 250 mm.

See [Ss_30_40_95/766 Forming roof window and hatch perimeters](#) in [Ss_30_30_72_72 Rooflight systems](#)

Ss_30_40_95/770 Forming change of roof pitch

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Tiling or slating substrate work: Fix timber tilting fillet to support flashing and course of tiles or slates above change of pitch.
2. Battens: Set out at appropriate gauge from eaves to change of roof pitch. Set out battens at pitch change from front edge of batten. Fix next tile or slate batten at appropriate gauge.
3. Roof tiles or slates
 - 3.1. Courses above change of pitch: Fix undercourse and first course slates.
 - 3.2. Courses below change of pitch: Cut top two courses as necessary to maintain gauge. Head-nail top course. Fix courses at change of pitch. Make weathertight with flashing.
4. Flashings: Dress over tiles or slates.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_40_95/810 Verification of performance

Shared by: [Ss_30_40_95_55 Natural slate roofing systems](#)

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

Ω End of System

Ss_30_40_95_55

Natural slate roofing systems

Systems

Ss_30_10_30_85 Timber roof framing systems - PITCHED ROOF

1. System performance:
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Assembly fasteners: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_40_95_55 Natural slate roofing systems

1. Description: Pitched roof system incorporating natural slate (double-lap) roofing.
2. System performance: [Ss_30_40_95/210 Local and general fixing areas](#); [Ss_30_40_95/250 Thermal design](#); [Ss_30_40_92/250 Condensation control - Roofs](#); [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Structure: [Ss_30_10_30_85 Timber roof framing systems - PITCHED ROOF](#)
4. Preparation
 - 4.1. Fire separation: To be carried up to underside of roof covering in compliance with TGD B.

Roof battens may be carried over over separating /compartment walls only where they are bedded in mortar or other non combustible fire stopping material where over the wall .
 - 4.2. Insulation: Between rafters - Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
[Pr_25_57_06_53 Mineral wool insulation](#)
5. Underlay
 - 5.1. Material: [Pr_25_57_10_94 Vapour permeable sheets](#)
 - 5.2. Attachment: [Pr_20_29_56_15 Copper nails](#)
 - 5.3. Penetrations: Cut underlay to provide a watertight fit. [Pr_35_90_30_64 Polyethylene \(PE\)-based flashings](#)
6. Counter battens
 - 6.1. Material: [Pr_20_76_88_82 Softwood roofing and cladding battens](#)
 - 6.2. Fasteners: [Pr_20_29_56_11 Carbon steel nails](#)
7. Battens
 - 7.1. Material: [Pr_20_76_88_82 Softwood roofing and cladding battens](#)
 - 7.2. Fasteners: [Pr_20_29_56_11 Carbon steel nails](#)
8. General areas of roofing
 - 8.1. Material: [Pr_25_93_72_56 Natural slates](#)
 - 8.2. Specials: [Pr_30_59_29_72 Roof slope terminals](#)
9. Flashings
 - 9.1. Material: [Pr_35_90_30_46 Lead flashings](#)
10. Verification: [Ss_30_40_95/305 Product samples of unit roofing systems](#)
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
11. Execution: [Ss_30_40_95/606 Forming fire separating walls](#); [Ss_30_40_95/610 Installing roofing underlay](#); [Ss_30_40_95/614 Fixing counterbattens](#); [Ss_30_40_95/616 Fixing battens](#); [Ss_30_40_95/604 Installing roofing systems](#); [Ss_30_40_95/770 Forming change of roof pitch](#); [Ss_30_40_95/696 Fitting to metal valleys](#); [Ss_30_40_95/766 Forming roof window and hatch perimeters](#)
12. System completion: [Ss_30_40_95/810 Verification of performance](#)

See [Ss_40_90_95_65 Preservative treatment systems](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

System performance

Ss_30_40_92/250 Condensation control - Roofs

1. Standard: In accordance with Technical Guidance Document (TGD) F 2019
2. Vapour Control: Vapour control membranes fitted to inside face of roof structure as indicated on Architectural details.
3. Ventilation: Roofs where the moisture from the building can permeate the insulation (cold deck roofs) to be ventilated.
Eaves ventilation for pitched roofs more than 15 degrees to be provided equivalent to min 10mm clear strip on opposite sides.
Ridge ventilation & top top of mono pitch abutment: required for pitched roofs more than 15 degrees where insulation

follows roof slope- to be provided equivalent to min 5mm clear strip.

Eaves ventilation for pitched roofs less than 15 degrees to be provided equivalent to min 25mm clear strip on opposite sides.

50mm clear air space should be maintained between underside of roof felt/ roof deck and upper side of roof insulation.

4. Warm Roofs: TGD F Section 2.1.5 states that Roofs where the moisture from the building cannot permeate the insulation, e.g. warm deck roofs or inverted roofs, need not be ventilated. Therefore, when insulation is provided to the outside of the roof structure- creating a "warm roof" there is no requirement to add roof ventilation. The insulation warms the structure and therefore prevents moisture from being released into the roof structure. Dew point calculations should be provided by suppliers of External Roof Insulation products.

5. Verification: [Ss_25_13_50/895 Verification of performance](#)

See [Ss_30_40_95/210 Local and general fixing areas](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/250 Thermal design](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_40_90_95/210 Preservative treatment performance](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_40_90_95/270 Compatibility of dual treatments](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Products

See [Pr_20_29_56_11 Carbon steel nails](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_20_29_56_15 Copper nails](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_20_76_88_82 Softwood roofing and cladding battens](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_25_57_06/310 Insulation products generally](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_57_06_53 Mineral wool insulation](#) in [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

See [Pr_25_57_10_94 Vapour permeable sheets](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Pr_25_93_72_56 Natural slates

1. Description: Natural blue-black slate with texture.
2. Supplied by: Submit Proposals
3. Product reference: Submit Proposals
4. Slate size
 - 4.1. Length (minimum): 500 mm.
 - 4.2. Width (minimum): 250 mm.
5. Standards
 - 5.1. Product specification: To BS EN 12326.
European Standard pr En 12326
Provide Certification that the slate meets the requirements of European Standard EN 12326-1
6. Warranty Required: Provide Manufacturers warranty of **75 years** against any imperfection that may affect the slate roof impermeability as long as the roof has been laid according to S.R.82:2017 Revised Irish Code of Practice for Slating & Tiling (formerly I.C.P:2002).

Warranty begins from the delivery date of the products (delivery date document or invoice).

7. Properties
 - 7.1. Type: Normal.
 - 7.2. Dimensional tolerances: Complies.
 - 7.3. Nominal thickness and individual thickness variation: Complies.
 - 7.4. Characteristic modulus of rupture (Transverse): ≥ 45 MPa.
 - 7.5. Characteristic modulus of rupture (Longitudinal): ≥ 50 MPa.
 - 7.6. Water absorption: $\leq 0.2\%$
 - 7.7. Thermal cycle test: Code T1.
 - 7.8. Carbonate content: 0.4–0.46%.
 - 7.9. Sulfur dioxide exposure test: Code S1.
 - 7.10. Non-carbonate carbon content (maximum): 0.39%.
8. Standards methods of test: To EN 12326.

9. Characteristic modulus of rupture (transverse): 62–64.6 MPa
10. Characteristic modulus of rupture (longitudinal): 62–64.6 MPa.
11. Thickness: 7–8 mm.
12. Specific weight: 2.74 gm/cm³.
13. Verification
14. Execution: [Pr_25_93_72/640 Installing natural roofing slates](#)

Pr_30_59_29_72 Roof slope terminals

1. Manufacturer: Submit proposals .
2. Purpose: Mechanical extract termination;
Roof void ventilator;
and Soil pipe termination.
3. Ventilation opening: Submit proposals .
4. Profile: To suit general area of roof.
5. Colour: To suit general area of roof.
6. Accessories: Detachable extension sleeve;
Flexible connecting pipe;
Pipe adapter;
and Underlay seal.
7. Execution: [Pr_30_59_29/660 Installing roof slope terminals.](#)

See [Pr_35_31_67_59 Organic solvent-borne preservatives](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67_98 Water-based organic preservatives](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_68_60 Patination oils](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_90_30_46 Lead flashings](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_90_30_64 Polyethylene \(PE\)-based flashings](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/305 Product samples of unit roofing systems](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Execution

See [Pr_20_29_56/615 Fixing with nails](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_25_57_10/620 Installing breather membranes](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Pr_25_93_72/640 Installing natural roofing slates

1. Generally: Keep slates clean and dry until laid. Set out to give true lines and regular appearance, fitting neatly at all edges, junctions and features. Fix slate roofing to make the whole sound and weathertight.
2. Standard: Slates laid according to S.R.82:2017 Revised Irish Code of Practice for Slating & Tiling (formerly I.C.P.:2002).
3. Note: Sorting and grading of natural slates
The natural slates shall be sorted prior to holing and fixing to ensure that the slates on any one course are of the one thickness and to prevent 'kicking' slates or unsightly gaps between subsequent courses'. Slates should be removed from the pallets and sorted into three or four grades of thickness. The thickest grade of slates should be used for the courses nearest the eaves and as work progresses up towards the ridge the thinner grades can be used, finishing at the ridge with the thinnest grade of slates.
NOTE: The quantity of slates necessary for any one slope should be sorted before the holing and fixing starts on that slope.

Holing of natural slates

Holing of natural slates is necessary when slates can be nail fixed. Holing should always be done from the bed (underside) of the slate and positioned so that the thinner end of the slate is at the top when fixed. Holing provides a small countersunk depression in the slate-face to take the head of the fixing nail. Each slate should be holed twice. The position of the holes should be approximately 20 mm to 25 mm from the sides of the slate and, for centre nailing, the holing gauge (measured from the tail of the slate) should be equal to the batten gauge, plus the head-lap plus 8mm to 15mm.

NOTE 1: Some natural slates are supplied pre-holed to achieve a particular head-lap.

NOTE 2: Supplier's advice should be sought for guidance where best to position the nail holes. (This includes the new positioning of the nail holes for the eave slate.)

Laying of natural slates

Lay natural slates of equal thickness in any one course, with the thicker end (if any) at the tail and the dressed edge facing upwards. Coursing should be horizontal and regular, with joints approximately 4 mm to 5 mm apart and with each joint located generally over the centre of the slate below. Use extra wide slates as necessary at the ends of courses or side abutments to maintain the broken bond and ensure that cut slates are as wide as possible.

NOTE: Large heavy slates may be head nailed only where their dead load and/or mortar resistance can exceed the wind load (refer to supplier for detail). Head nailing of slates is permissible on continuous boarding where the slates are small and heavy. A proportion of slates should be side nailed - refer to supplier for details.

4. **Edges:** Form details using the specified fittings and accessories; do not improvise without approval. Cut slates only where necessary, with an appropriate tool, to give neat, close-fitting joints and straight, clean edges. Fix edge slates and fittings securely to neat, true lines. Ensure that all flashings (specified in another section) are fixed with or immediately after the slating and are neatly dressed down.
5. **Head lap (minimum):** Head-lap to be (100-110 mm). Severe exposure
6. **Side lap:** In accordance with [BS 5534](#), clause 5.5.4 to suit slate size, roof pitch and exposure.
7. **Fixing:** Min Two nails each slate.

Pr_30_59_29/660 Installing roof slope terminals

1. **Ventilator connection:** Bathroom ventilation pipes;
Kitchen ventilation pipes;
and Soil and vent pipes.
2. **Fitting:** Form penetrations, seal and securely fix as recommended by manufacturer.
3. **Connections:** Seal to terminations of pipe, duct or flue systems.

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides in Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures in Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/640 Applying organic solvent preservative treatment in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67/642 Retrospective application of organic solvent-borne preservative in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/604 Installing roofing systems in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/606 Forming fire separating walls in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/610 Installing roofing underlay in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/614 Fixing counterbattens in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/616 Fixing battens in Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Ss_30_40_95/696 Fitting to metal valleys in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_30_40_95/766 Forming roof window and hatch perimeters in Ss_30_30_72_72 Rooflight systems](#)

See [Ss_30_40_95/770 Forming change of roof pitch in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

System completion

See [Ss_25_13_50/895 Verification of performance in Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_40_95/810 Verification of performance in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Ω End of System

Ss_30_40_95_74 Roofing edges and junction systems Systems

Ss_30_40_95_74 Roofing edges and junction systems

1. **Description:** Proprietary powder coated painted pressed aluminium trim at flush verges to pitched roof gables.
To comply with SR82 and BS 5534
2. **Eaves**
 - 2.1. **Eaves to gutter underlay:** As roofing underlay.

Employers Requirements, Architectural & Landscaping Specification

- 2.2. Ventilation : [Pr_30_59_29_64](#) Plastics rafter ventilator trays; [Pr_30_59_29_82](#) Strip ventilators; [Pr_30_59_94_26](#) Eaves fascia grilles; [Pr_30_59_29_64](#) Plastics rafter ventilator trays
- 2.3. Fascia & Soffit: [Pr_20_76_88_83](#) Softwood sections - Fascia Board
 - 2.3.1. Finish: [Pr_65_50_35_02](#) Aluminium combined fascias, soffits and gutters
- 2.4. Coursing tiling
 - 2.4.1. Specials: As main roof.
 - 2.4.2. Attachment: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
- 2.5. Accessories: [Pr_20_85_09_07](#) Aluminium rainwater gutter brackets; [Pr_35_90_07_89](#) Timber fillets
- 3. Hips
 - 3.1. Hip battens
 - 3.1.1. Material: [Pr_20_76_88_82](#) Softwood roofing and cladding battens
 - 3.2. Hip closers
 - 3.2.1. Material: [Pr_25_71_51_47](#) Lead rolled sheets. [Pr_35_90_30_46](#) Lead flashings
 - 3.3. Accessories: [Pr_30_59_29_82](#) Strip ventilators
- 4. Valleys
 - 4.1. Lining support: [Pr_25_71_97_50](#) Marine plywood; [Pr_20_76_88_82](#) Softwood roofing and cladding battens
 - 4.2. Lining: [Pr_25_71_51_47](#) Lead rolled sheets
- 5. Ridges
 - 5.1. Ridge battens
 - 5.1.1. Material: [Pr_20_76_88_82](#) Softwood roofing and cladding battens
 - 5.2. Ridge closers
 - 5.2.1. Material: [Pr_35_90_93_13](#) Clay tile ridge fittings
 - 5.2.2. Ventilation: [Pr_30_59_29_82](#) Strip ventilators
- 6. Execution: [Ss_30_40_95/750](#) Forming side abutments;
[Ss_30_40_95/756](#) Forming unventilated top edge abutments;
and [Ss_30_40_95/760](#) Forming top edge ventilated abutments.

See [Ss_40_90_95_65](#) Preservative treatment systems in [Ss_30_40_95_30](#) Fibre cement slate roofing systems

System performance

See [Ss_40_90_95/210](#) Preservative treatment performance in [Ss_30_40_95_30](#) Fibre cement slate roofing systems

See [Ss_40_90_95/270](#) Compatibility of dual treatments in [Ss_30_40_95_30](#) Fibre cement slate roofing systems

Products

See [Ac_05_50_91/340](#) Timber sourcing in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_20_76_88_82](#) Softwood roofing and cladding battens in [Ss_30_40_95_30](#) Fibre cement slate roofing systems

Pr_20_76_88_83 Softwood sections - Fascia Board

- 1. Description: Fascia Board
- 2. General requirements: [Ac_05_50_91/340](#) Timber sourcing
- 3. Timber
 - 3.1. Species: Softwood to [BS EN 942](#), Table NA.1.
 - 3.2. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class or grade specified).
 - 3.3. Appearance class: To [BS EN 942](#), J10.
 - 3.4. Strength class: To [BS EN 338](#), C16.
 - 3.5. Moisture content on delivery: 12–19%.
 - 3.6. Warping (maximum): To [BS EN 14081-1](#) and [BS 4978](#).
- 4. Treatment
 - 4.1. Preservative: To Wood Protection Association Commodity Specification C8.
- 5. Finish: Regularized.
- 6. Dimensions and tolerances
 - 6.1. Width: 22mm
 - 6.2. Depth: 225mm

7. Execution: [Pr_20_76_88/600 Treatment of timber cut on-site](#)

Pr_20_85_09_07 Aluminium rainwater gutter brackets

1. Manufacturer: Submit proposals .
2. Form: Fascia bracket.
3. To suit profile: Half round.
4. Size: Manufacturer's standard .
5. Finish: To match gutters and downpipes
6. Colour: To match gutters and downpipes

Pr_25_71_51_47 Lead rolled sheets

1. Standard
 - 1.1. Sheet roofing products: BS EN 14783
2. Identification: CE Mark and label to show thickness or code, weight, type and data all as required by BS EN 14783
3. Thickness: 2.5 or 2.65 mm (Code 6).

See [Pr_25_71_97_50 Marine plywood](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_30_59_29_64 Plastics rafter ventilator trays

1. Description: Ventilator tray to maintain the air gap between the underlay and insulation at eaves and wall plate level.
2. Style: To suit rafter centres
3. Ventilation opening: 25 000 mm²/ m.
4. Verification
 - 4.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 4.2. Timing: *Before placement of orders.*
5. Execution: [Pr_30_59_29/630 Fitting eaves ventilators with separate grille and tray](#)

Pr_30_59_29_82 Strip ventilators

1. Description: Continuous strip ventilators used at valleys, hips, eaves, etc.
2. Manufacturer: Submit proposals.
3. Purpose: To meet requirements for ventilation as per TGD
4. Ventilation opening: 10 000 mm²/ m.
5. Colour: To match roof
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.2. Timing: *Before placement of orders.*

Pr_30_59_94_26 Eaves fascia grilles

1. Description: Fascia vents and rafter roll ventilators to be included

Eaves fascia grilles/ventilator trays to support underlay.

Lay insulation over wallplate. Fix grilles/trays between each support to form drip into gutter and to provide free passage of air over insulation.

Fix slates with tails projecting 50 mm over gutter or to centre line of gutter, whichever dimension is the lesser.
2. Style: Fixed to top of fascia continuous ventilator in compliance with the Building Regulations.
3. Ventilation opening: Provide low level ventilation equivalent to 25,000mm² per meter for roof pitches of 15 degrees and above.

Provide a minimum of 50mm clear air gap between the cold side of the insulation and the underside of the roof slates.

Provide high-level ventilation, equivalent to a 3mm-air gap, located to the ridge
4. Colour: Black
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: *Before placement of orders.*

6. Execution: [Pr_30_59_29/630 Fitting eaves ventilators with separate grille and tray](#)

See [Pr_35_31_67_59 Organic solvent-borne preservatives in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67_98 Water-based organic preservatives in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_68_60 Patination oils in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_90_07_89 Timber fillets in Ss_30_40_30_80 Single layer sheet warm roof covering systems](#)

See [Pr_35_90_30_46 Lead flashings in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Pr_35_90_93_13 Clay tile ridge fittings

1. Description: For roofs laid with natural slates, ridges of clay are available. At the ridge, the length of the top two courses of slate should ensure the minimum head-lap is maintained.

NOTE 1 Slates laid to a fixed batten gauge or head-lap may not provide the minimum head-lap cover by the ridge. It is recommended that the top two courses are set out with shortened slates if necessary, to ensure that the minimum head-lap of the ridge over the penultimate course is achieved.

NOTE 2. The top corners of the penultimate course of slates should be cut (shouldered), so that a secure fixing can be achieved in the top batten by the final course of slates.

2. Standard: To [BS EN 1304](#).
3. Tile type: Special tile.
4. Form: Angled tiles.
5. Colour: To Architects approval
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Execution: [Pr_35_90_93/698 Fitting mortar-bedded and mechanically fixed ridges](#); [Pr_35_90_93/701 Fitting ventilated dry tile ridges](#)

Pr_65_50_35_02 Aluminium combined fascias, soffits and gutters

1. Manufacturer: **Submit proposals**
2. Form: Soffit.
3. Soffits
 - 3.1. Profile: Rectangular.
 - 3.2. Size: 200 mm.
 - 3.3. Thickness or gauge: 2 mm.
 - 3.4. Finish: Polyester powder-coated.
 - 3.5. Colour: RAL, colour.
4. Integral accessories: 90° corner. Union. Colour coded fastener (metal). Colour coded sealant.
5. Verification
6. Execution: [Pr_65_50_35/622 Fixing and jointing combined fascia, soffit and gutter systems](#)

Execution

See [Pr_20_76_88/600 Treatment of timber cut on-site in Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Pr_25_71_97/620 Installing wood-based panels in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/630 Panel edge supports in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_30_59_29/630 Fitting eaves ventilators with separate grille and tray

1. Ventilator trays: Fix to provide free passage of air over insulation.
2. Underlay support: Continuous to prevent water retaining troughs.
3. Gutter: Dress underlay or underlay support tray to form drip into gutter.
4. Eaves filler units for profiled tiles: Fix to close underside of first course tiles.
5. Undercourse and first course tiles or slates: Fix with tails projecting 50 mm over gutter or to centre of gutter, whichever dimension is the lesser.

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides in Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures in Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/640 Applying organic solvent preservative treatment in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67/642 Retrospective application of organic solvent-borne preservative in Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Pr_35_90_93/698 Fitting mortar-bedded and mechanically fixed ridges

1. Underlay
 - 1.1. Position: Lay courses over ridge.
 - 1.2. Overlap (minimum): 100 mm.
2. Mortar
 - 2.1. Weather conditions: Do not use in wet or frosty conditions or when imminent.
 - 2.2. Preparation : Wet and drain surface water before fixing.
 - 2.3. Appearance: Finish neatly as work proceeds and remove residue.
3. Ridge tiles
 - 3.1. Bedding: On mortar, continuous to edges and solid to joints.
 - 3.2. Fixing: Secure to ridge tile fixing battens.
 - 3.3. Gable end ridge tiles: Fit ridge block end.

Pr_35_90_93/701 Fitting ventilated dry tile ridges

1. Underlay: Provide air gap at apex as recommended by ridge tile manufacturer.
2. Dry ridge tiles
 - 2.1. Fixing: Use dry fixing kit in accordance with manufacturer's recommendations.
 - 2.2. Gable end ridge tiles: Use block ends.

Pr_65_50_35/622 Fixing and jointing combined fascia, soffit and gutter systems

1. Fixing
 - 1.1. Fascias: *As manufacturer's recommendations*. Fixing & Jointing should prevent water penetration whilst accommodating thermal movement.
 - 1.2. Soffits: *As manufacturer's recommendations*. Fixing & Jointing should prevent water penetration whilst accommodating thermal movement.
 - 1.3. Gutters: *As manufacturer's recommendations*. Fixing & Jointing should prevent water penetration whilst accommodating thermal movement.

Ss_30_40_95/750 Forming side abutments

1. Underlay: 100 mm at abutments.
2. Abutment tiles or slates: Cut as necessary. Fix close to abutments.
3. Metal flashings and soakers: Form secret gutter with step and cover flashing fitted to suit tile profile.

Ss_30_40_95/756 Forming unventilated top edge abutments

1. Underlay: 100 mm at abutments.
2. Top course tiles or slates: Fix close to abutments.
3. Flashings: Dress over abutment tiles or slates.

Ss_30_40_95/760 Forming top edge ventilated abutments

1. Underlay: Provide air gap at abutment as recommended by ventilator manufacturer.
2. Abutment ventilator : Fix as recommended by manufacturer.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_30_42_15_30

Floating cementitious levelling screed systems

Systems

Ss_30_42_15_30 Floating cementitious levelling screed systems

1. System performance: **Strictly in accordance with Consulting Structural Engineers Drawings & Specification.**
2. Preparation: [Ss_30_42_15/602 Assess suitability of substrate](#); [Ss_30_42_15/614 Preparation of substrate for floating construction \(board insulation\) \(16\)](#)
3. Movement joints
 - 3.1. Components: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 3.2. Bedding: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Insulation: [Pr_25_71_63_66 Polyisocyanurate \(PIR\) foam boards - FLOOR / ROOF INSULATION](#)
5. Separation layer: [Pr_25_57_65_60 Plastics sheets - Screed / Insulation Separation](#)
6. Airtight Layer:
[Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#); [Pr_35_31_77_46 AIRTIGHT SEAL - Liquid-applied membranes](#)
7. Reinforcement for crack control: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
8. Screed: [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)
9. Finishes: No floor finishes to be installed generally except to wet areas.

[Floor Finish to Wet Areas & WC's - Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor](#); [Pr_40_20_60_96 Wet room floor formers](#)
10. Execution: [Ss_30_42_15/646 Laying cementitious levelling/ wearing screeds](#); [Ss_30_42_15/650 Checking surface regularity of floor screeds](#); [Ss_30_42_15/664 Forming joints in levelling screeds](#); [Ss_30_42_15/618 Installing conduits under floating screeds](#); [Ss_30_42_15/628 Installing heating elements](#); [Ss_30_42_15/680 Installing structural movement joints](#); [Ss_30_42_15/656 Screeding to falls](#); [Ss_30_42_15/658 Screeding to ramps](#); [Ss_30_42_15/684 Trowelled finish to levelling screeds](#); [Ss_30_42_15/696 Protection from extreme temperatures](#); [Ss_30_42_15/698 Curing](#)
[Pr_40_20_06/630 Installing wet room floor formers](#)
11. System completion: [Ss_30_42_15/805 Verification of performance](#); [Ss_30_42_15/810 Inspection of completed work](#); [Ss_30_42_15/820 Completion](#)

Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor

1. Description: Vinyl Floor Finish - Wet Areas Generally as per Architects Drawing
2. System performance: [Ss_30_42_72/231 Slip resistance of floor covering](#)
3. System manufacturer: Submit proposals .
4. Preparation
 - 4.1. Base:
[Ss_30_42_72/631 Assessing suitability of bases](#)
 - 4.2. Prior to flooring: [Ss_30_42_72/610 Condition of building and notification of commencement](#); [Ss_30_42_72/615 Conditioning of flooring prior to laying](#)
 - 4.3. Environmental conditions: [Ss_30_42_72/621 Environmental conditions before, during and after laying](#)
5. Rigid underlay
 - 5.1. Type: Ground Floor base - [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)
6. Smoothing and levelling underlayment compound: [Pr_35_31_06_80 Smoothing and levelling underlay compounds](#)
7. Primer: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
8. Resilient underlayer
 - 8.1. Type: As noted on drawings.

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 8.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
9. Sheet
 - 9.1. Type:
[Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride \(PVC\) sheets](#)
 - 9.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Any adhesive used must be approved by the vinyl manufacturer, to ensure full product compatibility .

Employers Requirements, Architectural & Landscaping Specification

Products must be fully conditioned to the environment in which they are to be installed, as outlined by the manufacturer.

10. Seams: Welded or sealed.

The adhesive used must be approved by the vinyl manufacturer, to ensure full product compatibility.

Products must be fully conditioned to the environment in which they are to be installed, as outlined by the manufacturer.

Installation must be carried out in accordance with BS 8203 and the instructions of the manufacturer.

All joints must be welded to produce hygienic, continuous floors.

11. System accessories: [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); [Pr_20_29_23_40 Hot welding rods](#); [Pr_35_90_43_22 Edge trims](#)
12. Samples required: [Ss_30_42_72/306 Product samples](#); [Ss_30_42_72/606 Installation control samples](#)
13. Execution: [Ss_30_42_72/610 Condition of building and notification of commencement](#); [Ss_30_42_72/615 Conditioning of flooring prior to laying](#); [Ss_30_42_72/621 Environmental conditions before, during and after laying](#); [Ss_30_42_72/631 Assessing suitability of bases](#); [Ss_30_42_72/681 Layout – setting out seams](#); [Ss_30_42_72/696 Colour consistency](#); [Ss_30_42_72/726 Welded or sealed seams](#); [Ss_30_42_72/745 Joints at doorways](#); [Ss_30_42_72/750 Fixing edgings and cover strips](#); [Ss_30_42_72/760 Fixing skirtings](#); [Ss_30_42_72/765 Installing coved skirtings](#)
14. System completion: [Ss_30_42_72/800 Trafficking after laying](#); Reference to missing clause Verification of performance

System performance

Ss_30_42_72/231 Slip resistance of floor covering

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Method of test: Pendulum friction.
2. SRV (minimum): R11 rated
3. Test results: Submit. Include slip resistance values in the wet and dry states.

Products

Pr_20_29_23_40 Hot welding rods

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Manufacturer: Contractor's choice .
2. Third-party certification: Manufacturer's standard .
3. Colour: To match sheet.

Pr_25_57_65_60 Plastics sheets - Screed / Insulation Separation

1. Manufacturer: Submit proposal
2. Material: High density polyethylene (PE-HD).
3. Purpose: Protection layer.
4. Standard: To [BS EN 13967](#), type A.
5. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
6. Performance characteristics
 - 6.1. Tensile strength (minimum): Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
7. Physical properties
 - 7.1. Dimensions
 - 7.1.1. Thickness (minimum): 125 µm (500 gauge).

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

8. Execution: [Pr_25_57_65/610 Installing vapour control layers](#)

See [Pr_25_71_63_66 Polyisocyanurate \(PIR\) foam boards - FLOOR / ROOF INSULATION](#) in [Ss_30_40_30_80 Single layer sheet warm roof covering systems](#)

Pr_35_31_06_80 Smoothing and levelling underlay compounds

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Manufacturer: Submit proposals .

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Ss_30_42_15_30

Floating cementitious levelling screed systems

2. Material: Recommended by adhesive manufacturer.

Pr_35_31_77_46 AIRTIGHT SEAL - Liquid-applied membranes

1. Description: Liquid applied membrane to rapidly airtight seal substrates difficult to seal with tape or unsuitable for tape.
2. Manufacturer: Submit proposals for approval
3. Standards:
 1. BS EN 1931 - 6 m (at 0.3 mm thickness) sd-value
 2. BS EN ISO 12572 - 0.13 - 10.00 m sd-value humidity variable
 3. BS EN 1928 - Water tightness to liquid water - W1
4. Certification: *Third party accredited by approved/ recognized body of compliance* with specified performance.

Format:

1. Product CE marking and associated Declaration of Performance (DoP).
2. Board of Agrément Certificate Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. European Technical Assessment Approval

Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative.

5. Accessories: [Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#)
6. Execution: [Ss_30_40_30/656 Applying liquid-applied coatings](#)

See [Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride \(PVC\) sheets](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_43_22 Edge trims](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_40_20_60_96 Wet room floor formers

1. Manufacturer: Submit proposals .
2. Dimensions
3. Floor finish: Vinyl.
4. Trap size: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
Flow rates in accordance with [BS EN 274-1](#).
5. Waste: *Offset outlet*.
6. Drainage outlets
 - 6.1. Type: *Square*
 - 6.2. Finish: Stainless steel.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. Timing: *Before placement of orders*.

Ss_30_42_72/306 Product samples

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Manufacturer: Submit proposals .
2. Submittals: Floor finish, coving, trims
3. Purpose: For use as a reference sample.
4. Labelling: Clearly label all submitted samples.
5. Timing of submittal: Before ordering for project.

Execution

See [Pr_25_57_65/610 Installing vapour control layers](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_40_20_06/630 Installing wet room floor formers

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#)

1. Preparation: Overboard lower area of new joists with 18 mm WBP plywood.
2. Waterproofing of walls and floor: Tape wall/ floor joint and other gaps.
Apply primer to porous surfaces.

Ss_30_40_30/656 Applying liquid-applied coatings

1. Application rates: Strictly in accordance with manufacturers specification and detail.
2. Thickness
 - 2.1. Requirement: Monitor by taking wet/ dry film thickness readings.
 - 2.2. Consistency: Maintain full thickness of coatings around angles, junctions and features.
3. Rainwater outlets: Form with watertight joints.
4. Drainage systems: Do not allow liquid coatings to enter piped rainwater or foul systems.
5. Edge trims: Apply coatings over horizontal leg of trim and into recess.

Ss_30_42_15/602 Assess suitability of substrate

1. General: Suitable for specified levels and regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds. Sound and free from significant cracks and gaps.
2. Concrete strength: In accordance with [BS 8204-1](#), Table 2.
3. Cleanliness: Remove plaster, debris and dirt.
4. Moisture content
 - 4.1. Existing concrete: To suit screed type.
 - 4.2. New concrete slabs to receive fully or partially bonded construction: Dry out by exposure to the air for at least six weeks.

Ss_30_42_15/614 Preparation of substrate for floating construction (board insulation) (16)

1. Insulation: Lay with butt joints. Continue up at perimeter abutments for full depth of screed.
2. Separating layer: Lay over insulation and turn up at perimeter abutments. Lap 100 mm at joints.

Ss_30_42_15/618 Installing conduits under floating screeds

1. Haunching: Before laying insulation for floating screeds, haunch up in 1:4 cement:sand on both sides of conduits.

Ss_30_42_15/628 Installing heating elements

1. Substrate slab: Irregularities not permitted.
2. Screed bays, movement joints and other joints: Coordinate with heating circuits.
3. Heating elements: Secure properly. Prevent displacement.
4. Screed laying: Compact thoroughly around heating elements. Do not damage them.

Ss_30_42_15/646 Laying cementitious levelling/ wearing screeds

1. Standard: In accordance with [BS 8204-1](#). Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Thickness
 - 2.1. Nominal: 10mm
 - 2.2. Minimum: 5mm
 - 2.3. Maximum: 25mm

Ss_30_42_15/650 Checking surface regularity of floor screeds

1. Standard: To [BS 8204-2](#), Table 2.
2. Test: To [BS 8204-2](#), Annex A.
3. Sudden irregularities: Not permitted.
4. Deviation of surface
 - 4.1. Method: Measure from underside of a 2 m straightedge (between points of contact), placed anywhere on surface.
 - 4.2. Permissible deviation (maximum): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_42_15/656 Screeding to falls

1. Minimum screed cover: Maintain at the lowest point.
2. Falls
 - 2.1. Generally: Gradual and consistent.
 - 2.2. Gradient (minimum): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ss_30_42_15/658 Screeding to ramps

1. Screed cover: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

Maintain consistent screed depth to graduated substrate (where the falls are created within the concrete substrate).

Thickness varies, screed to falls of 1 in 12 (where falls are created by the screed consult screed manufacturer).
2. Falls: Gradual and consistent.

Ss_30_42_15/664 Forming joints in levelling screeds

- Laying screeds: Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.
- Daywork joints: Form with vertical edge.

Ss_30_42_15/680 Installing structural movement joints

- Installation
 - Position: Centre over joints in substrate. Set to exact finished level of floor.
 - Metal edging: Secure to substrate at 600 mm centres.

Ss_30_42_15/684 Trowelled finish to levelling screeds

1. Timing: Carry out all finishing operations at optimum times in relation to setting and hardening of screed material.
2. Prohibited treatments to screed surfaces: Wetting to assist surface working.

Sprinkling cement.
3. Floating: To an even texture with no ridges or steps.
4. Trowelling: To a uniform, smooth but not polished surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

Ss_30_42_15/696 Protection from extreme temperatures

1. Cold weather: Maintain screed surface temperature above 5°C for at least four days after laying. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Hot weather: Prevent premature setting or drying out.

Ss_30_42_15/698 Curing

1. General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
2. Curing period (minimum): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions.
4. End result: Reduce cracking or other shrinkage related problems.

Ss_30_42_72/606 Installation control samples

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Required samples
 - 1.1. Types: Resilient sheet flooring.
Cove former and capping seal.
 - 1.2. Purpose: For use as an installation reference sample.
 - 1.3. Features to be included: Coved skirting.
 - 1.4. Timing: Lay during preliminary installation. Obtain approval of appearance before proceeding.

Ss_30_42_72/610 Condition of building and notification of commencement

1. Condition of works before laying materials

Employers Requirements, Architectural & Landscaping Specification

- 1.1. Building envelope: Weathertight and well dried out.
- 1.2. Wet trades: Finished.
- 1.3. Paintwork: Finished and dry.
- 1.4. Conflicting overhead work: Complete.
- 1.5. Floor service outlets, duct covers and associated fixtures: Fixed, where materials are to be cut.
2. Notification prior to laying floor coverings (minimum): 48 hours.

Ss_30_42_72/615 Conditioning of flooring prior to laying

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Standards: To [BS 8203](#) and [BS 5325](#).
2. General
 - 2.1. Before laying: Condition materials by unpacking and separating in spaces where they are to be laid.
 - 2.2. Resilient flooring rolls: Maintain in an upright position.
 - 2.3. Carpet: Unroll and keep flat on a supporting surface.
3. Conditioning time and temperature (minimum)
 - 3.1. Generally: As recommended by manufacturer.
 - 3.2. Materials stored or transported at a temperature below 10°C immediately before laying: Extend time by a factor of two.

Ss_30_42_72/621 Environmental conditions before, during and after laying

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Temperature and humidity: Maintain approximately at levels which will prevail after building is occupied.
2. Ventilation: Adequate.
3. Underfloor heating before laying: Turn off at least 48 hours before start of laying.

Ss_30_42_72/631 Assessing suitability of bases

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Existing bases
 - 1.1. Notification: Before commencing work, confirm that existing bases will, be suitable to receive coverings.
 - 1.2. Suitability of bases and conditions within any area: Do not lay coverings on unsuitable bases and in unsuitable conditions.

Where installation is onto conc base a moisture test must be carried out, to ensure that the subfloor has dried out to a level consistent with the application of vinyl flooring.

The test should be carried out using a hygrometer, in accordance with the instructions in BS 8203. The result should not exceed 75%RH, once equilibrium has been achieved.

2. New wet-laid bases
 - 2.1. Base drying aids: Do not use for at least four days before moisture content testing.
 - 2.2. Base moisture content: Test in accordance with [BS 5325](#), Annexe A or [BS 8203](#), Annexe A.
 - 2.3. Locations for readings: In all corners, along edges, and at regular centres over general areas being tested.
 - 2.4. Laying coverings: Do not start until all readings show 75% relative humidity or less.
3. Trowelled finishes: Uniform, smooth surface free from trowel marks and other blemishes. Abrade suitably to receive floor covering material.

Ss_30_42_72/681 Layout – setting out seams

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Setting out of seams: Seams should be unobtrusive, kept to a minimum and positioned so that, where possible:
 - They run the length of an area.
 - Traffic runs along rather than across them.
 - Incident light does not strike across them.
 - They are away from areas subject to heavy or twisting wear, doorways, stair nosings, or areas of narrow access.

Ss_30_42_72/696 Colour consistency

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Appearance in any one area or room: Free from banding or patchiness.

Ss_30_42_72/726 Welded or sealed seams

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Materials: Strictly in accordance with floor manufacturers specification
2. Commencement (minimum): 24 hours after laying, or after adhesive has set.
3. Joints: Neat, smooth. Strongly bond. Flush with finished surface.

Ss_30_42_72/745 Joints at doorways

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

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

Ss_30_42_72/750 Fixing edgings and cover strips

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Fixing: Secure with edge of covering gripped. Use matching fasteners where exposed to view.

Ss_30_42_72/760 Fixing skirtings

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#)

1. Fixing: Secure with top edge straight and parallel with floor.
2. Corners: Mitre joints.

Ss_30_42_72/765 Installing coved skirtings

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Installing: Dress sheet up over cove former and bond to background.
2. Jointing: [Ss_30_42_72/726 Welded or sealed seams](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_30_42_15/805 Verification of performance

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

Ss_30_42_15/810 Inspection of completed work

1. Defective areas: Strictly in accordance with Consulting Structural Engineers Drawings & Specification. **Repair or apply additional coverings.**
2. Testing: Assessment of cracks;
Levels and surface regularity;
and Surface finish.
3. Test certificate: Required.

Ss_30_42_15/820 Completion

1. Protection: Required.
2. Completion certificate: Required.

Ss_30_42_72/800 Trafficking after laying

Shared by: [Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering](#) , [Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor](#) and [Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs](#)

1. Covering: New installations should not be trafficked until there is no risk of dislodgement. Refer adhesive manufacturer's recommendations.
2. Traffic free period (minimum): Seven days.

Ω End of System

Ss_30_42_72_72

Resilient sheet floor covering systems - Acoustic Floor Covering Systems

Ss_30_42_72_72 Resilient sheet floor covering systems - Acoustic Floor Covering

1. Description: Acoustic vinyl is required at first floor level of apartments to comply with TGD-E Sound Requirements as per Architects drawings and specification.
2. System performance: [Ss_30_42_72/291 Compliance with performance requirements](#)
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. System manufacturer: **Submit proposals**
4. Preparation
 - 4.1. Base: [Ss_30_42_72/631 Assessing suitability of bases](#)
 - 4.2. Prior to flooring: [Ss_30_42_72/615 Conditioning of flooring prior to laying](#)
 - 4.3. Environmental conditions: [Ss_30_42_72/621 Environmental conditions before, during and after laying](#)
5. Smoothing and levelling underlayment compound: [Pr_35_31_06_80 Smoothing and levelling underlay compounds](#)
6. Sheet
 - 6.1. Type: [Pr_35_57_71_32 Foam-backed polyvinyl chloride \(PVC\) sheets](#)
7. Seams: Welded or sealed.
8. System accessories: [Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM](#); [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); [Pr_20_29_23_40 Hot welding rods](#)
9. Samples required: [Ss_30_42_72/306 Product samples](#); [Ss_30_42_72/606 Installation control samples](#)
10. Execution: [Ss_30_42_72/681 Layout – setting out seams](#); [Ss_30_42_72/696 Colour consistency](#); [Ss_30_42_72/726 Welded or sealed seams](#); [Ss_30_42_72/745 Joints at doorways](#); [Ss_30_42_72/750 Fixing edgings and cover strips](#); [Ss_30_42_72/760 Fixing skirtings](#); [Ss_30_42_72/765 Installing coved skirtings](#)
11. System completion: [Ss_30_42_72/800 Trafficking after laying](#)

System performance

Ss_30_42_72/291 Compliance with performance requirements

1. Requirements: Proof of compliance with specified performance.
2. Submissions
 - 2.1. Format: Test results and certification.
Declaration of Performance.
 - 2.2. Timing: Before commencing installation.

Products

See [Pr_20_29_23_40 Hot welding rods](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Pr_35_31_06_80 Smoothing and levelling underlay compounds](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Pr_35_57_71_32 Foam-backed polyvinyl chloride \(PVC\) sheets](#) in [Ss_30_20_70_37 Hollow floor systems](#)

See [Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

See [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Ss_30_42_72/306 Product samples](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Execution

See [Ss_30_42_72/606 Installation control samples in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/615 Conditioning of flooring prior to laying in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/621 Environmental conditions before, during and after laying in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/631 Assessing suitability of bases in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/681 Layout – setting out seams in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/696 Colour consistency in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/726 Welded or sealed seams in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/745 Joints at doorways in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/750 Fixing edgings and cover strips in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/760 Fixing skirtings in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/765 Installing coved skirtings in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_42_72/800 Trafficking after laying in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Ω End of System

Ss_30_42_72_72

Resilient sheet floor covering systems - Wet Areas - First Floor

Systems

Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - First Floor

1. Description: Vinyl Floor Finish - Wet Areas Generally as per Architects Drawing
2. System performance: [Ss_30_42_72/231 Slip resistance of floor covering](#)
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. System manufacturer: Submit proposals .
4. Preparation
 - 4.1. Base: [Ss_30_42_72/631 Assessing suitability of bases](#);
[Ss_30_42_72/656 Preparation of particleboard flooring](#); [Ss_30_42_72/651 Preparation of timber boarding and strip flooring](#)
 - 4.2. Prior to flooring: [Ss_30_42_72/615 Conditioning of flooring prior to laying](#).
 - 4.3. Environmental conditions: [Ss_30_42_72/621 Environmental conditions before, during and after laying](#)
5. Rigid underlay
 - 5.1. Type: First Floor base - [Pr_25_71_97_50 Marine plywood](#)
6. Smoothing and levelling underlayment compound: [Pr_35_31_06_80 Smoothing and levelling underlay compounds](#)
7. Primer: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
8. Resilient underlayer
 - 8.1. Type: As noted on drawings.

Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 8.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
9. Sheet
 - 9.1. Type: [Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride \(PVC\) sheets](#)
 - 9.2. Fixing: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Employers Requirements, Architectural & Landscaping Specification

Any adhesive used must be approved by the vinyl manufacturer, to ensure full product compatibility .
Products must be fully conditioned to the environment in which they are to be installed, as outlined by the manufacturer.

10. Seams: Welded or sealed.

The adhesive used must be approved by the vinyl manufacturer, to ensure full product compatibility.
Products must be fully conditioned to the environment in which they are to be installed, as outlined by the manufacturer.

Installation must be carried out in accordance with BS 8203 and the instructions of the manufacturer.

All joints must be welded to produce hygienic, continuous floors.

11. System accessories: [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); and [Pr_20_29_23_40 Hot welding rods](#). [Pr_35_90_43_22 Edge trims](#)
12. Samples required: [Ss_30_42_72/306 Product samples](#) and [Ss_30_42_72/606 Installation control samples](#).
13. Execution: [Ss_30_42_72/615 Conditioning of flooring prior to laying](#); [Ss_30_42_72/621 Environmental conditions before, during and after laying](#); [Ss_30_42_72/631 Assessing suitability of bases](#); [Ss_30_42_72/651 Preparation of timber boarding and strip flooring](#); [Ss_30_42_72/656 Preparation of particleboard flooring](#); [Ss_30_42_72/665 Laying sheet and board underlay](#); [Ss_30_42_72/676 Laying plywood underlay](#); [Ss_30_42_72/681 Layout – setting out seams](#); [Ss_30_42_72/696 Colour consistency](#); [Ss_30_42_72/726 Welded or sealed seams](#); [Ss_30_42_72/745 Joints at doorways](#); [Ss_30_42_72/750 Fixing edgings and cover strips](#); [Ss_30_42_72/760 Fixing skirtings](#); and [Ss_30_42_72/765 Installing coved skirtings](#).
14. System completion: [Ss_30_42_72/800 Trafficking after laying](#)

System performance

See [Ss_30_42_72/231 Slip resistance of floor covering](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Products

See [Pr_20_29_23_40 Hot welding rods](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Pr_25_71_97_50 Marine plywood](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

See [Pr_35_31_06_80 Smoothing and levelling underlay compounds](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride \(PVC\) sheets](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_43_22 Edge trims](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Ss_30_42_72/306 Product samples](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Execution

See [Pr_25_71_97/620 Installing wood-based panels](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_25_71_97/630 Panel edge supports](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Ss_30_42_72/606 Installation control samples](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/615 Conditioning of flooring prior to laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/621 Environmental conditions before, during and after laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/631 Assessing suitability of bases](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Ss_30_42_72/651 Preparation of timber boarding and strip flooring

1. Base: Fix boards and strips securely and acceptably level with no protruding fasteners. Provide a smooth, even surface.

2. Surfacing: Plane and sand and Apply smoothing underlayment compound where required in accordance with manufacturers specification.
3. Base condition after preparation: Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.

Ss_30_42_72/656 Preparation of particleboard flooring

1. Base
 - 1.1. Base: Fix boards securely, level and free from surface sealers and contaminants.
 - 1.2. Gaps between boards (maximum): 1 mm.
 - 1.3. Priming: As required by covering adhesive manufacturer.
2. Equilibrium moisture content at time of laying covering: As in service conditions.
3. Base condition after preparation: Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.

Ss_30_42_72/665 Laying sheet and board underlay

1. Base
 - 1.1. Condition: Sound and acceptably level.
 - 1.2. Preparation: Irregularities removed or filled. Protruding fasteners removed or punched in.
2. Setting out
 - 2.1. Joints: Offset joints in underlay from joints in substrate. Stagger end joints.
 - 2.2. Hardboard
 - 2.2.1. Gap between adjacent sheets: 1–2 mm.
 - 2.2.2. Side uppermost: Smooth.
 - 2.3. Plywood: 0.5–1 mm gap between adjacent sheets.
3. Fixing
 - 3.1. Fastener heads: Set flush with sheet surface.
 - 3.2. Fixing centres: 150 mm grid over each sheet commencing at centre. Maximum 100 mm centres around perimeter, set in 12 mm from edges.

Ss_30_42_72/676 Laying plywood underlay

1. Base: Fix existing floor boards securely and acceptably level with no gross irregularities or protruding fasteners.
2. Laying sheets: Stagger cross joints such that joints in base and underlay do not coincide.
3. Gaps between sheets: 0.5–1 mm.
4. Spacing of fasteners: Commencing at centre of one side of each sheet, at 150 mm grid centres over area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
5. Placement of fasteners: Drive. Set heads flush with surface. Do not project through underside of base. Do not deform.

See [Ss_30_42_72/681 Layout – setting out seams in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/696 Colour consistency in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/726 Welded or sealed seams in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/745 Joints at doorways in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/750 Fixing edgings and cover strips in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/760 Fixing skirtings in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/765 Installing coved skirtings in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_42_72/800 Trafficking after laying in Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Ω End of System

Ss_30_42_72_72

Resilient sheet floor covering systems - Stairs

Systems

Ss_30_42_72_72 Resilient sheet floor covering systems - Stairs

1. Description: Vinyl Floor Finish - Access Stairs Generally as per Architects Drawing
2. System performance: [Ss_30_42_72/231 Slip resistance of floor covering - Access Stairs](#)
3. System manufacturer: **Submit proposals**
4. Preparation
 - 4.1. Base: [Ss_30_42_72/631 Assessing suitability of bases](#)
 - 4.2. Prior to flooring: [Ss_30_42_72/615 Conditioning of flooring prior to laying](#)
 - 4.3. Environmental conditions: [Ss_30_42_72/621 Environmental conditions before, during and after laying](#)
5. Sheet
 - 5.1. Type: [Pr_35_57_71_32 Foam-backed polyvinyl chloride \(PVC\) sheets - Access Stairs Floor Covering](#)
6. Seams: Welded or sealed.
7. System accessories: [Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM](#); [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#); [Pr_20_29_23_40 Hot welding rods](#); [Pr_35_90_31_84 Stair trims](#); [Pr_35_90_43_22 Edge trims](#); [Pr_35_90_31_74 Rigid stair nosings](#)
8. Samples required: [Ss_30_42_72/606 Installation control samples](#)
9. Execution: [Ss_30_42_72/631 Assessing suitability of bases](#); [Ss_30_42_72/765 Installing coved skirtings](#)
10. System completion: [Ss_30_42_72/800 Trafficking after laying](#)

System performance

Ss_30_42_72/231 Slip resistance of floor covering - Access Stairs

1. Method of test: Pendulum friction.
2. SRV (minimum): R10 rated
3. Test results: Submit. Include slip resistance values in the wet and dry states.

Products

See [Pr_20_29_23_40 Hot welding rods](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Pr_35_57_71_32 Foam-backed polyvinyl chloride (PVC) sheets - Access Stairs Floor Covering

1. Description: Stairs Covering
2. Manufacturer: **Submit proposals**
3. Product reference: Submit Proposals
4. Standard: To EN 651.
5. Use class: To BS EN ISO 10874, class 34.
6. Slip potential
 - 6.1. Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum): R10.
7. Thickness: 3.65 mm.
8. Colour and pattern: To Architects Approval
9. Length: 20 m.
10. Weight: 2900 g/m².
11. Static electricity: <2 kV.
12. Fire classification (EN 13501-1): Cfl-s1.
13. Wear group: T.
14. Residual indentation (to EN-ISO 24343-1): ≤0.20 mm.
15. ThermalConductivity: 0.25 W/m-K.
16. Surface treatment: ProtecSol®.
17. Accessories: Co-ordinating weld rods.
18. Wear layer thickness: 0.70 mm.
19. Impact sound reduction (to EN-ISO 717-2): 19 dB.
20. VOC emissions: <100 µg/m³.
21. Colour (Light reflectance value (LRV): To Architects approval meeting LRV requirement under TGD M

See [Pr_35_90_31_33 Floor threshold strips - INTERNAL FLOOR TRIM](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

Pr_35_90_31_74 Rigid stair nosings

1. Description: Stair trims
2. Manufacturer: Gradus or equivalent approved
3. Product reference: Aluminium XT Stair Edging or equivalent approved
4. Profile
 - 4.1. Finish: Mill
5. Insert
 - 5.1. Type: Xtra-Grip
6. Side trim: TAXT5B
7. Fixing: Mechanical (screw) and adhesive fix

Pr_35_90_31_84 Stair trims

1. Description: Miscellaneous trims to stairs
2. Material: Aluminium
3. Colour: Aluminium
4. Angle between riser and tread: 78–90° left or right handed.
5. Accessories: As per manufacturers specification.
6. Gauge: 10 mm.
7. Profile height: 42 mm.
8. Joint: Mitre.
9. Fixing: Proprietary adhesive fix.
10. Finish: Satin.
11. Colour: To Architects approval.
To achieve required LRV in compliance with TGD M.
12. Angle between riser and tread: 90°.
13. Accessories: Butt jointed welded corners.
Colour-matched insert capping plugs.
Matching fasteners.
Mitre jointed welded corners.

See [Pr_35_90_43_22 Edge trims](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

See [Pr_35_90_43_64 Polyvinyl chloride \(PVC\) cove skirtings](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

Execution

See [Ss_30_42_72/606 Installation control samples](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/615 Conditioning of flooring prior to laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/621 Environmental conditions before, during and after laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/631 Assessing suitability of bases](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/726 Welded or sealed seams](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/765 Installing coved skirtings](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

System completion

See [Ss_30_42_72/800 Trafficking after laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Ω End of System

Ss_30_42_72_72

Resilient sheet floor covering systems - Wet Areas - Ground Floor

Systems

See Ss_30_42_15_30 Floating cementitious levelling screed systems in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_72_72 Resilient sheet floor covering systems - Wet Areas - Ground Floor in Ss_30_42_15_30 Floating cementitious levelling screed systems

System performance

See Ss_30_42_72/231 Slip resistance of floor covering in Ss_30_42_15_30 Floating cementitious levelling screed systems

Products

See Pr_20_29_23_40 Hot welding rods in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Pr_25_57_65_60 Plastics sheets - Screed / Insulation Separation in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Pr_25_71_63_66 Polyisocyanurate (PIR) foam boards - FLOOR / ROOF INSULATION in Ss_30_40_30_80 Single layer sheet warm roof covering systems

See Pr_35_31_06_80 Smoothing and levelling underlay compounds in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Pr_35_31_77_46 AIRTIGHT SEAL - Liquid-applied membranes in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Pr_35_57_71_60 Particle-based enhanced wet area polyvinyl chloride (PVC) sheets in Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR

See Pr_35_90_43_22 Edge trims in Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR

See Pr_35_90_43_64 Polyvinyl chloride (PVC) cove skirtings in Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR

See Pr_35_90_87_02 AIRTIGHT TAPE - Acrylic adhesive sealant tapes in Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS

See Pr_40_20_60_96 Wet room floor formers in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_72/306 Product samples in Ss_30_42_15_30 Floating cementitious levelling screed systems

Execution

See Pr_25_57_65/610 Installing vapour control layers in Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS

See Pr_40_20_06/630 Installing wet room floor formers in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_40_30/656 Applying liquid-applied coatings in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/602 Assess suitability of substrate in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/614 Preparation of substrate for floating construction (board insulation) (16) in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/618 Installing conduits under floating screeds in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/628 Installing heating elements in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/646 Laying cementitious levelling/ wearing screeds in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/650 Checking surface regularity of floor screeds in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/656 Screeding to falls in Ss_30_42_15_30 Floating cementitious levelling screed systems

See Ss_30_42_15/658 Screeding to ramps in Ss_30_42_15_30 Floating cementitious levelling screed systems

Employers Requirements, Architectural & Landscaping Specification

See [Ss_30_42_15/664 Forming joints in levelling screeds](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/680 Installing structural movement joints](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/684 Trowelled finish to levelling screeds](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/696 Protection from extreme temperatures](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/698 Curing](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/606 Installation control samples](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/610 Condition of building and notification of commencement](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/615 Conditioning of flooring prior to laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/621 Environmental conditions before, during and after laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/631 Assessing suitability of bases](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/681 Layout – setting out seams](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/696 Colour consistency](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/726 Welded or sealed seams](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/745 Joints at doorways](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/750 Fixing edgings and cover strips](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/760 Fixing skirtings](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/765 Installing coved skirtings](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_30_42_15/805 Verification of performance](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/810 Inspection of completed work](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_15/820 Completion](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_30_42_72/800 Trafficking after laying](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

Ω End of System

Ss_32_46_50_50 **Metal lathing casing systems** **Systems**

Ss_32_46_50_50 Metal lathing casing systems

1. Description:
2. System performance: [Ss_32_46_50/220 Durability](#);
[Ss_32_46_50/240 Water penetration](#);
and [Ss_32_46_50/250 Fire performance](#).
3. Metal lathing
 - 3.1. Material: [Pr_20_85_46_28 Expanded metal lathings](#).
 - 3.2. Attachment: Expanded metal lath to metal: 1.2 mm tying wire.
Ribbed metal lath to metal: 1.6 mm tying wire, or doubled 1.2 mm tying wire.

Welded mesh and paper lath to metal: 1.2 mm tying wire.
Fixing to runners: 1.2 mm tying wire.

- 3.3. Lap treatment: [Pr_20_96_97_82](#) Stainless steel wires
4. Execution: [Ss_32_46_50/630](#) Fixing steel channel framing for casings;
[Ss_32_46_50/655](#) Fixing framing and rigid stirrups for casings;
[Ss_32_46_50/675](#) Fixing metal lath with tying wire;
and [Ss_32_46_50/685](#) Fixing expanded ribbed metal lath.

System performance

Ss_32_46_50/220 Durability

Shared by: [Ss_32_46_50_53](#) Metal lathing on solid substrate systems

- Duration (minimum): 30 years.

Ss_32_46_50/240 Water penetration

Shared by: [Ss_32_46_50_53](#) Metal lathing on solid substrate systems

1. Requirement: Under site exposure conditions, water must not penetrate onto internal surfaces or into cavities not designed to be wetted.

Ss_32_46_50/250 Fire performance

Shared by: [Ss_32_46_50_53](#) Metal lathing on solid substrate systems

1. Reaction to fire: To [IS EN 13501-1](#) and Building Regulations Approved Document B.
Class 0.
 - 1.1. Requirement: To [EN 13501-2](#).
Integrity/ insulation 60/30.

Products

See [Pr_20_85_46_28](#) Expanded metal lathings in [Ss_25_45_70_55](#) Multicoat render systems - EXTERNAL WET DASH FINISH

Pr_20_96_97_82 Stainless steel wires

1. Standard: To [BS EN 10088-3](#), 1.4401.

Execution

Ss_32_46_50/630 Fixing steel channel framing for casings

1. Steel channels
 - 1.1. Requirement: Continuous.
 - 1.2. Fixing centres: 250 mm.
2. Positioning: At each change of angle of casing.

Ss_32_46_50/655 Fixing framing and rigid stirrups for casings

1. Fixing
 - 1.1. To soffits: Bolt to cast-in stub hangers.
 - 1.2. To beams: Tying wires to spacer channels.
 - 1.3. Requirement: Tight and secure.
 - 1.4. Centres: 300 mm.

See [Ss_32_46_50/675](#) Fixing metal lath with tying wire in [Ss_25_45_70_55](#) Multicoat render systems - EXTERNAL WET DASH FINISH

See [Ss_32_46_50/685](#) Fixing expanded ribbed metal lath in [Ss_25_45_70_55](#) Multicoat render systems - EXTERNAL WET DASH FINISH

Ω End of System

Ss_32_46_50_53

Metal lathing on solid substrate systems

Systems

Ss_32_46_50_53 Metal lathing on solid substrate systems

1. System performance: [Ss_32_46_50/220 Durability](#); [Ss_32_46_50/240 Water penetration](#); and [Ss_32_46_50/250 Fire performance](#)
2. System performance: Contractor's design
3. Metal lathing: [Pr_20_85_46_28 Expanded metal lathings](#)
4. Execution: [Ss_32_46_50/675 Fixing metal lath with tying wire](#); [Ss_32_46_50/695 Fixing metal lath on solid substrates](#); [Ss_32_46_50/685 Fixing expanded ribbed metal lath](#)

System performance

See [Ss_32_46_50/220 Durability](#) in [Ss_32_46_50_50 Metal lathing casing systems](#)

See [Ss_32_46_50/240 Water penetration](#) in [Ss_32_46_50_50 Metal lathing casing systems](#)

See [Ss_32_46_50/250 Fire performance](#) in [Ss_32_46_50_50 Metal lathing casing systems](#)

Products

See [Pr_20_85_46_28 Expanded metal lathings](#) in [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

Execution

See [Ss_32_46_50/675 Fixing metal lath with tying wire](#) in [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

See [Ss_32_46_50/685 Fixing expanded ribbed metal lath](#) in [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

Ss_32_46_50/695 Fixing metal lath on solid substrates

1. Generally: Fix securely to give a taut, firm base for plaster or render.
2. Lath fixing generally: Manufacturer's recommended dimension
3. Length and frequency of fasteners: Increase as necessary in weak areas.

Ω End of System

Ss_32_46_65_55

Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER

Systems

Ss_32_46_65_55 Multicoat plaster systems - INTERNAL AIRTIGHT PLASTER

1. Description: Internal cement sand render applied to surfaces of concrete/ masonry walls to receive paint finish.

To provide Airtight plaster layer to ensure the airtightness of masonry construction.
2. System performance: [Ss_32_46_65/210 Flatness](#); [Ss_32_46_65/212 Smoothness](#); [Ss_32_46_65/216 Angularity](#); [Ss_32_46_65/220 Continuity of coats \(4-\)](#); [Ss_32_46_65/295 Compliance with performance requirements \(4-\)](#)
3. Substrate preparation: Preparation shall be in accordance with BS EN 13914: Part 1.

Where surfaces are of uneven suction: One coat [Pr_35_31_66_62 Plaster primers](#) by brush or roller.
4. First undercoat
 - 4.1. Material: [Ss_32_46_65/680 Site mixed plaster \(42\)-PLASTER](#)
5. Second undercoat
 - 5.1. Material: [Ss_32_46_65/680 Site mixed plaster \(42\)-PLASTER](#)
6. Final coat
 - 6.1. Material: [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#)
7. Thickness: The thickness, excluding dubbing out, shall be as described in tender drawings (MIN 15mm) over 2 coats with a skim top coat finish.

8. Beads: [Pr_35_90_07_63 Plaster beads](#)
Accessories shall be stainless steel suitable for the intended service conditions and to the acceptance of the Architect.
9. Sealant movement joints
10. Execution: [Ss_32_46_65/684 Site mixed keying coat](#); [Ss_32_46_65/680 Site mixed plaster \(42\)-PLASTER](#)

System performance

Ss_32_46_65/210 Flatness

1. Requirement
 - 1.1. Standard: To EN 13914-2.

Finish surfaces to a true plane to correct line and level with all corners and angles to a right angle unless otherwise specified and with walls and openings finished plumb and square. All corners in internal plastering to be protected with patent metal angles.

Ss_32_46_65/212 Smoothness

1. Requirement
 - 1.1. Standard: To EN 13914-2.
 - 1.2. Level of smoothness: 4.

Ss_32_46_65/216 Angularity

1. Requirement
 - 1.1. Standard: To EN 13914-2.

Ss_32_46_65/220 Continuity of coats (4-)

1. All coats: Continuous, without putlog holes and other breaks.

Dry blockwork shall be well brushed down to remove any dust or loose particles of mortar, debris, etc. from the surface. Any metal objects such as nails, etc. should be removed from the face and blockwork should be well wetted to off-set excessive suction in the background. Plaster of the correct consistency should be applied with firm pressure and the plaster brought to a true and level surface by means of a metal straight edge or darby.

To maintain an airtight construction, the perimeter of any penetration through the lining should be sealed as necessary at the time the services are being installed.

Ss_32_46_65/295 Compliance with performance requirements (4-)

1. Requirement: Proof of compliance with specified performance.
2. Testing authority: *Third party accredited by approved/ recognized body of compliance with specified performance.*

[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Submission
 - 3.1. Format: Test results and certification.
 1. Product CE marking and associated Declaration of Performance (DoP).
 2. Board of Agrément Certificate Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
 3. European Technical Assessment Approval
 - 3.2. Timing: Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative and before commencing installation.

Products

See [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#) in [Ss_25_13_50_56 Masonry internal partition systems - BLOCK INTERNAL WALLS](#)

Pr_20_31_12_50 Masonry cements

1. Standard: To [BS EN 413-1](#).
2. Designation: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

See [Pr_35_31_64_32 Finish plasters - SKIM FINISH](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_66_62 Plaster primers](#) in [Ss_25_45_88_40 Internal wall tiling systems](#)

See [Pr_35_90_07_63 Plaster beads](#) in [Ss_25_45_70_55 Multicoat render systems - EXTERNAL WET DASH FINISH](#)

Execution

See [Pr_35_31_64/620 Preparation for thin coat plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_64/715 Finish to plaster](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_07/650 Installing beads](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Ss_32_46_65/680 Site mixed plaster (42)-PLASTER

1. Standard: Preparation shall be in accordance with EN 13914: Part 1.
2. Components: [Pr_20_31_12_50 Masonry cements](#); [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#)
3. Mix: Scud coat
Cement: Sand 1 : 2-2.5

Undercoat and Finish (internal use)
Cement: Sand 1 : 3
4. Additives and admixtures
 - 4.1. Material: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 4.2. Dosage: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Ss_32_46_65/684 Site mixed keying coat

1. Components: [Pr_20_31_04_53 Mortar fine aggregates - FINE SAND](#); [Pr_20_31_12_50 Masonry cements](#)
2. Mix: The mix proportions of cement to sand shall be
1 to 3½-4½ for dense, strong and smooth or moderately strong and porous backgrounds;
or
1 to 4½ for backgrounds that are moderately weak and porous.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of System

Ss_35_10_25_34

Ground bearing external ramp systems

Systems

Ss_25_60_05_05 Balustrade and guarding systems - External

1. Description: External guarding
2. System performance: [Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems](#)
3. Newels
 - 3.1. Material: [Pr_20_76_52_85 Stainless steel seamless circular tubes](#)
4. Uprights: [Pr_20_76_52_85 Stainless steel seamless circular tubes](#)
5. Rails
 - 5.1. Handrails: [Pr_25_30_36_84 Stainless steel handrails](#)
 - 5.2. Mid rails: [Pr_20_76_51_81 Stainless steel bars and rods for construction](#)
 - 5.3. Base rails: [Pr_20_76_51_81 Stainless steel bars and rods for construction](#)
6. Samples required: [Ss_25_60_05/505 Prototypes or mock-ups - STAIRS](#)
7. Execution: [Ss_25_15_60/620 Control inspections of balustrade and handrail systems](#); [Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally](#); [Ss_25_15_60/640 Installation of handrail, balustrade and guarding systems generally](#); [Ss_25_15_60/605 Preliminary installation](#)
8. System completion: [Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems](#); [Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems](#); [Ss_25_15_60/895 Verification of performance](#)

Ss_35_10_25_34 Ground bearing external ramp systems

1. System performance: [Ss_35_10_25/240 Structural performance of external ramp and stair systems](#); [Ss_35_10_25/250 Slip resistance of external ramp and stair systems \(24\)](#)
2. Site preparation
3. Surface
 - 3.1. Material: [Ss_20_05_15/705 Site-mixed concrete \(2-\)](#)
 - 3.2. Perimeters, edge restraints and kerbs.: Required.
 - 3.3. Landings: To match.
4. Dpc: DPC location as drawing.
5. Balustrade guarding: Required. [Ss_25_60_05_05 Balustrade and guarding systems - External](#)
6. System accessories: [Pr_25_93_60_14 Concrete surface channels](#)
7. Execution: [Ss_35_10_25/630 Concrete foundations for external ramp and stair systems generally \(16\)](#); [Ss_35_10_25/670 Installation of external stairs and ramp systems generally \(24\)](#); [Ss_35_10_25/677 Laying mortar bedded accessories in flexible pavements](#); [Ss_35_10_25/690 Adverse weather during execution of external stairs and ramps \(24\)](#); [Ss_35_10_25/700 Applying anti-slip treatments \(24\)](#)
8. System completion: [Ss_35_10_25/810 Inspection of external ramps and stair systems \(24\)](#); [Ss_35_10_25/830 Documentation for external ramps and stair systems \(24\)](#)

System performance

See [Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ss_35_10_25/240 Structural performance of external ramp and stair systems

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Design standard: To [BS EN 1993-1-1](#) and To [IS EN 1995-1-1](#).

Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
2. Imposed loading: In accordance with [IS EN 1991-1-1](#).

Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

Ss_35_10_25/250 Slip resistance of external ramp and stair systems (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Slip resistance value – water wet (minimum)

- 1.1. Inclined surfaces, up to 1:20 pitch: To [BS 7976-2](#), PTV of 40.
- 1.2. Stair or step treads: To [BS 7976-2](#), PTV of 40.
- 1.3. Stair or step nosings: To [BS 7976-2](#), PTV of 40.

Products

Pr_20_76_51_81 Stainless steel bars and rods for construction

1. Standards
 - 1.1. Chemical composition and physical properties: To [BS EN 10088-1](#).
 - 1.2. Bars, rods and sections: To [BS EN 10088-5](#).
2. Grade: 1.4401.
3. Finish: To [BS EN 10088-2](#), 1K/2K satin polished.

Pr_20_76_52_85 Stainless steel seamless circular tubes

1. Standards
 - 1.1. Chemical composition and physical properties: To [BS EN 10088-1](#).
 - 1.2. Seamless circular tubes: To [BS EN 10297-2](#).
2. Grade: 1.4401.
3. Finish: To [BS EN 10088-2](#), 1K/2K satin polished.

Pr_25_30_36_84 Stainless steel handrails

1. Description: External guarding / Handrails where indicated on Architects drawings.
2. Standard: To [BS EN 10088-2](#), Grade 1.4401 (316).
3. Diameter: Refer details. As prescribed in Building Regulations TGD K & M.
4. Cross section: Elliptical.
5. Finish: To [BS EN 10088-2](#), 1K/ 2K Satin polished.
6. Accessories
 - 6.1. Posts: 48.3 x 1000 mm.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_25_93_60_14 Concrete surface channels

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Description: Precast concrete surface water channels, including flat top (square) and dished profile channels.
2. Standard: To [BS EN 1340](#).

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

See [Ss_25_60_05/505 Prototypes or mock-ups - STAIRS](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Execution

Ss_20_05_15/705 Site-mixed concrete (2-)

1. Site-mixing of concrete: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Standard: To [BS EN 206](#) and To [BS EN 14487-2](#). Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

See [Ss_25_15_60/605 Preliminary installation](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/620 Control inspections of balustrade and handrail systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ss_25_15_60/640 Installation of handrail, balustrade and guarding systems generally

Shared by: [Ss_35_10_40_42 Internal stair systems](#)

1. Standard: In accordance with [BS 6180](#).

Ss_35_10_25/630 Concrete foundations for external ramp and stair systems generally (16)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Standard: To [BS 8500-2](#).
Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

Ss_35_10_25/670 Installation of external stairs and ramp systems generally (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
2. Temporary support: Do not use finished work as temporary support or strutting for other work.
3. Site finish: Ensure that ramp gradient is consistent and even and Ensure that steps have equal consistency in terms of going, rise and nosing sizes.

Ss_35_10_25/677 Laying mortar bedded accessories in flexible pavements

1. Standard: In accordance with Interpave '[Concrete block paving: guide to the properties, design, construction, reinstatement and maintenance of concrete block pavements](#)'.
2. In situ mortar or concrete infill: Limit to areas of up to 65 cm².
3. Bedding thickness: 10–40 mm.
4. Finished appearance: Exposed faces clean and free from mortar.

Ss_35_10_25/690 Adverse weather during execution of external stairs and ramps (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. General: Do not use frozen materials and do not lay on frozen surfaces.
2. Working limits
 - 2.1. Cement-gauged mortars: Do not lay blocks/ dressings when the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and work is thoroughly protected).
 - 2.2. Hydraulic lime and sand mortars : Do not lay blocks/ dressings when the air temperature is at or below 5°C and falling or below 3°C and rising.
3. Temperature of the work: Maintain above freezing until mortar has fully set.
4. Newly erected work: Protect from precipitation. Prevent rapid drying in hot conditions.
5. Remedial work
 - 5.1. Mortar damaged by frost: Rake out and replace.
 - 5.2. Cracked and damaged masonry: Rebuild.

Ss_35_10_25/700 Applying anti-slip treatments (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Tread: Full coverage of going and Full width of stair.

System completion

See [Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/895 Verification of performance](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_35_10_25/810 Inspection of external ramps and stair systems (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

1. Timing: Give reasonable notice before covering up.

2. Period of notice (minimum): 5 working days.

Ss_35_10_25/830 Documentation for external ramps and stair systems (24)

Shared by: [Ss_35_10_25_35 Ground bearing external stair systems](#)

- Contents: Copies of structural design calculations and test reports. General product information. Installation information. Inspection and maintenance reports.
- Number of copies: Two
- Submission: 2 weeks before date when principal contractor expects work to be substantially complete.

Ω End of System

Ss_35_10_25_35

Ground bearing external stair systems

Systems

Ss_35_10_25_35 Ground bearing external stair systems

1. Description: The stairs going shall be in compliance with building regulations Technical Guidance Document M including rise, going and width between handrails.
All dimensions shall be checked on site.
Layout, fixing and installation details shall be submitted to ER for prior approval.
Stairs shall be constructed to a high standard with minimal tolerances permissible.
2. System performance: [Ss_35_10_25/240 Structural performance of external ramp and stair systems](#); [Ss_35_10_25/250 Slip resistance of external ramp and stair systems \(24\)](#)
3. System manufacturer: Submit proposals .
4. Site preparation
 - 4.1. Preparation products: [Pr_45_31_37_56 Non-selective contact herbicides](#);
[Pr_45_31_37_57 Non-selective residual herbicides](#);
and [Pr_45_31_37_58 Non-selective systemic herbicides](#)
 - 4.2. Subgrade improvement layer: Strictly in accordance with Consulting Structural Engineers Specification and drawings.
 - 4.3. Geotextile below granular sub-base: Strictly in accordance with Consulting Structural Engineers Specification and drawings.
 - 4.4. Granular sub-base: Strictly in accordance with Consulting Structural Engineers Specification and drawings.
 - 4.5. Geotextile below laying course: [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#)
5. Surface
 - 5.1. Layout: As drawings
6. Balustrade guarding: In accordance to BS 6180.
7. System accessories: [Pr_25_93_60_14 Concrete surface channels](#)
8. Execution: [Ss_35_10_25/610 Preconstruction survey \(2-\)](#);
[Ss_35_10_25/617 Laying subgrade improvement layers and sub-base \(16\)](#)
[Ss_35_10_25/715 Applying sealer or stabilizer to unit pavements \(24\)](#); [Ss_35_10_25/710 Installation of applied tread inserts and nosings for external stairs and ramps \(24\)](#); [Ss_35_10_25/670 Installation of external stairs and ramp systems generally \(24\)](#); [Ss_35_10_25/700 Applying anti-slip treatments \(24\)](#); [Ss_35_10_25/690 Adverse weather during execution of external stairs and ramps \(24\)](#); [Ss_35_10_25/630 Concrete foundations for external ramp and stair systems generally \(16\)](#)
9. System completion: [Ss_35_10_25/810 Inspection of external ramps and stair systems \(24\)](#); [Ss_35_10_25/830 Documentation for external ramps and stair systems \(24\)](#)

System performance

See [Ss_35_10_25/240 Structural performance of external ramp and stair systems](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

See [Ss_35_10_25/250 Slip resistance of external ramp and stair systems \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

Products

See [Pr_25_57_65_60 Plastics sheets - DPM / RADON BARRIER](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Pr_25_93_60_14 Concrete surface channels](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

Pr_45_31_37_56 Non-selective contact herbicides

1. Third-party certification: Manufactured under a quality system complying with [BS EN ISO 9001](#) and Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate.
2. Execution: [Pr_45_31_37/603 Application of non-selective contact herbicides \(16\)](#).

Pr_45_31_37_57 Non-selective residual herbicides

1. Third-party certification: Manufactured under a quality system complying with BS EN ISO 9001 and Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate.
2. Execution: [Pr_45_31_37/605 Application of non-selective residual herbicides \(16\)](#)

Pr_45_31_37_58 Non-selective systemic herbicides

1. Third-party certification: Manufactured under a quality system complying with BS EN ISO 9001 and Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate.
2. Execution: [Pr_45_31_37/607 Application of non-selective systemic herbicides \(16\)](#)

Execution

Pr_45_31_37/603 Application of non-selective contact herbicides (16)

1. Target weeds: All weeds. Topsoil to be set aside. Topsoil heaps.
2. Application rate: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
3. Timing and frequency: Two weeks prior to lifting topsoil.
4. Disposal of arisings
 - 4.1. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
 - 4.2. Operations: Remove to contractor's tip.

Pr_45_31_37/605 Application of non-selective residual herbicides (16)

1. Target weeds: All weeds.
2. Timing and frequency: Apply in winter before end of March;
Apply once during summer as instructed;
and Apply to seeded areas immediately after sowing.
3. Areas not to be treated: Bulb and corm planted areas when in leaf;
Desirable herbaceous plantings;
Wildflower areas;
and Surfaces within play areas or other locations where there is the possibility of regular contact by children.
4. Disposal of arisings
 - 4.1. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
 - 4.2. Operations: Bury on site.

Pr_45_31_37/607 Application of non-selective systemic herbicides (16)

1. Target weeds: All perennial weeds.
2. Application rate: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
3. Timing and frequency: Apply once during summer as instructed and Apply once then two weeks later during summer as instructed.
4. Areas not to be treated: Bulb and corm planted areas when in leaf;
Desirable herbaceous plantings;
and Wildflower areas.
5. Disposal of arisings
 - 5.1. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.
 - 5.2. Operations: Bury on site.

See [Ss_32_20_30/668 Installing loose laid polyethylene based sheets for damp-proofing](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_35_10_25/610 Preconstruction survey (2-)

1. Procedure: Before starting work take site dimensions, record on shop drawings and use to ensure accurate fabrication.
2. Primary support structure: Carry out survey sufficient to verify that required accuracy and security of erection can be achieved.
3. Timing: Before fabrication.

Ss_35_10_25/617 Laying subgrade improvement layers and sub-base (16)

1. Standard: In accordance with [MCHW Volume 1: Specification for highway works \(SHW\)](#).
2. Requirement: Ensure that each layer is fully compacted before progressing to the next.
3. Subgrade improvement layer compacted thickness (nominal): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Granular sub-base
 - 4.1. Compacted thickness (nominal): Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 - 4.2. Drainage falls: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
5. Condition of sub-bases before spreading laying course
 - 5.1. Prepared sub-bases: Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.
 - 5.2. Levels and falls: Accurate and within the specified tolerances.
 - 5.3. Drainage outlets: Within 0–10 mm of the required finished level.

See [Ss_35_10_25/630 Concrete foundations for external ramp and stair systems generally \(16\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

See [Ss_35_10_25/670 Installation of external stairs and ramp systems generally \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

See [Ss_35_10_25/690 Adverse weather during execution of external stairs and ramps \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

See [Ss_35_10_25/700 Applying anti-slip treatments \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

Ss_35_10_25/710 Installation of applied tread inserts and nosings for external stairs and ramps (24)

1. Treads: Fully cured, sound and level.
2. Layout: In accordance with [BS 8300-1](#).

Ss_35_10_25/715 Applying sealer or stabilizer to unit pavements (24)

1. Surface preparation: Fill joints; Sweep clear of loose sand before sealing; and Thoroughly remove contaminants.
2. Condition: Apply to dry paving.
3. Application
 - 3.1. Number of coats: Two.
 - 3.2. Coverage: 2 m²/L.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_35_10_25/810 Inspection of external ramps and stair systems \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

See [Ss_35_10_25/830 Documentation for external ramps and stair systems \(24\)](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

Ω End of System

Ss_35_10_40_42

Internal stair systems

Systems

Ss_35_10_40_42 Internal stair systems

1. Description: Custom made timber internal stairs.

Stairs shall be constructed to a high standard with minimal tolerances permissible with TGD K.

Employers Requirements, Architectural & Landscaping Specification

All dimensions shall be checked on site prior to fabrication.
Fixing and installation details shall be submitted to Architect for prior approval.

2. Dimensions:

1. **Going** shall not be less than 220mm (optimum 250mm)
2. **Rise** not more than 220mm (Optimum 175mm)
3. **800mm min.** clear width between handrails
4. **2000mm min.** head height

All dimensions shall be checked on site prior to fabrication.

Refer to Architectural drawings for details of stairs designs, general flight layouts and general dimensions.

Stairs shall be constructed to a high standard with minimal tolerances permissible.

3. System performance: [Ss_35_10_40/210 Design of internal stair systems generally](#)
[Ss_35_10_40/250 Structural performance of internal ramp and stair systems](#)
[Ss_35_10_40/290 Compliance with performance requirements](#)
[Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems](#); [Ss_35_10_40/205 Design submittals](#)
4. Treads
 - 4.1. Material: [Ss_35_10_40/515 Custom made dressed timber stair treads](#)
5. Risers: [Ss_35_10_40/540 Custom made dressed timber risers](#)
6. Stair support: [Pr_20_76_88_83 Softwood Sections](#)
7. Newels
 - 7.1. Material: [Pr_20_76_88_83 Softwood Sections](#)
8. Handrail: [Pr_25_30_36_96 Wood handrails](#)
9. Intermediate posts: [Pr_20_76_88_83 Softwood Sections](#).
10. System accessories: [Pr_35_90_31_37 Hardwood stair trims](#)
To specialist manufacturer's detail.
11. Samples required: [Ss_25_38_20/306 Product samples](#)
12. Shop drawings:: Required before fabrication for Architects approval.

Drawings must include graphic illustrations (including dimensions) of all stairs / handrail / guarding arrangements indicating details of fixing, sizes and heights, terminations, materials, finishes and visual contrast.

13. Execution: [Ss_35_10_40/610 Preconstruction survey](#);
[Ss_35_10_40/620 Installation of stair systems generally](#);
[Ss_35_10_40/630 Installation of internal stairs and ramp systems generally](#)
[Ss_35_10_40/640 Moisture content of architectural ramp and stair system](#)
[Ss_35_10_40/650 Priming, sealing and painting of internal ramp and stair systems](#)
[Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally](#)
[Ss_25_15_60/640 Installation of handrail, balustrade and guarding systems generally](#)
and [Ss_25_15_60/605 Preliminary installation](#).
14. System completion: [Ss_35_10_40/810 Inspection of internal stairs and ramps](#)
[Ss_35_10_40/840 Verification of performance](#);
[Ss_35_10_40/830 Documentation for internal ramps and stair systems](#)
[Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems](#)
[Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems](#)
and [Ss_25_15_60/895 Verification of performance](#). [Ss_35_10_40/840 BCaR Certification](#)

System performance

See [Ss_25_15_60/220 Structural performance of handrails, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ss_35_10_40/205 Design submittals

1. Detailed design
 - 1.1. Requirement: *Specialist to Complete the design of the system in accordance with Building Regulations*
 - 1.2. Purpose: *Specialist to demonstrate compliance with performance requirements in accordance with Building Regulations and for aesthetic evaluation.*
2. Submittals: Drawings, schedules, technical information and manufacturer's literature. Details of Builder's Work.

Where applicable type plan, elevation and section drawings at suitable scales. Details of junctions between elements should be included.
3. Timing: *Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative and before commencing installation.*
4. Format: Electronic submission. Provide Ancillary Design Certificate on approved BCaR form relevant to particular element.

Ss_35_10_40/210 Design of internal stair systems generally

1. Design standard: Complete the design to meet structural and safety requirements in accordance with [BS 5395-1](#).
2. Category of loaded area: To [BS EN 1991-1-1](#), category A.

Ss_35_10_40/250 Structural performance of internal ramp and stair systems

1. Design standard: IS EN 14081-1 and IS EN 16737
2. Imposed loading: In accordance with [IS EN 1991-1-1](#).

Ss_35_10_40/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Testing authority: Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Submittals
 - 3.1. Format: Test results and certification.
 - 3.2. Timing: Before commencing installation.

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_20_76_88_83 Softwood Sections](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Pr_25_30_36_96 Wood handrails](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Pr_35_90_31_37 Hardwood stair trims

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Appearance class: IS EN 942 Standard for joinery timber
3. Species: Softwood - Red Deal
4. Moisture content at time of fixing: 9–13%.
5. Preservative treatment: Water-based microemulsion, service life 60 years.
6. Fire rating: Class 0 as defined in Building Regulations Approved Document B.
7. Profile: Bullnosed;
Chamfered;
and Splayed.
8. Finished size: As Drawings
9. Finish as delivered: Prepared and primed.

See [Ss_25_38_20/306 Product samples](#) in [Ss_25_38_20_95 Window hardware systems](#)

Ss_35_10_40/515 Custom made dressed timber stair treads

1. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
2. Species: European redwood. - Red Deal
3. Appearance class: To [IS EN 942](#), Class J2.
4. Size (l x w x d): Refer to drawings
5. Edge treatment: Square.
6. Finish: Sanded, Prepared and primed.

Ss_35_10_40/540 Custom made dressed timber risers

1. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
2. Species: European redwood. - Red Deal
3. Appearance class: To [IS EN 942](#), Class J2.
4. Size (l x w x d): Refer to drawings
5. Finish: Sanded, Prepared and primed.

See [Ss_35_10_40/560 Custom made dressed timber newel posts](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Execution

See [Pr_20_76_88/600 Treatment of timber cut on-site](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

See [Ss_25_15_60/605 Preliminary installation](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/630 Fabrication of balustrade and handrail systems generally](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/640 Installation of handrail, balustrade and guarding systems generally](#) in [Ss_35_10_25_34 Ground bearing external ramp systems](#)

Ss_35_10_40/610 Preconstruction survey

Shared by: [Ss_35_10_40_84 Straight internal stair systems - ATTIC LADDER](#)

1. Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
2. Primary support structure: Carry out survey sufficient to verify that required accuracy and security of erection can be achieved.
3. Timing: Before fabrication.

Ss_35_10_40/620 Installation of stair systems generally

Shared by: [Ss_35_10_40_84 Straight internal stair systems - ATTIC LADDER](#)

1. Standard: In accordance with [BS 5395-1](#).

Ss_35_10_40/630 Installation of internal stairs and ramp systems generally

1. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
2. Temporary support: Do not use stairs, walkways or balustrades as temporary support or strutting for other work.

Ss_35_10_40/640 Moisture content of architectural ramp and stair system

1. Temperature and humidity: Monitor and control internal conditions to achieve specified moisture content in wood components at time of installation.
2. Moisture content at time of installation: 9–13%.

Ss_35_10_40/650 Priming, sealing and painting of internal ramp and stair systems

1. Surfaces inaccessible after installation: Before fixing components, apply full protective/ decorative treatment/ coating system.

System completion

See [Ss_25_15_60/810 Inspection of handrail, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/820 Documentation for handrail, balustrade and guarding systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

See [Ss_25_15_60/895 Verification of performance](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ss_35_10_40/810 Inspection of internal stairs and ramps

Shared by: [Ss_35_10_40_84 Straight internal stair systems - ATTIC LADDER](#)

1. Timing: Give reasonable notice before covering up.
2. Period of notice (minimum): Three working days.

See [Ss_35_10_40/830 Documentation for internal ramps and stair systems](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ss_35_10_40/840 Verification of performance

Shared by: [Ss_35_10_40_84 Straight internal stair systems - ATTIC LADDER](#)

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.

2.2. Timing: At completion of installation.

See [Ss_35_10_40/840 BCaR Certification](#) in [Ss_25_15_60_05 Balustrade and guarding systems - STAIRS BALUSTRADE](#)

Ω End of System

Ss_35_10_40_84 **Straight internal stair systems - ATTIC LADDER** **Systems**

Ss_35_10_40_84 Straight internal stair systems - ATTIC LADDER

1. Description: ATTIC ACCESS HATCH & LADDER
2. Ladder: [Pr_25_30_85_36 Hardwood loft ladders](#)
3. Airtight Hatch: [Pr_30_59_36_01 Access panels](#)
4. Assembly fasteners: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Execution: [Ss_35_10_40/610 Preconstruction survey](#); [Ss_35_10_40/620 Installation of stair systems generally](#)
6. System completion: [Ss_35_10_40/840 Verification of performance](#); [Ss_35_10_40/810 Inspection of internal stairs and ramps](#)

Products

Pr_25_30_85_36 Hardwood loft ladders

1. Standard: To [IS EN 14975](#).
2. Format: Folding.
3. Strings
 - 3.1. Number of sections: Three.
 - 3.2. Floor-to-ceiling height (minimum): Manufacturer's standard .
4. Handrails: Top section.
5. Treads: 80 mm (minimum) width.
6. Loft trapdoor
 - 6.1. Minimum opening size (l x w): 1100 x 600 mm.
 - 6.2. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.3. Operating mechanism: Pole and hook and Spring assisted trap door.

Pr_30_59_36_01 Access panels

1. Fire performance
2. Position: Wall / Ceiling mounted.
3. Airtightness:: Airtight sealing to opening.

Hatch must be designed and have performance capability to maintain and ensure integrity of airtightness when closed.
4. Thermal transmittance (U-value)::

0.35 W/m²K.
5. Size: Manufacturer's standard .
6. Frame: Exposed picture frame type.
7. Panel
 - 7.1. Material: 1.5 mm white polyester coated sheet steel with 40 mm mineral fibre core to give 30 minutes' fire resistance.

Loft hatch to maximum U-value of 0.86 W/m²·K.
 - 7.2. Integral finish: Painted.
8. Latch or lock type: Tamper proof and operated by castellated key.
9. Operation: Concealed steel hinges, downward opening. Swing down.
10. Integral accessories: Airtight strips to frame.
11. Verification

- 11.1. Submittal: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Execution

See [Ss_35_10_40/610 Preconstruction survey](#) in [Ss_35_10_40_42 Internal stair systems](#)

See [Ss_35_10_40/620 Installation of stair systems generally](#) in [Ss_35_10_40_42 Internal stair systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_35_10_40/810 Inspection of internal stairs and ramps](#) in [Ss_35_10_40_42 Internal stair systems](#)

See [Ss_35_10_40/840 Verification of performance](#) in [Ss_35_10_40_42 Internal stair systems](#)

Ω End of System

Ss_40_10_90_23

Diagrammatic road marking systems

Systems

Ss_40_10_90_23 Diagrammatic road marking systems

1. Description: Road Markings
2. System performance: All roadmarkings and signage are to be installed as per Traffic Signs Manual
3. Standards: Thermoplastic road markings to BS EN 1436: in accordance with chapter 7 of the traffic signs manual
4. Products: [Pr_35_31_85_90 Thermoplastic road markings](#)
5. Execution: [Pr_35_90_60/650 Installing road marking \(thermoplastic\)](#)

Products

Pr_35_31_85_90 Thermoplastic road markings

1. Description: Road Markings
2. Standard: Thermoplastic road markings to BS EN 1436: in accordance with chapter 7 of the traffic signs manual
3. Colour: White.
4. Retroreflectivity: To [BS EN 1436](#), Class R2.

Execution

Pr_35_90_60/650 Installing road marking (thermoplastic)

- Requirement: As shown on drawings - locations, line widths, lettering, etc

Ω End of System

Ss_40_15_35_35

General FF&E systems

Systems

Ss_40_15_35_35 General FF&E systems

1. System performance: [Ss_40_15_35/240 Durability of fittings, furniture or equipment](#); [Ss_40_15_35/290 Compliance with performance requirements](#)
2. Enclosures: [Pr_40_30_50_46 Letter boxes](#)
3. Mirrors: [Pr_25_71_53_46 MIRRORS](#).
4. Storage: [Pr_40_30_78_17 Coat racks](#); [Pr_40_30_78_45 Kitchen storage units](#); [Pr_40_20_76_90 Towel rails](#). [Pr_40_30_87_96 Wardrobes](#)
5. Trims, rails and guards: [Pr_35_90_43_66 Preformed casings](#); and [Pr_35_90_43_95 Wood mounting battens](#).

6. Fasteners:

[Pr_20_29_63_50](#) Masonry plugs;
[Pr_35_90_87_01](#) Acrylic adhesive fixing tapes; [Pr_20_29_76_98](#) Wood screws

7. Execution: [Ss_40_15_35/610](#) Applying sealant bedding and pointing; [Ss_40_15_35/630](#) Installing mirrors

8. System completion: [Ss_40_15_35/805](#) Removal of samples; [Ss_40_15_35/810](#) General; [Ss_40_15_35/820](#) Appliances and equipment; and [Ss_25_13_50/895](#) Verification of performance

Ss_65_40_33_45 Kitchen extract ventilation systems

Shared by: [Ss_40_45_70_24](#) Domestic kitchen FF&E systems

1. Description: An integrated wall mounted cooker hood extractor unit to be supplied with integral light and installed above cooker space - door to activate the unit.

Low decibel three speed controllable fan Strictly in accordance with Mechanical / Electrical Engineers Drawings & Specification with switchable light ducted to the exterior, via 100mm (or otherwise sized for compliance), proprietary rigid ducting to minimum runs to meet regulations.
2. System performance: Strictly in accordance with Consulting M&E Engineers Drawings & Specification.
3. Air transfer grilles: Strictly in accordance with Consulting M&E Engineers Drawings & Specification.
4. Extract fans: Strictly in accordance with Consulting M&E Engineers Drawings & Specification.
5. System completion: [Ss_65_40_33/810](#) Commissioning of air distribution systems; [Ss_65_40_33/850](#) Documentation for ventilation systems

System performance

Ss_40_15_35/240 Durability of fittings, furniture or equipment

- Requirement: System to achieve specified minimum design life, allowing for specified level of acceptable maintenance.
- Design life (minimum): 30 years.
- Records required: Maintenance manual.

Ss_40_15_35/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method
 - 2.1. Previous test results: *For fire performance.*
For durability.
 - 2.2. Computer simulation testing: *For durability.*
3. Testing authority: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification

Products

See [Ac_05_50_91/340](#) Timber sourcing in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

Pr_20_29_63_50 Masonry plugs

Shared by: [Ss_40_15_35_50](#) Minor joinery systems

1. Manufacturer: Contractor's choice .
2. Format: To suit substrate, loads to be supported and conditions expected in use.
3. Size: Manufacturer's standard .

See [Pr_20_29_76_98](#) Wood screws in [Ss_25_20_08_95](#) Weatherboarding systems - CEMENT BOARD TO SOFFITS

Pr_25_71_53_46 MIRRORS

1. Manufacturer: Submit proposals .
2. Standards: To [IS EN 1036-2](#).
3. Materials and standards
 - 3.1. Safety requirements: To [BS 6262-4](#) and [BS 6262-6](#).
 - 3.2. Materials: To [IS EN 572-2](#), float glass and To [IS EN 1036-1](#), float glass.
4. Thickness: 4 mm.

5. Finish: Silvered to give maximum reflection, free from tarnishing, discoloration, scratches and other defects visible in the designed viewing conditions. Reflection undistorted.
6. Backing: Polypropylene safety film.
7. Edges
 - 7.1. Treatment: Smoothed.
 - 7.2. Profile: Bevelled, 12 mm.
8. Provision for fixing: Holes, 4 mm diameter, inset 50 x 50 mm from corners, for fixing screws.
9. Integral accessories: Dome top mirror screws with flanged sleeves and washers.

Pr_35_90_43_66 Preformed casings

1. Material: Medium Density Fibreboard (MDF).
2. Finish as delivered: Prepared and primed.
3. Colour: Submit proposals .
4. Execution: [Pr_35_90_43/610 Finished wall and ceiling trim](#)

Pr_35_90_43_95 Wood mounting battens

1. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
2. Manufacturer: Contractor's choice .
3. Standard: To [BS 1186-3](#) and To [BS EN 942](#).
4. Species: Red Deal To [IS EN 942](#), softwood as Table NA.1.
5. Appearance class: To [IS EN 942](#), class J2.
6. Moisture content at time of fixing: 9–13%.
7. Fire rating: To [IS EN 13501-1](#), class A2 and To [IS EN 13501-1](#), class B.
8. Preservative treatment: Water-based microemulsion, service life 30 years.
9. Profile: Rectangular.

Pr_35_90_87_01 Acrylic adhesive fixing tapes

1. Manufacturer: Submit proposals.
2. Standard: To [BS 7116](#).
3. Material: Acrylic adhesive.
4. Bond: Double-sided acrylic adhesive – heavy-duty.
5. Size
 - 5.1. Size: To suit application.
 - 5.2. Width: To suit application. Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
 - 5.3. Length: To suit application.

Pr_40_20_76_90 Towel rails

1. Manufacturer: Submit proposals .
2. Form: Wall mounted.
3. Materials: Stainless steel.
4. Finish and colour: Satin.
5. Integral accessories: Manufacturer's standard .

Pr_40_20_87_84 Sink taps

1. Approval: Water Regulations Advisory Scheme (WRAS) approved.
2. Standards: To [BS EN 1287](#).
3. Form: Single lever design
Height 145mm, reach 205mm.
4. Materials
 - 4.1. Body: Brass.
 - 4.2. Finish and colour: polished chrome
5. Flow rate (maximum): Strictly in accordance with Consulting M&E Engineers Drawings & Specification.

minimum 0.1 bar pressure required lever action single flow.

Confirm suitable for the purpose, location and designed flow rate.

Pr_40_20_96_45 Kitchen sink

1. **Arrangement:** Double bowl sink with relief pattern left hand drainer.

Overall W 860mm D 500mm Bowl depth 180mm Min. base unit 500mm cut out W 838mm D 480mm

Sinks to comply with EN 13310 kitchen sinks- functional requirements and test methods.

0.7mm stainless steel satin finish with reversible 2 punched tap holes (one with tap hole stopper)

90mm waste outlet for a basket strainer waste suitable for a waste disposer Waste and overflow included.

Sink base units to be 450mm deep allowing for 120mm space back for services and have one intermediate shelf
uPVC sleeve to be placed to bottom edge of whole unit.

Drip tray to base of sink base unit with up-stand at rear; any leaks from sink U trap to be diverted towards cabinet door.

2. **Accessories:** [Pr_40_20_87_84 Sink taps](#)

Pr_40_30_50_46 Letter boxes

1. **Description:** Proprietary wall mounted letter box to be fitted externally at dwelling entrance.

2. **Manufacturer:** *Submit proposals.*

3. **New Item:** To comply with Building Regulations and Technical Guidance Document D

Letter plate aperture shall be positioned at a reasonable height above ground level
so as not to endanger the health and safety of persons using such apertures.

1. Lower edge of Letterbox aperture to be not less than 760mm over ground level.
2. Centre of Letterbox aperture to be approx 1070mm over ground level.
3. Upper edge of Letterbox aperture to be not more than 1450mm over ground level.

4. **Standard:** To [BS EN 13724](#).

5. **Classification grades (minimum)**

5.1. **Type of aperture:** Manufacturer's standard. Type 1: Aperture of private letter box for external use.

5.2. **Aperture size:** Size 2: 30–40 mm x 230–280 mm (depending on aperture type and height above floor).

5.3. **Corrosion resistance:** Grade 4: Very high resistance

5.4. **Security:** Grade 1:

6. **Materials:** Stainless Steel

7. **Colour and finish:** Brushed Satin finish.

Pr_40_30_78_17 Coat racks

1. **Arrangement:** Single sided.

2. **Mounting:** Wall fixed.

Pr_40_30_78_45 Kitchen storage units

Shared by: [Ss_40_45_70_24 Domestic kitchen FF&E systems](#)

1. **Description:**

Proprietary storage units for kitchens,

2. **Form:** Appliance housings;

Peninsular base units;

Perimeter base units;

Perimeter tall units;

and Perimeter wall units.

3. **Dimensions:** To [IS EN 1116](#).

4. **Surface finishes:** Durability to [BS 6222-3](#).

5. **Doors**

5.1. **Material:** PVC wrapped HDF (high density fibreboard) Doors. To be Formica bonded onto HDF

Finished thickness 19 – 20 mm,

Structural and surface performance to EN 16122.

5.2. **Finish and colour:** Samples to be provided for approval by Architect.

- 5.3. **Edges:** Edged with 2.0mm ABS securely fixed, factory finished.
- 5.4. **Hardware:** Concealed door hinges.
Stainless steel handles.
 - 5.4.1. **Hinges:** Self-closing, quality with three way adjustable cruciform plates. Samples to be provided for approval by Architect.
 - 1. Hinges to be 170° concealed with metal spring hinge system so they may fold back against adjoining units.
 - 2. Two hinges minimum on 715mm high doors, three hinges minimum on 900mm doors.
 - 5.4.2. **Handles:** Handles to be brushed stainless steel- three samples to be provided for approval by Architect.
- 6. **Side panels, plinths and pelmets**
 - 6.1. **Material:** All carcasses and panel sheet material to be manufactured from high density, fine surface 18mm MFC core board to EN 312 – type P3 moisture resisting.

Structural and surface performance to EN 16122.
 - 6.1.1. **Carcass:** To comply with EN 14749 European safety Standard for kitchen storage units and worktops. To have a hard wearing 80g/m2 melamine finish as standard, with all exposed edges 0.8mm ABS lipped and include an intermediate adjustable shelf where drawers are not provided.
 - 6.1.2. **Side panels and pelmets:** Formed in PVC wrapped HDF. Formica bonded onto HDF, Edged with 2.0mm ABS securely fixed, factory finished- finished thickness 19-20mm. Finish to colour to be selected by Architect.
 - 6.1.3. **Plinth :** 150*19mm high pressure laminate facing bonded MDF both sides, plinths. Plinths to be fully removable using clip system, clipped onto cabinet legs to EN 312 Type P3
 - 6.2. **Drawers :** Drawer units to have three metal box drawers, epoxy coated, with P3 15mm moisture resistant bottoms. Metal box drawers to have metal to three sides. 450 mm deep drawer to be incorporated at base. Top drawer to min 2 units to be fitted out with cutlery trays (one under hop of cooking accessories and second for general cutlery). Adjustable mounting brackets with metal runners and double nylon rollers with integrated stop to be incorporated.
 - 6.3. **Finish and colour:** Samples to be provided for approval by Architect.
 - 6.4. **Edges:** Edged with 2.0mm ABS securely fixed, factory finished.
- 7. **Integral accessories:** [Pr_40_50_21_45 Kitchen worktops](#); [Pr_40_20_87_84 Sink taps](#); [Pr_40_20_96_45 Kitchen sink](#); [Ss_65_40_33_45 Kitchen extract ventilation systems](#)
- 8. **Verification:** [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 8.1. **Submittals:** Safety data sheet.
Drawings, schedules, technical information, calculations, and manufacturer's literature.
 - 8.2. **Timing:** Before completion of detailed design.
Before placement of orders.
Before commencement of installation.

Pr_40_30_87_96 Wardrobes

- 1. **Description:** Wardrobe
- 2. **Doors:** PVC wrapped HDF (high density fibreboard) Doors. To be Formica bonded onto HDF. Finished thickness 19 – 20 mm, edged with 2.0mm ABS securely fixed, factory finished.
Structural and surface performance to EN 16122.
- 3. **Finish and colour:** Samples to be provided for approval by Architect.
- 4. **Accessories:** Concealed door hinges.
Stainless steel handles.

Hinges:
Self-closing, quality with three way adjustable cruciform plates. Samples to be provided for approval by Architect.
 - 1. Hinges to be 170° concealed with metal spring hinge system so they may fold back against adjoining units.
 - 2. Two hinges minimum on 715mm high doors, three hinges minimum on 900mm doors.**Handles:**
Handles to be brushed stainless steel- three samples to be provided for approval by Architect.
Side panels, plinths and pelmets
Material:
All carcasses and panel sheet material to be manufactured from high density, fine surface 18mm MFC core board to EN 312 – type P3 moisture resisting.
- 5. **Execution:** [Pr_40_30_78/620 Installing storage units](#)

Pr_40_50_21_45 Kitchen worktops

- 1. **Description:** Laminated worktop required to comprise 38mm Particle Board.
- 2. **Standards:** Structural and surface performance to EN 16122 and surface finishes to EN 438 (decorative high pressure laminates).

3. **Samples:** Samples to be provided for approval by Architect.
4. **Form:** Worktop to be post formed / bull nose moulded front edge with Patent drip barrier to be in place to bottom front underside edge.

Joints to be machine tooled, biscuited and to be sealed with EN 204 grade D3 or D4 moisture resistant gap filling adhesive. Mitred or butt joints to be used.

Worktops shall be continuous without visible jointing strips - aluminum or plastics joint strips are not permitted. Ends to be capped with 38mm chrome end piece.

Cutouts: Required for sinks and hobs

Execution

See [Pr_20_29_76/620 Fixing with screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_43/610 Finished wall and ceiling trim](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

Pr_40_30_78/620 Installing storage units

Shared by: [Ss_40_45_70_24 Domestic kitchen FF&E systems](#)

1. **General criteria:** Fitted to be stable, secure and level, with no unplanned gaps between adjacent units and between units and building fabric.

Ss_40_15_35/610 Applying sealant bedding and pointing

1. **Application:** Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
2. **Bedding:** Bed sinks to top of worktops.
Bed sink to underside of worktop.
Bed built-in hob to top of worktop.
3. **Pointing:** Joints between worktop and splash backs.
Joints between units and floor finish.
Joints between plinth and floor finish.

Ss_40_15_35/630 Installing mirrors

1. **Fixing:** Dome top mirror screws with flanged sleeves and washers.
3 mm (minimum) gap between back of mirror and wall surface.
2. **Installation:** Accurately align to suit mirror shape and location.

System completion

See [Ss_25_13_50/895 Verification of performance](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_40_15_35/805 Removal of samples

1. **Items to be removed:** Installation control samples;
Mock-up;
and Product samples.
2. **Timing:** At completion of work in this section.

Ss_40_15_35/810 General

1. **Doors and drawers:** Accurately align, not binding, operating smoothly.
2. **Hardware:** Functioning correctly.

Ss_40_15_35/820 Appliances and equipment

1. **Test:** Correct working of functions and features.
2. **Documentation:** Submit guarantees, instruction manuals, etc.

Ss_65_40_33/810 Commissioning of air distribution systems

1. **Commissioning:** Strictly in accordance with Consulting M&E Engineers Drawings & Specification.

Ss_65_40_33/850 Documentation for ventilation systems

1. **Operating and maintenance instructions**
 - 1.1. **Scope:** Strictly in accordance with Consulting M&E Engineers Drawings & Specification.

- 1.2. Product information: Product description. Date of purchase. Performance characteristics. Application (suitability for use). Method of operation and control. Cleaning and maintenance requirements.

Ω End of System

Ss_40_15_35_50 **Minor joinery systems** **Systems**

Ss_40_15_35_50 Minor joinery systems

1. Sundry items: [Pr_35_90_43_93 Custom made window sill boards - WINDOW BOARDS](#)
2. Rails and guards: [Pr_25_30_36_96 Wood handrails](#) and balustrade
3. Perimeter and junction trims: [Pr_35_90_43_21 Battens](#);
[Pr_35_90_31_58 One-part floor transition strips](#);
[Pr_35_90_43_92 Wood fillets](#);
4. Skirtings: [Pr_35_90_43_98 Wood skirtings](#)
5. Decorative trims: [Pr_35_90_43_87 Wood architraves](#)
6. Fasteners:

[Pr_20_29_63_50 Masonry plugs](#);
and [Pr_20_29_56_86 Staples](#). [Pr_20_29_76_98 Wood screws](#)
7. Samples required
 - 7.1. Product samples
 - 7.1.1. Submittals: As requested by Architect
 - 7.1.2. Purpose: for approvals and establishment of quality
 - 7.1.3. Labelling: *Clearly label all submitted samples.*
 - 7.1.4. Timing: *Before ordering for project.*
Obtain approval of appearance before proceeding.
8. Execution: [Ss_40_15_35/621 Fixing wood](#);
[Ss_40_15_35/631 Fixing metal](#);
[Ss_40_15_35/641 Fixing plywood](#);
[Ss_40_15_35/651 Fixing particleboard](#);
[Ss_40_15_35/660 Fixing wood veneered board](#);
and [Ss_40_15_35/700 Fixing bracket supports](#).
9. System completion: [Ss_40_15_35/891 Verification of performance](#).

Products

See [Ac_05_50_91/340 Timber sourcing](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_20_29_56_86 Staples

1. Manufacturer: Contractor's choice .
2. Finish: Galvanized to [BS EN 10244-2](#).

See [Pr_20_29_63_50 Masonry plugs](#) in [Ss_40_15_35_35 General FF&E systems](#)

See [Pr_20_29_76_98 Wood screws](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

Pr_25_30_36_96 Wood handrails

1. Description: Provide handrail to stairs as per Architects drawing and details.

Handrail shall be mounted so that the centre line of handrail shall be between 840mm & 900mm above the step in compliance with TGD K.

Final Height shall be agreed on site with Architect.
2. Quality: Free from decay, through splits and insect attack (including ambrosia beetle damage, unless permitted in the class/grade specified). Planed all round.
3. Species: Mahogany.
4. Appearance class: To [IS EN 942](#), Class J2.
5. Size: 50mm dia. max.
6. Profile: Shaped profile to Architects approval.
Handrail shall be mounted with a clear space of 50mm between wall & inner face of handrail.

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Ss_40_15_35_50
Minor joinery systems

7. Finish: Primed and painted
8. Accessories
 - 8.1. Adapters and panel clips: Proprietary connector with adjustable flat top, size to suit handrail diameter.
 - 8.2. Baseplates and covers: Base plate, size to suit handrail diameter and Cover for base plate, size to suit handrail diameter.
 - 8.3. End caps: 90° elbow.
 - 8.4. Angles and tees: Handrail tube fixed 90° elbow, size to suit handrail diameter.
9. Verification
 - 9.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_35_90_31_58 One-part floor transition strips

1. Manufacturer: Submit proposals .
 2. Form: Manufacturer's standard .
 3. Profile: Ramped.
 4. Material: Provide samples for Architects approval
- See [Pr_35_90_43_21 Battens](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

Pr_35_90_43_87 Wood architraves

1. Description: Architraves
2. General requirements: [Ac_05_50_91/340 Timber sourcing](#)
3. Manufacturer: **Submit proposals**
4. Standard: To IS EN 942.
5. Species: Douglas fir.
6. Appearance class: To [BS EN 942](#), class J5.
7. Moisture content at time of fixing: 9–13%.
8. Preservative treatment: Water-based microemulsion, service life 60 years.
9. Finish as delivered: Prepared and primed.
10. Execution: [Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims](#); [Pr_35_90_43/610 Finished wall and ceiling trim](#)
11. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

See [Pr_35_90_43_92 Wood fillets](#) in [Ss_30_25_10_80 Soffit lining and beam casing systems - BULKHEADS](#)

See [Pr_35_90_43_93 Custom made window sill boards - WINDOW BOARDS](#) in [Ss_25_30_95_26 External window systems - EXTERNAL ALUCLAD WINDOWS](#)

See [Pr_35_90_43_98 Wood skirtings](#) in [Ss_30_20_95_20 Direct-fixed wood floor systems - TIMBER FIRST FLOOR](#)

Execution

See [Pr_20_29_76/620 Fixing with screws](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_90_43/606 Installing wood architraves, skirtings, mouldings and trims](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

See [Pr_35_90_43/610 Finished wall and ceiling trim](#) in [Ss_25_30_20_25 Doorset systems - INTERNAL TIMBER DOORS](#)

See [Ss_30_40_95/616 Fixing battens](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

Ss_40_15_35/611 Installation of isolated trims generally

1. Straight runs: In one piece or in long lengths with as few joints as possible.
2. Joints at angles: Mitre.

Ss_40_15_35/621 Fixing wood

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Method: Screw fix and apply pellet.
3. Centres: 300 mm.

Ss_40_15_35/631 Fixing metal

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Support and fixing: Fix to softwood grounds with lost head nails at 600 mm centres.

Ss_40_15_35/641 Fixing plywood

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Support and fixing: Pin and glue to softwood grounds.

Ss_40_15_35/651 Fixing particleboard

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Support and fixing: Pin and glue to softwood framing.

Ss_40_15_35/660 Fixing wood veneered board

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Support and fixing: Pin and glue to softwood grounds.

Ss_40_15_35/700 Fixing bracket supports

1. General requirements: [Ss_40_15_35/611 Installation of isolated trims generally](#) .
2. Method: Plug and screw to substrate.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_40_15_35/891 Verification of performance

1. Requirements: Check completed system and provide assurance of compliance with specified performance.
2. Submissions
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of installation.

Ω End of System

Ss_40_15_75_05

Bath systems

Systems

Ss_40_15_75_05 Bath systems

1. Description: SANITARYWARE - BATH
2. System performance: [Ss_40_15_75/210 Design of sanitary assemblies](#)
3. System manufacturer: Submit proposals .
4. Components: [Pr_40_20_06_08 Baths](#); [Pr_40_20_87_09 Bath taps](#); [Pr_70_55_96_06 Bath wastes](#)
5. System accessories: [Pr_40_20_76_07 Bath panels](#); and [Pr_40_20_87_75 Shower fittings package](#)
6. Execution: [Ss_40_15_75/610 Installing sanitary assemblies generally](#)
7. System completion: [Ss_40_15_75/810 Water supply fittings](#); [Ss_40_15_75/820 Documentation](#)

System performance

Ss_40_15_75/210 Design of sanitary assemblies

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#) , [Ss_40_15_75_80 Sink systems](#) , [Ss_40_15_90_97 WC systems](#) and [Ss_40_15_75_94 Washbasin systems](#)

1. Standards: In accordance with [BS 6465-3](#).

All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.

2. Design: Complete the design of the sanitary assemblies.
3. Verification: Submit proposals including detailed design drawings, technical information, calculations and manufacturers' literature.

Products

Pr_40_20_06_08 Baths

1. Manufacturer: Submit proposals .
2. Standards: To [IS EN 14516](#), Class 1.
3. Approvals: [Water Regulations Advisory Scheme \(WRAS\)](#) approved.
4. Form: Rectangular single ended bath with anti-slip
5. Materials: Acrylic and Vitreous enamelled steel.
6. Colour: White.
7. Size: 1800 x 800 mm.
8. Volume to overflow (maximum): 100 L.
9. Water supply, overflow and waste holes
 - 9.1. Water supply: Two tap holes at bath end
 - 9.2. Overflow: Overflow hole.
 - 9.3. Waste: Chainstay hole.
10. Support frame: Integral cradle.
11. Integral accessories: Handgrips and Wall restraint fixings.
12. Execution: [Pr_40_20_06/612 Installing bath assemblies](#).
13. Verification
 - 13.1. Submittals: Provide Product Data & Certification as required and outlined in Section [PM 40 Design and approvals information](#)

All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.

Product Data & Certification of compliance with the standard shall be provided when requested by the Employers representative, Consultant Engineer or Assigned Certifier.
 - 13.2. Timing: *Before placement of orders.*
Before commencement of installation.

Pr_40_20_76_07 Bath panels

1. Manufacturer: Submit proposals .
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2. Form: End and Side.
3. Materials
 - 3.1. Body: Acrylic.
 - 3.2. Finish and colour: To match bath.
4. Integral accessories: Concealed fixings and Push-fit screw head caps.
5. Verification
 - 5.1. **Submittals:** Provide Product Data & Certification as required and outlined in Section **PM 40 Design and approvals information**

All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.

Product Data & Certification of compliance with the standard shall be provided when requested by the Employers representative, Consultant Engineer or Assigned Certifier.
 - 5.2. **Timing:** *Before placement of orders.*
Before commencement of installation.

Pr_40_20_87_09 Bath taps

1. Manufacturer: Submit proposals.
2. Standards: **All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar.**

To [BS EN 200](#) - Single taps and combination taps.
To [BS EN 817](#) - Sanitary tapware. Mechanical (non-thermostatic) mixing valves (PN 10).
To [BS EN 1111](#) - Sanitary tapware. Thermostatic mixing valves (PN 10).
To [BS EN 1286](#) - Sanitary tapware. Low pressure mechanical mixing valves.
To [BS EN 1287](#) - Sanitary tapware. Low pressure thermostatic mixing valves.
3. Approvals: Water Regulations Advisory Scheme (WRAS) approved.
4. Form: Thermostatic bath mixer tap.
5. Materials
 - 5.1. Body: Brass.
 - 5.2. Finish and colour: Chrome plated.
6. Flow rate (maximum): All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.
7. Water supply temperature (maximum): 48°C.
8. Integral accessories: Pop-up waste operating handle.
9. Verification
 - 9.1. **Submittals:** Provide Product Data & Certification as required and outlined in Section **PM 40 Design and approvals information**

All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.

Product Data & Certification of compliance with the standard shall be provided when requested by the Employers representative, Consultant Engineer or Assigned Certifier.
 - 9.2. **Timing:** *Before placement of orders.*
Before commencement of installation.

Pr_40_20_87_75 Shower fittings package

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#)

1. Description: Fixed shower screen to baths
2. Manufacturer: Submit proposals .
3. Standards
 - 3.1. Shower mixers: To [BS EN 1286](#) - Sanitary tapware. Low pressure mechanical mixing valves.
To [BS EN 1287](#) - Sanitary tapware. Low pressure thermostatic mixing valves.
 - 3.2. Showerheads: To [BS EN 1112](#).
 - 3.3. Shower hoses: To [BS EN 1113](#).
4. Approvals: Water Regulations Advisory Scheme (WRAS) approved.
5. Form: Wall mounted shower mixer valve, flexible hose, spray handset and sliding rail kit.

6. Materials
 - 6.1. Body: Brass.
 - 6.2. Finish and colour : Chrome plated.
7. Flow rate (maximum): All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.
8. Integral accessories: Manufacturer's standard .
9. Verification
 - 9.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 9.2. Timing: *Before placement of orders.*
Before commencement of installation.

Pr_70_55_96_06 Bath wastes

1. Standard: To [BS EN 274-1](#).
2. Form: Recessed grated waste with plug, chain and stay combined with overflow.
3. Tail pattern: Slotted, with overflow pipe.
4. Materials
 - 4.1. Body: Brass.
 - 4.2. Finish and colour: Chrome plated.
5. Size: DN 40 (1½ in).
6. Verification
 - 6.1. Submittals: Provide Product Data & Certification as required and outlined in Section **PM 40 Design and approvals information**

All products, materials, techniques or equipment used in the works must be currently certified as suitable for their purpose and exposure situation.

Product Data & Certification of compliance with the standard shall be provided when requested by the Employers representative, Consultant Engineer or Assigned Certifier.
 - 6.2. Timing: *Before placement of orders.*
Before commencement of installation.

Execution

Pr_40_20_06/612 Installing bath assemblies

1. Supporting structures
 - 1.1. Requirements
 - 1.1.1. Levels: Supporting substrate to be within tolerances to permit levelling of the bath or cradle using built-in adjusters.
 - 1.1.2. Timber-joisted floors: Doubled floor joists below bath, or joists otherwise adequate to support bath filled to overflow level.
2. Cradles
 - 2.1. Securing: Secure to wall and/ or floor.
 - 2.2. Levelling: Adjust to bring edges of bath to level.
3. Overflow connector pipe: Secure flexible overflow connector pipe to bath overflow grille. Use sealing washer to grille.
4. Panels: Secure bath panels to cradle brackets.
5. Bedding: Clear silicone sealant.
6. Pointing: Clear silicone sealant.

Ss_40_15_75/610 Installing sanitary assemblies generally

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#) , [Ss_40_15_75_80 Sink systems](#) , [Ss_40_15_90_97 WC systems](#) and [Ss_40_15_75_94 Washbasin systems](#)

1. Standards
 - 1.1. Space requirements: In accordance with [BS 6465-2](#) and In accordance with [BS 8300-2](#).
 - 1.2. Installation: In accordance with [BS 6465-3](#).
2. Supply and discharge pipework: Fix before appliances.
3. Appliances

- 3.1. Surfaces designed to falls: Install to drain as intended.
- 3.2. Fasteners: Use nonferrous or stainless steel fasteners.
- 3.3. Fixing: Fix appliances securely to structure or to appropriate brackets. Do not support on pipework.
- 3.4. Unauthorized use: Do not use appliances.
- 3.5. Sealing to walls and floors
 - 3.5.1. Sealants: Silicone sealant.
 - 3.5.2. Colours: Matched to appliance.
4. Water supply fittings
 - 4.1. Positioning: Hot tap to left of cold tap as viewed by user of appliance.
 - 4.2. Fixing: Secure against twisting.
 - 4.3. Sealing to appliance: Use supplied washers. Replace supplied lower washers with plastics top hat washers if required for secure fixing.
5. Wastes: Secure in position on waterproof jointing compound.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification in Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_40_15_75/810 Water supply fittings

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#) , [Ss_40_15_75_80 Sink systems](#) , [Ss_40_15_90_97 WC systems](#) and [Ss_40_15_75_94 Washbasin systems](#)

1. Water flow rates: All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar.

Contractors should seek confirmation from the manufacturer that products are compatible and the arrangement satisfies all applicable performance requirements.

Test and adjust flow rates to meet specified requirements.

Strictly in accordance with M&E Engineers Drawings & Specification.
2. Water temperature at outlets: Test and adjust maximum temperatures to meet specified requirements.
3. Requirements: All materials and products in contact with water intended for human consumption shall achieve compliance with Statutory Instrument 122 of 2014, European Union (Drinking Water) Regulations 2014, and shall be:

Included in the latest "List of Approved Products for use in Public Water Supply in the United Kingdom" published by the Drinking Water Inspectorate (DWI) for England and Wales. - Documentary evidence that the substance or product has been specifically approved under the DWI system,

or

listed in the current edition of the Water Fittings and Materials Directory published by the Water Regulations Advisory Scheme (WRAS).

Ss_40_15_75/820 Documentation

Shared by: [Ss_40_15_75_79 Shower cubicle systems](#) , [Ss_40_15_75_80 Sink systems](#) , [Ss_40_15_90_97 WC systems](#) and [Ss_40_15_75_94 Washbasin systems](#)

1. Operating and maintenance instructions
 - 1.1. Scope: Provide any operation and/ or maintenance instruction for the system being specified.
 - 1.2. Product information: Product description.
Date of purchase.
Performance characteristics.
Application (suitability for use).
Method of operation and control.
Cleaning and maintenance requirements.
 - 1.3. Format: Paper copy and Digital copy.
 - 1.4. Number of copies: Two.
2. Record drawings
 - 2.1. Content: Location and arrangement of appliances in rooms;
Location, route and depth of underground services;
Location and identification of pipework regulating, isolation and control valves;
and Location of outlets.
 - 2.2. Format: A1 paper print drawing and Electronic drawing.
 - 2.3. Number of copies: Two.

3. Submittal date: At handover.

Ω End of System

Ss_40_15_75_79

Shower cubicle systems

Systems

Ss_40_15_75_79 Shower cubicle systems

1. System performance: [Ss_40_15_75/210 Design of sanitary assemblies](#)
2. System manufacturer: Submit proposals .
3. Components: [Pr_40_20_06_79 Shower enclosures](#)
4. Valves: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
5. System accessories: [Pr_40_20_87_75 Shower fittings package](#)
6. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Execution: [Ss_40_15_75/610 Installing sanitary assemblies generally](#); [Pr_40_20_06/630 Installing wet room floor formers](#)
8. System completion: [Ss_40_15_75/810 Water supply fittings](#); [Ss_40_15_75/820 Documentation](#)

System performance

See [Ss_40_15_75/210 Design of sanitary assemblies](#) in [Ss_40_15_75_05 Bath systems](#)

Products

Pr_40_20_06_79 Shower enclosures

1. Standards: To [BS EN 14428](#).
2. Form: Bath screen;
Framed safety glazed screen; between walls;
Hinged doors;
and Pivoted door.
3. Materials
 - 3.1. Frame
 - 3.1.1. Body: Manufacturer's standard .
 - 3.1.2. Finish and colour : Provide samples.
Confirm with Architect type and size of samples for submission.
 - 3.2. Glazing
 - 3.2.1. Glazing type: 6 mm toughened safety glass to [BS EN 12150-1](#).
 - 3.2.2. Finish and colour: Clear, patterned.
4. Integral accessories: Manufacturer's standard .
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: *Before placement of orders*.

See [Pr_40_20_87_75 Shower fittings package](#) in [Ss_40_15_75_05 Bath systems](#)

Execution

See [Pr_40_20_06/630 Installing wet room floor formers](#) in [Ss_30_42_15_30 Floating cementitious levelling screed systems](#)

See [Ss_40_15_75/610 Installing sanitary assemblies generally](#) in [Ss_40_15_75_05 Bath systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_40_15_75/810 Water supply fittings](#) in [Ss_40_15_75_05 Bath systems](#)

See [Ss_40_15_75/820 Documentation](#) in [Ss_40_15_75_05 Bath systems](#)

Ω End of System

Ss_40_15_75_80

Sink systems

Systems

Ss_40_15_75_80 Sink systems

1. System performance: [Ss_40_15_75/210 Design of sanitary assemblies](#).
2. Components: [45-35-70/345 Taps and water supply fittings for sinks](#)
3. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Execution: [Ss_40_15_75/610 Installing sanitary assemblies generally](#)
5. System completion: [Ss_40_15_75/810 Water supply fittings](#) and [Ss_40_15_75/820 Documentation](#).

System performance

See [Ss_40_15_75/210 Design of sanitary assemblies](#) in [Ss_40_15_75_05 Bath systems](#)

Products

45-35-70/345 Taps and water supply fittings for sinks

Shared by: [Ss_55_70_38_15 Cold water supply systems](#)

1. Manufacturer: Submit proposals .
2. Approval: Water Regulations Advisory Scheme (WRAS) approved.
3. Standards: All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar.

To BS EN 200 - Single taps and combination taps.
To BS EN 817 - Sanitary tapware. Mechanical (non-thermostatic) mixing valves (PN 10).
To BS EN 1111 - Sanitary tapware. Thermostatic mixing valves (PN 10).
To BS EN 1286 - Sanitary tapware. Low pressure mechanical mixing valves.
To BS EN 1287 - Sanitary tapware. Low pressure thermostatic mixing valves.
4. Form: High neck pillar taps;
Lever action bib taps;
Lever action high neck pillar taps;
Mixer taps;
and Thermostatic mixer taps.
5. Materials: All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.
 - 5.1. Body: Brass.
 - 5.2. Finish and colour: Chrome plated.
6. Integral accessories: Manufacturer's standard .

Execution

See [Ss_40_15_75/610 Installing sanitary assemblies generally](#) in [Ss_40_15_75_05 Bath systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_40_15_75/810 Water supply fittings](#) in [Ss_40_15_75_05 Bath systems](#)

See [Ss_40_15_75/820 Documentation](#) in [Ss_40_15_75_05 Bath systems](#)

Ω End of System

Ss_40_15_75_94 Washbasin systems Systems

Ss_40_15_75_94 Washbasin systems

1. Description: WC / WET ROOM / BATHROOM
2. System performance: [Ss_40_15_75/210 Design of sanitary assemblies](#).
3. System manufacturer: Submit proposals .
4. Components: [Pr_40_20_96_63 Pedestal washbasins](#)
[Pr_40_20_96_96 Wall-hung washbasins](#)
[45-35-70/371 Taps and water supply fittings for wash basins and troughs](#)
[Pr_70_55_96_97 Washbasin wastes](#)
and [Pr_20_85_09_98 Washbasin support brackets](#)
5. Valves: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
6. System accessories: Submit proposals .
7. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
8. Execution: [Ss_40_15_75/610 Installing sanitary assemblies generally](#).
9. System completion: [Ss_40_15_75/810 Water supply fittings](#) and [Ss_40_15_75/820 Documentation](#).

System performance

See [Ss_40_15_75/210 Design of sanitary assemblies](#) in [Ss_40_15_75_05 Bath systems](#)

Products

45-35-70/371 Taps and water supply fittings for wash basins and troughs

Shared by: [Ss_55_70_38_15 Cold water supply systems](#)

1. Manufacturer: Submit proposals .
2. Standards:

All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar.

To [BS EN 200](#) - Single taps and combination taps.
To [BS EN 817](#) - Sanitary tapware. Mechanical (non-thermostatic) mixing valves (PN 10).
To [BS EN 1111](#) - Sanitary tapware. Thermostatic mixing valves (PN 10).
To [BS EN 1286](#) - Sanitary tapware. Low pressure mechanical mixing valves.
To [BS EN 1287](#) - Sanitary tapware. Low pressure thermostatic mixing valves.
3. Approval: Water Regulations Advisory Scheme (WRAS) approved.
4. Form: Mixer taps;
Pillar taps;
Thermostatic combination mixer taps;
and Thermostatic mixer taps.
5. Materials: All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.
 - 5.1. Body: Brass.
 - 5.2. Finish and colour: Chrome plated.
6. Integral accessories: Manufacturer's standard .

Pr_20_85_09_98 Washbasin support brackets

1. Manufacturer: Submit proposals .
2. Form: Wall mounted bearers.
3. Materials
 - 3.1. Bearers
 - 3.1.1. Body: Stainless steel.
 - 3.1.2. Finish and colour: Manufacturer's standard .

Pr_40_20_96_63 Pedestal washbasins

1. Manufacturer: Submit proposals .

2. Standard: To [IS EN 14688](#).
3. Overflow class: CL00.
4. Form: Semi pedestal.
5. Materials
 - 5.1. Body: Vitreous china to [BS 3402](#).
 - 5.2. Finish and colour: White.
6. Size: 450 x 300 mm and 560 x 440 mm.
7. Water supply, overflow and waste holes
 - 7.1. Water supply: Two tap holes.
 - 7.2. Overflow: Rear overflow hole.
 - 7.3. Waste: Bottom waste outlet. Chainstay hole.
8. Integral accessories: Manufacturer's standard .
9. Execution: [Pr_40_20_96/620 Installing wash basin assemblies](#).
10. Verification
 - 10.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 10.2. Timing: *Before placement of orders*.

Pr_40_20_96_96 Wall-hung washbasins

1. Manufacturer: Submit proposals .
2. Standard: To [IS EN 14688](#).
3. Overflow class: CL00.
4. Form: Wall hung wash basin.
5. Connecting dimensions: To [BS EN 31](#).
6. Materials
 - 6.1. Body: Vitreous china to [BS 3402](#).
 - 6.2. Finish and colour: White.
7. Size: 540 x 410 mm and 560 x 440 mm.
8. Water supply, overflow and waste holes
 - 8.1. Water supply: Two tap holes.
 - 8.2. Overflow: Rear overflow hole.
 - 8.3. Waste: Bottom waste outlet. Chainstay hole.
9. Integral accessories: Manufacturer's standard .
10. Execution: [Pr_40_20_96/620 Installing wash basin assemblies](#).
11. Verification
 - 11.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 11.2. Timing: *Before placement of orders*.

Pr_70_55_96_97 Washbasin wastes

- Manufacturer: Submit proposals
- Standard: To [IS EN 274-1](#).
- Form: Recessed grated wastes with plug, chain and stay.
- Tail pattern: Slotted with overflow pipe.
- Materials
 - Body: Brass.
 - Finish and colour: Chrome plated.
- Size: DN 32 (1¼ in).
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: *Before placement of orders*.

Execution

Pr_40_20_96/620 Installing wash basin assemblies

1. Brackets or leg frames
 - 1.1. Fixing: Secure.
 - 1.2. Levels: Top surfaces in a horizontal plane.
2. Pedestals: Plumb and accurately aligned with basin. Securely fix to the floor.
3. Sealing to walls: Clear silicone sealant.

See [Ss_40_15_75/610 Installing sanitary assemblies generally](#) in [Ss_40_15_75_05 Bath systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_40_15_75/810 Water supply fittings](#) in [Ss_40_15_75_05 Bath systems](#)

See [Ss_40_15_75/820 Documentation](#) in [Ss_40_15_75_05 Bath systems](#)

Ω End of System

Ss_40_15_90_97 WC systems

Systems

Ss_40_15_90_97 WC systems

1. System performance: [Ss_40_15_75/210 Design of sanitary assemblies](#).
2. System manufacturer: Submit proposals .
3. Components: [Pr_40_20_93_97 WC suites](#);
[45-35-70/389 WC flushing valves](#);
[Pr_40_20_93_93 WC pan connectors](#);
and [Pr_40_20_93_95 WC seats and covers](#).
4. Verification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
5. Execution: [Ss_40_15_75/610 Installing sanitary assemblies generally](#).
6. System completion: [Ss_40_15_75/810 Water supply fittings](#) and [Ss_40_15_75/820 Documentation](#).

System performance

See [Ss_40_15_75/210 Design of sanitary assemblies](#) in [Ss_40_15_75_05 Bath systems](#)

Products

45-35-70/389 WC flushing valves

1. Manufacturer: Submit proposals .
2. Approvals: [Water Regulations Advisory Scheme \(WRAS\)](#) approved.
3. Form: Exposed.
4. Operation: Push button.

Pr_40_20_93_93 WC pan connectors

1. Manufacturer: Submit proposals .
2. Standard: To [BS 5627](#).
3. Third-party product certification: BSI Kitemark certified.
4. Jointing: Push fit / Solvent weld. Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
5. Material: PVCU. Polypropylene. Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
6. Colour: White.
7. Size: DN 110.

8. Integral accessories: DN 32 boss connector.
9. Verification
 - 9.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 9.2. Timing: Before placement of orders.

Pr_40_20_93_95 WC seats and covers

- Manufacturer: Submit proposals .
- Form: Seat and cover.
- Materials
 - Body: Plastics with metal hinges.
 - Finish and colour: White and Colour to match pan.
- Soft close: Required.
- Size: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
- Integral accessories: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: *Before placement of orders.*

Pr_40_20_93_97 WC suites

1. Description: White quality ceramic low level close couple suite with integral cistern, dual flush
2. Standards
 - 2.1. Cisterns: To [IS EN 997](#), Class 2.
 - 2.2. Pans: To [IS EN 997](#), Class 2.
3. Approvals: Water Regulations Advisory Scheme (WRAS) approved.
4. Form: Back to wall WC pan and cistern
Wall mounted WC pan and cistern.
5. Connecting dimensions: To [IS EN 33](#).
6. Materials
 - 6.1. Body: Vitreous china to [BS 3402](#).
 - 6.2. Finish and colour: White.
7. Sizes
 - 7.1. Cistern capacity: 6/4 L dual flush. 4/2.6 L dual flush.
 - 7.2. Pan height: 450 mm.
8. Integral accessories: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
9. Execution: [Pr_40_20_93/622 Installing flushing WC assemblies](#).
10. Verification
 - 10.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 10.2. Timing: *Before placement of orders.*

Execution

Pr_40_20_93/622 Installing flushing WC assemblies

1. Pans
 - 1.1. Floor-mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings.
 - 1.2. Seat and cover: Stable when raised.
2. Cisterns
 - 2.1. Brackets
 - 2.1.1. Fixing: Secure.
 - 2.1.2. Levels: Top surfaces of brackets in a horizontal plane.
 - 2.2. Cistern-operating components: Obtain from cistern manufacturer.
 - 2.3. Float-operated valves: Match to pressure of water supply.

2.4. Overflow pipes

- 2.4.1. Fixing at cistern: With resilient washer between appliance and backnut.
- 2.4.2. Fixing generally: Fix to falls and in a location that gives visible warning of discharge.
- 2.4.3. Position: Agree on a position, where not already shown on drawings.

See [Ss_40_15_75/610](#) Installing sanitary assemblies generally in [Ss_40_15_75_05](#) Bath systems

System completion

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

See [Ss_40_15_75/810](#) Water supply fittings in [Ss_40_15_75_05](#) Bath systems

See [Ss_40_15_75/820](#) Documentation in [Ss_40_15_75_05](#) Bath systems

Ω End of System

Ss_40_45_70_24

Domestic kitchen FF&E systems

Systems

Ss_40_45_70_24 Domestic kitchen FF&E systems

- Description: Kitchen Fittings
- Shop Drawings: Provide shop drawings for all joinery items for Architects approval prior to fabrication. Drawings to be min 1:20 scale and clearly indicate elevations and sections indicating all materials, features and dimensions.
- Products: [Pr_40_30_78_45](#) Kitchen storage units
[Ss_65_40_33_45](#) Kitchen extract ventilation systems
[Pr_40_50_28_29](#) Fire protective blankets
- Execution: [Pr_40_30_78/620](#) Installing storage units; [Pr_60_65_94/620](#) Installing extractor hoods; [Pr_40_30_30/611](#) Installing worktops and counter tops

See [Ss_65_40_33_45](#) Kitchen extract ventilation systems in [Ss_40_15_35_35](#) General FF&E systems

Products

See [Pr_40_20_87_84](#) Sink taps in [Ss_40_15_35_35](#) General FF&E systems

See [Pr_40_20_96_45](#) Kitchen sink in [Ss_40_15_35_35](#) General FF&E systems

See [Pr_40_30_78_45](#) Kitchen storage units in [Ss_40_15_35_35](#) General FF&E systems

See [Pr_40_50_21_45](#) Kitchen worktops in [Ss_40_15_35_35](#) General FF&E systems

Pr_40_50_28_29 Fire protective blankets

1. Standard: Type 1 to [BS 7944](#)
2. Size: Type 1 blanket from 1m to 1.8 m square or rectangular within that range.
3. Material: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Execution

Pr_40_30_30/611 Installing worktops and counter tops

1. General criteria: *Fitted to be stable, secure and level, with no unplanned gaps between adjacent units, and between units and building fabric.*
2. Supports: [Pr_40_30_78_45](#) Kitchen storage units

See [Pr_40_30_78/620](#) Installing storage units in [Ss_40_15_35_35](#) General FF&E systems

Pr_60_65_94/620 Installing extractor hoods

1. General: Do not distort. Fix securely.
2. Air leakage: Prevent. Seal joints with self-adhesive foam strip or equivalent.
3. Appearance: Finish visible edge joints neatly. Do not leave sharp edges and protruding screws.

4. Operation: Fit so that moving parts operate correctly and removable filters can be taken out and replaced.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_65_40_33/810 Commissioning of air distribution systems](#) in [Ss_40_15_35_35 General FF&E systems](#)

See [Ss_65_40_33/850 Documentation for ventilation systems](#) in [Ss_40_15_35_35 General FF&E systems](#)

Ω End of System

Ss_40_70_75/620

Concrete foundations generally

Systems

Ss_40_70_75/620 Concrete foundations generally

1. Description: **GROUND FLOOR STRUCTURE - FOUNDATIONS GENERALLY**
2. Performance : Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. System performance: Excavations to be carried out using trench boxes to support the sides of the excavations as they are sunk.
If a proprietary system isn't available the trench boxes will need to be pre-fabricated by the contractor in steel or timber. These will be withdrawn gradually as the lean mix concrete fill is being poured into the excavations. foundation
4. Standards: Comply in every respect with the requirements of the Consulting Engineers' Specification for Structural and Civil Works.

See engineering drawings and specification from Consultant Engineers

Ω End of System

Ss_40_90_60_95

Waterborne paint systems - TIMBER JOINERY

Systems

Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY

1. Description: Protective and decorative painted finishes suitable for interior timber.
2. System performance: [Ss_40_90_60/290 Compliance with performance requirements](#)
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. System manufacturer: *Submit proposals.*
4. Preparation: [Pr_15_31_04_13 Cleaners](#); [Pr_35_31_65_22 Degreaser solutions](#); [Pr_35_31_65_23 Detergent solutions](#); [Pr_35_31_65_98 Wood knotting solutions](#); [Pr_35_31_66_77 Sealant primers](#); [Pr_35_31_77_76 Sealers](#)
5. Initial coats: [Pr_35_31_66_98 Waterborne wood primers](#)
6. Undercoats: [Pr_35_31_66_99 Waterborne undercoats](#)
7. Finishing coats: [Pr_35_31_22_94 Water-based finishing coats](#)
8. Sealing of internal movement joints: [Pr_30_31_76_02 Acrylic construction joint sealants](#)
9. Preservative-treated timber: [Pr_35_31_67_96 Waterborne preservatives](#)
10. Execution: [Ss_40_90_60/601 Workshop coating of concealed joinery surfaces](#); [Ss_40_90_60/603 Handling and storage of coating materials](#); [Ss_40_90_60/605 Surfaces not to be coated](#); [Ss_40_90_60/607 Wet paint signs](#); [Ss_40_90_60/610 Control samples of finishes](#); [Ss_40_90_60/615 Inspection by coating manufacturers](#); [Ss_40_90_60/620 Preparation for coating systems generally](#); [Ss_40_90_60/625 Application of coating systems around hardware](#); [Ss_40_90_60/644 Preparing preservative-treated timber](#); [Ss_40_90_60/700 Applying coating generally](#); [Ss_40_90_60/717 Coating of concealed joinery surfaces](#)
11. System completion: [Ss_40_90_60/895 Verification of performance](#)

System performance

Ss_40_90_60/290 Compliance with performance requirements

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) , [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#) and [Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT](#)

Employers Requirements, Architectural & Landscaping Specification

1. Requirement: Proof of compliance with specified performance.
2. Standard: In accordance with EN 13 300
3. Submittals
 - 3.1. Format: Data sheets and certification.
 - 3.2. Timing: Before commencing installation.

Products

Pr_15_31_04_13 Cleaners

1. Category: Water-borne, non-hazardous. pH neutral.

See [Pr_30_31_76_02 Acrylic construction joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_31_22_94 Water-based finishing coats

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: Submit proposals. <https://nbs.fyi/KelSmK>
2. Composition: Manufacturer's standard. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
3. Sheen: *Eggshell.*
Satin.
Semi-gloss.
Silk.
4. Execution: [Pr_35_31_22/703 Applying coating \(41\)-Joinery](#)

Pr_35_31_65_22 Degreaser solutions

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Composition: Manufacturer's standard .

Pr_35_31_65_23 Detergent solutions

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Description: For removing dirt and debris from surfaces prior to application of coating systems. Proprietary solvent-emulsion cleaners should be used for the removal of oil or grease. All residues should be completely removed prior to applying coating systems.
2. Manufacturer: Submit proposals.
3. Composition: Water-borne

Pr_35_31_65_98 Wood knotting solutions

1. Standard: To [BS 1336](#).

Pr_35_31_66_77 Sealant primers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Category: As recommended by sealant manufacturer.

Pr_35_31_66_98 Waterborne wood primers

- Description: Priming shall be carried out at an early stage and before timber is brought on site.

Treated timbers must be primed within ten days of treatment.
- Manufacturer: *Submit proposals.*
- Standard: [BS 7956](#)
- Category: As recommended by coating system manufacturer suitable for the purpose, location and detail..

- Execution: [Pr_35_31_66/685 Primer dry film thickness \(dft\)](#)

Pr_35_31_66_99 Waterborne undercoats

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Composition: Manufacturer's standard .

See [Pr_35_31_67_96 Waterborne preservatives](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

Pr_35_31_77_76 Sealers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Composition: Water-borne.

Execution

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_31_22/703 Applying coating (41)-Joinery

Shared by: [Pr_35_31_22_96 Waterborne masonry paints](#)

1. Initial coats
 - 1.1. Number of coats: Two.
 - 1.2. Thinning: In accordance with manufacturer's instructions. Coatings should not be excessively thinned
 - 1.3. Application: In accordance with BS 6150, clause 9.
 1. Environmental conditions: Maintain suitable temperature, humidity and air quality during application and drying.
 2. Surfaces: Clean and dry at time of application.
 3. Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
 4. Overpainting: Do not paint over intumescent strips or silicone mastics.
 5. Initial coats:
 6. Thickness: To suit surface porosity.
 7. Application: As soon as possible on same day as preparation is completed.
 8. Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
 9. Cutting in: Cut in neatly.
 10. Doors, opening windows and other moving parts: Ease before coating, and between coats.
2. Undercoats
 - 2.1. Number of coats: Two.
 - 2.2. Application: Brush application is recommended for wood, to achieve correct coverage and permeation.
3. Finishing coats
 - 3.1. Number of coats: One.
 - 3.2. Application: Brush application is recommended for wood, to achieve correct coverage and permeation.

Pr_35_31_66/685 Primer dry film thickness (dft)

Shared by: [Pr_35_31_66_67 Primer-sealers](#) and [Pr_35_31_66_96 Waterborne metal primers](#)

1. Dry film thickness (minimum): As recommended by manufacturer.
2. Measuring primer dft : Determine average dft (for deduction from total dft after application of coating).

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/615 Retrospective application of water borne preservative treatment](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

Ss_40_90_60/601 Workshop coating of concealed joinery surfaces

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. General: Apply coatings to all surfaces of components.

Ss_40_90_60/603 Handling and storage of coating materials

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

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.

Ss_40_90_60/605 Surfaces not to be coated

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Surfaces not to be coated: External Door / Window frames, Radiator valves and stop valves.
2. Surfaces to be cleaned but not coated: Window Cills

Ss_40_90_60/607 Wet paint signs

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Requirement: Provide where necessary.

See [Ss_40_90_60/610 Control samples of finishes](#) in [Ss_25_45_88_40 Internal wall tiling systems](#)

Ss_40_90_60/615 Inspection by coating manufacturers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. General: Permit manufacturers to inspect work in progress and take samples of their materials from site.

Ss_40_90_60/620 Preparation for coating systems generally

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) , [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#) and [Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT](#)

1. Standard: In accordance with [BS 6150](#).
2. Substrates: Sufficiently dry in depth to suit coating.
3. Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Efflorescence salts: Remove.
5. Dirt, grease and oil: Remove.
6. Contamination of surfaces and substrates : Give notice.
7. Surface irregularities: Remove.
8. Joints, cracks, holes and other depressions: Fill flush with surface. Provide smooth finish.
9. Dust, particles and residues from preparation: Remove and dispose of safely.
10. Oil-based stoppers and fillers: Apply after priming.
11. Doors, opening windows and other moving parts: Ease, if necessary, before coating. Prime resulting bare areas.

Ss_40_90_60/625 Application of coating systems around hardware

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Other hardware: Remove from surfaces to be coated before painting.
2. Refurbishment: Remove old coating marks. Clean and polish.
3. Replacement: Refit when coating is dry.

Ss_40_90_60/644 Preparing preservative-treated timber

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

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

Ss_40_90_60/700 Applying coating generally

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) and [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Application: In accordance with [BS 6150](#), clause 9.
2. Environmental 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. Initial coats
 - 6.1. Thickness: To suit surface porosity. Min 2 coats
 - 6.2. Application: As soon as possible on same day as preparation is completed.
7. Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
8. Cutting in: Cut in neatly.
9. Doors, opening windows and other moving parts: Ease before coating, and between coats.

Ss_40_90_60/717 Coating of concealed joinery surfaces

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Components: External door frames. Built-in window frames.
2. Number of coats: One.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_40_90_60/895 Verification of performance

Shared by: [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#) , [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#) and [Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT](#)

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: DOP & Certs
 - 2.2. Content: Description of inspections, remedial works carried out and certification of compliance.
 - 2.3. Timing: At completion of installation.

Ω End of System

Ss_40_90_60_95 Waterborne paint systems - GENERALLY Systems

Ss_40_90_60_95 Waterborne paint systems - GENERALLY

1. Description: All paint finishes to be applied in accordance with manufactures instructions
2. System performance: [Ss_40_90_60/290 Compliance with performance requirements](#)
[Ss_40_90_60/230 Resistance to moisture of coating system](#); [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. Preparation: [Pr_35_31_66_02 Adhesion promoters](#);
[Pr_35_31_77_15 Concrete sealers](#);
[Pr_35_31_65_22 Degreaser solutions](#);

- Pr_35_31_65_23 Detergent solutions;
Pr_35_31_65_27 Efflorescence control compounds;
Pr_35_31_66_26 Etching primers;
Pr_45_31_52_31 Fungicidal solutions;
Pr_35_31_65_50 Masonry stabilizers;
Pr_35_31_66_77 Sealant primers;
Pr_35_31_77_72 Resin floor sealers;
Pr_35_31_77_76 Sealers;
Pr_35_31_65_82 Surface fillers;
Pr_35_31_68_97 Water repellents
Pr_35_31_65_01 Abrasives
4. Initial coats: Pr_35_31_66_67 Primer-sealers;
Pr_35_31_66_68 Primer-undercoats;
Pr_35_31_66_96 Waterborne metal primers;
and Pr_35_31_66_92 Universal primers.
 5. Undercoats: Pr_35_31_66_99 Waterborne undercoats.
 6. Finishing coats: Pr_35_31_22_94 Water-based finishing coats; Pr_35_31_68_37 Heat-resisting coatings;
Pr_35_31_22_37 High pigment waterborne paint; Pr_35_31_68_33 Fungicidal coatings
 7. Additional coatings to surfaces that will be concealed when component is fixed in place: Apply coatings to all surfaces of components.
- Black bitumen to BS 3416 Type 1 or BS 6949 Type 1A and black paint to BS 1070 or similar suitable protective coatings for metal components.
8. Sealing of internal movement joints: Pr_30_31_76_02 Acrylic construction joint sealants
 9. Execution: Ss_40_90_60/605 Surfaces not to be coated; Ss_40_90_60/610 Control samples of coating systems;
Ss_40_90_60/615 Inspection by coating manufacturers; Ss_40_90_60/617 Inspection of coating system work stages;
Ss_40_90_60/645 Previously coated steel; Ss_40_90_60/647 Preprimed steel; Ss_40_90_60/687 Organic growths before application of coating systems; Ss_40_90_60/695 Sealing of internal movement joints; Ss_40_90_60/720 Coating of concealed metal surfaces; Ss_40_90_60/607 Wet paint signs; Ss_40_90_60/735 Painting to glazing; Ss_40_90_60/700 Applying coating generally; Ss_40_90_60/603 Handling and storage of coating materials; Ss_40_90_60/620 Preparation for coating systems generally; Ss_40_90_60/625 Application of coating systems around hardware
 10. System completion: Ss_40_90_60/895 Verification of performance

System performance

Ss_40_90_60/230 Resistance to moisture of coating system

Shared by: Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS

1. Resistance to moisture penetration: Conducive to requirements set by relevant Building Regulations.
2. Control of surface and interstitial condensation: In accordance with BS 5250.
3. Design of external walls to resist damage from interstitial condensation: In accordance with BS 5250.

See Ss_40_90_60/290 Compliance with performance requirements in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY

Products

See Pr_30_31_76_02 Acrylic construction joint sealants in Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION

Pr_35_31_22_37 High pigment waterborne paint

Shared by: Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS

1. Manufacturer: *Submit proposal*
2. Sheen: Matt. Flat.

See Pr_35_31_22_94 Water-based finishing coats in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY

Pr_35_31_65_01 Abrasives

Shared by: Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS

1. Category: Waterproof abrasive paper should be used wet when abrading surfaces with lead-based paint.

Open-coated abrasive paper should be used in mechanical sanding machines.

Emery cloth/ paper can be used either dry or with white spirit to prepare non-ferrous metals for painting.

See Pr_35_31_65_22 Degreaser solutions in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY

See [Pr_35_31_65_23 Detergent solutions](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_35_31_65_27 Efflorescence control compounds

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals*.
2. Composition: Manufacturer's standard suitable for the purpose, location and detail.

Pr_35_31_65_50 Masonry stabilizers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals* suitable for the purpose, location and detail.
2. Composition: Water-borne.

Pr_35_31_65_82 Surface fillers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals*.
2. Composition: Water-borne and As recommended by coating system manufacturer.
3. Category: General purpose;
Wood;
and As recommended by coating system manufacturer.
4. Supply: Manufacturer's standard .

Pr_35_31_66_02 Adhesion promoters

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals* suitable for the purpose, location and detail.
2. Composition: Water-borne.

Pr_35_31_66_26 Etching primers

1. Manufacturer: *Submit proposals* suitable for the purpose, location and detail.
2. Category: As recommended by coating system manufacturer.

Pr_35_31_66_67 Primer-sealers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: Submit proposals suitable for the purpose, location and detail.
2. Composition: Polyvinyl acetate (PVA);
Solvent-borne;
Water-borne;
As recommended by plasterboard manufacturer.
3. Execution: [Pr_35_31_66/685 Primer dry film thickness \(dft\)](#)

Pr_35_31_66_68 Primer-undercoats

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals*.
2. Composition: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

See [Pr_35_31_66_77 Sealant primers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_35_31_66_92 Universal primers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals*.
2. Category: Manufacturer's standard .

Pr_35_31_66_96 Waterborne metal primers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Category: Zinc phosphate.
2. Execution: [Pr_35_31_66/685 Primer dry film thickness \(dft\)](#)

See [Pr_35_31_66_99 Waterborne undercoats](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_35_31_68_33 Fungicidal coatings

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals for ER approval*
2. Composition: Solvent-based. Water-based.
3. Sheen: Eggshell. Satin. Matt. Gloss.

Pr_35_31_68_37 Heat-resisting coatings

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Description: Paint for radiators
2. Manufacturer: *Submit proposals* suitable for the purpose, location and detail.
3. Composition: Water-based. Solvent-based.
4. Application: Primer. Top coat.
5. Temperature range: >110°C.
6. Sheen: Matt.

Pr_35_31_68_97 Water repellents

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Composition: Water-borne.
3. Colour: Clear.

Pr_35_31_77_15 Concrete sealers

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Composition: Acrylic resin-based;
Epoxy resin-based;
and Polyurethane resin-based.
2. Primer: Sealer diluted with 3% water.
3. Category: Surface penetrating.
4. Colour: Clear.

Pr_35_31_77_72 Resin floor sealers

1. Manufacturer: *Submit proposals.*
2. Standard: In accordance with [BS 8204-6](#), type 1.
3. Third-party certification: British Board of Agrément (BBA).
4. Composition: Water-borne.
5. Sheen: Matt.
6. Slip resistance – water wet (minimum): To [BS 7976-2](#), PTV of 45.
7. Additional requirements: Dust proof.

See [Pr_35_31_77_76 Sealers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_45_31_52_31 Fungicidal solutions

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Manufacturer: *Submit proposals.*
2. Third-party certification: Manufactured under a quality system complying with [BS EN ISO 9001](#) and Registered by the Health and Safety Authority (HSA) and listed on the HSA website under non-agricultural pesticides. Board of Agrément Certificate (IAB / BBA) or equivalent approved Board of Agrément Certificate. Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)
3. Composition: Water-borne.

4. Execution: [Pr_45_31_52/621 Application of fungicides](#).

Execution

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_22/703 Applying coating \(41\)-Joinery](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_66/685 Primer dry film thickness \(dft\)](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_45_31_52/621 Application of fungicides

1. Application rate: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
2. Timing and frequency: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
3. Areas not to be treated: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

See [Ss_40_90_60/603 Handling and storage of coating materials](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/605 Surfaces not to be coated](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/607 Wet paint signs](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ss_40_90_60/610 Control samples of coating systems

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Sample areas of finished work: Contractor to complete 1500mm * 1500mm sample panel of each paint colour. All selected colour finishes to ER approval
2. Timing: Apply during preliminary installation.
3. Approval of appearance: Obtain before starting general coating work.

See [Ss_40_90_60/615 Inspection by coating manufacturers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ss_40_90_60/617 Inspection of coating system work stages

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Inspections: In accordance with [BS 6150](#).
2. Programme for inspections: Submit.
3. Notification: Give notice when each stage is ready for inspection.

See [Ss_40_90_60/620 Preparation for coating systems generally](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/625 Application of coating systems around hardware](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ss_40_90_60/645 Previously coated steel

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Defective, loose or flaking paintwork: Remove to leave a firm edge and clean bright metal
2. Sound paintwork: Provide key for subsequent coats.
3. Corrosion and loose scale: Take back to bare metal.
4. Residual rust: Treat with a proprietary removal solution.
5. Remaining areas: Degrease.

Ss_40_90_60/647 Preprimed steel

Shared by: [Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

1. Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.

Ss_40_90_60/687 Organic growths before application of coating systems

1. Dead and loose growths and infected coatings: Scrape off and remove from site.
2. Treatment biocide: Apply to growth areas and surrounding surfaces.
3. Residual effect biocide: Apply to inhibit re-establishment of growths.

Ss_40_90_60/695 Sealing of internal movement joints

1. Joints: All surfaces must be clean and dust-free.
2. Sealant preparation and application: Remove temporary coatings, tapes, loosely adhering material, dust, oil, grease, surface water and contaminants that may affect bond.
Use cleaning materials and methods recommended by sealant manufacturer.

See [Ss_40_90_60/700 Applying coating generally](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ss_40_90_60/720 Coating of concealed metal surfaces

1. General: Apply additional coatings to surfaces that will be concealed when component is fixed in place.

Ss_40_90_60/735 Painting to glazing

1. Etched, sand blasted and ground glass: Treat or mask edges before coating. Protect from contamination.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_40_90_60/895 Verification of performance](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ω End of System

Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS

Systems

Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS

1. Description: **External walls**
generally to be finished with 3 no. coats of selected colour matt emulsion paint finish

Internal walls, partitions, & ceilings
generally to be finished with 3 no. coats of selected colour matt emulsion paint finish
2. System performance: [Ss_40_90_60/290 Compliance with performance requirements](#); [Ss_40_90_60/230 Resistance to moisture of coating system](#)
[Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
3. System manufacturer: Submit proposals .
4. Preparation: [Pr_35_31_66_02 Adhesion promoters](#);
[Pr_35_31_77_15 Concrete sealers](#);
[Pr_35_31_65_22 Degreaser solutions](#);
[Pr_35_31_65_23 Detergent solutions](#);
[Pr_35_31_65_27 Efflorescence control compounds](#);
[Pr_45_31_52_31 Fungicidal solutions](#);
[Pr_35_31_65_50 Masonry stabilizers](#);
[Pr_35_31_66_77 Sealant primers](#);
[Pr_35_31_77_76 Sealers](#);
[Pr_35_31_65_82 Surface fillers](#);
[Pr_35_31_68_97 Water repellents](#)
[Pr_35_31_65_01 Abrasives](#)
5. Initial coats: [Pr_35_31_66_63 Plasterboard primers](#);
[Pr_35_31_66_67 Primer-sealers](#);
[Pr_35_31_66_68 Primer-undercoats](#);
[Pr_35_31_66_96 Waterborne metal primers](#);
and [Pr_35_31_66_92 Universal primers](#).
6. Undercoats: [Pr_35_31_66_99 Waterborne undercoats](#)
7. Finishing coats: [Pr_35_31_22_96 Waterborne masonry paints](#); [Pr_35_31_22_94 Water-based finishing coats](#);
[Pr_35_31_22_77 Silicate-based masonry coatings - LIME PAINT](#); [Pr_35_31_68_37 Heat-resisting coatings](#);
[Pr_35_31_22_37 High pigment waterborne paint](#); [Pr_35_31_68_33 Fungicidal coatings](#)

8. Sealing of internal movement joints: [Pr_30_31_76_02 Acrylic construction joint sealants](#)
9. Execution:

[Ss_40_90_60/601 Workshop coating of concealed joinery surfaces](#); [Ss_40_90_60/603 Handling and storage of coating materials](#); [Ss_40_90_60/605 Surfaces not to be coated](#); [Ss_40_90_60/607 Wet paint signs](#); [Ss_40_90_60/610 Control samples of coating systems](#); [Ss_40_90_60/615 Inspection by coating manufacturers](#); [Ss_40_90_60/617 Inspection of coating system work stages](#); [Ss_40_90_60/620 Preparation for coating systems generally](#); [Ss_40_90_60/625 Application of coating systems around hardware](#); [Ss_40_90_60/700 Applying coating generally](#); [Ss_40_90_60/717 Coating of concealed joinery surfaces](#); [Ss_40_90_60/640 Preprimed wood](#); [Ss_40_90_60/643 Uncoated wood](#); [Ss_40_90_60/644 Preparing preservative-treated timber](#); [Ss_40_90_60/645 Previously coated steel](#); [Ss_40_90_60/647 Preprimed steel](#)

10. System completion: [Ss_40_90_60/895 Verification of performance](#)

System performance

See [Ss_40_90_60/230 Resistance to moisture of coating system](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/290 Compliance with performance requirements](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Products

See [Pr_30_31_76_02 Acrylic construction joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_22_37 High pigment waterborne paint](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

Pr_35_31_22_77 Silicate-based masonry coatings - LIME PAINT

Shared by: [Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT](#)

1. Description: Lime Paint
2. Manufacturer: Auro or equivalent approved
3. Colour: To Architects approval
4. Execution: [Pr_35_31_22/703 Applying coating - Lime Paint](#)
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

See [Pr_35_31_22_94 Water-based finishing coats](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Pr_35_31_22_96 Waterborne masonry paints

1. Manufacturer: *Submit proposal for ER approval*
2. Texture: Smooth.
3. Execution: [Pr_35_31_22/703 Applying coating \(41\)-Joinery](#)

See [Pr_35_31_65_01 Abrasives](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_65_22 Degreaser solutions](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_65_23 Detergent solutions](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_65_27 Efflorescence control compounds](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_65_50 Masonry stabilizers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_65_82 Surface fillers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_02 Adhesion promoters](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_63 Plasterboard primers](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_35_31_66_67 Primer-sealers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_68 Primer-undercoats](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_77 Sealant primers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_66_92 Universal primers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_96 Waterborne metal primers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_66_99 Waterborne undercoats](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_68_33 Fungicidal coatings](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_68_37 Heat-resisting coatings](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_68_97 Water repellents](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_77_15 Concrete sealers](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Pr_35_31_77_76 Sealers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_45_31_52_31 Fungicidal solutions](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

Execution

See [Pr_30_31_76/610 Suitability of joints for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/620 Joint preparation for sealant application](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

See [Pr_30_31_76/630 Applying joint sealants](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_35_31_22/703 Applying coating - Lime Paint

1. Initial coats
 - 1.1. Number of coats: One.
 - 1.2. Application: Brush. Roller. Spray.
2. Finishing coats
 - 2.1. Number of coats: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 2.2. Application:
 1. always maintain a wet edge and work materials out well
 2. all materials must be thoroughly mixed beforehand, and periodically during decoration, using a mechanical mixer.
 3. Intermixing packs is not recommended, however if this is necessary ensure that products are thoroughly mixed beforehand to ensure even pigment dispersion, prior to mixing
 4. materials must not be applied at temperatures below 5°C nor those in excess of 30°C
 5. materials must not be applied if it is raining or if there is an immediate likelihood of rain
 6. Paints should be applied onto wind dry surfaces where the moisture content on or near the surface (to a depth of 5mm approximately) should be no greater than 18% by volume.
 7. For on-site purposes a moisture meter may be used to give a qualitative reading – if the reading is in the green zone decoration may proceed
 8. Allow a period of at least 30 days on newly rendered surfaces following rendering, prior to the application of paints
 9. Do not over-roll or touch up the paint during the drying process as this may inadvertently create patching once dry
 10. if airless spraying, contact manufacturer for details of the appropriate nozzle sizes and optimum mesh and filter types

See [Pr_35_31_22/703 Applying coating \(41\)-Joinery](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_35_31_66/685 Primer dry film thickness \(dft\)](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Pr_45_31_52/621 Application of fungicides](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/601 Workshop coating of concealed joinery surfaces](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/603 Handling and storage of coating materials](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/605 Surfaces not to be coated](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/607 Wet paint signs](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/610 Control samples of coating systems](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/615 Inspection by coating manufacturers](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/617 Inspection of coating system work stages](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/620 Preparation for coating systems generally](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/625 Application of coating systems around hardware](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ss_40_90_60/640 Preprimed wood

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

Ss_40_90_60/643 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: Fill surface defects and abrade to a smooth even surface. Provide sound surface for good quality coated finish.

See [Ss_40_90_60/644 Preparing preservative-treated timber](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/645 Previously coated steel](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/647 Preprimed steel](#) in [Ss_40_90_60_95 Waterborne paint systems - GENERALLY](#)

See [Ss_40_90_60/700 Applying coating generally](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

See [Ss_40_90_60/717 Coating of concealed joinery surfaces](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

See [Ss_40_90_60/895 Verification of performance](#) in [Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ω End of System

Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT Systems

Ss_40_90_60_95 Waterborne paint systems - BREATHABLE PAINT

1. Description: A high quality silicate based, paint for interior walls and ceilings.
2. System performance: [Ss_40_90_60/290 Compliance with performance requirements](#)
3. System manufacturer: Submit proposals
4. Preparation: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 1. Any loose, flaking and unstable material must be identified and then thoroughly removed using stiff brushes and broad bladed scrapers to get back to a sound edge; these edges should then be feathered in.
 2. Ensure that any paint materials left remaining and the underlying substrate is sound and adhering well.
 3. Any gloss or shiny surfaces should be thoroughly flatted down using sand or emery paper to create a good key.
 4. Any cracks or where there is a need to equalise the surface should be filled using [Pr_35_31_65_82 Surface fillers - MINERAL FILLER](#) brush or trowel applied to a pre-wetted surface and dressed back to the required level.
 5. Any new/repaired surfaces should be left for a minimum period of 15 days prior to the application of Paints.
 6. All surfaces must be thoroughly washed down with clean cold water to remove all surface dirt and dust.
 7. When all surfaces are clean, sound, wind dry, dust free and free from all surface contaminants, decoration using Paints may proceed.
5. Initial coats: Apply a single coat of in the chosen colour applied by brush, roller or airless spray.
6. Finishing coats: [Pr_35_31_22_77 Silicate-based masonry coatings - LIME PAINT](#)
7. Execution: [Ss_40_90_60/620 Preparation for coating systems generally](#)
8. System completion: [Ss_40_90_60/800 Information to be provided on completion](#); [Ss_40_90_60/895 Verification of performance](#)

System performance

See [Ss_40_90_60/290 Compliance with performance requirements in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Products

See [Pr_35_31_22_77 Silicate-based masonry coatings - LIME PAINT in Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

Pr_35_31_65_82 Surface fillers - MINERAL FILLER

1. **Description:** Smooth mineral filler used to eliminate minor surface defects and produce a smooth, even surface for the coating system.
2. **Composition:** As recommended by coating system manufacturer. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
3. **Category:** As recommended by coating system manufacturer. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Execution

See [Pr_35_31_22/703 Applying coating - Lime Paint in Ss_40_90_60_95 Waterborne paint systems - WALLS + CEILINGS](#)

See [Ss_40_90_60/620 Preparation for coating systems generally in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

System completion

Ss_40_90_60/800 Information to be provided on completion

1. Submittals:
 1. Operation and maintenance information.
 2. Product certification.
 3. Application documentation.

See [Ss_40_90_60/895 Verification of performance in Ss_40_90_60_95 Waterborne paint systems - TIMBER JOINERY](#)

Ω End of System

Ss_45_10_95_83

Existing Site vegetation control systems

Systems

Ss_45_10_95_83 Existing Site vegetation control systems

1. **Description:** The existing site has been idle for some period and vegetation has become established throughout the site. The site will require general excavation to facilitate the works. Where existing trees along boundaries are not affected by the works they are to be retained and protected.
2. **Tree Surgery::** Main contractor to allow for specialist tree surgery along the boundaries. There are too many branches / limbs protruding into the proposed rear gardens to identify single trees that need pruning back. For this reason we propose to include for Trimming back to entire Boundary of existing site proposed for development.
3. **Site visit at commencement with landscape specialist::** Before starting work to commencement on site arrange site visit with Architect & Specialist landscaper to verify which existing trees, shrubs and hedges are to be retained/ removed or pruned. Avoid damage to neighbouring trees, plants and property. Carry out all works affecting trees in accordance with the relevant recommendations of BS 3998, unless otherwise specified or instructed by Architect.
Comply with Forestry and Arboriculture Training and Safety Council Safety Guides.
When removing branches, cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'.
Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
Leave trees with a well balanced natural appearance.
Work involving chain saws must be carried out by holders of a Certificate of Competence.
Tree work must be carried out by a member of the Arboricultural Association, approved by the Architect.
4. **Prevention of wound bleeding::** Comply with the recommendations of BS 3998, clause 8.
5. **Prevention of disease transmission::** Comply with the recommendations of BS 3998, clause 9 and Appendix B
6. **Cleaning out and dead wooding::** Remove:
Dead, dying, or diseased wood, broken branches and stubs.
Fungal growths and fruiting bodies.
Rubbish, wind blown or accumulated in branch forks.

- Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
Other unwanted objects, e.g. tree houses, swings.
Climbing plants: All climbing plants including Ivy (Hedera species).
7. **Cutting & Pruning generally::** Use appropriate well maintained sharp tools.
For final pruning cuts:
Do not use chainsaws on branches of less than 50 mm diameter.
When using handsaws, cut in one continuous operation to form a smooth cut surface.
Do not use anvil type secateurs.
Remove branches without damaging or tearing the stem.
Keep wounds as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
Cut at a fork or at the main stem to avoid stumps wherever possible.
When removing large branches, remove in small sections and lower to ground with ropes and slings.
Do not cut into live wood when removing dead branches and stubs.
Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.
Notify the Architect of any disease or fungus. Do not apply fungicide or sealant unless instructed by the landscape specialist.
 8. **Crown Lifting::** Remove dead lateral branches, whole as they appear.
Remove whole branches back to the stem.
 9. **Cutting Tree Roots::** Do not cut tree roots unless instructed by Architect and Landscape specialist.
Excavate using hand tools only.
Do not cut roots in the protected area without approval. The protected area is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
Notify Architect and seek instruction if roots exceeding 50 mm in diameter are exposed.
Form clean smooth cuts with a hand saw, minimizing the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife.
Cover cut roots with clean sharp sand prior to backfilling with original topsoil.
 10. **Removing Trees, shrubs & hedges::** Where existing Trees, shrubs and or hedges are to be removed check for below and above ground services in the vicinity. Inform Architect if they may be affected and obtain instructions before proceeding. Comply with BS 3998, Appendix A and Forestry and Arboriculture Training and Safety Council Safety Guides.
Cut down and grub up roots of shrubs and smaller trees.
Tree stumps: grind out and remove entire stump.
Avoid damage to adjacent vegetation or structures to be retained. Take down trees carefully in small sections where tree canopies overlap and in confined spaces generally.
Obtain ARCHITECT'S approval before removing stumps by winching and do not use other trees as supports or anchors.
Fill holes and grade to marry in with surrounding ground level, using as-dug material and/or imported soil as required.
 11. **Bark damage::** Do not attempt to stop sap bleeding from wounds.
Inform Architect if liquid or flux is observed oozing from apparently healthy bark.
Gently remove ragged edges and remove splintered wood from deep wounds, but keep wounds as small as possible.
 12. **Cavities in existing Trees retained::** Clear away rubbish and rotten wood. Probe the cavity to find the extent of any decay, report to Architect and await instructions.
Unless instructed, do not drain water filled cavities or remove wood from inside cavities.
 13. **Removing Climbers form Trees::** Remove any ivy, living or dead/decaying, or other climbing growth from existing trees and hedging plants to be retained. Maintain trees and hedges free from ivy or other climbing growth at all times.
 14. **Pruning of Excess Overhang::** Landscape specialist to Prune as recommended by BS 7370:Part 4, clauses 3.6.3 to 3.6.5. Any growth of existing trees/ shrubs to be retained that encroaches into areas to be developed to be pruned by by specialist.
 15. **Removal of Dead Plant material::** At the end of the growing season, landscape specialist to check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.
Remove fallen leaves by hand from all areas.
Do not use leaf blowing or vacuum machines in or at the edges of planted areas.
Remove all arisings from site.

Ω End of System

Ss_45_35_05_08

New perennial planting systems - SHRUB PLANTING

Systems

Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

1. **Description:** New Shrub Planting areas to be provided as decorative beds to public areas as indicated on Architectural drawings.
2. **Topsoil::** [45-40-85/325 Imported topsoil](#)
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
3. **Preparatory work**

- 3.1. Weed control:: [Ss_15_95_45/619 Weeding -General](#)
- 3.2. Herbicide: [Pr_45_31_37_76 Selective herbicides](#)
- 3.3. Soil ameliorant: [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#)
- 3.4. Fertilizer: [Pr_45_31_89_58 Organic fertilizers](#)
- 3.5. Additional materials: [Pr_45_31_89_41 Imported growing media - Compost](#)
- 3.6. Weed control fabric: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
4. Plants: New shrub planting area to be comprised combination of 2 no grasses and 5 no flowering plants to details below:
10% [Pr_45_30_36_16 Container-grown perennials](#) 25% [Pr_45_30_36_16 Container-grown perennials](#) 10% [Pr_45_30_36_16 Container-grown perennials](#) 10% [Pr_45_30_36_16 Container-grown perennials](#) 10% [Pr_45_30_36_16 Container-grown perennials](#) and 25% [Pr_45_30_36_16 Container-grown perennials](#)
5. New Shrub Plant spacing:: PLANT 2 NO ROWS @ MAX 300MM C/CS SPACED EVENLY WITHIN PLANTER BEDS.
6. Mulch: Bed depth min 600mm with mulch finish as indicated below: [Pr_45_31_63_97 Wood chip Bark Mulch](#)
7. Edging:: [Pr_35_90_22_88 Treated Timber edgings](#)
at edges of planter beds exposed to grassed areas as indicated on drawings
8. Permanent labels: [Pr_40_10_57_64 Plants permanent labels](#)
9. Execution: [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#); [Ss_15_95_45/619 Weeding -General](#); [Ss_45_35_05/633 Regular setting out of amenity planting](#); [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#); [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#)
10. System completion: [Ss_45_35_05/807 Final mulching of planting beds and trees](#); [Ss_45_35_05/802 Establishment of new planting](#); [Ss_45_35_05/801 Operations immediately after planting](#)

Products

45-40-85/325 Imported topsoil

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) , [Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows](#) , [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. General requirements: [Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
2. Source: Local, within a 30 mile radius.
3. Standard: To [BS 3882](#). Materials generally In accordance with BS EN 13650. Composted materials In accordance with PAS 100.
4. Classification: Multipurpose.
5. Compo: All imported topsoil shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, to BS 3882
6. Soil textural class: Any class within the acceptable range indicated in [BS 3882](#), Figure 1.

See [Pr_15_57_35_61 Geotextile Weed prevention matt](#) in [Ss_30_14_80_98 Rubber chip surface finish systems](#)

Pr_35_90_22_88 Treated Timber edgings

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) , [Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows](#) , [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Treated timber edging. Provide in locations as indicated on Architectural drawings.
2. Manufacturer: Contractor's choice
3. Edging
 - 3.1. Species: Treated SW
 - 3.2. Size: Ex 100 x 25mm nominal size
4. Pegs
 - 4.1. Species: Treated SW
 - 4.2. Size: Ex 50x 50mm x 450mm stakes @ max 600mm c/cs to planter size of edging.
5. Curved boards: Closely spaced vertical grooves cut in the back to achieve smooth flowing lines.
6. Preservative treatment
 - 6.1. Preservative: Wood Protection Association commodity specification C4, type CCA.
 - 6.2. Service life: Ten years.

Pr_40_10_57_64 Plants permanent labels

Shared by: [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Label all trees/plants in accordance with the relevant part of BS 3936.
2. Label type: White plastics with black waterproof lettering.
3. Size of label: Supplier's standard
4. Wording: Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - The full botanical name
 - Total number
 - Number of bundles
 - Part bundles
 - Supplier's name
 - Employer's name and project reference
 - Plant specification, in accordance with the scheduled National Plant Specification categories
 - When requested, provide the Architect with additional stock information.

Pr_45_30_36_16 Container-grown perennials

1. Description: TO BE AGREED WITH ARCHITECT ON SITE
2. General requirements: Materially undamaged, sturdy, healthy and vigorous. Of good shape and without elongated shoots, appropriate to species and variety. Grown in a suitable environment and hardened off.
3. Root condition: Container-grown. Plants to be centred in the container, well rooted, firm and moist on delivery. Surface of the growing medium to be free of all weeds and moss. The root system must never be allowed to dry out. Container to have adequate holes for drainage when placed on any substrate.
4. Size of container: MIN 2 LITRE POT SIZE
5. Origin and provenance: Irish Grown
6. Label Information:: Full botanical name; Total number; Number of bundles; Part bundles; Supplier's name; Employer's name and project reference; and Plant specification.

Pr_45_31_37_76 Selective herbicides

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Proprietary Herbicide recommended by specialist landscaping contractor.
2. General Requirements:: All chemicals used shall be non-toxic to humans and animals under normal use, and shall be applied according to the manufacturer's instruction only by a suitably trained operative.
ANY WEED GROWTH OCCURRING DURING THE MAINTENANCE PERIOD SHALL BE SPOT TREATED WITH A TRANSLOCATED APPROVED HERBICIDE, OR REMOVED BY HAND. AN APPLICATION OF PRE-GERMINATION APPROVED HERBICIDE SHALL BE APPLIED IN THE SPRING EACH YEAR.
3. Manufacturer: Submit proposals.
4. Third-party certification: Manufactured under a quality system complying with [BS EN ISO 9001](#).
5. Target weeds: Perennial weeds.
6. Execution: ALL HERBICIDES SHALL BE APPLIED ACCORDING TO THEIR MANUFACTURERS' INSTRUCTIONS USING DIRECTIONAL SPRAY TO PREVENT SPRAYING OF ADJACENT SHRUBS. SPRAYING SHALL BE DONE ONLY IN CALM CONDITIONS TO PREVENT DRIFT DAMAGE.

Pr_45_31_63_97 Wood chip Bark Mulch

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Treated Chipped Bark mulch- medium grade- suitable for planted areas.
2. Supplied by: Contractor's choice
3. Wood chip type: Recycled timber if available of Mixed conifer softwood.
4. Grade: Ungraded flat profile chips.
5. Quality: Minimal dust content. Free from pests; disease; pathogens; weeds; coarse, angular or large fragments; long, thin slivers; and sharp or splintered pieces.
6. Chip size (nominal): 10–30 mm, well graded.
7. Certification:: Submit to the Architect a supplier's certificate before ordering. The certificate(s) must provide the following information: Source of supply;
Analysis of content; Confirmation of suitability for proposed purpose; Confirmation of absence of harmful substances.

8. Ease of ignition: To [BS 7188](#).
9. Additives, dyes or any substance harmful to humans or the environment: Not permitted.

Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) , [Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows](#) , [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Purity: Free of pests and disease.
2. Foreign matter: Visually free of undesirable and potentially injurious foreign matter, including fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, wire, large lumps of clay or vegetation, metal objects, plastics, treated wood, textiles, sharp fragments of ceramics and glass, and similar foreign objects. Certified to be from a Japanese knotweed free site.
3. Contamination
 - 3.1. Topsoil and growing medium: Do not use if contaminated with subsoil, rubbish or other materials that are: corrosive, explosive or flammable; hazardous to human or animal life; detrimental to healthy plant growth.
 - 3.2. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with rubbish or other materials that are: corrosive, explosive or flammable; hazardous to human or animal life; detrimental to healthy plant growth.
4. Objectionable odour: Not permitted.
5. Soil Textural Class: Existing top soil shall be high quality fertile topsoil to BS 3882 for planted areas, free of all contaminants within the acceptable range indicated in BS 3882, Figure 1.
Where the existing topsoil does not conform to this standard or has deteriorated as a result of poor storage, or has not been approved by the Landscape specialist immediately before re-spreading, import additional topsoil to satisfy the requirements of the specification.
6. Existing Top soil general requirements:: Topsoil shall be free from stones over 40mm in any direction. Stones over 20mm shall not exceed 10% by weight. The soil shall be free from subsoil, sods, roots of trees and shrubs and rubbish. Topsoil shall be from the original surface layer of grassland or cultivated land to a maximum depth of 150mm. Visible presence of fibrous roots and plant remains will be required. Soils from woodland, heathland, bogs, sites subject to water logging or contaminated land will not be acceptable.
Topsoil shall be free from any parts of persistent weeds including dock, creeping thistle, stinging nettle, ragwort, bindweed, couch grass and Japanese knotweed.
If there is any evidence of *Fallopia japonica* (Japanese knotweed), during the works period or the defects liability period, the entire 'planted area' within which the weed is present shall be excavated and replaced at the Contractor's expense.
'Planted area' is defined as an area sharing the same continuous volume of topsoil, uninterrupted by hard standing of any kind.
7. Give notice: If evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.
8. Quantity: Provide as necessary to make up any deficiency of topsoil or growing media existing on site and to complete the work.

Pr_45_31_89_41 Imported growing media - Compost

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Proprietary Compost where recommended by landscape specialist.
2. Materials not permitted: Do not use pure moss peat. Where peat is a constituent of compost or soil conditioner it should be horticultural moss peat, dark brown, medium grade, free from pests, diseases and contaminants.

Pr_45_31_89_58 Organic fertilizers

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description: Apply fertiliser with 24 month longevity, supplied in sealed bags with the manufacturer's name, net weight and chemical analysis of content clearly marked on the bag.
Apply evenly over all areas to be planted at 120g/m² immediately before cultivation and incorporate to 300mm depth.
2. Supplier: Submit proposals.
3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS).
4. Fertilizer type: General purpose fertilizer. Establishment fertilizer.
5. Availability to plants: Controlled release.

Execution

Ss_15_95_45/619 Weeding -General

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Operations: Remove and/or prevent weed growth by hand in all areas. Ensure that the methods used cause no damage to adjacent plants, trees or grass. Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and bulbs and leaving the area in a neat, raked, clean condition.

Ss_45_35_05/601 Amenity planting general Requirements (80)

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Landscape specialist:: Landscape specialist to be engaged by main contractor to carry out planting. Choice of specialist by main contractor.
2. Supplier:: Submit proposals. The Architect shall approve the supplier of all plant materials before materials are delivered to site.
3. Contract Growing:: The Contractor shall confirm availability of all plant material at the earliest possible time, immediately after appointment.
 - If plant species are not available in the sizes and or quantities as specified, the Contractor shall contract grow the plants for this project.
4. Pre-Delivery Inspection:: The Architect shall inspect all trees and approve them specifically for use on this project before delivery to site.
5. General Requirements:: TREES/PLANTS GENERALLY:
 - Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.
 - Grown in a suitable environment and hardened off.
 - Free from pests, diseases, discoloration, weeds and physiological disorders.
 - Budded or grafted plants to be bottom worked, unless otherwise specified or approved.
 - With balanced root and branch systems, root system and condition in accordance with the relevant part of the National Plant Specification.
 - True to name.
6. Container Grown Plants:: Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.
 - Centred in the container, firmed and well watered.
 - With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting. Roots to be established to such an extent that the root-ball remains totally intact upon removal of the container.
 - Grown in the open for at least two months before being supplied.
 - Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.
 - Containers and growing medium to be free from all forms of pest including adult vine weevil, their eggs and larvae.
 - Climbing plants to be supplied in deep containers unless otherwise specified.
7. Substitutes:: Where it is not possible to contract grow and if specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives to the Architect stating price and how they differ from the specification. Such substitutions may not be acceptable, and submission of further alternatives may be required.
 - Obtain approval before making any substitution.
8. Pests and Diseases:: EXPERIENCED LANDSCAPE PERSONNEL SHALL INSPECT ALL PLANTS AT LEAST TWICE A YEAR FOR THE PRESENCE OF PESTS AND DISEASES. IF EITHER OR BOTH ARE PRESENT, THE CONTRACTOR SHALL REPORT THE CONDITIONS AND IMPLEMENT THE APPROPRIATE CONTROL MEASURE IMMEDIATELY. ALL CHEMICALS TO BE USED FOR THE CONTROL OF PESTS AND DISEASES SHALL BE APPROVED, AND APPLIED IN ACCORDANCE WITH THE MANUFACTURERS WRITTEN INSTRUCTIONS. IF ANY PLANTS ARE SO HEAVILY INFESTED THAT EVEN AFTER CONTROL MEASURES HAVE BEEN TAKEN DEATH IS LIKELY, THEY SHALL BE REMOVED FROM SITE AND REPLACED WITH NEW HEALTHY STOCK.
9. Plant deaths:: Excepting theft or malicious damage, any trees/shrubs/plants that have failed to thrive will be regarded as defects due to materials or workmanship not in accordance with the Contract. Unless otherwise instructed they must be replaced, at the Contractor's cost, by approved equal materials.

Replacements must take into account the increased size due to growth since the completion of planting and must match the size of adjacent, or nearby, plants of the same species, or should match the original specification, whichever is the greater.
10. Plant handling, storage & transport:: Protect plants/trees from frost, wind and draughts.
 - Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g., by dropping from a vehicle.
 - Plant packaging in accordance with CPSE 'Handling and establishing landscape plants'.Protect all plant material from wind damage and desiccation.

- Do not store plants on site for more than 72 hours before planting.
- Before planting remove containers, ties, wraps and other materials that might restrict the growth of roots.

11. Standard: To [HTA Handling and establishing landscape plants](#).
12. Planting: Upright or well balanced with best side to front.

Ss_45_35_05/603 Times of year for amenity planting (80)

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. General Programme Requirements:: THE ARCHITECTS SECTION, MAYO COUNCIL THE STARTING DATE AND SUBMIT A PROGRAMME OF WORKS TO BE AGREED WITH A REPRESENTATIVE OF THE ARCHITECTS OFFICE. THE SITE SHALL BE PREPARED, CULTIVATED, SHRUBS SUPPLIED AND PLANTED AS EARLY AS IS FEASIBLY POSSIBLE WITHIN THE WORKS PROGRAMME TO ALLOW PLANTS TO MATURE DURING THE WORKS PHASE. PLANTS TO BE PROTECTED DURING THE WORKS PHASE. LANDSCAPING TO BE MAINTAINED DURING THE WORKS PHASE AND THE DEFECTS LIABILITY PERIOD. ALL OPERATIONS SHALL BE CARRIED OUT DURING SUITABLE WEATHER CONDITIONS ONLY. LOCAL AUTHORITY TO BE INFORMED AS TO THE TIMING OF ALL WORKS PRIOR TO COMMENCEMENT.
2. Deciduous trees and shrubs: Late October to late March.
3. Conifers and evergreens: September/ October or April/ May.
4. Herbaceous plants (including marginal): September/ October or March/ April.
5. Wildflower plugs: Late August to mid-November or March/ April.
6. Container grown plants: At any time if ground and weather conditions are favourable.
7. Dried herbaceous bulbs, corms and tubers: September/ October.
8. Colchicum (crocus): July/ August.
9. Green herbaceous bulbs: After flowering in spring.
10. Aquatic plants: May/ June or September/ October.

Ss_45_35_05/612 Cultivation of topsoil (80)

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. General requirements: General cultivation for planted areas by landscape specialist.
2. Grading and cultivation
 - 2.1. Standard: In accordance with [BS 4428](#).
 - 2.2. Category: C.
3. Working conditions
 - 3.1. Soil condition: Reasonably dry and workable.
 - 3.2. Timing: Not more than two days before planting.
 - 3.3. Weather and ground conditions: Suitably dry.
4. Min Excavation depths for perennial planting pits:: Min Size(s): 150 mm wider and deeper than the root spread of the plants to be planted.
 - Break up bottoms of pits to a depth of 150 mm.
5. Compacted topsoil: Break up to full depth.
6. Soil with root spread of trees and shrubs to be retained: Do not dig or cultivate within the root spread or drip line of trees and shrubs to be retained.
7. Tilth
 - 7.1. Generally: Loosen, aerate and break up topsoil to a tilth suitable for blade grading. Prick up trodden or otherwise compacted soil surfaces by hand to aerate the soil of root areas. Do not damage plants and their roots.
 - 7.2. Depth: cultivate to 300 mm min of all planting beds, using suitable plant to loosen
 - 7.3. Particle size (maximum): aerate and break up the soil into particles of 2-8 mm.
8. Surface
 - 8.1. Contours: Leave surface regular and even.
 - 8.2. Hollows and ridges: Not permitted.
9. Remove visible weeds, roots and large stones with any dimensions exceeding: Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.
10. Give notice: If required levels cannot be achieved by movement of existing soil.

Ss_45_35_05/621 Applying soil ameliorant to topsoil

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. Description:: Supply and spread bulk soil conditioner.
 - 97% brewery grains, 3% straw, composted for minimum 6 months.
 - Mix off site and deliver in bulk dry to site.
 - Provide certificate from manufacturer
2. Locations for application: All planting areas.
3. Fully incorporate into topsoil to a depth of: 50mm layer over entire planting area and incorporated to a depth of 300mm.
4. Application
 - 4.1. Method: Spread evenly.
 - 4.2. Timing: Apply prior to cultivation.
 - 4.3. Rate: In accordance with supplier's written instructions.

Ss_45_35_05/633 Regular setting out of amenity planting

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. General Requirements:: ALL PLANTS SHALL BE PLANTED IN INDIVIDUAL PITS (EXCAVATED BY THE CONTRACTOR). MAXIMUM CARE SHALL BE TAKEN AT ALL STAGES WHEN HANDLING PLANTS TO ENSURE AS LITTLE DISTURBANCE AS POSSIBLE TO THE ROOT BALL OF THE PLANTS.
2. Spacing: Evenly, avoiding straight lines.
In regular, staggered rows where indicated.
3. Planting density: PLANTS, SHRUBS & TREES ARE TO BE PLANTED IN THE POSITIONS AND IN THE NUMBER SPECIFIED / OR MAX DISTANCE RATES AS SHOWN ON THE DRAWING OR AS AGREED WITH A REPRESENTATIVE OF THE ARCHITECTS OFFICE MAYO COUNTY COUNCIL

System completion

Ss_45_35_05/801 Operations immediately after planting

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. General Requirements:: AS SOON AS PLANTING OPERATIONS HAVE BEEN COMPLETED IN THE SHRUB BEDS AND THE SURFACE OF THE SOIL SHALL BE RAKED OVER AND LEVELLED OUT. ANY WEEDS EXPOSED SHALL BE REMOVED OFF SITE.
After completion of all planting operations apply an approved environmentally friendly residual herbicide to all planted areas.
On completion of the planting operation, prune any broken or damaged branches back to sound wood. All material produced by pruning shall be deposited off site.
2. Watering: Immediately after planting, water thoroughly. Do not damage or displace plants or soil.
Water plants thoroughly with minimum 5 litres per groundcover plant, 3 litres per plug plant immediately after planting.
Ensure the full depth of topsoil is thoroughly wetted, to field capacity.
 - Use a fine rose where appropriate to avoid damaging or loosening plants.
 - Do not over-water.
 - Do not flood or cause any areas to be waterlogged.
 - Do not cause mud or other materials to be splashed onto foliage.
 - Water as necessary to ensure the establishment and continued thriving of all planting.
3. Watering Trees:: Water Trees only by placing hose in watering pipe. Water fortnightly during establishment period (18 months after completion of all planting), thereafter as necessary.
 - From 1st March to 31st August, water weekly during prolonged periods of dry weather. A prolonged period of dry weather is defined as two weeks (14 days or more) during which no more than 10mm of rain has fallen.Apply 20 litres of water (or sufficient to reach field capacity, but not more) per tree per watering session.
After removing the hose replace cap on watering pipe and ensure watering pipe and cap are clean and free from leaf litter or other material that might block the watering pipe.
4. Watering Groundcover & shrub planting:: Water fortnightly during establishment period (18 months after completion of all planting), thereafter as necessary.
 - From 1st March to 31st August, water weekly during prolonged periods of dry weather. A prolonged period of dry weather is defined as two weeks (14 days or more) during which no more than 10mm of rain has fallen.Apply water sufficient to reach field capacity, but not more.
5. Watering Grassed areas:: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.

6. **Watering Restrictions::** If water supply is or is likely to be restricted by emergency legislation do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.
7. **Soil Level Adjustment::** Maintain the level of the soil at the edges of beds to ensure level 50mm below adjacent hard surface after application of Mulch. Remove excess material from site.
8. **Firming:** Lightly firm soil around plants and fork and/ or rake soil, without damaging roots, to a fine tilth with gentle cambers and no hollows.

Ss_45_35_05/802 Establishment of new planting

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_66 Pit-planted tree systems - NEW TREES](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. **Duration:** During the contract phase and initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:
Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit. Keep planting beds clear of all weeds, by hand weeding. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.
- Carry out weeding at minimum fortnightly intervals from 1st April to 31st October and monthly intervals from 1st November to 31st March. Leave entire site completely free from weeds after each visit.
Spray crown of trees when in leaf during warm weather. Carry out in the evening.
2. **Pruning::** Do not prune any plants without the prior approval of the Landscape specialist.
Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.
Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well balanced natural appearance.
Use clean sharp secateurs, hand saws or other tools approved by the Architect. Trim off ragged edges of bark or wood with a sharp knife.
Remove branches without damaging or tearing the stem.
Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
Notify the Architect of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the landscape specialist.
3. **Soil condition:** Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.

Ss_45_35_05/807 Final mulching of planting beds and trees

Shared by: [Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01](#) , [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#) and [Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02](#)

1. **Timing:** At end of the maintenance period.
2. **Watering:** Thoroughly moisten soil before remulching. Water where necessary.

Ω End of System

Ss_45_35_05_08

New perennial planting systems - PRIVATE PLANTED BUFFER

Systems

Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER

1. Description: New Private planted buffer to fronts of new dwellings as indicated on drawings.
2. Topsoil:: [45-40-85/325 Imported topsoil](#)
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
3. Preparatory work
 - 3.1. Weed control:: [Ss_15_95_45/619 Weeding -General](#)
 - 3.2. Herbicide: [Pr_45_31_37_76 Selective herbicides](#)
 - 3.3. Soil ameliorant: [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#)
 - 3.4. Fertilizer: [Pr_45_31_89_58 Organic fertilizers](#)
 - 3.5. Additional materials: [Pr_45_31_89_41 Imported growing media - Compost](#)
 - 3.6. Weed control fabric: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
4. Plants: [Pr_45_30_36/301 Nursery stock generally – herbaceous plants - Carpet Roses](#)
5. New Shrub Plant spacing:: PLANT @ MAX 750MM C/CS SPACED EVENLY WITHIN PLANTER BEDS.
6. Mulch: [Pr_45_31_63_97 Wood chip Bark Mulch](#)
Bed sizes as indicated on Architectural drawings (min 300mm width).
7. Edgings:: [Pr_25_93_60_15 Concrete kerb edging units](#); [Pr_35_90_22_88 Treated Timber edgings](#)
at edges of planter beds areas as indicated on drawings.
8. Permanent labels: [Pr_40_10_57_64 Plants permanent labels](#)
9. Execution: [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#); [Ss_15_95_45/619 Weeding -General](#); [Ss_45_35_05/633 Regular setting out of amenity planting](#); [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#); [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#)
10. System completion: [Ss_45_35_05/807 Final mulching of planting beds and trees](#); [Ss_45_35_05/801 Operations immediately after planting](#); [Ss_45_35_05/802 Establishment of new planting](#)

Products

See [45-40-85/325 Imported topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_15_57_35_61 Geotextile Weed prevention matt](#) in [Ss_30_14_80_98 Rubber chip surface finish systems](#)

Pr_25_93_60_15 Concrete kerb edging units

Shared by: [Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows](#) and [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#)

1. Description: Precast concrete kerbs to structural engineer's details and specification.
2. Manufacturer: Submit proposals .
3. Standard: To [BS EN 1340](#).
4. Physical properties
 - 4.1. Colour: Natural.
 - 4.2. Finish: As cast.
 - 4.3. Profile
 - 4.3.1. Designation: Precast concrete unit shape designations - edgings to BS EN 1340ER. ER. (Edging, round)for pin kerbs. EF (Edging flat top) to kerbs in general. Refer to drawing "3179- Surface finishes" for indication of kerb types. All kerbs to be structural engineer's specification & detail.
 - 4.3.2. Interlocking features: Not required.
 - 4.4. Dimensions: Refer to Structural Engineer's Specification & detail. Refer to Architectural drawings for locations.
 - 4.5. Weathering resistance: Class 1.
 - 4.6. Abrasion resistance: Class 1.
 - 4.7. Bending strength: Class 1.
 - 4.8. Unpolished slip resistance value (USRV) (minimum): PTV to [BS EN 1340](#), 40–74.
 - 4.9. Execution: Comply with manufacturer's recommendations/ instructions.

See [Pr_35_90_22_88 Treated Timber edgings](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_40_10_57_64 Plants permanent labels](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_30_36/301 Nursery stock generally – herbaceous plants - Carpet Roses

1. General Description:: Plants to be provided with "Private Planted Buffer" to fronts of all houses.
2. Plant Description:: CARPET ROSES - ROSA X 'NOASCHNEE
3. Location:: Refer to Architectural drawings for details.
4. General requirements
 - 4.1. Min Pot Size:: Min 2 litre pot size
 - 4.2. Condition: Materially undamaged, sturdy, healthy and vigorous.
 - 4.3. Appearance: Of good shape and without elongated shoots, appropriate to species and variety.
 - 4.4. Hardiness: Grown in a suitable environment and hardened off.
 - 4.5. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - 4.6. Root system: Balanced and appropriate for the species.
 - 4.7. Species: True to name.
 - 4.8. Standard:: Roses to BS 3936-2

See [Pr_45_31_37_76 Selective herbicides](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_63_97 Wood chip Bark Mulch](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89_41 Imported growing media - Compost](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89_58 Organic fertilizers](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Execution

See [Ss_15_95_45/619 Weeding -General](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/633 Regular setting out of amenity planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

System completion

See [Ss_45_35_05/801 Operations immediately after planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/802 Establishment of new planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/807 Final mulching of planting beds and trees](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Ω End of System

Ss_45_35_05_62

Planted climber systems - BOUNDARY HEDGEROW 01

Systems

Ss_45_35_05_62 Planted climber systems - BOUNDARY HEDGEROW 01

1. Description: New Boundary Hedgerow 01 formed with combination of 3 no climbing shrub species.
2. Location:: Refer to Architectural drawings for details.

Mayo County Council

Ss_45_35_05_62
Planted climber systems - BOUNDARY HEDGEROW 01

3. Preparatory work to soil
 - 3.1. Weed control:: [Ss_15_95_45/619 Weeding -General](#)
 - 3.2. Herbicide: [Pr_45_31_37_76 Selective herbicides](#)
 - 3.3. Soil ameliorant: [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#)
 - 3.4. Fertilizer: [Pr_45_31_89_58 Organic fertilizers](#)
 - 3.5. Additional materials: [Pr_45_31_89_41 Imported growing media - Compost](#)
 - 3.6. Weed control fabric: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
4. Plants: Plant combination comprising 40% [Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - Virginia Creeper](#) and 30% [Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - HONEYSUCKLE](#) and 30% [Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - EVERGREEN ARMANDI CLEMATIS](#)
5. Plant spacing:: Combination planting in 1 no rows -@ MAX 600MM C/CS SPACED EVENLY WITHIN PLANTER BEDS (MIN 300MM DEPTH) ALONG FENCE BOUNDARIES.
6. Plant pit backfill material: [45-40-85/325 Imported topsoil](#)
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
7. Mulch: [Pr_45_31_63_97 Wood chip Bark Mulch](#)
Bed widths min 300mm - located along fences where indicated on drawings.
8. Edge Treatments:: [Pr_35_90_22_88 Treated Timber edgings](#) at edges of planter beds exposed to grassed areas as indicated on drawings.
9. Supports: Specialist to support new climbing plants with proprietary ties fixed to adjacent timber fences.
10. Permanent labels: Label all trees/plants in accordance with the relevant part of BS 3936.
11. Execution: [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#); [Ss_15_95_45/619 Weeding -General](#); [Ss_45_35_05/633 Regular setting out of amenity planting](#); [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#); [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#)
12. System completion: [Ss_45_35_05/807 Final mulching of planting beds and trees](#); [Ss_45_35_05/801 Operations immediately after planting](#); [Ss_45_35_05/802 Establishment of new planting](#)

Products

See [45-40-85/325 Imported topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_15_57_35_61 Geotextile Weed prevention matt](#) in [Ss_30_14_80_98 Rubber chip surface finish systems](#)

See [Pr_35_90_22_88 Treated Timber edgings](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - Virginia Creeper

1. Description:: VIRGINIA CREEPER (PARTHENOCISSUS QUINQUEFOLLA) CLIMBING PLANT
MIN 2 LITRE POT SIZE
2. General requirements
 - 2.1. Condition: Materially undamaged, sturdy, healthy and vigorous.
 - 2.2. Appearance: Of good shape and without elongated shoots, appropriate to species and variety.
 - 2.3. Hardiness: Grown in a suitable environment and hardened off.
 - 2.4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - 2.5. Budded or grafted plants: Bottom worked. Visible suckers to be removed flush with rootstock. Trees to be budded or grafted on fully compatible rootstock appropriate to the type. Union to be well callused.
 - 2.6. Root system and condition: Balanced with branch system.
 - 2.7. Species: True to name.

Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - HONEYSUCKLE

1. General requirements
 - 1.1. Description:: HONEYSUCKLE CLIMBING PLANT-MIN 2 LITRE POT SIZE
 - 1.2. Condition: Materially undamaged, sturdy, healthy and vigorous.
 - 1.3. Appearance: Of good shape and without elongated shoots, appropriate to species and variety.
 - 1.4. Hardiness: Grown in a suitable environment and hardened off.
 - 1.5. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - 1.6. Budded or grafted plants: Bottom worked. Visible suckers to be removed flush with rootstock. Trees to be budded or grafted on fully compatible rootstock appropriate to the type. Union to be well callused.

- 1.7. Root system and condition: Balanced with branch system.
- 1.8. Species: True to name.

Pr_45_30_90/305 Nursery stock generally – trees, shrubs and woody climbers - EVERGREEN ARMANDI CLEMATIS

1. Description:: EVERGREEN ARMANDI CLEMATIS
CLIMBING PLANT- MIN 2 LITRE POT SIZE
2. General requirements
 - 2.1. Condition: Materially undamaged, sturdy, healthy and vigorous.
 - 2.2. Appearance: Of good shape and without elongated shoots, appropriate to species and variety.
 - 2.3. Hardiness: Grown in a suitable environment and hardened off.
 - 2.4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
 - 2.5. Budded or grafted plants: Bottom worked. Visible suckers to be removed flush with rootstock. Trees to be budded or grafted on fully compatible rootstock appropriate to the type. Union to be well callused.
 - 2.6. Root system and condition: Balanced with branch system. Bare root 60/90 1+1
 - 2.7. Species: True to name.

See [Pr_45_31_37_76 Selective herbicides](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_63_97 Wood chip Bark Mulch](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89_41 Imported growing media - Compost](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89_58 Organic fertilizers](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Execution

See [Ss_15_95_45/619 Weeding -General](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/633 Regular setting out of amenity planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

System completion

See [Ss_45_35_05/801 Operations immediately after planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/802 Establishment of new planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/807 Final mulching of planting beds and trees](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Ω End of System

Ss_45_35_05_66

Pit-planted tree systems - NEW TREES

Systems

Ss_45_35_05_66 Pit-planted tree systems - NEW TREES

1. Description: New tree planting to be provided as indicated on Architectural drawings.
2. Standard: Prepare trees and transplant in accordance with [BS 8545](#).
Prepare trees and transplant in accordance with [BS 4428](#).
3. Preparatory work to soil
 - 3.1. Herbicide: [Pr_45_31_37_76 Selective herbicides](#)
 - 3.2. Fertilizer: [Pr_45_31_89_58 Organic fertilizers](#)
4. Trees: Combination of Tree Species as indicated on drawings and noted :
[Pr_45_30_90_74 Rootballed trees](#)
5. Quantity:: 100 new trees in total as indicated on Architectural drawings.
6. Tree pit
 - 6.1. Excavation Depth:: Excavate 1m x 1m (plan) x 1.1m (depth) square shaped pits with sectional profile with pit deeper at outer edges for all new trees where indicated on site playout plan
 - 6.2. Drainage
 - 6.2.1. Drainage layer: SUPPLY AND SPREAD 10-12MM WASHED AND GRADED FREE DRAINING PEBBLE TO BASE OF TREE PITS AS DRAINAGE LAYER. MINIMUM 200MM DEEP, AVERAGE 300MM DEEP.
 - 6.2.2. Drainage Layer depth:: min 300mm.
 - 6.2.3. Geotextile membrane above drainage layer: [Pr_15_57_35_61 Geotextile Weed prevention matt](#) located as indicated on Architectural detail.
 - 6.3. Tree pit backfill material: PLANTING MIXTURE COMPRISING 70% HIGH GRADE TOP SOIL WITH 30% SEED POTTING COMPOST (MOIST) AND 250 GRAMS OF LONG ACTING OSMOCOTE (14 TO 16 MONTHS). MIX EXISTING TOPSOIL ON SITE WITH COMPOST AND FERTILISER AS SPECIFIED AND BACKFILL TREE PITS WITH MIX TO FULL DEPTH AFTER SETTLEMENT. WHERE EXISTING TOPSOIL STORED ON SITE DOES NOT CONFORM TO THE SPECIFICATION SUPPLY AND SPREAD PREMIUM GRADE FREE DRAINING SANDY LOAM WITH PH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, TO BS 3882. IF THE EXISTING TOP SOIL OR IMPORTED TOP SOIL IS DEEMED UNSUITABLE BY A REPRESENTATIVE OF THE ARCHITECTS OFFICE USE THE FOLLOWING PLANTING MIXTURE FOR TREES.
 - 6.4. Min Depth of Planting Mixture:: 800mm min above drainage layer.
 - 6.5. Additional materials: When planting all trees install a 100mm diameter proprietary upvc perforated coil watering tube.
 - Install the tube around the full diameter of the root-ball, in a spiral fashion, as close to the surface of the root-ball as possible. Position the lower end of the tube at the same level as the underside of the rootball. Extend the upper end 100mm above the finished bark mulch/seeded level.
 - Securely fit a dust cap to the upper end of the tube.
 - Where the tree is planted in hardscaped areas ensure that the watering tube and dust cap are integrated with the tree grille.
7. Above ground supports
 - 7.1. Type: [Pr_45_63_64_84 Stakes for Trees](#)
 - 7.2. Fixings: Proprietary tree tie (approx 37.5mm width) nylon reinforced rubber belt with packing pad protection for stem as indicated on tree pit detail.
2 NO. TIES PER TREE, TO BE FITTED ONE NEAR THE TOP AND ONE 450MM ABOVE GROUND LEVEL.
8. Tree pit surfacing
 - 8.1. Loose fill tree pit surfacing: Where planted in green areas provide mulch to bases of new trees. Detail of mulch indicated below.
[Pr_45_31_63_97 Wood chip Bark Mulch](#)
 - 8.2. Bound tree pit surfacing: [Pr_35_31_05_70 Resin-bonded aggregate surfacings - On Concrete base](#) to Verge Access Areas around tree pits as indicated on drawings.
9. Tree grilles and surrounds: [Pr_45_63_64_87 Tree grilles](#)
10. Treatment of Tree Wounds:: Keep wounds as small as possible and cut cleanly back to sound wood using sharp, clean tools. Set cuts so that water will not collect on cut area.
 - Do not apply fungicide or sealant unless instructed by landscape specialist.
11. Protection: Do not allow mowing machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.
Any tree or plant damaged in any way by contact with mowing/cutting machinery shall be replaced, immediately, at the Contractor's cost.
12. Permanent labels: [Pr_40_10_57_64 Plants permanent labels](#)
13. Execution: [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#); [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#)

14. System completion: [Ss_45_35_05/801 Operations immediately after planting](#); [Ss_45_35_05/802 Establishment of new planting](#)

Products

See [Pr_15_57_35_61 Geotextile Weed prevention matt](#) in [Ss_30_14_80_98 Rubber chip surface finish systems](#)

Pr_35_31_05_70 Resin-bonded aggregate surfacings - On Concrete base

1. Description: Resin bonded stone aggregate finish on concrete. Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Location.: Decorative finish proposed for "Verge Access" and "Entrance Path" areas. Refer to Architectural Drawings for location.
3. Concrete Base: Concrete base as per Structural Engineer's specification and detail.
4. Manufacturer: submit proposals of supplier & specialist
5. Aggregate
 - 5.1. Generally: Washed, dry and homogenous.
 - 5.2. Type: Natural stone aggregate surface finish similar to Pearl Quartz. Provide sample for Architect's approval.
 - 5.3. Size (nominal): 1–3 mm.
 - 5.4. Colour: Contractor to provide stone samples for architects approval.
6. Binder
 - 6.1. Type: Thermosetting modified Methyl Methacrylate (MMA) resin binder/ primer suitable for use over concrete by specialist- Clear neutral colour or pigment to match aggregate as agreed with Architect. To be laid first by specialist external surfacing contractor. Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 6.2. Colour: Contractor to confirm binder colours available for architects approval.
7. Slip resistance – water wet (minimum): PTV of 40 to [BS EN 13036-4](#). PTV of 45 to [BS EN 13036-4](#). PTV of 49 to [BS EN 13036-4](#).

For (external) level surface course, a minimum (water) wet pendulum test value (PTV) of 40 as recommended in BS 8300.

For inclines PTVs shall be increased from 40 to 45 for a 1:20 gradient, and to 49 for a 1:12 gradient.

See [Pr_40_10_57_64 Plants permanent labels](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_30_90_74 Rootballed trees

1. Description: REFER LANDSCAPING LAYOUT
2. Standards: Trees and shrubs to [BS 3936-1](#).
3. Botanical name: REFER LANDSCAPING LAYOUT
4. Form: Of good shape and without elongated shoots, appropriate to species and variety.
5. Age and condition: Clear stem standards >20 cm/ multi-stems/ bushy trees.
6. Girth: 25 to 30 cm
7. Root condition and protection: Rootballs to be firm and solid, free of perennial weeds and enclosed in hessian, which must decompose within 18 months of planting and not constrict continuing growth of the plant. Roots to penetrate the whole ball.
8. Origin and provenance: Irish grown

See [Pr_45_31_37_76 Selective herbicides](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_63_97 Wood chip Bark Mulch](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_89_58 Organic fertilizers](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_63_64_84 Stakes for Trees

- Material: Softwood, peeled chestnut, larch or oak.
- Quality: Straight. Free from projections and large or edge knots.
- Preservative treatment: To provide a 40 year service life.
- Cross-section size (minimum): min 75 mm diameter as advised by landscaping contractor.
- Length: Firmly driven to at least 300mm into the base of the tree pit. Where the ground is unstable use longer stakes driven to 800mm below ground to ensure stakes are stable and fit for purpose. The top of the stake should be just below the head of the tree.
- End profiles: Pointed at one end, cut square at other.
- Accessories: INCORPORATE SINGLE CROSS BAR SUPPORT SYSTEM. FINAL DETAILS TO BE CONFIRMED BY LANDSCAPING CONTRACTOR AND AGREED WITH MAYO COUNTY COUNCIL ER.

- **General Stake Positioning::** The overall appearance of the planting is affected by the appearance and position of tree stakes. All stakes to be organised and orientated in the same direction, to be driven straight and vertically, to be finished at the same heights above ground level and to appear homogenous, uniform and neat.
Location of stakes to protect trees from prevailing winds.
- **Stake maintenance (post contract)::** Inspect all stakes and ties at minimum monthly intervals and within 48 hours of storm or gale force winds, and carry out the following:
Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self supporting, inform Architect and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.
Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing.
Where chafing has occurred, reposition or replace ties to prevent further chafing.
Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height, in the second spring after completion of planting, and retie to tree firmly but not tightly with a single tie.
Remove redundant tapes, tags, ties, labels and other encumbrances.
Ensure that all trees are established with a vertical trunk. Leaning trees (trees that do not exhibit a symmetrical distribution of branches and foliage around the vertical centre line of the trunk) shall be replaced by trees of the same size, species and specification (including growth made since planting) at the Contractor's expense and in accordance with all relevant clauses of this document.
Remove stakes and ties at the earliest opportunity.
As the Contractor is not contracted to maintain the works after the Defects Liability Period as stated in the works requirements the Contractor must include in the Maintenance Instructions regarding the removal of tree ties, stakes and guys.

Pr_45_63_64_87 Tree grilles

1. **Manufacturer:** Submit proposals
2. **Material:** Cast iron.
3. **Finish:** As cast.
4. **Colour:** None – self-colour.
5. **Shape:** Circular.
6. **Size:** 900 mm diameter.
7. **Internal aperture:** 400 mm.
8. **Number of parts:** Manufacturer's standard.
9. **Accessories:** Manufacturer's standard. Concealed vandal proof security fixings.
10. **Execution:** [Pr_45_63_64/650 Installing tree grilles and surrounds](#)

Execution

Pr_45_63_64/650 Installing tree grilles and surrounds

1. Installing frames: Anchor to in situ concrete base.
2. Installing tree grilles and surrounds: Lay level in frame.

See [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

System completion

See [Ss_45_35_05/801 Operations immediately after planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Ss_45_35_05/802 Establishment of new planting](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Ω End of System

Ss_45_35_05_67

Hedgerow shrub systems - BOUNDARY HEDGEROW 02

Systems

Ss_45_35_05_67 Hedgerow shrub systems - BOUNDARY HEDGEROW 02

1. **Description:** New Boundary Hedgerow 02 to be provided as indicated on Architectural Drawings.

2. Preparatory work to soil
 - 2.1. Herbicide: [Pr_45_31_37_76 Selective herbicides](#)
 - 2.2. Soil ameliorant: [Ss_45_35_05/621 Applying soil ameliorant to topsoil](#)
 - 2.3. Fertilizer: [Pr_45_31_89_58 Organic fertilizers](#)
 - 2.4. Additional materials: [Pr_45_31_89_41 Imported growing media - Compost](#)
 - 2.5. Weed control fabric: [Pr_15_57_35_61 Geotextile Weed prevention matt](#)
3. Trees and shrubs: Combination of 2 no shrub species indicated below comprising 30% [Pr_45_30_80_08 Bare-root shrubs - BLACKTHORN](#) and 70% [Pr_45_30_80_08 Bare-root shrubs - WHITETHORN](#)
4. Setting out / density :: PLANT 2 STAGGERED ROWS OF SHRUBS @ MAX 300MM C/CS SPACED EVENLY WITHIN PLANTER BEDS ALONG BOUNDARIES WHERE INDICATED ON DRAWINGS.
5. Tree and shrub pit backfill material: [45-40-85/325 Imported topsoil](#)
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
6. Mulch: Bed width min 600mm along fences as indicated on drawings- finished with mulch indicated below.
[Pr_45_31_63_97 Wood chip Bark Mulch](#)
7. Accessories:: [Pr_35_90_22_88 Treated Timber edgings](#) at edges of planter beds exposed to grassed areas as indicated on drawings.
8. Protection: Provide temporary protection to planted areas during the works phase which shall be removed upon completion. This can facilitate planting as early as possible in the contract phase to give shrubs chance to become established.
9. Permanent labels: [Pr_40_10_57_64 Plants permanent labels](#)
10. Execution: [Ss_45_35_05/612 Cultivation of topsoil \(80\)](#); [Ss_15_95_45/619 Weeding -General](#); [Ss_45_35_05/633 Regular setting out of amenity planting](#); [Ss_45_35_05/601 Amenity planting general Requirements \(80\)](#); [Ss_45_35_05/603 Times of year for amenity planting \(80\)](#)
11. System completion: [Ss_45_35_05/807 Final mulching of planting beds and trees](#); [Ss_45_35_05/802 Establishment of new planting](#); [Ss_45_35_05/801 Operations immediately after planting](#)

Products

See [45-40-85/325 Imported topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_15_57_35_61 Geotextile Weed prevention matt](#) in [Ss_30_14_80_98 Rubber chip surface finish systems](#)

See [Pr_35_90_22_88 Treated Timber edgings](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_40_10_57_64 Plants permanent labels](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_30_80_08 Bare-root shrubs - BLACKTHORN

1. Description: BLACKTHORN PRUNUS SPINOSA HEDGE
2. General requirements: Materially undamaged, sturdy, healthy and vigorous. Of good shape and without elongated shoots, appropriate to species and variety. Grown in a suitable environment and hardened off.
3. Standards: Trees and shrubs to [BS 3936-1](#).
4. Form: Whip size 90-120- min 2 Litre Pot size.
5. Age and condition: Whip Materially undamaged, sturdy, healthy and vigorous. Of good shape and without elongated shoots, appropriate to species and variety. Grown in a suitable environment and hardened off.
6. Root condition and protection: Bare root (bagged: co-extruded polythene – black inside, white outside), containing and enclosing the whole root system.
7. Origin and provenance: Irish Grown

Pr_45_30_80_08 Bare-root shrubs - WHITETHORN

1. Description: WHITETHORN CRATAEGUS MONOGYNA HEDGE
2. General requirements: Materially undamaged, sturdy, healthy and vigorous. Of good shape and without elongated shoots, appropriate to species and variety. Grown in a suitable environment and hardened off.
3. Standards: Trees and shrubs to [BS 3936-1](#).
4. Form: Whip size 90-120- min 2 Litre Pot size.
5. Age and condition: Whip Materially undamaged, sturdy, healthy and vigorous. Of good shape and without elongated shoots, appropriate to species and variety. Grown in a suitable environment and hardened off.
6. Root condition and protection: Bare root (bagged: co-extruded polythene – black inside, white outside), containing and enclosing the whole root system.
7. Origin and provenance: Irish Grown

See [Pr_45_31_37_76 Selective herbicides](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_45_31_63_97 Wood chip Bark Mulch](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Employers Requirements, Architectural & Landscaping Specification

See Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Pr_45_31_89_41 Imported growing media - Compost in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Pr_45_31_89_58 Organic fertilizers in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

Execution

See Ss_15_95_45/619 Weeding -General in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/601 Amenity planting general Requirements (80) in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/603 Times of year for amenity planting (80) in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/612 Cultivation of topsoil (80) in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/621 Applying soil ameliorant to topsoil in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/633 Regular setting out of amenity planting in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

System completion

See Ss_45_35_05/801 Operations immediately after planting in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/802 Establishment of new planting in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Ss_45_35_05/807 Final mulching of planting beds and trees in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

Ω End of System

Ss_45_35_45_35

Grass seeding systems - S1a Wildflower Meadows

Systems

Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows

1. Description: Seeded landscape surface.
2. System performance: [Ss_45_35_45/220 Performance of grass swards and wildflower meadows](#)
3. Depth (min) of Topsoil: *Subsoil levels shall be min 200mm below the finished ground levels in all areas for seeding to allow for min 200mm of topsoil after settlement.*
4. Topsoil:: Strictly in accordance with Structural engineer's specification.
[45-40-85/325 Imported topsoil](#)
and
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
5. Landscape Specialist:: Specialist landscaping contractor to carry out all preparation and sowing works for seeded areas. Specialist is contractor's choice. Contractor to submit details of specialist to Architect.
6. Topsoil preparation
 - 6.1. Ripping prior to subsoiling:: Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped to a min depth of 450mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and seeding. The Contractor will inform the Architect upon completion of ripping before subsoiling/topsoiling operations commence.
 - 6.2. Levelling Hollows and bumps in Turf:: Level using the methods in BS 7370:Part 3, clauses 12.4 and 12.5. Where drainage is impeded as a result of compaction.
Relieve using the methods in BS 7370:Part 3, clause 13.5.
 - 6.3. Weed Control:: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding or application of herbicide as noted below.
 - 6.4. Herbicide: Do not apply if rain is forecast within six hours or if wind speed is likely to exceed 15mph/25kph, or cause spray drift. Ensure complete, consistent cover. Ensure that symptoms are fully visible on foliage before cultivation. Do not allow the herbicide to come in contact, either directly, or indirectly with any part of any existing plant to be retained, or any plants stored on site.
Spray area using a suitable herbicide. Always follow the manufacturers instructions
Wait 3-4 weeks, then rotovate or fork to a depth of 10 cm.
Wait 3-4 weeks or when there is re growth, then re-spray all growth with suitable herbicide
Wait until herbicide has worked then prepare the seed bed by very lightly raking to achieve a fine tilth (but not deep enough to bring more seed to the surface).
Sow immediately afterwards as detailed below
 - 6.5. Cultivation:: Break up any compacted topsoil to full depth.
 - Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
 - Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter
 - 6.6. Grading:: When topsoil is reasonably dry and workable grade to smooth, flat, uni-directional planes, with falls for adequate drainage, removing all minor hollows and ridges.
 - Unless otherwise stated, finished levels after settlement to be 50 mm above below paving, kerbs, manholes etc.
 - Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 200mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.
 - 6.7. Fertilizer: Three to five days before seeding/turfing and before final cultivation apply both the following fertilizers evenly over all areas to be seeded, each at 70 g/m², in transverse directions:
Superphosphate with a minimum of 18% water soluble phosphoric acid.
A sulfate of ammonia with a minimum of 20% nitrogen.
7. Final Cultivation::

After grading and fertilizing carry out further cultivation to reduce top 25 mm to a fine firm seed bed with good crumb structure.

 - Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 25mm in any dimension.
 - Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
 - Obtain approval of appearance of prepared soil areas before seeding.
8. Seed: [Pr_45_30_76_34 Grass seeded Surface - PERENNIAL WILDFLOWER MEADOW](#); [Pr_45_30_76_34 Grass seeded Surface - LAWNS](#)
9. Accessories::

As indicated on Architectural Drawings. [Pr_25_93_60_15 Concrete kerb edging units](#); [Pr_35_90_22_88 Treated Timber edgings](#)

10. **Execution:** Sow seed in calm weather during April-May or August-September. Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions. Lightly harrow or rake. Roll and cross roll after seeding using a lightweight roller. Do not roll on heavy clay soils or when soil is wet.
11. **Pre-emergent Herbicide::** Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.
- Do not apply to meadow/wildflower areas.
12. **Watering::** During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.
13. **System completion:** Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Completion and after any maintenance operations.

System performance

Ss_45_35_45/220 Performance of grass swards and wildflower meadows

Shared by: [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#)

1. **Appearance:** A closely knit, continuous ground cover of even density, height and colour.
2. **Growth and development:** Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.

Products

See [45-40-85/325 Imported topsoil](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

See [Pr_25_93_60_15 Concrete kerb edging units](#) in [Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER](#)

See [Pr_35_90_22_88 Treated Timber edgings](#) in [Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Pr_45_30_76_34 Grass seeded Surface - PERENNIAL WILDFLOWER MEADOW

Shared by: [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#)

1. **Description:** Seeded Perennial Wildflower mix to create wildflower meadow. To be provided to seeded areas located within public areas. Refer to Architectural drawings for details.
2. **Supplied by:** Submit proposals.
3. **Mix type:** Perennial wild flower meadow: Perennial mixtures are comprised of plants that will flower each year if managed correctly. These mixes usually do not flower in the first year and in the second year the dominant species will tend to be Ox eye Daisies. These short lived perennials tend to dominate until the meadow settles down.
A ratio of 30% wildflowers : 70% grass is usually appropriate for most sites. Details to be confirmed by supplier.
4. **Sowing qty::** 4 grams per m2.
5. **Origin and provenance:** Manufacturer's standard .
6. **Certification**
 - 6.1. **Standard:** In accordance with EC purity and germination regulations.
 - 6.2. **Level of certification:** Blue label certification.
The certificate(s) must provide the following information: Source of supply; Analysis of content; Confirmation of suitability for proposed purpose; Confirmation of absence of harmful substances.
 - 6.3. **Submittals:** Official Seed Testing Station certificate of germination, purity and composition.
7. **Freshness:** Produced for the current growing season.
8. **Management -Year 01 -Perennial Wildflower meadow::** Information for management of Perennial Wildflower meadow.
First year within Scope of Contract: In the first year it is important to keep the area cut short. This is firstly to keep "weeds" down but also to provide light to seedlings to help them grow. Cut the sward to a height of 75 mm whenever the vegetation reaches 150mm, and remove the cut vegetation if possible. Over the first season perennial weeds should be treated (removed by mechanical means or by careful spot spraying) after cutting.
Cut the meadow no later than mid-November to a height of 30 mm and remove all vegetation.
9. **Management-Years 02 & 03-Perennial Wildflower meadow:** Information for management of Perennial Wildflower meadow post contract.
Second and third years: After year one, the meadow is cut just once annually. The goal in years 2 and 3 is to encourage germination the following year. Cut the sward just once, after the seed has set (or no later than mid-November), to a height of 30 mm. Leave the cut vegetation for 3 days then remove. After cutting, perennial weeds should continue to be treated through mechanical removal or careful spot spraying.
-It is difficult to provide exact ideal timing for annual cutting as it can depend on weather and other unpredictable factors. The goal is to allow the seed to ripen and fall from the seed heads before cutting.
-After cutting in Year 2 and 3, Yellow Rattle can be over-sown. Yellow rattle is a semi-parasite that reduces grass dominance.

Pr_45_30_76_34 Grass seeded Surface - LAWNS

Shared by: [Ss_45_35_45_35 Grass seeding systems - SURFACE S1](#)

1. **Description:** Seeded grassed finish to create lawn. To be provided to seeded areas located within private boundaries of houses (eg rear gardens). Refer to Architectural drawings for details.
2. **Supplied by:** Submit proposals.
3. **Mix type:** GRASS SEED FOR LAWN AREAS AND REINFORCED GRASS AREAS:- Supply and spread grass seed at 45g/sqm, by specialist landscaping supplier- 20% 'Barcredo' dwarf perennial rye grass- 40% 'Barrage' dwarf perennial rye grass-40% 'Boreal' strong creeping red fescue.
- Increase rate of application by 50% for slopes exceeding 1:8.
4. **Origin and provenance:** Manufacturer's standard .
5. **Sowing Qty::** 4 grams per m2
6. **Certification**
 - 6.1. **Standard:** In accordance with EC purity and germination regulations.
 - 6.2. **Level of certification:** Blue label certification.
The certificate(s) must provide the following information: Source of supply; Analysis of content; Confirmation of suitability for proposed purpose; Confirmation of absence of harmful substances.
 - 6.3. **Submittals:** Official Seed Testing Station certificate of germination, purity and composition.
7. **Freshness:** Produced for the current growing season.
8. **Scarifying Lawns::** Do not scarify lawns less than 6 months old.
If timing of lawn sowing allows lawns to exceed 6 months and that this occurs in April, scarify with self propelled equipment to a depth of 25 mm to relieve thatch conditions and remove dead grass.
9. **Making Good to damaged lawns::** Make good worn or damaged areas by re-turfing to BS 7370:Part 3, Clause 12.2, or re-seeding to BS 7370: Part 3, Clause 12.6, using turf or seed to match the existing in appearance and quality.
Provide protection and watering to promote successful germination and/or establishment.
10. **Management:: During Contract phase:** In the first year it is important to keep the area cut short. This is firstly to keep "weeds" down but also to provide light to seedlings to help them grow.
Cut no later than mid-November to a height of 30 mm and remove all vegetation.

During Maintenance phase: Min of 4 grass cuts shall be carried out during the growing season during 18 month Landscaping Maintenance Period.

See [Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING](#)

Ω End of System

Ss_45_35_45_35

Grass seeding systems - SURFACE S1

Systems

Ss_45_35_45_35 Grass seeding systems - SURFACE S1

1. Description: Seeded landscape surface.
2. System performance: [Ss_45_35_45/220 Performance of grass swards and wildflower meadows](#)
3. Depth (min) of Topsoil: *Subsoil levels shall be min 200mm below the finished ground levels in all areas for seeding to allow for min 200mm of topsoil after settlement.*
4. Topsoil:: Strictly in accordance with Structural engineer's specification.
[45-40-85/325 Imported topsoil](#)
and
[Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally](#)
5. Landscape Specialist:: Specialist landscaping contractor to carry out all preparation and sowing works for seeded areas. Specialist is contractor's choice. Contractor to submit details of specialist to Architect.
6. Topsoil preparation
 - 6.1. Ripping prior to subsoiling:: Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped to a min depth of 450mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and seeding. The Contractor will inform the Architect upon completion of ripping before subsoiling/topsoiling operations commence.
 - 6.2. Levelling Hollows and bumps in Turf:: Level using the methods in BS 7370:Part 3, clauses 12.4 and 12.5. Where drainage is impeded as a result of compaction.
Relieve using the methods in BS 7370:Part 3, clause 13.5.
 - 6.3. Weed Control:: Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding or application of herbicide as noted below.
 - 6.4. Herbicide: Do not apply if rain is forecast within six hours or if wind speed is likely to exceed 15mph/25kph, or cause spray drift. Ensure complete, consistent cover. Ensure that symptoms are fully visible on foliage before cultivation. Do not allow the herbicide to come in contact, either directly, or indirectly with any part of any existing plant to be retained, or any plants stored on site.
Spray area using a suitable herbicide. Always follow the manufacturers instructions
Wait 3-4 weeks, then rotovate or fork to a depth of 10 cm.
Wait 3-4 weeks or when there is re growth, then re-spray all growth with suitable herbicide
Wait until herbicide has worked then prepare the seed bed by very lightly raking to achieve a fine tilth (but not deep enough to bring more seed to the surface).
Sow immediately afterwards as detailed below
 - 6.5. Cultivation:: Break up any compacted topsoil to full depth.
 - Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
 - Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter
 - 6.6. Grading:: When topsoil is reasonably dry and workable grade to smooth, flat, uni-directional planes, with falls for adequate drainage, removing all minor hollows and ridges.
 - Unless otherwise stated, finished levels after settlement to be 50 mm above below paving, kerbs, manholes etc.
 - Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 200mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.
 - 6.7. Fertilizer: Three to five days before seeding/turfing and before final cultivation apply both the following fertilizers evenly over all areas to be seeded, each at 70 g/m², in transverse directions:
Superphosphate with a minimum of 18% water soluble phosphoric acid.
A sulfate of ammonia with a minimum of 20% nitrogen.
7. Final Cultivation::

After grading and fertilizing carry out further cultivation to reduce top 25 mm to a fine firm seed bed with good crumb structure.

 - Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 25mm in any dimension.
 - Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
 - Obtain approval of appearance of prepared soil areas before seeding.
8. Seed: [Pr_45_30_76_34 Grass seeded Surface - PERENNIAL WILDFLOWER MEADOW](#); [Pr_45_30_76_34 Grass seeded Surface - LAWNS](#)
9. Accessories:: [Pr_25_93_60_15 Concrete kerb edging units](#); [Pr_35_90_22_88 Treated Timber edgings](#)
As indicated on Architectural Drawings.
10. Execution: Sow seed in calm weather during April-May or August-September. Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions. Lightly harrow or rake. Roll and cross roll after seeding using a lightweight roller. Do not roll on heavy clay soils or when soil is wet.

Employers Requirements, Architectural & Landscaping Specification

11. Pre-emergent Herbicide:: Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.
- Do not apply to meadow/wildflower areas.
12. Watering:: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.
13. System completion: Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Completion and after any maintenance operations.

System performance

See Ss_45_35_45/220 Performance of grass swards and wildflower meadows in Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows

Products

See 45-40-85/325 Imported topsoil in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Pr_25_93_60_15 Concrete kerb edging units in Ss_45_35_05_08 New perennial planting systems - PRIVATE PLANTED BUFFER

See Pr_35_90_22_88 Treated Timber edgings in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

See Pr_45_30_76_34 Grass seeded Surface - PERENNIAL WILDFLOWER MEADOW in Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows

See Pr_45_30_76_34 Grass seeded Surface - LAWNS in Ss_45_35_45_35 Grass seeding systems - S1a Wildflower Meadows

See Pr_45_31_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss_45_35_05_08 New perennial planting systems - SHRUB PLANTING

Ω End of System

Ss_50_30_02_28

External gravity rainwater drainage systems

Systems

Ss_50_30_02_28 External gravity rainwater drainage systems

1. Description: Eaves Guttering and External Rainwater Downpipes.
2. System performance: [Ss_50_30_02/290 Compliance with performance requirements](#)
3. System manufacturer: Submit proposals .
4. Eaves gutters
 - 4.1. Gutters
 - 4.1.1. Gutter types: [Pr_65_50_35_06 Aluminium eaves gutters](#) and
 - 4.1.2. Jointing: As recommended by gutter manufacturer.
 - 4.2. Supports
 - 4.2.1. Brackets: Eaves gutter brackets and clips.
 - 4.2.2. Fixings: As recommended by gutter manufacturer.
5. External rainwater pipework
 - 5.1. Rainwater downpipes
 - 5.1.1. Downpipe types: [Pr_65_52_63_04 Aluminium rainwater pipes and fittings](#)
 - 5.1.2. Jointing: As recommended by pipework manufacturer.
 - 5.2. Supports
 - 5.2.1. Brackets and clips: [Pr_20_85_09_01 Above-ground drainage pipe brackets](#).
 - 5.2.2. Fixings: As recommended by gutter manufacturer.
6. System accessories: Eaves gutter leaf guards.
7. Execution: [Ss_50_30_02/662 Access for testing and maintenance of rainwater drainage system](#); [Ss_50_30_02/616 Fixing and jointing cast and extruded metal eaves gutters](#); [Ss_50_30_02/640 Fixing and jointing cast and extruded metal external gravity rainwater drainage pipework](#); [Ss_50_30_02/610 Installation of rainwater drainage generally](#); [Ss_50_30_02/602 Preparation](#)
8. System completion: [Ss_50_30_02/820 Rainwater drainage system maintenance instructions](#); [Ss_50_30_02/820 Rainwater drainage system maintenance instructions](#); [Ss_50_30_02/822 Rainwater drainage system pre-handover checks](#); [Ss_50_30_02/810 Testing rainwater drainage generally](#); [Ss_50_30_02/890 Verification of performance](#)

System performance

Ss_50_30_02/290 Compliance with performance requirements

1. Requirement: Proof of compliance with specified performance.
2. Method: Confirm calculations for design to IS EN 12056-3.
3. Testing authority: *Third party accredited by approved/ recognized body of compliance with specified performance & as suitable for the specified purpose and exposure situation.*
 1. *Product CE marking and associated Declaration of Performance (DoP) and all relevant data sheets.*
 2. *Board of Agrément Certificate Approved by INAB (Irish National Accreditation Board) accredited technical approval body or European equivalent (i.e. member of EA and a signatory to the EA)*
 3. *European Technical Assessment Approval*
4. Timing of submittals: *Manufacturers or Suppliers Certificate of compliance with the standard shall be provided when requested by the Employers representative and before commencing installation.*

Products

Pr_20_85_09_01 Above-ground drainage pipe brackets

1. Manufacturer: Submit proposals .
2. Pipe location: External.
3. Arrangement: Horizontal. Vertical.
4. Form: Manufacturer's standard .
5. Material: Manufacturer's standard . HDPE. Plastics.
6. Finish: To match pipelines.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. Timing: Before placement of orders.

Pr_65_50_35_06 Aluminium eaves gutters

1. Manufacturer: Submit proposals .
2. Form: Extruded to [BS 8530](#).
3. Profile: Deep half round.
4. Size (nominal width): 100 mm.
5. Thickness or gauge: 4 mm.
6. Finish: Powder coating to [BS EN 12206-1](#). Suitable for marine environment
7. Colour: RAL colour to be agreed
8. Film thickness (minimum): Manufacturer's standard .
9. Integral accessories: Adapters;
Preformed gutter angles;
and Stop ends.
10. Verification
 - 10.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 10.2. Timing: Before placement of orders.
11. Execution: [Ss_50_30_02/612 Setting out eaves gutters](#); [Ss_50_30_02/616 Fixing and jointing cast and extruded metal eaves gutters](#)

Pr_65_52_63_04 Aluminium rainwater pipes and fittings

1. Manufacturer: Submit proposals .
2. Standard: To [BS 8530](#).
3. Third-party product certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
4. Form: Extruded with cast fittings.
5. Section: Round.
6. Size (nominal): DN 100.
7. Minimum thickness or gauge: 1.8 mm.
8. Finish and colour
 - 8.1. Finish: Powder coating to [BS EN 12206-1](#). Suitable for marine environment
 - 8.2. Colour: RAL colour to be agreed.
 - 8.3. Film thickness (minimum): Manufacturer's standard .
9. Integral accessories: Access fittings;
Rainwater heads;
and Rainwater shoes.
10. Execution: [Pr_65_52_03/630 Fixing and jointing rainwater and above ground drainage pipes](#)

Execution

Pr_65_52_03/630 Fixing and jointing rainwater and above ground drainage pipes

1. Fixing
 - 1.1. Supports
 - 1.1.1. Stability: Fix securely.
 - 1.1.2. Fixing centres (nominal): At least at every storey level. Tighten fixings as work proceeds so that every storey is self-supporting.
 - 1.2. Pipework
 - 1.2.1. Alignment: Plumb and/ or true to line.
 - 1.2.2. Externally socketed pipes and fittings: Fix with socket ends forming inlet for each individual pipe.
2. Jointing
 - 2.1. Jointing differing pipework systems: Use adaptors intended for the purpose.
 - 2.2. Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer ends of plastics pipes before inserting into ring seal sockets. Where metal pipes are to be used, recoat bare metal with appropriate primer and paint.
 - 2.3. Jointing or mating surfaces: Clean and, where necessary, use jointing lubricant immediately to allow safe and efficient jointing assembly.
 - 2.4. Unsealed joints: Wedge unsealed joints to cast pipes with timber or sheet lead cut-offs to centralize pipe joints and reduce rattling.

- 2.5. Expansion joint pipe sockets: Fix rigidly to buildings. Elsewhere, provide brackets and fixings that allow pipes to slide.
- 2.6. Solvent-welded pipelines: Install ring seal joints in all long runs of solvent-welded pipework, as movement joints.

Ss_50_30_02/602 Preparation

- Below-ground drainage: Complete before commencing rainwater installation or make temporary arrangements for dispersal of rainwater without damage or disfigurement of the building fabric and surroundings.
- Inaccessible surfaces: Paint fully before commencing rainwater installation.

Ss_50_30_02/610 Installation of rainwater drainage generally

1. Collection and distribution of rainwater: Complete, and without leakage or noise nuisance.
2. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
3. Plastics and galvanized steel pipes: Do not bend. Plumb and/ or true to line.
4. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
5. Protection: Fit purpose-made temporary caps to prevent ingress of debris. Fit access covers, cleaning eyes and blanking plates as the work proceeds.

Ss_50_30_02/612 Setting out eaves gutters

1. Setting out: To fall with true line and even gradient. Prevent ponding and backfall. Position high points of gutters as close as practical to the roof. Position low points not more than 50 mm below the roof.
2. Outlets: Align with connections to below-ground drainage.

Ss_50_30_02/616 Fixing and jointing cast and extruded metal eaves gutters

1. Fixing
 - 1.1. Supports
 - 1.1.1. Stability: Fix securely.
 - 1.1.2. Fixing centres (nominal): Submit proposals .
 - 1.2. Additional supports: At joints in gutters and near angles and outlets.
2. Jointing
 - 2.1. Method: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 2.2. Jointing differing gutter systems: Use adaptors intended for the purpose.
 - 2.3. Cut ends of gutters: Clean and square. Remove burrs and swarf.
 - 2.4. Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
 - 2.5. Sealant: 6 mm continuous bead each side of bolt position.

Ss_50_30_02/640 Fixing and jointing cast and extruded metal external gravity rainwater drainage pipework

1. Fixing
 - 1.1. Supports
 - 1.1.1. Stability: Fix securely.
 - 1.1.2. Fixing centres (nominal): 1.8 m and At least at every storey level. Tighten fixings as work proceeds so that every storey is self-supporting.
 - 1.2. Pipework
 - 1.2.1. Alignment: Plumb and/ or true to line.
 - 1.2.2. Externally socketed pipes and fittings: Fix with sockets facing upstream.
2. Jointing
 - 2.1. Method: Push fit.
 - 2.2. Jointing differing pipework systems: Use adaptors intended for the purpose.
 - 2.3. Cut ends of pipes: Clean and square. Remove burrs and swarf.
 - 2.4. Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
 - 2.5. Unsealed joints: Wedge joints to cast pipes to prevent rattling.

Ss_50_30_02/662 Access for testing and maintenance of rainwater drainage system

1. Requirement: Install pipework and gutters with adequate clearance to permit testing, cleaning and maintenance, including painting where necessary.
2. Access fittings and rodding eyes: Position so that they are not obstructed.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_50_30_02/810 Testing rainwater drainage generally

1. Dates for testing: Give notice.
2. Period of notice (minimum): Submit proposals .
3. Pipework: Complete, and fix securely. Make free from defects, obstruction and debris before testing.
4. Testing
 - 4.1. Clean water: Provide.
 - 4.2. Testing apparatus: Provide.
 - 4.3. Smoke testing: Do not use.

Ss_50_30_02/820 Rainwater drainage system maintenance instructions

1. Printed instructions: Submit at completion.
2. Contents: Recommended procedures for maintenance of the rainwater installation, including full details of recommended inspection, cleaning and repair procedures.

Ss_50_30_02/822 Rainwater drainage system pre-handover checks

1. Construction rubbish, debris, swarf, temporary caps and fine dust which may enter the rainwater system: Remove. Do not sweep or flush into the rainwater system.
2. Access covers, rodding eyes, outlet gratings etc.: Secure complete with fixings.

Ss_50_30_02/890 Verification of performance

1. Requirement: Check completed system and provide assurance of compliance with specified performance.
2. Submittals
 - 2.1. Format: Description of inspections, remedial works carried out and certification of compliance.
 - 2.2. Timing: At completion of rainwater system work and At project completion.

Ω End of System

Ss_55_70_38_15

Cold water supply systems

Systems

Ss_55_70_38_15 Cold water supply systems

1. System performance: [Ss_55_70_38/220 Cold water supply](#).
2. Arrangement: Mains and Storage.
3. Water meters: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
4. Storage tank or cistern: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
5. Pipework
 - 5.1. Below ground: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
 - 5.2. Above ground: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
6. Fire-stopping: Individual services penetrations fire stopping system;
Linear gap fire stopping system;
Loose fire stopping system;
Multiple services penetration fire stopping system;
and Pipe collar fire stopping system.
7. Thermal insulation
 - 7.1. Pipework: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
 - 7.2. Tanks: [Pr_80_77_76_53 Mineral wool duct slab insulation - ATTIC TANK](#)
Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification including perimeter and top insulation.
8. Outlets: [45-35-70/345 Taps and water supply fittings for sinks](#);
and [45-35-70/371 Taps and water supply fittings for wash basins and troughs](#)

9. Accessories: Electrical resistance trace heating system Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
10. Plant and equipment identification: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
11. Execution: [Ss_55_70_38/620 Installing hot and cold water systems generally](#)
12. System completion: [Ss_55_70_38/850 Water quality tests](#)

System performance

Ss_55_70_38/220 Cold water supply

1. Incoming mains water supply: Identify site factors and submit report. Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
2. Type of system: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.

Products

See [45-35-70/345 Taps and water supply fittings for sinks in Ss_40_15_75_80 Sink systems](#)

See [45-35-70/371 Taps and water supply fittings for wash basins and troughs in Ss_40_15_75_94 Washbasin systems](#)

Pr_80_77_76_53 Mineral wool duct slab insulation - ATTIC TANK

- Description: Semi-rigid insulation slab, faced with reinforced aluminium foil wrapped around and over attic water tank.
- Manufacturer: Submit proposals .
- Standard: To [IS EN 14303](#).
- Form: Flexible slabs;
Semi-rigid slabs;
- Thermal conductivity:
 - 10°C mean temperature – 0.033 W/mK.
 - 50°C mean temperature – 0.040 W/mK.
 - 100°C mean temperature – 0.050 W/mK.
 - 150°C mean temperature – 0.063 W/mK.
- Finish: Plain.
- Fire performance: Reaction to fire classification of A1, as defined in [IS EN 13501-1](#).
Reaction to fire classification of A2-s1, d0, as defined in [IS EN 13501-1](#).
- Insulation thickness (minimum): Refer to Architects Drawings.
[To BS 5422](#).
Strictly in accordance with manufacturers specification and detail to meet specified thermal requirements.
- Vapour barrier
 - Material: Manufacturer's standard .
 - Vapour permeability: To [BS 5422](#), clause 5.6.
- Accessories: Manufacturer's standard .
- Items to be insulated: Cover plates and Removable access covers.
Around and over attic water tank.
- Execution: [Pr_80_77_76/670 Installing insulation on tanks](#) and [Pr_80_77_76/780 Installing vapour barriers](#).
- Verification
 - Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - Timing: Before commencement of installation.

Execution

Pr_80_77_76/610 Installing insulation and protection products generally

1. Standard: In accordance with [BS 5970](#).
2. Timing: Insulate after installed system has been fully tested and joints proved sound.
3. Insulation: Do not enclose adjacent units together.
4. Clearance: Maintain between pipes.
5. Finish: Neatly finish joints, corners, edges and overlaps.

Pr_80_77_76/670 Installing insulation on tanks

1. General requirements: [Pr_80_77_76/610 Installing insulation and protection products generally](#) .
2. Fixing: Adhesive.

3. Joints: Seal with 100 mm wide class 0 foil tape.
4. Access: Allow for removal of access covers and tank lid.

Pr_80_77_76/780 Installing vapour barriers

- Integrity: Seal to maintain throughout.

Ss_55_70_38/620 Installing hot and cold water systems generally

1. Standard: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
2. Performance: Free from leaks and the audible effects of expansion, vibration and water hammer.
3. Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building.
4. Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections.
5. Corrosion resistance: In locations where moisture is present or may occur, avoid contact between dissimilar metals by use of suitable washers, gaskets, and the like.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ss_55_70_38/850 Water quality tests

1. Standard: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification and to EN 806-4.

Service Connections shall only be made once the supply pipework has been confirmed to have passed the sampling tests indicating compliance with Statutory Instrument 122 of 2014, European Union Drinking Water Regulations 2014 (the DWRs).

Ensure that pipework, materials, fittings and installations used in connection with the Distribution System and use of water within the Curtilage of the premises are suitable for conveyance of water fit for human consumption;

ensure that the water Distribution System has been disinfected, pressure tested and water samples taken and the results of which have indicated that the Main is suitable for conveying water intended for human consumption.

2. Samples
 - 2.1. Sample points: Main supply to site.
 - 2.2. Samples for analysis: Submit samples for bacteriological analysis.
3. Water temperature: Record at each sampling point at the time of taking the sample.
4. Test results
 - 4.1. Record: Details of all analyses.

Installation, testing and commissioning (flushing, cleaning, disinfection, scouring, etc.) of the Works shall be carried out and bacteriological tests undertaken prior to connection to the Irish Water's Network. If a water sample taken prior to the final connection does not meet the parametric standards laid down in the Drinking Water Regulations, a new sample shall be taken and tested.

A connection shall not be provided until the bacteriological tests are satisfactory. If the connection is not made within 14 calendar days of the sample date which yielded a satisfactory result, a new sample shall be taken and tested and the disinfection process repeated, if required.

- 4.2. Submit: On completion.
- 4.3. Number of copies: Two.

Ω End of System

Ss_55_70_95_50

Mains water distribution network systems

Systems

Ss_55_70_95_50 Mains water distribution network systems

1. Description: Construction and commissioning of the Water Works for developments, which is to be vested by Uisce Eireann
2. System performance: Strictly in accordance with Structural Engineers detail and Specification and Uisce Eireann's technical requirements.

3. **Standards:** Strictly in accordance with Structural Engineers detail and Specification and Uisce Eireann's Code of Practice for Water Infrastructure. The Code of Practice shall be used in conjunction with current IW Connection and Developer Services Standard Details.
4. **Certification:** Certification and testing (including independent third party certification) shall be provided to confirm quality assurance compliance.

Test result certificates indicating that the Works has undergone appropriate on-site testing, off-site testing and commissioning.

The appropriate site tests for the Works would be, but are not limited to, the following:

1. Pressure Tests on Ductile Iron Water Mains (if appropriate) with a hard copy printout from the data logger as proof of the outcome of the test;
 2. Pressure Test Records of polyethylene pipes (if appropriate) with a hard copy printout from the data logger of the relaxation curve as proof of the outcome of the test.
 3. Testing completion results of Pumping Plant (if appropriate);
 4. Disinfection of Water Mains (including cleaning, scouring, swabbing and disposal of disinfection water);
 5. Commissioning testing of Works including water quality sampling and testing of water from the commissioned works;
 6. A printout of the joint details, with a GPS location of each joint;
5. **Execution:** Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
 6. **System completion:**
 1. Provision of "As-Constructed" drawings and records of the installed Works in hard and soft copy to be delivered to the Uisce Eireann Field Engineers;
 2. "As-Constructed" record of service pipe installation completion (including link to House Numbers within the development);
 3. Provision of Safety File in accordance with the current Safety and Health Construction Regulations;
 4. Provision of Operation and Maintenance Manuals for pumping plant (if such provided) including full pump details, performance curves and power ratings, etc., and all warranty documentation for the installed equipment as well as drawings of the pump station;
1. As Built Record Drawings in hard copy and digital format, showing location and layout plans, longitudinal sections and details of the Works and development in full.
 2. The submitted drawings must meet the required minimum standard as stated in Uisce Eireann Codes of Practice, QA Field Manual and Connection Agreement.
 3. Plan scales should be in common use, i.e. 1:500, 1:1000 or 1:2500 as appropriate. Drawings should be prepared using an electronic system and submitted in standard "AutoCAD (dwg/dxf)" file format. These drawings shall contain the following information:
 4. Locations of all valves, hydrants, scour valves or washout hydrants, meters, ducts, tapping locations, Water Main and service pipes, Boundary Boxes, etc., complete with legends to Uisce Eireann's requirements;
 5. Detailed pipe material types, sizes, connection detailed plans of pipe branches, showing valve locations, etc.;
 6. Locations of assets are to be to +/- 100mm accuracy in the horizontal plane to the centre of the asset, with dimensions relating to fixed Irish National Grid (ING) co-ordinates;
 7. Cover level for Water Main fittings and intermittent Water Main invert levels relating to fixed Ordnance Survey Datum (Malin Head) to an accuracy of +/- 20mm;
 8. Longitudinal sections, to an exaggerated vertical scale, showing installed levels, completed ground levels, invert levels, pipe sizes, bedding, haunch and surround details, backfill details, together with Chamber locations, chainages, gradients, pipe materials, etc. All Chambers for water supply IW-CDS-5020-03 (Revision 1 – December 2017) 13 fittings shall be identified and provided with location coordinates to Irish National Grid (ING);
 9. Details of any services and structures on the site, especially those in close proximity to the Works including offset measurement to the water supply system;
 10. Dwelling and building numbers;
 11. Construction details of pump station as well as mechanical, electrical and instrumentation equipment details;
 12. Details of services and structures on the site, existing and proposed, especially those in close proximity to the Works including offsets measurements to the Works.

Ω End of System

45-35-70/335

Shower mixers

Products

45-35-70/335 Shower mixers

1. Manufacturer: Submit proposals .
2. Approvals: Water Regulations Advisory Scheme (WRAS) approved.
3. Standards: All Water supply fittings are to be suitable for a low pressure gravity fed water vented system with an operating pressure of 0.1bar using durable materials, systems and components given that normal maintenance will be carried out and fair wear and tear excepted.

To EN 200 - Single taps and combination taps.
To EN 817 - Sanitary tapware. Mechanical (non-thermostatic) mixing valves (PN 10).
To EN 1111 - Sanitary tapware. Thermostatic mixing valves (PN 10).
To EN 1286 - Sanitary tapware. Low pressure mechanical mixing valves.
To EN 1287 - Sanitary tapware. Low pressure thermostatic mixing valves.
4. Form: Wall mounted thermostatic shower mixer valve.

Ω End of Product

45-35-84/320

Water-borne matt or flat finishes

Products

45-35-84/320 Water-borne matt or flat finishes

1. Composition: water-based matt emulsion
2. Sheen: Matt.
3. Colour: refer finishes drawing
4. Execution: [Pr_35_31_22/703 Applying coating - External Joinery](#).

Execution

Pr_35_31_22/703 Applying coating - External Joinery

1. Initial coats
 - 1.1. Number of coats: Two.
 - 1.2. Thinning: In accordance with manufacturer's instructions. Coatings should not be excessively thinned
 - 1.3. Application: Application: In accordance with BS 6150, clause 9.
Environmental conditions: Maintain suitable temperature, humidity and air quality during application and drying.
Surfaces: Clean and dry at time of application.
Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
Overpainting: Do not paint over intumescent strips or silicone mastics.
Initial coats:
Thickness: To suit surface porosity.
Application: As soon as possible on same day as preparation is completed.
Finish: Even, smooth and of uniform colour. Free from brush marks, sags, runs and other defects.
Cutting in: Cut in neatly.
Doors, opening windows and other moving parts: Ease before coating, and between coats.
2. Undercoats
 - 2.1. Number of coats: Two.
 - 2.2. Application: Spray. Roller. Brush.
3. Finishing coats
 - 3.1. Number of coats: One.
 - 3.2. Application: Brush. Roller. Spray.

Ω End of Product

Pr_20_29_76_76 Self-drilling screws

Products

Pr_20_29_76_76 Self-drilling screws

1. Description: Self-drilling, self-tapping stainless steel primary fasteners with non-ferrous EPDM backed washer. Stainless steel secondary fasteners with non-ferrous EPDM backed washer.
2. Manufacturer: *Submit proposals*.
3. Standard: To [EN ISO 1479](#).
4. Material: Stainless steel.
5. Accessories: Push-on head covers.
6. Washers: Non-ferrous EPDM backed washer.

Ω End of Product

Pr_20_76_88_81 Softwood rafters- Joists- Treated

Products

Pr_20_76_88_81 Softwood rafters- Joists- Treated

1. Description: Treated SW rafters/ joists / stud frames to Structural Engineer's Specification and detail.
2. General Requirements:: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
Planed all round and Regularized.
3. Execution: To Structural Engineer's Specification and detail. [Pr_20_76_88/600 Treatment of timber cut on-site](#)

Execution

See [Pr_20_76_88/600 Treatment of timber cut on-site](#) in [Ss_30_25_10_35 Gypsum board suspended ceiling systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_20_76_88_82 Softwood roofing and cladding battens

Systems

See [Ss_40_90_95_65 Preservative treatment systems](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

System performance

See [Ss_40_90_95/210 Preservative treatment performance](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Ss_40_90_95/270 Compatibility of dual treatments](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Products

Pr_20_76_88_82 Softwood roofing and cladding battens

1. Description: Fix slates on **50 x 50 mm** preservative pre-treated battens so spaced that each slate overlaps the slate below by **at least 100mm**.
2. General requirements: Fix battens with galvanised nails. 3.35mm dia. nails, 80mm long and should penetrate the rafter by a minimum of 40mm.

Battens should be at least 1.2m long and long enough to be nailed at each end and at intermediate points to at least three rafters.

Mortar to be cement mortar (1.3) colour to match slate. Battens fixed to masonry should be in straight horizontal lines with no batten less than 3 m long. Fix at not more than 400 mm centres.

3. Standard: In accordance with [BS 5534](#).
4. Timber
 - 4.1. Species: In accordance with [BS 5534](#), clause 4.11.1.
 - 4.2. Permissible characteristics and defects: Battens shall be free from decay or insect attack, except pinhole borers, splits and shakes, wane, knots (or knot holes) greater than one third width of any sound surface of occurrence
 - 4.3. Grading: Fully factory pre-graded in accordance with [BS 5534](#).
5. Moisture content at time of fixing and covering (maximum): 20% moisture content at time of fixing.
6. Treatment: [Ss_40_90_95_65 Preservative treatment systems](#)
7. Size
 - 7.1. Battens: 50 x 50 mm

See [Pr_35_31_67_59 Organic solvent-borne preservatives](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67_98 Water-based organic preservatives](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

Execution

See [Pr_35_31_67/605 Approval of timber preservatives and masonry fungicides](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/610 Treatment procedures](#) in [Ss_25_14_63_85 Steel palisade panel fencing systems - B8](#)

See [Pr_35_31_67/640 Applying organic solvent preservative treatment](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

See [Pr_35_31_67/642 Retrospective application of organic solvent-borne preservative](#) in [Ss_30_40_95_30 Fibre cement slate roofing systems](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_20_85_84_57

Non-loadbearing wall head restraints

Products

Pr_20_85_84_57 Non-loadbearing wall head restraints

1. Description: Softwood battens and steel channels used to restrain the head of nonloadbearing walls. Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
2. Form: 50 x 50 mm continuous softwood battens or 75 x 100 mm channel of galvanized steel sheet to [BS EN 10346](#). Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
3. Execution: [Pr_20_85_84/625 Installing restraints at head of non-loadbearing walls](#).

Execution

Pr_20_85_84/625 Installing restraints at head of non-loadbearing walls

1. Fixing: Secure to soffit.
2. Joint filler placement: Full, no gaps.

Ω End of Product

Pr_25_57_06_30

Flexible glass wool mat insulation - PARTY WALL

Products

See [Pr_25_57_06/310](#) Insulation products generally in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

Pr_25_57_06_30 Flexible glass wool mat insulation - PARTY WALL

1. Description: Insulation to party walls
2. General requirements: [Pr_25_57_06/310](#) Insulation products generally
3. Standard: To [BS EN 13162](#).
4. Thermal conductivity at 10°C (maximum): 0.035 W/m·°K.
5. Thickness (minimum): 120 mm.
6. Density: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification

System completion

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

Ω End of Product

Pr_25_57_06_52

Mineral wool flexible insulation

Products

See [Pr_25_57_06/310](#) Insulation products generally in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

Pr_25_57_06_52 Mineral wool flexible insulation

1. Description: High performance friction fitted thermal mineral wool insulation- suitable for fitting vertically between wall studs.
2. Manufacturer: submit proposals
3. Product reference: submit proposals
4. Standards: TO [BS EN 13162](#)
5. Certification:: [Pr_25_57_06/310](#) Insulation products generally
6. Thermal conductivity (maximum):: 0.031 W/mK
7. Thickness:: REFER TO ARCHITECTS DRAWINGS. STRICTLY IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION AND DETAIL TO ACHIEVE STATED THERMAL PERFORMANCE REQUIREMENTS.
8. Width (nominal):: Manufacturer's standard to suit frame centres.
9. Fire performance:: EUROCLASS A1 FIRE RATING WHEN CLASSIFIED TO [BS EN 13501-1](#). AS PER REQUIREMENTS OF TGD B

System completion

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

Ω End of Product

Pr_25_57_21_35

Gas-resistant damp-proof courses - RADON RESISTANT DPC

Products

Pr_25_57_21_35 Gas-resistant damp-proof courses - RADON RESISTANT DPC

1. Manufacturer: Submit proposals .

2. DPC / Cavity Tray: Radon DPC to give effective protection where a radon, air and moisture seal must pass through masonry walls.

Radon DPC ends should be overlapped by 100 mm and joints should be sealed with suitable Tape to provide radon, air and moisture protection.

Cavity Tray / Corner assembly to comprise pre-formed low density polyethylene (LDPE) without seams or joints suitable for sealing various upstand heights of 100–225 mm, including pre-applied sealant strip

3. Material: Polyethylene to I.S. 57 for Polyethylene DPCs.
4. Compatibility: Suitable for use with adjoining gas resistant dpms.
5. Execution: [Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings](#)
[Pr_25_57_21/625 Installing gas resistant dpcs and cavity trays \(2-\)](#); [Pr_25_57_21/655 Installing stepped dpcs in external walls \(2-\)](#); [Pr_25_57_21/660 Site formed dpc junctions and cavity tray cloaks \(22\)](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#); [Pr_25_57_21/650 Installing site formed cavity trays](#); [Pr_25_57_21/665 Installing jamb dpcs at openings](#)
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.2. Timing: Before commencement of installation.

Execution

See [Pr_25_57_21/615 Installing cavity trays over openings and other cavity bridgings](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Pr_25_57_21/625 Installing gas resistant dpcs and cavity trays (2-)

1. Joint treatment: Use continuous length wherever possible; otherwise, lap at least 150 mm and seal to form a gas and watertight installation.
2. Joint with damp-proof membrane: Overlap dpc and/ or cavity tray at least 150 mm.

See [Pr_25_57_21/650 Installing site formed cavity trays](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/655 Installing stepped dpcs in external walls \(2-\)](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/660 Site formed dpc junctions and cavity tray cloaks \(22\)](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

See [Pr_25_57_21/665 Installing jamb dpcs at openings](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_25_57_65_60

Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL

Products

Pr_25_57_65_60 Plastics sheets - BREATHABLE AIR TIGHT VAPOUR CONTROL

1. Manufacturer: Submit proposals.
2. Accessories: Double Sided Acrylic Tape, Butyl Tape, Tape
3. Material: High density polyethylene (PE-HD).
4. Purpose: Vapour control layer.
5. Standard: To [BS EN 13249](#) and To [BS EN 13252](#).
6. Third-party certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
7. Performance characteristics
 - 7.1. Tensile strength (minimum): 20 kN/m².
 - 7.2. Water vapour resistance (minimum): 300 MN·s/g.

- 7.3. Anti-static properties: Required.
- 8. Form: Reinforced.
- 9. Physical properties
 - 9.1. Weight (minimum): 115 g/m².
 - 9.2. Dimensions
 - 9.2.1. Thickness (minimum): 125 µm (500 gauge).
 - 9.2.2. Width (minimum): Manufacturer's standard .
 - 9.2.3. Roll length (minimum): Manufacturer's standard .
- 10. Execution: [Pr_25_57_65/610 Installing vapour control layers](#)

Execution

See [Pr_25_57_65/610 Installing vapour control layers](#) in [Ss_25_20_08_95 Weatherboarding systems - CEMENT BOARD TO SOFFITS](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_25_71_51_52 Metal profiled sheets

Products

Pr_25_71_51_52 Metal profiled sheets

- 1. Description: Canopy edges, Rooflight panels
- 2. Standards: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
- 3. Certification: *Third party accredited by approved/ recognized body of compliance with specified performance & as suitable for the specified purpose and exposure situation.*
- 4. Execution: [Ss_25_20_68/615 Installing profiled sheet cladding generally](#)

Execution

Ss_25_20_68/615 Installing profiled sheet cladding generally

- 1. Sheet orientation: Refer Drawings
- 2. Cut edges: Not permitted.
- 3. Side laps: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.
- 4. Sheet ends, laps and raking cut edges: Strictly in accordance with manufacturers specification, suitable for the purpose and location and detail.

Ω End of Product

Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards

Products

See [Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_25_71_52_88 MINERAL WOOL BACKED PLASTERBOARD - Thermal laminate gypsum plasterboards

- 1. Description: Laminated mineral wool board, finished with a fireline plasterboard lining.
- 2. Fire Performance: *Class 0 fire rating to plasterboard, as defined by the Building Regulations when tested with plasterboard facing to room.*

Resistance to Fire - 30 minutes in pitched roof application as per TGD B 2017 and May 2020 Timber Frame Circular from the Department of Building Standards.

3. Thermal Conductivity: 0.032 W/mK
0.032 - Insulation
0.25 - Plasterboard
4. Board thickness: 62.5mm thick (50mm insulation + 12.5mm Plasterboard) Refer to Architects Drawings.
Strictly in accordance with manufacturers specification and detail to meet specified thermal and fire requirements.
5. Edge profile: Tapered.
6. Materials
 - 6.1. Plasterboard: Fireline plasterboard lining to I.S. EN 520 F
[Pr_25_71_52_33 Fire-resistant gypsum plasterboards](#)
 - 6.2. Insulation: Laminated mineral wool board
7. Overall thickness: Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail to meet specified thermal and fire requirements.
8. Execution: [Pr_25_71_52/605](#) Installing gypsum based board; [Pr_25_71_52/635](#) Installing additional supports; [Pr_25_71_52/645](#) Joints between gypsum based boards; [Pr_25_71_52/640](#) Level of dry lining across joints; [Pr_25_71_52/655](#) Open joints; [Pr_25_71_52/660](#) Repairs to plasterboard; [Pr_25_71_52/650](#) Seamless jointing to gypsum boards

Execution

See [Pr_25_71_52/605](#) Installing gypsum based board in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/635](#) Installing additional supports in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/640](#) Level of dry lining across joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/645](#) Joints between gypsum based boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/650](#) Seamless jointing to gypsum boards in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/655](#) Open joints in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

See [Pr_25_71_52/660](#) Repairs to plasterboard in [Ss_25_10_30_35](#) Gypsum board partition systems - TIMBER STUD PARTITION

System completion

See [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification in [Ss_15_10_33_34](#) Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP

Ω End of Product

Pr_25_71_97_07

Bitumen-impregnated softboards - Perimeter Protection Board

Products

Pr_25_71_97_07 Bitumen-impregnated softboards - Perimeter Protection Board

1. Description: 10mm SINGLE LAYER MULTI-DIRECTIONAL DRAINAGE AND PROTECTION LAYER
2. Product Reference: RIW Protection Board
3. Third-party certification: [Ss_30_12_85/845](#) Product Approval Certification & Verification of Performance Product Data & Certification
4. Material: Rigid bitumen-impregnated softboard.
5. Softboard grade: To [BS EN 622-4](#), grade SB-E.
6. Surface: Plain.
7. Thickness: 9 mm - 12 mm.
8. Edges: Square.
9. Execution: [Ss_32_80_03/696](#) Installing protection boards

Execution

Ss_32_80_03/696 Installing protection boards

1. Board joints: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
2. Board contact with coating or membrane: Secure and continuous.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_25_80_80_96

Wired mineral wool batt flexible cavity barriers

Products

See [Pr_25_57_06/310 Insulation products generally](#) in [Ss_25_10_30_35 Gypsum board partition systems - TIMBER STUD PARTITION](#)

Pr_25_80_80_96 Wired mineral wool batt flexible cavity barriers

1. General requirements: [Pr_25_57_06/310 Insulation products generally](#)
2. Density: 30 kg/m³ (min)
3. Thickness (minimum): 100 mm.
4. Fire performance: Reaction to fire classification of A1, as defined in BS EN 13501-1
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_25_93_45_18

Concrete kerbs

Products

Pr_25_93_45_18 Concrete kerbs

1. Description: Edging to paths and grassed areas
2. Standard: To EN 1340.

Strictly in accordance with Consulting Structural Engineers Drawings & Specification.

Ω End of Product

Pr_25_93_50_22

Concrete capping units

Products

Pr_25_93_50_22 Concrete capping units

1. Description: Precast concrete capping units
2. Manufacturer: Submit proposals .
3. Standard: To [BS 5642-2](#).
4. Appearance: Submit proposals .
5. Capping type: Flat-bottomed.
6. Dimensions: Submit proposals .

Mayo County Council

Pr_25_80_80_96

Wired mineral wool batt flexible cavity barriers

7. Holes for fixing: Dowel holes required.
8. Execution: [Pr_25_93_50/605 Installing coping and capping units](#).

Execution

See [Pr_25_93_50/605 Installing coping and capping units](#) in [Ss_25_13_50_54 Masonry free-standing wall leaf systems - B1 & B7](#)

Ω End of Product

Pr_25_93_52_56 **Natural stone sills**

Products

Pr_25_93_52_56 Natural stone sills

1. Description: New Cut Stone Cills to Windows as required to existing / new opes.

Refer Masonry Fabric Condition Survey
2. Standard: To [BS 5642-1](#).
3. Dimensions: Refer Window Schedule
4. Finish: Fine rubbed.
5. Execution: [Pr_25_93_52/610 Installing sills in mortar bed](#)

Execution

See [Pr_25_93_52/610 Installing sills in mortar bed](#) in [Ss_25_13_50_51 Masonry wall leaf systems - EXTERNAL CAVITY WALL](#)

Ω End of Product

Pr_25_93_54_02 **Aluminium capping units**

Products

Pr_25_93_54_02 Aluminium capping units

1. Description: Preformed aluminium capping units
2. Manufacturer: Submit proposals .
3. Material: [IS EN 515](#), [IS EN 573-3](#), [IS EN 485-1](#) and [iS EN 485-2](#).
4. Finish: Powder coating, slate grey.
5. Material thickness (minimum): Between 0.6 mm and 0.9 mm.
6. Dimensions: As shown on drawings
7. Fixings: As supplied by manufacturer.

Ω End of Product

Pr_30_36_08_28 **Emergency exit devices**

Products

Pr_30_36_08_28 Emergency exit devices

1. Standard: To [BS EN 179](#).
2. Classification grades (minimum)
 - 2.1. Category of use: To [BS EN 179](#), Grade 3.
 - 2.2. Durability: To [BS EN 179](#), grade 7.
 - 2.3. Door mass: To [BS EN 179](#), grade 6.
 - 2.4. Suitability for use on fire and smoke doors: To [BS EN 179](#), grade B.
 - 2.5. Safety: To [BS EN 179](#), Grade 1.
 - 2.6. Corrosion resistance: To [BS EN 179](#), grade 4.

- 2.7. Type of operation: To [BS EN 179](#)
- 2.8. Field of door application: To [BS EN 179](#), grade A, B & C
3. Material and finish: To Architect approval
4. Integral accessories: Security alarm.
External locking attachment suited with other locks.
5. Fasteners for hardware: Colour and finish to match hardware.

Ω End of Product

Pr_30_36_08_63 **Panic exit devices**

Products

Pr_30_36_08_63 Panic exit devices

1. Standard: To [BS EN 1125](#).
2. Classification grades (minimum)
 - 2.1. Category of use: To [BS EN 1125](#), Grade 3.
 - 2.2. Durability: To [BS EN 1125](#), grade 7.
 - 2.3. Door mass: To [BS EN 1125](#), grade 6.
 - 2.4. Suitability for use on fire and smoke doors: To [BS EN 1125](#), grade 1.
 - 2.5. Safety: To [BS EN 1125](#), Grade 1.
 - 2.6. Security: To [BS EN 1125](#), Grade 2.
3. Integral accessories: External locking attachment to be suited with other locks. Security alarmed.
4. Execution: [Pr_30_36_08/610 Fasteners for hardware](#)
5. Fasteners for hardware: Colour and finish to match hardware.

Execution

See [Pr_30_36_08/610 Fasteners for hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ω End of Product

Pr_30_36_33_24 **Door stops**

Products

Pr_30_36_33_24 Door stops

1. Form: Wall mounted, face fixed, 75 mm projection.
2. Fasteners for hardware: Colour and finish to match hardware.
3. Execution: [Pr_30_36_33/620 Fixing door stops](#)

Execution

See [Pr_30_36_33/620 Fixing door stops](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Ω End of Product

Pr_30_36_33_68 **Push plates**

Products

Pr_30_36_33_68 Push plates

- Edge treatment: Rounded edges and radiused corners.
- Size: Refer to Architects Drawings. Strictly in accordance with manufacturers specification and detail.
- Material and finish: Satin stainless steel, grade 1.4401 (316).
- Mounting: Drilled for face fixing.
- Fasteners for hardware: Colour and finish to match hardware.

Pr_30_36_36_22

Door pivots

Products

Pr_30_36_36_22 Door pivots

1. Category: Offset.
2. Mounting
 - 2.1. Bottom pivot: Jamb.
 - 2.2. Top pivot: Jamb.
3. Category of use: Heavy duty.
4. Material and finish: Satin stainless steel.
5. Execution: [Pr_30_36_36/610 Fasteners for hardware](#)

Execution

See [Pr_30_36_36/610 Fasteners for hardware](#) in [Ss_25_30_20_25 Doorset systems - EXTERNAL ALUCLAD DOORS](#)

Pr_30_36_59_15

Controlled door closers

Products

Pr_30_36_59_15 Controlled door closers

1. Standard: To [BS EN 1154](#).
2. Classification grades (minimum)
 - 2.1. Category of use: 4.
 - 2.2. Durability: 8.
 - 2.3. Door closer power size: Adjustable 3–6.
 - 2.4. Suitability for use on fire and smoke doors: 1.
 - 2.5. Safety: 1.
 - 2.6. Corrosion resistance: 3.
3. Form: Overhead, concealed except on fire doors.
4. Closer functions: Back check and delayed closing.
5. Fasteners for hardware: Colour and finish to match hardware.
6. Execution: [Pr_30_36_59/620 Adjusting controlled door closers](#)
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Execution

Pr_30_36_59/620 Adjusting controlled door closers

- Operational adjustment
 - Variable power: Match to sizes and weights of doors.
 - Latched doors: Override latches and/ or door seals when fitted.
 - Unlatched doors: Hold shut under normal working conditions.
 - Closing against smoke seals of fire doors: Positive. No gaps.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Pr_30_36_59_64

Pull handles

Products

Pr_30_36_59_64 Pull handles

1. Standard: To [BS 8424](#).
2. Third-party certification: Must be currently certified as suitable for their purpose and exposure situation. All construction products must bear a CE mark, where a harmonised standard exists for this product.
 1. Products / materials shall either be certified as complying with latest relevant Irish Standard Specifications and shall bear the Irish Standard mark or shall be certified to a national standard of another member state of the European Union which provides a CE Mark.

Where works involve systems, products, materials, techniques or equipment, for which published national standards do not yet exist, third party certification demonstrating compliance with Irish Building Regulations and durability requirements shall be required by the contracting authority.

 2. Such certification may include, in part or in total, a European Technical Assessment or Agrément certification e.g. NSAI Agrément or equivalent.
3. Classification grades (minimum)
 - 3.1. Category of use: 3.
 - 3.2. Durability: 2.
 - 3.3. Door mass: No requirement.
 - 3.4. Fire resistance: 1.
 - 3.5. Safety: 1.
 - 3.6. Corrosion resistance: 3.
4. Form: Refer to Architects (31) Series Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
5. Material and finish: Refer to Architects (31) Series Drawings, Door schedule and Ironmongery Schedule.

Strictly in accordance with manufacturers specification and detail.
6. Fasteners for hardware: Colour and finish to match hardware.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_30_59_29_71

Roof ridge ventilator tiles

Products

Pr_30_59_29_71 Roof ridge ventilator tiles

1. Manufacturer: Submit Proposals
2. Purpose: Ground gas collection ventilator. Roof void ventilator.
3. Ventilation opening: Free vent area 10,000 mm².
4. Colour: To match adjacent roof area. Colour to be approved by architect.
5. Accessories: Pipe adapter. Flexible connecting pipe.
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.2. Timing: *Before placement of orders.*
7. Execution: [Pr_30_59_29/640 Installing ridge terminals and ventilation tiles](#)

Execution

Pr_30_59_29/640 Installing ridge terminals and ventilation tiles

1. Tiling substrate work: Prepare roof structure as recommended by manufacturer.
2. Ridge units: Secure to ridge board or to fixing battens.
3. Connections: Seal to terminations of pipe, duct or flue systems.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_35_31_05_05

Asphalt concrete (AC) surface courses

Products

Pr_35_31_05_05 Asphalt concrete (AC) surface courses

1. Description: Tarmac finish Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Standard: Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
3. Colour: Refer to Architects finishes Drawings
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
4. Resin bonded bauxite finish.: [Pr_35_31_05_70 Resin-bonded aggregate surfacings](#)
5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)

Pr_35_31_05_70 Resin-bonded aggregate surfacings

1. Description: Resin bonded bauxite finish to Barracks Square tarmacadam.
Strictly in accordance with Consulting Structural Engineers Drawings & Specification.
2. Aggregate
 - 2.1. Generally: Washed, dry and homogenous.
 - 2.2. Type: Bauxite.
 - 2.3. Size (nominal): 1–3 mm.
 - 2.4. Colour: Contractor to confirm available colours for architects approval.
3. Binder
 - 3.1. Type: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
 - 3.2. Colour: Contractor to confirm binder colours available which can be used to demarcate different surfaces.
4. Slip resistance – water wet (minimum): PTV of 40 to [BS EN 13036-4](#). PTV of 45 to [BS EN 13036-4](#). PTV of 49 to [BS EN 13036-4](#).

For (external) level surface course, a minimum (water) wet pendulum test value (PTV) of 40 as recommended in BS 8300.

For inclines PTVs shall be increased from 40 to 45 for a 1:20 gradient, and to 49 for a 1:12 gradient.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_35_31_22_76

Semi-transparent timber stains

Products

Pr_35_31_22_76 Semi-transparent timber stains

1. Manufacturer: **Submit proposals**
Mayo County Council

Pr_35_31_05_05
Asphalt concrete (AC) surface courses

2. Colour: Refer to Architects Drawings (31) Series. Strictly in accordance with manufacturers specification and detail.
3. Execution: [Pr_35_31_22/703 \(41\) Applying coating - External Joinery](#)

Execution

Pr_35_31_22/703 (41) Applying coating - External Joinery

1. Initial coats
 - 1.1. Number of coats: One.
 - 1.2. Thinning: In accordance with manufacturer's instructions.
2. Undercoats
 - 2.1. Number of coats: One.
3. Finishing coats
 - 3.1. Number of coats: Two.

Ω End of Product

Pr_35_31_85_04

Anti-slip floor coatings - ANTI-SLIP PAINT

Products

Pr_35_31_85_04 Anti-slip floor coatings - ANTI-SLIP PAINT

1. Manufacturer: *Submit proposals.*
2. Product reference: Anti-Slip Floor Paint
3. Product reference: Submit Proposals
4. Execution: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.

Ω End of Product

Pr_35_90_28_15

Cover caps

Products

Pr_35_90_28_15 Cover caps

1. Description: Fixing cover caps
2. Manufacturer: *Submit proposals.*
3. Material: Strictly in accordance with manufacturers specification and detail and currently certified as suitable for their purpose and exposure situation.
4. Profile: Strictly in accordance with manufacturers specification and detail

Ω End of Product

Pr_35_90_87_09

Butyl rubber sealant tapes

Products

Pr_35_90_87_09 Butyl rubber sealant tapes

1. Description: Strictly in accordance with roof panel manufacturers specification, suitable for the purpose, location and detail.
2. Verification
 - 2.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 2.2. Timing: Before commencement of installation.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_35_90_87_25

Ethylene propylene diene monomer (EPDM)-coated expanded polyethylene (PE) foam profile fillers

Products

Pr_35_90_87_25 Ethylene propylene diene monomer (EPDM)-coated expanded polyethylene (PE) foam profile fillers

1. Description: Strictly in accordance with roof panel manufacturers specification, suitable for the purpose, location and detail.

Ω End of Product

Pr_35_90_87_42

Isolating tapes

Products

Pr_35_90_87_42 Isolating tapes

1. Description: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
2. Verification
 - 2.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 2.2. Timing: *Before commencement of installation.*

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_40_10_57_50

Marker posts

Products

Pr_40_10_57_50 Marker posts

1. Description: Marker Posts for services
2. Standards: In compliance with Irish Water standard details - water and Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
3. Execution: Strictly in accordance with Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.

Ω End of Product

Pr_40_10_57_60

Paper valve charts and schematics

Products

Pr_40_10_57_60 Paper valve charts and schematics

1. Description: Services schematic at Manifold locations. Strictly in accordance with Mechanical / Electrical Engineers Drawings & Specification.
2. Material: Paper print, encapsulated.
3. Information to be included: Location and identification of pipework regulating, isolating and control valves.
4. Size: A3.
5. Execution: [Pr_40_10_57/620 Installing valve charts and schematics](#)

Execution

Pr_40_10_57/620 Installing valve charts and schematics

1. Fixing: *Plug and screw to wall*
2. Position: *Adjacent to relevant manifold*

Ω End of Product

Pr_40_10_57_78

Self-adhesive colour pipe bands

Products

Pr_40_10_57_78 Self-adhesive colour pipe bands

1. Standards: To [BS 1710](#).
2. Identification type: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
3. Execution: [Pr_40_10_57/660 Installing identification on pipework](#).

Execution

Pr_40_10_57/660 Installing identification on pipework

1. Application of basic identification colour: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.
2. Safety colour identification: Strictly in accordance with Consulting Mechanical Engineers Drawings & Specification.

Ω End of Product

Pr_40_10_77_31

Fire equipment signs

Products

Pr_40_10_77_31 Fire equipment signs

1. Description: Fire equipment signs
2. Manufacturer: *Submit proposals*.
3. Format: To [BS EN ISO 7010](#).
4. Material
 - 4.1. Type: Plastics sheet.
 - 4.2. Finish: Phosphorescent/ Photoluminescent coating to [BS ISO 17398](#).
5. Size: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
6. Execution: [Pr_40_10_77/620 Fixing signs generally](#)

Execution

Pr_40_10_77/620 Fixing signs generally

Shared by: [Pr_40_10_77_32 Fire escape route signs](#) , [Pr_40_10_77_77 Signboards - Site Sign](#) , [Pr_40_10_77_42 Individual letter signs - HOUSE NUMBERS](#) and [Pr_40_10_77_72 Road traffic signs](#)

1. Position: Refer drawings
2. Standard of fixing: Fix securely, plumb and horizontal at specified fixing locations and heights.
3. Fixings showing on surface of sign: Must not detract from the message being displayed. Fasteners for tactile and Braille signs to be free of protrusions that would cause confusion to users.
4. Components being built in: Accurately position and support securely. Set in mortar and point neatly to match adjacent material. Maintain temporary support for 48 hours (minimum) and prevent disturbance.

Ω End of Product

Pr_40_10_77_32 Fire escape route signs

Products

Pr_40_10_77_32 Fire escape route signs

1. Description: Evacuation route signs.
2. Manufacturer: *Submit proposals*.
3. Format: To TGD B and [BS EN ISO 7010](#).
4. Material
 - 4.1. Type: Rigid plastic.
 - 4.2. Finish: Phosphorescent/ Photoluminescent coating to [BS ISO 17398](#).
5. Size: Sizes to suit viewing distances.
Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
6. Execution: [Pr_40_10_77/620 Fixing signs generally](#)

Execution

See [Pr_40_10_77/620 Fixing signs generally](#) in [Pr_40_10_77_31 Fire equipment signs](#)

Ω End of Product

Pr_40_10_77_42 Individual letter signs - HOUSE NUMBERS

Products

Pr_40_10_77_42 Individual letter signs - HOUSE NUMBERS

1. Description: Proprietary wall mounted numbers to be fitted externally near each dwelling entrance identifying each house number.
2. Manufacturer: Submit proposals.
3. Standards: In compliance with Building Regulations and Technical Guidance Document M

316 grade stainless steel
satin brushed finish
Min 3mm thick and min 100mm high
4. Accessories: Strictly in accordance with manufacturers specification, suitable for the purpose, location and detail.
5. Execution: [Pr_40_10_77/620 Fixing signs generally](#)

Execution

See [Pr_40_10_77/620 Fixing signs generally](#) in [Pr_40_10_77_31 Fire equipment signs](#)

Ω End of Product

Pr_40_10_77_72 Road traffic signs

Products

Pr_40_10_77_72 Road traffic signs

1. Description: Road traffic signage
2. Standard: To [BS EN 12899-1](#) and the The Traffic Signs Manual
[gov.ie - Traffic Signs Manual \(www.gov.ie\)](#)
3. Size: Strictly in accordance with The Traffic Signs Manual
[gov.ie - Traffic Signs Manual \(www.gov.ie\)](#) and Consulting Structural Engineers Drawings & Specification, suitable for the purpose, location and detail.
4. Execution: [Pr_40_10_77/650 Fixing road signs](#)

Execution

See [Pr_40_10_77/620 Fixing signs generally](#) in [Pr_40_10_77_31 Fire equipment signs](#)

Pr_40_10_77/650 Fixing road signs

- 1. General requirements: [Pr_40_10_77/620 Fixing signs generally](#)

Ω End of Product

Pr_40_10_77_77 **Signboards - Site Sign**

Products

Pr_40_10_77_77 Signboards - Site Sign

1. Description: Site Sign
2. Sign size: Refer Architects Drawing
3. Execution: [Pr_40_10_77/620 Fixing signs generally](#)

Execution

See [Pr_40_10_77/620 Fixing signs generally](#) in [Pr_40_10_77_31 Fire equipment signs](#)

Ω End of Product

Pr_40_20_06_84 **Shower trays**

Products

Pr_40_20_06_84 Shower trays

1. Manufacturer: Submit proposals .
2. Standards: To [IS EN 14527](#).
3. Form: Rectangular;
Rectangular sunk tray with anti-slip & with floor level grille;
and Square with anti-slip
NOTE: All baths are available
4. Materials
 - 4.1. Body: ABS acrylic and Acrylic.
 - 4.2. Finish and colour: White.
5. Size: 900 x 900 mm.
6. Waste hole: 90 mm, corner.
7. Verification
 - 7.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 7.2. Timing: Before placement of orders.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_40_20_60_78 **Shower enclosure packages**

Products

Pr_40_20_60_78 Shower enclosure packages

1. Manufacturer: Submit proposals .
2. Standards: To [IS EN 14428](#).
3. Form: Complete shower enclosure package and fittings.
4. Finishes
 - 4.1. Trays
 - 4.1.1. Material: Submit proposals .
 - 4.1.2. Finish and colour: White.
 - 4.2. Frame
 - 4.2.1. Material: Aluminium.
 - 4.2.2. Finish and colour: Silver anodized.

- 4.3. Glazing
 - 4.3.1. Material: 8 mm.
 - 4.3.2. Finish and colour: Textured.
- 4.4. Shower fittings
 - 4.4.1. Arrangement: Hand shower and slide rail.
 - 4.4.2. Finish and colour: Chrome plated.
- 5. Verification
 - 5.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 5.2. Timing: *Before placement of orders.*

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_65_52_24_31 Floor gullies

Products

Pr_65_52_24_31 Floor gullies

- 1. Manufacturer: Submit proposals
- 2. Product Reference: Gully for vinyl sheet flooring applications
- 3. GullyType: Flush trapped drainage floor gully to 'wet' bathrooms, and toilets.
 - 3.1. Steel grade: 316
- 4. Standard: To [BS EN 1253-1](#).
- 5. Certification: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
- 6. Properties
 - 6.1. Body
 - 6.1.1. Configuration: Trapped gully
 - 6.1.2. Material: 316 grade stainless steel.
 - 6.2. Cover or grating
 - 6.2.1. Cover or grating type: Perforated grating as standard ensuring no risk to bare feet or stiletto heels.
 - 6.2.2. Material: 316 grade stainless steel
 - 6.2.3. Finish: *Satin finish*.
 - 6.3. Outlet: Vertical two-part adjustable.
- 7. Execution: [Pr_65_52_24/620 Installing gullies](#)
- 8. Verification
 - 8.1. Timing: Before placement of orders.
Before commencement of installation.

Execution

Pr_65_52_24/620 Installing gullies

- 1. Alignment: *Grating flush with finished surface*
- 2. Surround
 - 2.1. Material: Suitable for particular purpose under the known conditions of exposure and chemical attack.
 - 2.2. Width (minimum): To manufacturers specification.
 - 2.3. Depth: To manufacturers specification.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Pr_70_55_96_83 **Shower tray wastes**

Products

Pr_70_55_96_83 Shower tray wastes

1. Manufacturer: Submit proposals .
2. Standard: To [IS EN 274-1](#).
3. Form: Flush grated waste.
4. Materials
 - 4.1. Body: Brass.
 - 4.2. Finish and colour: Chrome plated.
5. Size: DN 40 (1½ in).
6. Verification
 - 6.1. Submittals: [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#)
 - 6.2. Timing: *Before placement of orders*.

System completion

See [Ss_30_12_85/845 Product Approval Certification & Verification of Performance Product Data & Certification](#) in [Ss_15_10_33_34 Ground gas collection and venting systems - DPM / RADON BARRIER & SUMP](#)

Ω End of Product

Ss_35_10_40/505 **Prototypes or mock-ups**

Products

Ss_35_10_40/505 Prototypes or mock-ups

1. Requirement: Submit proposals .
2. Purpose: To demonstrate compliance with performance requirements.
3. Timing: Before ordering for project.
Obtain approval of appearance before proceeding.

Ω End of Product

APPENDIX A

LANDSCAPING SPECIFICATION

GENERAL LANDSCAPING SPECIFICATION SUMMARY

Employer: Mayo County Council

This specification relates to proposed planting generally for Mayo County Council Social Housing Developments.

This specification is for softworks and related fixtures and fittings only and is issued for the purposes of tender only.

This specification is to be read in conjunction with architects' drawings and details:

MAIN CONTRACT INCLUDES THE FOLLOWING, AS SPECIFIED:

- Stripping and stockpiling of existing topsoil on site.
- Excavation of planted and seeded areas
- Ripping of subsoil.
- Supply and spreading and backfilling of topsoil.
- Supply and installation of drainage layers, geotextiles
- Supply and installation of tanalised timber edge to planting.

PRELIMINARY INVESTIGATION

Prior to tender return the Contractor shall be deemed to have visited the site and to have fully acquainted himself with local ground conditions and facilities for access to the site and storage of materials. Adequate space and storage facilities shall be maintained for planting works and materials during the works period. Additional space may be required off site for storage of materials.

CONTROLLING STANDARDS / BUILDING REGULATIONS

Particular attention is drawn to the following standards and codes of practice to which the works must comply, but all other relevant standards are also applicable.

These standards shall be considered as the minimum requirement for the work described. Where in the opinion of the Contractor two standards conflict or are in any way ambiguous they shall draw attention to this fact and clearly state which of the available options they have chosen.

Where there is in existence a relevant British Standard, Draft BS or DIN Standard, (whether listed below or not), applicable to the design, execution, performance, or application of the works, then the recommendations and requirements of such documents shall be considered a minimum standard for the work described.

Any divergence between the provisions of this specification and any published national or manufacturer's standard shall be notified in writing to the Architect by the Contractor.

Nothing herein relieves the Contractor of his responsibility to provide a higher standard than the relevant code or standard where necessary to comply with other sections of this specification.

The schedule of references should not be considered to be complete and where a British Standard is composed of a number of different parts, then the latest issue with amendments of each part shall be applicable.

The schedule of references is not exhaustive and shall also be supplemented by those listed under each related work section.

All updates and amendments of applicable standards and regulations current at the date of tender return are to be complied with. Where a standard or regulation is updated during the course of the works, the Contractor shall notify the Architect formally in writing.

BS 1192: Building Drawing practice.

BS 5606: Code of practice for accuracy in building.

BS 5964: Methods of setting out and measurement of buildings, permissible measuring deviation.

BS 6954: Parts 1-3: Tolerances for Building.

BS 3936: Nursery Stock

BS 4043 Transplanting root-balled trees

BS 3882: Topsoil

BS 7370: Grounds Maintenance

BS 4428 Code of practice for general landscape operations (excluding hard surfaces)

BS 5236 Recommendations for cultivation and planting of trees in advanced nursery stock.

DRAWINGS GENERAL

Where dimensions are not given drawings must not be scaled and the matter referred to the Architect.

Should dimensions or details between drawings conflict the matter must be referred to the Architect for clarification.

ARCHITECT'S DRAWINGS / TRADE CONTRACTOR DRAWINGS

In the event of any conflict between the ARCHITECT'S drawings and authorised Trade Contractor drawings the matter must be referred to the Architect for clarification.

EXISTING DIMENSIONS & LEVELS / AS CONSTRUCTED SITE DIMENSIONS & LEVELS

The Contractor is responsible for checking that there is no conflict between existing dimensions and drawn dimensions. This applies to both newly completed construction and existing buildings, artefacts, and planting.

COPYRIGHT:

The copyright of the drawings remains with the Architect. It is forbidden to reproduce the drawings in part or full without the written permission of the Architect.

SUPERVISION

The works will be supervised by the Employer and the Architect. The Contractor shall carry out any instructions issued in writing by the Employer. Any instructions issued verbally will be confirmed in writing within two working days.

DEFECTS LIABILITY PERIOD

Maintenance and guarantee of all works for 12 months after completion of all planting. Any of the works found to be defective within this period due to materials or workmanship not in accordance with the specification shall be replaced by the Contractor at his own cost. Works replaced shall then be subject to a new defects period of 12 months after replacement. If, due to the programming of the works, aftercare, in addition to that which is specified in this specification, is required, the Contractor shall advise the Employer.

SUBMITTALS

TENDER RETURN CHECKLIST/SCHEDULES OF QUANTITY

All works are scheduled and described in *Bill of Quantities*.

QUALITY ASSURANCE

ACCURACY OF BUILDING AND INTEGRITY/TOLERANCES

Contractor to carry out the works in accordance with the tolerances set out in this document.

HEALTH AND SAFETY

The Contractor shall be responsible for the safety of his staff. They shall comply with all of the legal acts and regulations in existence, listed or not in this specification, which apply to this site. They shall pay particular attention to the requirements of:

- Safety, Health and Welfare at Work Act, 1989
- Factories Act, 1955
- Safety in Industry Act, 1980

- Conditions of Employment Act
- Safety, Health and Welfare (General Applications) Regulations 1993
- Safety, Health and Welfare at Work (Construction) Regulations 1995

The Contractor shall comply with these acts, and relevant regulations, including notifications and placards for display.

The Contractor shall provide for complying with the requirements of the Project Supervisor (Construction) and shall include for all co-operation, the supply of additional information and resources, and all other matters to ensure that the Project Supervisor (Construction) can fulfill his function as defined in Clause 6 of the Safety, Health and Welfare at Work (Construction) Regulations 1995.

The Contractor shall provide the following, prior to the commencement of the Works:

- Copy of form of Notice to be served on the Minister of Labour in pursuance of Regulation (5), (12), form CR1,
- Company Safety Statement,
- Names of Contractor's staff responsible for site safety, health and welfare and for first aid,
- Site layout plan showing facilities, positions for cranes, materials storage, temporary parking, office, canteen, drying, toilets, washroom, etc.

The Contractor shall provide all the management, labour resources, plant, equipment, offices and facilities necessary to meet the requirements of safety, health and welfare on the site.

The Contractor shall allocate to a senior member of his staff the overall responsibility and resources necessary for ensuring that all obligations arising from legislative enactments are fully complied with.

The Contractor shall provide details and duties of the personnel to be involved both on and off site and of any independent safety, health and welfare inspecting authority which they proposes to employ.

The Contractor shall ensure that all personnel have appropriate qualifications, experience or training for tasks allocated to them. The Contractor shall arrange for all necessary site training of his staff.

The safety, health and welfare shall be periodically and systematically reviewed by the Contractor to ensure its continued effectiveness. Records of the review shall be maintained and made available for examination.

The Contractor shall provide, at each site meeting, a report to the Employer, in an agreed format, advising on records kept, safety equipment, excavation, electrical installations, scaffolding, gas bottles and site tidiness.

The Contractor shall ensure that all sub-contractors operate the necessary safety, health and welfare procedures and controls required by legislation and by his safety statement.

Hazardous Substances

The following routine precautions in the use of herbicides/pesticides and other hazardous or polluting substances shall be adhered to at all times:

Read the label, especially the safety precautions, carefully before use.

- Use all products only as recommended on the labels.
- Avoid drift onto livestock, neighbouring property or wildlife habitats and take care to prevent contamination of any water source whether for drinking or irrigation purposes, e.g. streams, or ponds or any effluent water in, for example ditches, cess pools or sewers.

- Products shall be stored only in the containers in which they were supplied. Do not transfer them into other storage containers, especially soft drink bottles.
- Close tightly any partly full containers. Do not store any hazardous substances on site unless in a securely locked area. Keep away from food stuffs and out of reach of children or animals.
- Wash any accidental spillage from surfaces or protective clothing immediately.
- Wear all protective clothing recommended for the product. Clean all protective clothing used when the job is completed.
- Wash hands and exposed skin before eating, drinking, or smoking and after the job is completed.
- Remove all used containers from site after each day's work and dispose of them safely.
- Do not use empty herbicide/pesticide containers for any other purpose.
- Report immediately any theft of a hazardous substance to the Garda Siochana.

Public Roads

The Contractor shall take all precautions for the safety of users of public roads, shall comply with all regulations governing road safety, and shall include for warnings of any temporary obstruction. No vehicle entering or leaving the site shall deposit mud or material of any kind on the surrounding roads.

SPECIFICATION FOR PLANTING

To be read with Preliminaries/General conditions.

GENERAL INFORMATION - REQUIREMENTS

TOPSOIL:

- Strip existing topsoil to a depth of 150mm.
- Stockpile topsoil sufficient for planting and seeding operations on site, at a location agreed on site with the Employer.
- Stockpiles shall be maximum 1.5m high and shall be located away from vehicular/machinery movements for the course of the building works until the topsoil is spread.
- All existing topsoil shall either be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, to BS 3882, or shall be inspected and approved by the Architect for stockpiling and use on site.
- Where the existing topsoil does not conform to any clause of this specification or has deteriorated as a result of poor storage not in accordance with this specification, or has not been approved by the Architect immediately before re-spreading, import additional topsoil to satisfy the requirements of the specification.
- All imported topsoil shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, to BS 3882
- Immediately before planting supply and spread topsoil to BS 3882 to various depths as outlined in this document and on drawings.
- Topsoil shall be free from stones over 40mm in any direction. Stones over 20mm shall not exceed 10% by weight. The soil shall be free from subsoil, sods, roots of trees and shrubs and rubbish.
- Topsoil shall be from the original surface layer of grassland or cultivated land to a maximum depth of 150mm. Visible presence of fibrous roots and plant remains will be required. Soils from woodland, heathland, bogs, sites subject to water logging or contaminated land will not be acceptable.
- Topsoil shall be free from any parts of persistent weeds including dock, creeping thistle, stinging nettle, ragwort, bindweed, couch grass and Japanese knotweed.
- If there is any evidence of *Fallopia japonica* (Japanese knotweed), during the works period or the defects liability period, the entire 'planted area' within which the weed is present shall be excavated and replaced at the Contractor's expense. 'Planted area' is defined as an area sharing the same continuous volume of topsoil, uninterrupted by hard standing of any kind.
- Before topsoiling remove all stones, rubble and rubbish over 40mm in any direction from the surface of the subsoil formation. Excavate any areas polluted by oil or chemicals and make good.
- All topsoil will be inspected by the Architect prior to spreading.
- Spread topsoil by hand under dripline of existing trees.
- Topsoil in dry conditions only. Do not move or cultivate topsoil in waterlogged conditions or where the moisture content of the soil is such that structural damage of the topsoil would occur.
- The Contractor shall minimise damage to the topsoil by limiting machinery runs to the minimum requirement.
- It is the Contractor's responsibility to assess the depth and quality of the topsoil and its fitness for planting the scheduled range of plant species for planting and seeding. By planting or seeding into the soil, the Contractor approves, accepts and takes responsibility for the topsoil.

TOPSOIL STRIPPING:

Provide catchment drains or ditches to collect excess run-off and prevent water entering from adjacent land. Remove scrub as well as top growth by cutting using flail or swipe mowers. Where turf is excessively thick, plough, disc harrow, and reduce vegetative content by weathering and cultivation.

In late April - early May, apply 'Roundup' at 5 litres per hectare, diluted in water at 200 litres per hectare, at a pressure not exceeding 30 p.s.i. Apply evenly over full area of soil to be stripped. Apply when weather is mild and grass is growing. Do not apply when rain or showers are forecast within six hours or when wind may cause drift (over 24kph/15mph). If rain falls within the minimum period, retreat. After application, leave the soil surface undisturbed for a minimum period of 15 days, to allow foliage symptoms to develop. If possible, leave undisturbed for two months.

Strip topsoil from all areas liable to disturbance of any kind, including building works, roads, underground services, all temporary access routes, compounds and storage areas. Strip the full designated working area, and any other areas liable to encroachment and traffic.

Do not run machinery over ground before stripping.

- Strip the full depth of sod and topsoil to maximum 150mm depth. Avoid stripping into the subsoil layers.
- Remove and dispose of off site excess topsoil stripped from the site.
- Do not disturb any ground within the dripline of existing trees.

SITE CLEARANCE, EXCAVATION, RIPPING AND DRAINAGE:

- Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 50mm.

- Contamination includes subsoil, rubble, fuel, lubricants or other substances injurious to plant growth.

- Grub up and dispose of large roots without undue disturbance of soil and adjacent areas.

- Apply a suitable non-residual herbicide, as per this document, to areas other than those areas, if any, in which vegetation is to be retained.
- Do not use machines within the root spread, drip line (or, within 3m of the trunk, whichever is greater) of existing trees to be retained (in same position or retained and relocated on site).
- Remove from the site surplus excavated material not specified to be spread and levelled or stockpiled.
- Keep all excavations free from water until formations are covered and below ground constructions are completed.
- Inform the Architect immediately if it is considered that the excavations are below the water table so that the ground water level can be determined.
- Do not use permanent drainage system for disposal of water from the excavations.
- Benched excavation: Where finished gradient is 1:5 or steeper formations to be excavated in a benched fashion as shown on drawings.
- Underground structures in landscape areas: Remove buildings, walls, roads, foundations, disused services, drains, manholes, and other obstructions in areas in which landscape works are to be carried out, to a minimum depth below finished levels of:

Shrub, groundcover and perennial planting: 750mm

Within 2m of tree planting: 1500mm

- Underground structures in landscape areas: Provide a hole not less than 600mm diameter for every 10 sqm of wall or slab allowed to remain in areas in which landscape works are to be carried out, to promote free drainage.

Subsoil levels shall be 500mm below the finished ground levels in all areas for shrub and groundcover and perennial planting to allow for 450mm of topsoil and 75mm mulch after settlement.

- Subsoil levels in all areas for tree planting shall be minimum 1150mm below the finished ground levels to allow for 800mm of topsoil, 300 drainage layer and 75mm mulch after settlement.
- Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped using the back-actor of a 'Hymac' or similar to a depth of 450mm, or using a 3 or 5 tyne ripper to a depth of 600mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and planting. The Contractor will inform the Architect upon completion of ripping before subsoiling/topsoiling operations commence.
- All subsoil will be free-draining and free from rubbish, builders material and rocks greater than 100mm in any direction.
- The Contractor will install perforated land drains where illustrated on the Contract Drawings and will connect the land drains to the storm water system to the Engineer's detail.

SOIL CONDITIONS:

- *Cultivate and plant into moist friable soil that is not waterlogged.*
- *Do not plant into frozen or snow-covered soil without prior approval of the Architect. Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.*

CLIMATIC CONDITIONS:

Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost, heavy rain, snow, hail or strong winds. Plant only during the following periods:

- *Deciduous trees and shrubs: Early November to late March (if root-balled up to mid-April)*
- *Conifers and evergreens: September/October or April/May.*
- *Herbaceous plants (including aquatic and marginal): September/October or March/April.*
- *Container grown plants: At any time if ground and weather conditions are favourable. Ensure that adequate watering and weed control is provided.*

MACHINES AND TOOLS:

- Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is not practical to use machinery.

WATERING GENERALLY:

- Ensure the full depth of topsoil is thoroughly wetted, to field capacity.
- Use a fine rose where appropriate to avoid damaging or loosening plants.

- Do not over-water.
- Do not flood or cause any areas to be waterlogged.
- Do not cause mud or other materials to be splashed onto foliage.
- Water as necessary to ensure the establishment and continued thriving of all planting.
- Water when specified and when instructed by the Architect.

WATERING TUBES:

- When planting all trees install a 100mm diameter wavin perforated coil.
- Install the tube around the full diameter of the root-ball, in a spiral fashion, as close to the surface of the root-ball as possible. Position the lower end of the tube at the same level as the underside of the rootball. Extend the upper end 100mm above the finished bark mulch/seeded level.
- Securely fit a dust cap to the upper end of the tube.
- Where the tree is planted in hardscaped areas ensure that the watering tube and dust cap are integrated with the tree grille, if any, as specified.

WATER RESTRICTIONS:

If water supply is or is likely to be restricted by emergency legislation do not carry out planting until instructed. If planting has been carried out, obtain instructions on watering.

NOTICE:

Provide three working days notice of the following operations, to give the Architect the opportunity of being present:

Setting out

Application of herbicide

Application of fertiliser and soil conditioner

Spreading of topsoil and/or subsoil

Planting of shrubs, herbaceous perennials

Planting of trees into previously dug pits.

Installation of semi-permeable membranes

Watering

Each site visit during maintenance period

Replacement planting.

PREPARATION, PLANTING AND MULCHING MATERIALS GENERALLY:

- *Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life, except as specified elsewhere.*
- Submit to the Architect a supplier's certificate for the following materials and obtain approval before ordering or using the materials:

Topsoil

Soil conditioner

Fertiliser

Mulch

Grass seed

Meadow/wildflower seed

- The certificate(s) must provide the following information:

Source of supply

Analysis of content

Confirmation of suitability for proposed purpose

Confirmation of absence of harmful substances.

TREES/PLANTS GENERALLY:

- *Materially undamaged, sturdy, healthy, vigorous, of good shape and without elongated shoots.*
- *Grown in a suitable environment and hardened off.*
- *Free from pests, diseases, discoloration, weeds and physiological disorders.*
- *Budded or grafted plants to be bottom worked, unless otherwise specified or approved.*
- *With balanced root and branch systems, root system and condition in accordance with the relevant part of the National Plant Specification.*
- *True to name.*
- **Origin/Provenance:** All native species must be of Irish origin unless otherwise specified by the Architect. Origin and Provenance have the meaning given in the National Plant Specification.
- Where trees are specified as clear-stemmed it is the Contractor's obligation to source trees that have been cultivated as such in the nursery. Trees which have been cultivated as feathered and pruned immediately before arrival on site to form clear-stemmed trees will not be accepted. New pruning cuts will be deemed unacceptable and the Contractor will be obliged to source properly clear-stemmed trees elsewhere to the approval of the Architect.

TREES/PLANTS: *To the relevant part of BS 3936, name, forms, dimensions and other criteria as scheduled.*

CONTAINER GROWN PLANTS:

- *Supplied in a growing medium with adequate nutrients for the plant to thrive until permanently planted.*
- *Centred in the container, firmed and well watered.*
- *With root growth substantially filling the container, but not root bound, and in a condition conducive to successful transplanting. Roots to be established to such an extent that the root-ball remains totally intact upon removal of the container.*
- *Grown in the open for at least two months before being supplied.*
- Grown in containers with holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

- Containers and growing medium to be free from all forms of pest including adult vine weevil, their eggs and larvae.
- Climbing plants to be supplied in deep containers unless otherwise specified.

LABELLING AND INFORMATION:

- Provide each tree/plant or group of trees/plants of a single species or cultivar with supplier's labelling for delivery to site, showing:

- The full botanical name*
- Total number*
- Number of bundles*
- Part bundles*
- Supplier's name*
- Employer's name and project reference*
- Plant specification, in accordance with the scheduled National Plant Specification categories*
- When requested, provide the Architect with additional stock information.*

LABELLING AND INFORMATION:

- Label all trees/plants in accordance with the relevant part of BS 3936.

SUPPLY OF TREES/PLANTS:

- The Architect shall approve the supplier of all plant materials before materials are delivered to site.

PREDELIVERY INSPECTION:

- The Architect shall inspect all trees and approve them specifically for use on this project before delivery to site.

CONTRACT GROWING:

- The Contractor shall confirm availability of all plant material at the earliest possible time, immediately after appointment.
- If plant species are not available in the sizes and or quantities as specified, the Contractor shall contract grow the plants for this project.

SUBSTITUTES:

- Where it is not possible to contract grow and if specified plants are unobtainable or known to be likely to be unobtainable at the time of ordering, submit alternatives to the Architect stating price and how

they differ from the specification. Such substitutions may not be acceptable, and submission of further alternatives may be required.

- Obtain approval before making any substitution.

PLANT/TREE HANDLING STORAGE AND TRANSPORT:

- *Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part I, Part II and Part III, paragraphs 1.3.3 to 1.3.6, 3.0, and 4.0.*

- *Protect plants/trees from frost, wind and draughts.*

- *Handle plants/trees with care. Protect from mechanical damage and do not subject to shock, e.g., by dropping from a vehicle.*

- Plant packaging in accordance with CPSE 'Handling and establishing landscape plants'.

PLANT/TREE HANDLING AND STORAGE ON SITE:

- Protect all plant material from wind damage and desiccation.
- Do not store plants on site for more than 72 hours before planting.

PLANTING GENERALLY:

- *Comply with CPSE 'Handling and establishing landscape plants' (obtainable from the Horticultural Trades Association) Part III, paragraphs 6.2 to 6.6.*

- Before planting remove containers, ties, wraps and other materials that might restrict the growth of roots.
- Plant upright or well balanced with best side to front.
- Plant to the nursery line.
- In naturally occurring wet or boggy conditions there may be a requirement to 'mound' plant. Where this is deemed to be the case obtain written instruction from the Architect before proceeding to plant.

TREATMENT OF TREE WOUNDS:

- *Keep wounds as small as possible and cut cleanly back to sound wood using sharp, clean tools. Set cuts so that water will not collect on cut area.*

- *Do not apply fungicide or sealant unless instructed by the Architect.*

PROTECT EXISTING GRASS/FIELD LAYER

- During planting operations protect existing grass/field layer by laying boards or tarpaulin. Do not place excavated material directly on to grass/field layer.
- The Contractor shall make good at his own expense any areas damaged during the works.

PROTECT EXISTING HARD LANDSCAPE SURFACES

- During planting operations protect existing hard landscape surfaces by laying boards or tarpaulin. Do not place excavated material directly on to hard landscape surfaces.
- The Contractor shall make good at his own expense any areas damaged during the works.

SURPLUS MATERIAL, including subsoil, stones, debris, wrapping material, canes, ties, temporary labelling and prunings to be removed from site.

PREPARATION OF PLANTING BEDS/PLANTING MATERIALS

WEED CONTROL FOR ALL AREAS TO BE PLANTED:

Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding or application of herbicide as follows:

- Glyphosate: 'Roundup', manufactured by Monsanto plc, or equal and approved, to manufacturer's recommendations. Do not apply if rain is forecast within six hours or if wind speed is likely to exceed 15mph/25kph, or cause spray drift. Ensure complete, consistent cover. Ensure that symptoms are fully visible on foliage before cultivation. Do not allow the herbicide to come in contact, either directly, or indirectly with any part of any existing plant to be retained, or any plants stored on site.
- Propyzamide: 'Kerb 50W', or equal and approved, as for 'Roundup'. Apply between 1 October and 20 December, when ground is damp.

GENERAL FERTILISER:

Apply the following in addition to any fertilisers or ameliorants specified elsewhere in this document:

- 'Sierrablen Flora Yellow (Granular)' by Scotts or equal and approved, controlled release fertiliser with 24 month longevity, supplied in sealed bags with the manufacturer's name, net weight and chemical analysis of content clearly marked on the bag.
- Apply evenly over all areas to be planted at 120g/m² immediately before cultivation and incorporate to 300mm depth.

PEAT:

- Do not use pure moss peat.
- Where peat is a constituent of compost or soil conditioner it should be horticultural moss peat, dark brown, medium grade (Bord na Mona or equivalent), free from pests, diseases and contaminants.

SOIL CONDITIONER/AMELIORANT FOR ALL PLANTED AREAS:

- Supply and spread bulk soil conditioner.
- 97% brewery grains, 3% straw, composted for minimum 6 months.
- 50mm layer over entire planting area and incorporated to a depth of 300mm.

- Mix off site and deliver in bulk dry to site.
- Provide certificate from manufacturer

CULTIVATION:

- *Break up any compacted topsoil to full depth.*
- *Within a few days before planting, but in suitably dry weather and ground conditions, cultivate top 300 mm of all planting beds, using suitable plant to loosen, aerate and break up the soil into particles of 2-8 mm.*
- *Leave surface regular and even and within 50 mm of levels specified on drawings.*
- *Remove weeds, perennial weed roots and undesirable material brought to the surface including stones and clods larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.*
- Do not dig or cultivate within the root spread or drip line of trees and shrubs to be retained unless otherwise instructed by the Architect.

GEOTEXTILE FABRIC TO BASE OF TREE PITS OVER DRAINAGE LAYER:

- *Terram 1000 or equal and approved for use between drainage layers and topsoil.*
- Water soil thoroughly before laying. Lay before planting, taking care to ensure close contact with the soil surface. Lap joints to min. 200mm, as recommended by manufacturer with no gaps.

PLANTING SHRUBS/HERBACEOUS PLANTS/BULBS

GROUND COVER/PERENNIAL PLANTING PITS:

- *Excavate not more than 2 days before planting and retain topsoil for re-use where specified.*
- *Size(s): 150 mm wider and deeper than the root spread of the plants to be planted.*
- *Break up bottoms of pits to a depth of 150 mm.*
- *Backfilling material: as removed from planting pits prior to planting or mixed elsewhere on site and imported to the planting pit, specified soil, compost and fertiliser as per all relevant clauses of this document.*

CONIFERS/EVERGREENS:

Dip in anti-desiccant before delivering to site. Spray with anti-desiccant soon after planting. Do not apply in rainy or frosty weather.

HERBACEOUS PERENNIAL PLANTS:

- Where there is no detailed planting plan, evenly space the specified plants over the allocated area in a random mixed fashion, avoiding straight lines unless indicated otherwise on drawings or schedules.

CLIMBERS USED AS GROUND COVER PLANTS:

All plants to have minimum 5 breaks per plant within 150mm from base of plant.

BACKFILLING MATERIAL FOR *Hedera helix*:

- The entire planting area shall have previously been cultivated in accordance with all relevant clauses of this document to a depth of 450mm.
- Where existing topsoil does not conform to this specification import additional topsoil as per all relevant clauses of this document.
- Backfilling for each pit shall consist of material excavated from the pit and additional imported topsoil as required, together with:

20% by volume loosened organic matter as per this document,

Fertiliser as per this document.

AFTER PLANTING:

- Lightly firm soil around plants and fork and/or rake soil, without damaging roots, to a fine tilth with approved gentle cambers and no hollows.
- Water plants thoroughly with minimum 5 litres per groundcover plant, 3 litres per plug plant immediately after planting, using a fine rose or sprinkler where necessary to avoid damaging plants.

MULCHING PLANTING AREAS:

- Material: Chipped bark mulch, 'Medium Grade' by National Agrochemical Distributors, Blakes Cross, Co.Dublin, Contact 01 8437808, or equal and approved, free of pests, disease, fungus and weeds.

- Clear all weeds, water soil thoroughly, and mulch the whole surface of planting beds to a minimum depth of 75mm.
- Ensure that the finished mulch level does not exceed surrounding hard landscape or seeded finished levels and that mulch material does not spill over onto surrounding surfaces.
- Allow for settlement and top-up at the end of the defects liability period to finished levels as specified.
- Do not cover plants with mulch. Carefully adjust the finished mulch level around the base of the plant to ensure that no material is lying above the nursery line.

FINISHED LEVELS OF PLANTING AREAS:

- Finished mulch levels and grading of planted areas should be no higher than adjacent hard surface and should be uniform and uni-planar. Barrelled, mounded or otherwise unspecified grading shall not be accepted and the Contractor shall be obliged, at his own expense, to re-excavate mulch, topsoil and subsoil formations to achieve correct depths and levels.

PLANTING TREES

SETTING OUT:

As shown on accompanying drawings, or as agreed in detail on site.

The exact setting out of trees to be agreed with the Architect on site.

CONIFERS/EVERGREENS:

Dip in or thoroughly spray with anti-desiccant before delivering to site. Apply again soon after planting. Do not apply in rainy or frosty weather. Ensure full coverage of underside of foliage.

TREE PITS:

- Excavate square shaped pits with sectional profile as shown in detail drawings with pit deeper at outer edges.
- In sloping ground, maintain horizontal bases and vertical sides with no less than minimum depth throughout.

Size(s): As illustrated and noted on drawings, minimum 0.9m x 0.9m x 800mm depth topsoil over 300mm depth drainage layer.

- Scarify sides of pit.
- Backfilling: to the full depth of the tree pit minimum 800mm and as per this document, plus 100g extra fertiliser as per this document per pit.
- Before backfilling with drainage layer ensure that the base of the pit is broken up to allow it to drain freely.
- Where water accumulates, pump the water from the pit and break up the bottom of the pit. If water continues to accumulate above a level 1000mm or less from the top of the pit do not backfill or plant. Notify the Architect immediately.

STAKING GENERALLY:

- The overall appearance of the planting is affected by the appearance and position of tree stakes. All stakes to be organised and orientated in the same direction, to be driven straight and vertically, to be finished to exactly 750mm above ground level and to appear homogenous, uniform and neat.
- Stakes: Softwood, peeled chestnut, larch or oak, free from projections and large or edge knots and with pointed lower end.
- Cross braces: Softwood, peeled chestnut, larch or oak, free from projections and large or edge knots.
- Nails: To BS 1202:Part 1, galvanised, minimum 50 mm long and with 10 mm diameter heads.
- Tree ties: 37.5mm wide nylon reinforced rubber belt with rubber pad.

- Minimum stake sizes: (Note: ensure height above ground as below and minimum 300mm into the base of the tree pit. Where ground is not stable the Contractor to use longer stakes to ensure the stakes are stable and fit for their purpose.)

*Tree/shrub Overall length Height above Cross section No. of
size/type: of stake: ground: of stake: stakes/tree*

Pinus 2.4m 750mm 75mm 2

SHORT DOUBLE STAKING:

- Drive 2 stakes, 1m apart, vertically at least 300 mm into bottom of pit. Consolidate material around stakes during backfilling.
 - *Cut stake to 750 mm above ground level.*
 - *Firmly fix 1 no. cross brace, 1000mm x 100mm x 30mm.*
- Secure tree firmly but not rigidly to cross brace using tree tie.
- Ensure that the tree does not come into contact with the stakes or cross braces.
- Ensure that the tree is secure and does not move to such an extent that the stem or bark is damaged, but that the tree tie is not tight around the stem.
- Make provision for adjusting the tie regularly during the defects liability period.

BACKFILLING MATERIAL:

- To the full depth of the tree pit minimum 800mm over drainage layer

PROTECTING/MAINTAINING/MAKING GOOD DEFECTS

MAINTENANCE:

- Comply with Specification for Maintenance of Planting & Seeding

SPECIFICATION FOR SEEDING

To be read with Preliminaries/General conditions.

GENERAL INFORMATION - REQUIREMENTS

TOPSOIL:

- Strip existing topsoil to a depth of 150mm.
- Stockpile topsoil sufficient for planting and seeding operations on site, at a location agreed on site with the Employer.
- Stockpiles shall be maximum 1.5m high, and shall be located away from vehicular/machinery movements for the course of the building works until the topsoil is spread.
- All existing topsoil shall either be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, to BS 3882, or shall be inspected and approved by the Architect for stockpiling and use on site.
- Where the existing topsoil does not conform to any clause of this specification, or has deteriorated as a result of poor storage not in accordance with this specification, or has not been approved by the Architect immediately before re-spreading, import additional topsoil to satisfy the requirements of the specification.
- All imported topsoil shall be PREMIUM GRADE FREE DRAINING SANDY LOAM WITH pH 5.5-7.8, 55% SAND, 30% SILT, 15% CLAY, to BS 3882
- Immediately before planting supply and spread topsoil to BS 3882 to various depths as outlined in this document and on drawings.
- Topsoil shall be free from stones over 40mm in any direction. Stones over 20mm shall not exceed 10% by weight. The soil shall be free from subsoil, sods, roots of trees and shrubs and rubbish.
- Topsoil shall be from the original surface layer of grassland or cultivated land to a maximum depth of 150mm. Visible presence of fibrous roots and plant remains will be required. Soils from woodland, heathland, bogs, sites subject to water logging or contaminated land will not be acceptable.
- Topsoil shall be free from any parts of persistent weeds including dock, creeping thistle, stinging nettle, ragwort, bindweed, couch grass and Japanese knotweed.
- If there is any evidence of *Fallopia japonica* (Japanese knotweed), during the works period or the defects liability period, the entire 'planted area' within which the weed is present shall be excavated and replaced at the Contractor's expense. 'Planted area' is defined as an area sharing the same continuous volume of topsoil, uninterrupted by hard standing of any kind.
- Before topsoiling remove all stones, rubble and rubbish over 40mm in any direction from the surface of the subsoil formation. Excavate any areas polluted by oil or chemicals and make good.
- All topsoil will be inspected by the Architect prior to spreading.
- Spread topsoil by hand under dripline of existing trees.
- Topsoil in dry conditions only. Do not move or cultivate topsoil in waterlogged conditions or where the moisture content of the soil is such that structural damage of the topsoil would occur.
- The Contractor shall minimise damage to the topsoil by limiting machinery runs to the minimum requirement.
- It is the Contractor's responsibility to assess the depth and quality of the topsoil and its fitness for planting the scheduled range of plant species for planting and seeding. By planting or seeding into the soil, the Contractor approves, accepts and takes responsibility for the topsoil.

TOPSOIL STRIPPING:

Provide catchment drains or ditches to collect excess run-off and prevent water entering from adjacent land. Remove scrub as well as top growth by cutting using flail or swipe mowers. Where turf is excessively thick, plough, disc harrow, and reduce vegetative content by weathering and cultivation.

In late April - early May, apply 'Roundup' at 5 litres per hectare, diluted in water at 200 litres per hectare, at a pressure not exceeding 30 p.s.i. Apply evenly over full area of soil to be stripped. Apply when weather is mild and grass is growing. Do not apply when rain or showers are forecast within six hours or when wind may cause drift (over 24kph/15mph). If rain falls within the minimum period, retreat. After application, leave the soil surface undisturbed for a minimum period of 15 days, to allow foliage symptoms to develop. If possible, leave undisturbed for two months.

Strip topsoil from all areas liable to disturbance of any kind, including building works, roads, underground services, all temporary access routes, compounds and storage areas. Strip the full designated working area, and any other areas liable to encroachment and traffic.

Do not run machinery over ground before stripping.

- Strip the full depth of sod and topsoil to maximum 150mm. Avoid stripping into the subsoil layers.
- Remove and dispose of off site excess topsoil stripped from the site.
- Do not disturb any ground within the dripline of existing trees.

SITE CLEARANCE, EXCAVATION, RIPPING AND DRAINAGE:

- *Remove rubbish, concrete, metal, glass, decayed vegetation, contaminated topsoil, and stones with largest dimension exceeding 50mm.*

- *Contamination includes subsoil, rubble, fuel, lubricants or other substances injurious to plant growth.*

- *Grub up and dispose of large roots without undue disturbance of soil and adjacent areas.*

- Apply a suitable non-residual herbicide, to all areas to be seeded.
- Do not use machines within the root spread, drip line (or, within 3m of the trunk, whichever is greater) of existing trees to be retained (in same position or retained and relocated on site).
- Remove from the site surplus excavated material not specified to be spread and levelled or stockpiled.
- Keep all excavations free from water until formations are covered and below ground constructions are completed.
- Inform the Architect immediately if it is considered that the excavations are below the water table so that the ground water level can be determined.
- Do not use permanent drainage system for disposal of water from the excavations.
- Benched excavation: Where finished gradient is 1:5 or steeper formations to be excavated in a benched fashion as shown on drawings.
- Underground structures in landscape areas: Remove buildings, walls, roads, foundations, disused services, drains, manholes, and other obstructions in areas in which landscape works are to be carried out, to a minimum depth below finished levels of:

Seeded areas: 450mm

- Underground structures in landscape areas: Provide a hole not less than 600mm diameter for every 10 sqm of wall or slab allowed to remain in areas in which landscape works are to be carried out, to promote free drainage.

Subsoil levels shall be 200mm below the finished ground levels in all areas for seeding to allow for 200mm of topsoil after settlement.

- Prior to subsoiling or topsoiling, and during dry conditions only, all disturbed ground shall be ripped using the back-actor of a 'Hymac' or similar to a depth of 450mm, or using a 3 or 5 tyne ripper to a depth of 600mm. The maximum distance between adjacent passes shall be 1200mm. The Contractor will ascertain the locations of all service runs and will protect those likely to be affected by ripping. No machinery shall pass over ripped areas prior to topsoiling and seeding. The Contractor will inform the Architect upon completion of ripping before subsoiling/topsoiling operations commence.
- All subsoil will be free-draining and free from rubbish, builders material and rocks greater than 100mm in any direction.
- The Contractor will install perforated land drains where illustrated on the Contract Drawings and will connect the land drains to the storm water system to the Engineer's detail.

SOIL CONDITIONS:

- *Cultivate and sow into moist friable soil that is not waterlogged.*
- *Do not sow into frozen or snow covered soil without prior approval of the Architect. Provide adequate additional root protection and prevent planting pit sides and bases and backfill materials from freezing.*

CLIMATIC CONDITIONS:

Carry out the work while soil and weather conditions are suitable for the relevant operations. Do not plant during periods of frost, heavy rain, snow, hail or strong winds. Plant only during the following periods:

- *Seeding – April-May or August-September*

MACHINES AND TOOLS:

- Use only machinery and tools suitable for the site conditions and the work to be carried out. Use hand tools around trees, plants and in confined spaces where it is not practical to use machinery.
- All works on PROPOSED EMBANKMENTS BETWEEN CARPARK A & B AND B & C to be carried out by hand. No machines shall be permitted in this area.

WATERING GENERALLY:

- Ensure the full depth of topsoil is thoroughly wetted, to field capacity.
- Use a fine rose where appropriate to avoid damaging or loosening plants.
- Do not over-water.

- Do not flood or cause any areas to be water logged.
- Do not cause mud or other materials to be splashed onto foliage.
- Water as necessary to ensure the establishment and continued thriving of all planting.
- Water when specified and when instructed by the Architect.

WATERING:

- Water as necessary to ensure the establishment and continued thriving of all seeding/turfing.

WATER RESTRICTIONS:

- If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/turfing until instructed. If seeding/turfing has been carried out, obtain instructions on watering.

NOTICE: Make advance arrangements with Architect to give him the opportunity of being present during:

Setting out

Application of herbicide

Application of fertilizer

Preparation of seed bed

Seeding or turfing

Each site visit during maintenance period.

SETTING OUT:

- Clearly mark boundaries of seeding/turfing areas and obtain approval before starting work.

SUITABILITY OF TOPSOIL:

- Before commencing work the Contractor shall confirm to the Architect that the topsoil, after the specified preparation, will be suitable for seeding/turfing.
- Seeding/turfing will be taken as further acceptance by the Contractor of the suitability of topsoil.

PREPARATION

PREPARATION MATERIALS GENERALLY:

- Do not use materials containing concentrations of toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

- Submit to the Architect a supplier's certificate for the following materials and obtain approval before ordering or using the materials:

Grass seed

Fertiliser

- The certificate must provide the following information:

Source of supply

Analysis of content

Confirmation of suitability for proposed purpose

Confirmation of absence of harmful substances.

WEED CONTROL FOR ALL AREAS TO BE SEEDED:

Prevent weeds from seeding and perennial weeds from becoming established, by hand weeding or application of herbicide as follows:

- Glyphosate: 'Roundup', manufactured by Monsanto plc, or equal and approved, to manufacturer's recommendations. Do not apply if rain is forecast within six hours or if wind speed is likely to exceed 15mph/25kph, or cause spray drift. Ensure complete, consistent cover. Ensure that symptoms are fully visible on foliage before cultivation. Do not allow the herbicide to come in contact, either directly, or indirectly with any part of any existing plant to be retained, or any plants stored on site.
- Propyzamide: 'Kerb 50W', or equal and approved, as for 'Roundup'. Apply between 1 October and 20 December, when ground is damp.

SAND FOR BEDDING LAYER AND ROOTZONE OF REINFORCED GRASS AREA:

- Horticultural grade sand, coarse grained, washed river sand, sharp, free-draining, with neutral pH.
- Supplier/Source: to ARCHITECT'S approval.

CULTIVATION:

- Break up any compacted topsoil to full depth.
- Reduce top 100 mm of all topsoil to a tilth suitable for blade grading (10 mm down particles).
- Remove undesirable material brought to the surface including stones and clay balls larger than 50 mm in any dimension, roots, tufts of grass and foreign matter.

GRADING:

- When topsoil is reasonably dry and workable grade to smooth, flat, uni-directional planes, with falls for adequate drainage, removing all minor hollows and ridges.

- Unless otherwise stated, finished levels after settlement to be 25 mm above adjoining paving, kerbs, manholes etc.
- Topsoil levels may be adjusted by blade grading ensuring that there is nowhere less than 200mm of topsoil. If the required levels cannot be achieved by movement of the existing soil, obtain instructions.

FERTILIZER:

Three to five days before seeding/turfing and before final cultivation apply both the following fertilizers evenly over all areas to be seeded, each at 70 g/m², in transverse directions:

Superphosphate with a minimum of 18% water soluble phosphoric acid.

A sulfate of ammonia with a minimum of 20% nitrogen.

FINAL CULTIVATION:

- After grading and fertilizing carry out further cultivation to reduce top 25 mm to a fine firm seed bed with good crumb structure.
- Rake with chain harrow, drag mat or hand rake to a true, even surface, lightly firmed but not over compacted, removing all stones and earth clods more than 25mm in any dimension.
- Extend cultivation into any adjacent existing grass areas to ensure full marrying in of levels.
- Obtain approval of appearance of prepared soil areas before seeding.

SEEDING

GRASS SEED FOR LAWN AREAS AND REINFORCED GRASS AREAS:

- Supply and spread grass seed at 45g/sqm, as specified.
- 'Landscape Mix' by National Agrochemical Distributors, or equivalent approved.
- 20% 'Barcredo' dwarf perennial rye grass
- 40% 'Barrage' dwarf perennial rye grass
- 40% 'Boreal' strong creeping red fescue.
- Increase rate of application by 50% for slopes exceeding 1:8.

QUALITY OF SEED FOR ALL AREAS:

- Purchase fresh seed for each growing season. Do not use seed purchased for previous seasons.
- Use blue label certified seed varieties complying with EC regulations for purity and germination.
- When requested, supply to the Architect samples of mixtures as delivered to site or copy of original certificate of germination, purity and composition carried out by an Official Seed Testing Station.

SOWING:

- Sow seed in calm weather during April-May or August-September.
- Spread seed evenly at the specified rate(s) applied in two equal sowings in transverse directions.
- Lightly harrow or rake.
- Roll and cross roll after seeding using a lightweight roller.
- Do not roll on heavy clay soils or when soil is wet.

PRE-EMERGENT HERBICIDE

- Where soil has not been allowed to lie fallow apply a suitable pre-emergent herbicide immediately after sowing.
- Do not apply to meadow/wildflower areas.

SURFACE REINFORCEMENT MAT/MESH FOR PEDESTRIAN & FIRE ACCESS:

- Manufacturer and reference: 'Geo-scape Ecoblock' by Cooper Clarke, Bloomfield Road, Farnworth, Bolton, BL4 9LP, UK. Tel: 01204 862222, or equivalent and approved, installed according to manufacturer's instructions.
- Type/size: 500mm x 500mm and 80mm deep. 84% of the surface area available for infill.
- Colour: Black.

Fixing/jointing: 'Geo-scape Ecopins' by Cooper Clarke, Bloomfield Road, Farnworth, Bolton, BL4 9LP, UK. Tel: 01204 862222, or equivalent and approved, installed according to manufacturer's instructions.

FORMATION LAYER FOR SURFACE REINFORCEMENT MAT/MESH :

- If the formation is less than 3% CBR then a woven (type G1 or G2) geo-textile should be laid on the formation directly beneath the sub-base layer. The formation should be free from standing water and graded as instructed by the Architect.

SUB-BASE FOR SURFACE REINFORCEMENT MAT/MESH :

- Lay 150mm depth clause 804 well consolidated, hardcore over Terram 1000 or equivalent approved geo-textile over formation. Install additional geo-textile as per clause 207 of this specification over sub-base layer.

SAND/SOIL BEDDING LAYER FOR SURFACE REINFORCEMENT MAT/MESH:

- Lay 30mm depth bedding layer over Terram 1000 or equivalent approved geo-textile over sub-base.
- Coarse grained, washed river sand, sharp, free-draining, with neutral pH.
- Supplier/Source: to Architects approval.

- Bedding Layer Mix: 80% sand & 20% soil to BS 3882.
- Tolerance: +/- 5mm.

LAYING SURFACE REINFORCEMENT MAT/MESH:

- Lay fully interlocking units, butt jointed, with one 'Geo-scape Ecopin' per unit, on bedding layer.
- Cut on site by hand or with power saw to fit units over the entire surface area as designated.
- Cut pieces not fully interlocking or less than one third full size shall not be used.
- Install 'Geo-scape Ecopins', 3no. per linear meter of unrestrained edge, by Cooper Clarke, Bloomfield Road, Farnworth, Bolton, BL4 9LP, UK. Tel: 01204 862222, or equivalent and approved, according to manufacturer's instructions, at all perimeters to prevent lateral movement.

BACK-FILLING ROOTZONE FOR SURFACE REINFORCEMENT MAT/MESH:

- Back-fill Mix: 70% sand & 30% soil to BS 3882.
- Back-fill to flush with the top of the unit.
- Seed immediately.
- Ensure, after initial settlement, that the root-zone mix is 5mm below the top of the unit.
- Apply a light root-zone dressing over the units to protect grass seed during early growth and retain moisture.
- Lay a sample of 20 m² of 'Geo-scape Ecoblock' and obtain approval before proceeding. The approved sample may form part of the permanent work.

PROTECTING/WATERING/CUTTING

WATERING: During establishment of grass areas ensure that sufficient water is applied using a fine sprinkler or oscillating spray to maintain healthy growth.

FIRST CUT OF LAWN AND REINFORCED GRASS AREAS

- Before each cut remove all litter and debris.

When grass is 75mm high remove debris, litter and all stones and earth clods larger than 25 mm in any dimension, and when grass is reasonably dry, cut to approximately 50mm high, using a cylinder mower.

Collect and remove all arisings.
- Sweep all adjoining hard areas clear of cuttings and remove.
- **CLEANLINESS:** Remove soil and arisings from hard surfaces and leave the works in a clean, tidy condition at Completion and after any maintenance operations.

MAINTENANCE:

- Comply with Specification for Maintenance of Planting & Seeding

SPECIFICATION FOR MAINTENANCE OF PLANTING & SEEDING

LANDSCAPE MAINTENANCE

To be read with Preliminaries/General conditions.

GENERALLY

GENERAL REQUIREMENTS & NOTICE TO ARCHITECT:

Make visits at approximately fortnightly intervals, more frequently during the growing season and as necessary to fulfill the requirements of this specification. Make minimum 32 visits per calendar year.

Provide 3 days notice of the following operations, to give Architect the opportunity of being present:

Application of herbicide

Application of fertilizer

Watering

Each site maintenance visit.

MAINTENANCE INSTRUCTIONS: Before the end of the first 12 months of the period stated in Clause 18 submit, to the Architect for his approval, printed instructions recommending and describing in detail procedures to be established by the Employer for successful maintenance of the planting work for one full calendar year.

REINSTATEMENT: Reinstate to original condition and within a reasonable period of time (according to season), any damage or disturbance occurring during the work, to soil structure, planting, grass, fencing, hard landscape, structures or buildings.

REPLACEMENT PLANTING:

- Excepting theft or malicious damage, any trees/shrubs/plants that have failed to thrive will be regarded as defects due to materials or workmanship not in accordance with the Contract. Unless otherwise instructed they must be replaced, at the Contractor's cost, by approved equal materials.

Replacements must take into account the increased size due to growth since the completion of planting and must match the size of adjacent, or nearby, plants of the same species, or should match the original specification, whichever is the greater.

The Architect shall designate the source of any replacement planting or shall approve the source prior to the delivery on site of the replacement planting.

CONTROL OF MAMMALIAN PESTS: *Employ only approved firms and methods.*

WATERING GENERALLY:

At the start of the works agree water supply points with Employer. If no watering supply points are available for use water using a tanker previously filled with potable mains water.

Obtain ARCHITECT'S approval before using a supply other than potable mains water.

Ensure the full depth of topsoil is thoroughly wetted.

Use a fine rose or low pressure hose where appropriate to avoid damaging or loosening plants.

Where necessary, loosen soil or form depressions around the stem base of plants to ensure that water reaches the root zone instead of dispersing on the surface.

Watering should be carried out at all times to ensure that the planting does deteriorate either visually or in terms of its overall health. Visual deterioration will be unacceptable and the Contractor will be obliged to replace the affected planting immediately.

Persistence of weeds in planted areas will be considered a contributory cause of failure due to drought. Prolonged dry weather will not exonerate the Landscape Contractor if the specified aftercare operations have not been carried out as programmed.

WATERING: Water as necessary to ensure the continued thriving of all planting.

WATERING: Water as specified in this document and when instructed by the Architect.

WATERING TREES:

Water only by placing hose in watering pipe.

Water fortnightly during establishment period (18 months after completion of all planting), thereafter as necessary and when instructed by Architect.

- From 1st March to 31st August, water weekly during prolonged periods of dry weather. A prolonged period of dry weather is defined as two weeks (14 days or more) during which no more than 10mm of rain has fallen.

Apply 20 litres of water (or sufficient to reach field capacity, but not more) per tree per watering session.

After removing the hose replace cap on watering pipe and ensure watering pipe and cap are clean and free from leaf litter or other material that might block the watering pipe.

WATERING GROUNDCOVER & SHRUB PLANTING:

Water fortnightly during establishment period (18 months after completion of all planting), thereafter as necessary and when instructed by Architect.

- From 1st March to 31st August, water weekly during prolonged periods of dry weather. A prolonged period of dry weather is defined as two weeks (14 days or more) during which no more than 10mm of rain has fallen.

Apply water sufficient to reach field capacity, but not more.

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- DISPOSAL OF ARISING GENERALLY: unless specified otherwise, dispose of arising from all specified operations by removing from site.
-
- CHIPPING OR SHREDDING ON SITE: of materials arising from the work will not be permitted.

LITTER COLLECTION:

Collect and remove all extraneous rubbish not arising from the contract work and detrimental to the appearance of the site, including paper, packaging materials, bottles, cans, and similar debris.

Collect litter at minimum 2 weekly intervals and as instructed by the Architect.

Maintain planted areas free from litter at all times.

VANDALISM:

The Landscape Contractor shall not be responsible for vandalised or maliciously damaged material, but shall be available to replace the material as agreed with the Employer.

Where material is vandalised the Landscape Contractor shall remove the material as per all relevant clauses of this document.

It is the Employer's policy to replace vandalised material as soon as possible.

Replacement planting shall be agreed with the Employer in advance of the works being carried out.

COLLECTION OF BROKEN, VANDALISED OR DAMAGED MATERIAL:

Collect and remove all damaged and vandalised plant material immediately.

PROTECT EXISTING GRASS: during maintenance operations by laying boards or tarpaulins. Do not place excavated material directly on to grass.

CLEANLINESS:

Remove soil and arising from hard surfaces and leave the works in a clean, tidy condition after maintenance operations.

PROTECT EXISTING HARD LANDSCAPE FINISH:

The Landscape Contractor shall protect hard landscape finishes from debris and damage during maintenance operations.

Due to the ramped and stepped nature of the site, grass cutting shall be carried out using hand operated, walk-behind machines. No ride-on machines shall be permitted within the site.

BLOWER MACHINES:

Do not use blower or vacuum machines for leaf collection or any other purpose in or at the edges of planted areas.

GRASSED AREAS

MAINTENANCE OF LAWN AND REINFORCED GRASSED AREAS:

Provide an even stand of vegetation of uniform height and colour comprising grass species only (maximum 2% dicotyledonous plants).

MAINTENANCE OF MEADOW/WILDFLOWER AREAS:

Provide an even stand of vegetation comprising grass species and dicotyledonous species within 20% fluctuation of original seed mix (maximum 10% non-seed mix species at any time).

ESTABLISHMENT OF GRASSED AREAS - WATERING:

Comply with all relevant clauses of this document.

GRASS CUTTING FOR LAWN AND REINFORCED GRASSED AREAS:

Cut using a cylinder mower.

Collect and remove all arisings from site.

Remove litter, rubbish and debris from grassed areas before mowing.

Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.

Leave edges neat, trimmed and well defined after every mowing session.

Neatly trim all grass edges round the base of lighting columns, manholes, and other objects.

Sweep adjoining hard areas clear of arisings and remove.

Do not cut during periods of drought, or when ground conditions or grass is wet, without the prior agreement of the Employer or the Architect.

GRASS CUTTING FOR MEADOW/WILDFLOWER AREAS:

Cut using a flail mower, rotary mower and or strimmer.

Collect and remove all arisings from site.

Remove litter, rubbish and debris from all areas before mowing.

Cut to a neat even finish, without rutting or compaction of the surface, especially when ground conditions are soft.

Leave edges neat, trimmed and well defined after every mowing session.

Sweep adjoining hard areas clear of arisings and remove.

Do not cut during periods of drought, or when ground conditions are wet, without the prior agreement of the Employer or the Architect.

PROTECTION OF TREE STEMS:

Do not allow mowing machinery closer than 100 mm to any tree stem. Avoid damage to tree stems by nylon filament rotary cutters or other mechanical tools.

Any tree or plant damaged in any way by contact with mowing/cutting machinery shall be replaced, immediately, at the Contractor's cost, in accordance with all relevant clauses of this document.

GRASS CUTTING MACHINES FOR LAWN AND REINFORCED GRASSED AREAS:

Use cylinder mowers only.

LEAF REMOVAL:

Before each cut remove all leaves and other debris from areas to be cut.

MOWING LAWN AND REINFORCED GRASSED AREAS:

Maintain vegetation length of between 35 –50mm from April – August inclusive.

Maintain vegetation length of between 50 –70mm at all other times.

Mow weekly from April – August inclusive.

Mow as required to satisfy this specification at all other times.

Carry out minimum 25 cuts annually and additionally as required to satisfy this specification.

ESTABLISHMENT OF GRASSED AREAS WITH PERENNIAL WILDFLOWERS:

- Before each cut remove all litter and debris.
- First growing season: In April cut to height of 100mm and remove all arisings. Continue to cut every month, or so that the height of growth does not exceed 200mm at any time and remove arisings.
- Second season: Cut to a height of 100mm in April. Repeat cut during the following September.
- At the time of each cut remove arisings.
- Sweep all adjoining hard areas clear of cuttings and remove.
- Water in accordance with all relevant clauses of this document.

CUTTING SUMMER FLOWERING WILD FLOWER MEADOWS:

Cut once in April and once in September.

- At the time of each cut remove arisings.

- Sweep all adjoining hard areas clear of cuttings and remove.

ROLLING:

Roll with self propelled or gang roller to consolidate turf and reduce frost heave.

SCARIFYING LAWNS:

In April, scarify with self propelled equipment to a depth of 25 mm to relieve thatch conditions and remove dead grass.

Do not scarify lawns less than 6 months old.

HOLLOW TINING:

In April and again in September, hollow tine with self propelled equipment to a depth of 125 mm.

TIMBER EDGES TO LAWN AREAS:

When seeded areas are well established, trim vertically along the line of timber edging using sharp and well maintained edging shears.

Do not use strimmers or any other motorised equipment.

Remove all arisings immediately.

Where there is no timber edge draw back soil from edges to permit the use of edging shears.

RE-FORMING GRASS EDGES:

Re-form edges abutting paths, borders, manhole covers and the like with a suitable edging tool, to clean straight lines or smooth flowing curves. Form a clean edge, sloping slightly back from vertical.

Draw back soil from edges to permit the use of edging shears and remove arisings.

LEVELLING HOLLOWES AND BUMPS IN TURF: Level using the methods in BS 7370:Part 3, clauses 12.4 and 12.5.

RELIEVING SURFACE COMPACTION IN TURF:

Where drainage is impeded as a result of compaction.

Relieve using the methods in BS 7370:Part 3, clause 13.5.

POST EMERGENCE HERBICIDE FOR LAWN AND REINFORCED GRASSED AREAS:

Apply 'Actrilawn 10' by May & Baker, or equivalent approved, in accordance with the manufacturer's instructions.

Apply when grasses have reached a two leaf stage or beyond and when seedlings have emerged and reached cotyledon or two leaf stage (approx. 4 weeks after sowing).

Do not mow within 7 days of treatment.

Do not apply during drought.

Apply on a fine still warm day.

Do not spray wild flower or bulb and corm planted areas.

Where 'Actrilawn' is not available apply 'Tritox' by Scotts, according to the manufacturer's instructions.

SELECTIVE HERBICIDE FOR LAWN AND REINFORCED GRASSED AREAS:

Spray with a suitable selective herbicide.

Do not spray wild flower or bulb and corm planted areas.

SPOT WEEDKILLING FOR LAWN AND REINFORCED GRASSED AREAS:

Where weeds persist after general herbicide treatment use a suitable portable applicator and spot treat weeds with a suitable herbicide.

FERTILIZER FOR LAWN AND REINFORCED GRASSED AREAS :

- In April apply one application of an approved top dressing 10:10:20, spread in two equal passes in transverse directions, avoiding banding, at a combined rate of 17 g/sqm.
- Do not apply to seeded areas less than 6 months old.

Repeat the application throughout the growing season to prevent discolouration of the lawn caused by nutritional problems.

REINSTATEMENT OF LAWNS:

Make good worn or damaged areas by re-turfing to BS 7370:Part 3, Clause 12.2, or re-seeding to BS 7370: Part 3, Clause 12.6, using turf or seed to match the existing in appearance and quality.

Provide protection and watering to promote successful germination and/or establishment.

SHRUBS/TREES/HEDGES

ESTABLISHMENT OF NEW PLANTING: During the initial establishment of newly planted trees and shrubs, carry out maintenance of the planted areas as follows:

Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1m or the surface of the original planting pit. Keep planting beds clear of all weeds, by hand weeding. Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows, taking care not to reduce depth or effect of mulch.

- Carry out weeding at minimum fortnightly intervals from 1st April to 31st October and monthly intervals from 1st November to 31st March. Leave entire site completely free from weeds after each visit.

Spray crown of trees when in leaf during warm weather. Carry out in the evening.

ESTABLISHMENT OF NEW PLANTING - FERTILIZER:

As per FERTILISING ESTABLISHED TREES AND SHRUBS

TREE STAKES AND TIES FOR TREES: Inspect all stakes and ties at minimum monthly intervals and within 48 hours of storm or gale force winds, and carry out the following:

Check stakes for looseness, breaks and decay and replace as necessary to original specification. If a tree with a defective stake has grown sufficiently to become self supporting, inform Architect and, if instructed, remove stake(s) and fill the hole(s) with lightly compacted soil.

Adjust, refix or replace loose or defective ties as necessary, allowing for growth since planting and to prevent chafing. Where chafing has occurred, reposition or replace ties to prevent further chafing.

Where stakes are longer than half the height of the clear stem of the tree, cut the stake to this height, in the second spring after completion of planting, and retie to tree firmly but not tightly with a single tie.

Remove redundant tapes, tags, ties, labels and other encumbrances.

Ensure that all trees are established with a vertical trunk. Leaning trees (trees that do not exhibit a symmetrical distribution of branches and foliage around the vertical centre line of the trunk) shall be replaced by trees of the same size, species and specification (including growth made since planting) at the Contractor's expense and in accordance with all relevant clauses of this document.

Remove stakes and ties at the earliest opportunity and as instructed by the Architect.

If the Contractor is not contracted to maintain the works after the Defects Liability Period as stated in the works requirements the Contractor must include in the Maintenance Instructions as all relevant clauses of this document instructions regarding the removal of tree ties, stakes and guys.

Make provision for additional visits throughout the year, as requested by the Architect.

REFIRMING: Ensure that trees and shrubs remain firmly bedded after strong winds, frost heave and other disturbances. Refirm by treading around the base. 'Collars' at the base of tree stems created by tree movement to be broken up by fork, avoiding damage to roots, backfilled with topsoil as necessary, and refirmed.

PRUNING GENERALLY:

Do not prune any plants without the prior approval of the Architect.

Prune in accordance with good horticultural practice. Prune larger branches and woody stems in accordance with good arboricultural practice.

Tree maintenance and pruning shall adhere to Section 40 of the Wildlife Act 1976. Under Section 40 of the Wildlife Act 1976 (as amended), it is illegal to cut, burn, or destroy vegetation in hedges, ditches, or uncultivated land between March 1st and August 31st to protect nesting birds. Wilfully destroying, injuring, or disturbing nesting birds and their eggs is an offence.

Pruning of trees will follow best practice procedures including:

British Standard for tree work (BS 3998: 2010 Tree Work – Recommendations)

The Arboricultural Association Guide to

Pruning: <https://www.trees.org.uk/Trees.org.uk/media/Trees-org.uk/Documents/GuideToPruning-Web.pdf>

Thin, trim and shape appropriately to each species, location, season, and stage of growth, leaving a well-balanced natural appearance.

Use clean sharp secateurs, hand saws or other tools approved by the Architect. Trim off ragged edges of bark or wood with a sharp knife.

Remove branches without damaging or tearing the stem.

Keep wounds as small as possible and cut cleanly back to sound wood. Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.

Prune larger branches neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.

Notify the Architect of any disease or fungus. Do not apply growth retardants, fungicide or sealant unless instructed by the Architect.

REMOVING CLIMBERS FROM TREES: Remove any ivy, living or dead/decaying, or other climbing growth from trees and hedging plants, existing mature and recently planted. Maintain trees and hedges free from ivy or other climbing growth at all times.

PRUNING OF EXCESSIVE OVERHANG: Remove any growth encroaching onto grassed areas, paths, roads, signs, sightlines and light fittings.

PRUNING TREES AND SHRUBS: Except where specified otherwise, prune as recommended by BS 7370:Part 4, clauses 3.6.3 to 3.6.5.

FORMATIVE PRUNING OF TREES:

Do not prune any plants without the prior approval of the Architect.

Do not prune whips or feathered trees.

Do not prune during the late winter/early spring sap flow period, unless specified otherwise.

Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a specialist approved by the Architect.

FORMATIVE PRUNING OF PINE TREES:

Do not prune any plants without the prior approval of the Architect.

Do not prune during the late winter/early spring sap flow period, unless specified otherwise.

Remove dead lateral branches, whole, as they appear.

Extensive pruning of young trees and any surgery to larger trees must be carried out by a member of the Arboricultural Association or a specialist approved by the Architect.

PRUNING OF PERENNIAL & HERBACEOUS GROUNDCOVER SPECIES:

Do not prune any plants without the prior approval of the Architect.

Remove Hedera helix (ivy) from trees and shrubs. Do not damage or cut tree and shrub bark.

Use only a sharp, well-maintained secateurs.

TRIMMING NONTAPERING ESTABLISHED HEDGES: Trim carefully and neatly to regular line and shape, using secateurs and handshears. Remove current growth rather than old wood.

REMOVAL OF DEAD PLANT MATERIAL:

At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

REMOVE AND REPLACE DEAD PLANTS:

Inform the Architect as soon as the dead plant material is noticed.

Remove and replace as soon as possible, and in any case within one week.

Comply with all relevant clauses of this document.

REINSTATEMENT OF GROUNDCOVER/PERENNIAL/HERBACEOUS AREAS:

Remove dead and damaged plants by hand digging.

Carefully move any mulch/matting materials to one side and dig over the soil, leaving it fit for replanting. Take care not to disturb roots of adjacent plants.

Replace plants, using pits and plants to the original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.

- Apply the following in addition to any fertilisers or ameliorants specified elsewhere in this document:
'Sierrablen Flora Yellow (Granular)' by Scotts, controlled release fertiliser with 24 month longevity, supplied in sealed bags with the manufacturer's name, net weight and chemical analysis of content clearly marked on the bag. Apply evenly over all areas to be planted at 120 g/sq m immediately before cultivation.

Agree details of replacement plants with Architect before ordering.

WEED CONTROL GENERALLY:

Remove and/or prevent weed growth by hand in all areas.

Ensure that the methods used cause no damage to adjacent plants, trees or grass.

HAND WEEDING: Remove all weeds, including roots, by hand using hoes, trowels or forks, taking care to remove not more than a minimum quantity of soil, causing minimum disturbance to trees, plants, mulched surfaces and bulbs and leaving the area in a neat, raked, clean condition.

TREE AND PLANT STEMS:

Do not allow nylon filament rotary cutters or other mechanical tools closer than 100 mm to the stem of any tree or plant. Complete operations close to stems using hand tools.

Any tree or plant damaged in any way by contact with herbicide or machinery shall be replaced, immediately, at the Contractor's expense, in accordance with all relevant clauses of this document.

SOIL AERATION: Prick up trodden or otherwise compacted soil surfaces by hand to aerate the soil of root areas. Do not damage plants and their roots.

SOIL LEVEL ADJUSTMENT:

Maintain the level of the soil/mulch at the edges of beds to remain at the same level as the adjacent grass or hard surface.

Remove excess material from site.

MAINTENANCE OF MULCH:

Top up with chipped bark mulch and maintain the depth of mulch at all times at 75 mm.

Sweep up and replace mulch spilling onto adjacent areas and, if not contaminated with weeds or rubbish, return to planted area.

Remove weeds growing on or in mulch by hand weeding.

FERTILISING ESTABLISHED TREES AND SHRUBS:

In March/April, evenly spread 'Osmocote 5-6 Month' 10:11:18 controlled release fertiliser by Scotts, to all planted areas, carefully incorporating below mulch materials at 50g/m².

SNOW REMOVAL FROM SHRUBS/TREES: Remove snow as recommended by BS 7370:Part 4, clause 3.5.15.

DEAD LEAF REMOVAL:

Remove fallen leaves by hand from all areas.

Do not use leaf blowing or vacuum machines in or at the edges of planted areas.

Remove all arisings from site.

TREE WORK

TREE WORK GENERALLY:

Before starting work verify with Architect which trees, shrubs and hedges are to be removed or pruned.

Avoid damage to neighbouring trees, plants and property.

Carry out all works affecting trees in accordance with the relevant recommendations of BS 3998, unless otherwise specified or instructed by Architect.

Comply with Forestry and Arboriculture Training and Safety Council Safety Guides.

When removing branches, cut as shown in Arboricultural Association Leaflet No 8 'Mature tree maintenance'.

Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.

Leave trees with a well balanced natural appearance.

Work involving chain saws must be carried out by holders of a Certificate of Competence.

Tree work must be carried out by a member of the Arboricultural Association, approved by the Architect.

ADDITIONAL WORK:

Carry out only those works indicated in the Schedule. If defective, diseased, unsafe or weak parts of trees are discovered other than those scheduled for attention, inform the Architect and await instructions.

PREVENTION OF WOUND BLEEDING: Comply with the recommendations of BS 3998, clause 8.

PREVENTION OF DISEASE TRANSMISSION: Comply with the recommendations of BS 3998, clause 9 and Appendix B.

CLEANING OUT AND DEADWOODING:

Remove:

Dead, dying, or diseased wood, broken branches and stubs.

Fungal growths and fruiting bodies.

Rubbish, wind blown or accumulated in branch forks.

Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.

Other unwanted objects, e.g. tree houses, swings.

Climbing plants: All climbing plants including Ivy (Hedera species).

CUTTING AND PRUNING GENERALLY:

Use appropriate well maintained sharp tools.

For final pruning cuts:

Do not use chainsaws on branches of less than 50 mm diameter.

When using handsaws, cut in one continuous operation to form a smooth cut surface.

Do not use anvil type secateurs.

Remove branches without damaging or tearing the stem.

Keep wounds as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.

Cut at a fork or at the main stem to avoid stumps wherever possible.

When removing large branches, remove in small sections and lower to ground with ropes and slings.

Do not cut into live wood when removing dead branches and stubs.

Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.

Notify the Architect of any disease or fungus. Do not apply fungicide or sealant unless instructed by the Architect.

CROWN LIFTING:

Remove dead lateral branches, whole as they appear.

Remove whole branches back to the stem.

CUTTING TREE ROOTS:

Do not cut tree roots unless instructed by Architect.

Excavate using hand tools only.

Do not cut roots in the protected area without approval of the Architect. The protected area is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.

Notify Architect and seek instruction if roots exceeding 50 mm in diameter are exposed.

Form clean smooth cuts with a hand saw, minimizing the wound area and avoiding ragged edges. Pare cut surfaces smooth with a sharp knife.

Cover cut roots with clean sharp sand prior to backfilling with original topsoil.

REMOVING TREES, SHRUBS AND HEDGES:

Check for below and above ground services in the vicinity. Inform Architect if they may be affected and obtain instructions before proceeding.

Comply with BS 3998, Appendix A and Forestry and Arboriculture Training and Safety Council Safety Guides.

Cut down and grub up roots of shrubs and smaller trees.

Tree stumps: grind out and remove entire stump.

Avoid damage to adjacent vegetation or structures to be retained. Take down trees carefully in small sections where tree canopies overlap and in confined spaces generally.

Obtain ARCHITECT'S approval before removing stumps by winching and do not use other trees as supports or anchors.

Fill holes and grade to marry in with surrounding ground level, using as-dug material and/or imported soil as required.

BARK DAMAGE:

Do not attempt to stop sap bleeding from wounds.

Inform Architect if liquid or flux is observed oozing from apparently healthy bark.

Gently remove ragged edges and remove splintered wood from deep wounds, but keep wounds as small as possible.

CAVITIES IN TREES:

Clear away rubbish and rotten wood. Probe the cavity to find the extent of any decay, report to Architect and await instructions.

Unless instructed, do not drain water filled cavities or remove wood from inside cavities.

HARD LANDSCAPE AREAS/FENCING

SNOW CLEARANCE:

Clear snow from all areas immediately after snowfall.

Do not spread rock salt unless instructed to do so by the Architect.

HARD SURFACES AND GRAVEL AREAS:

Carry out the following at each visit for grass cutting or weeding, and additionally to satisfy the conditions of this specification:

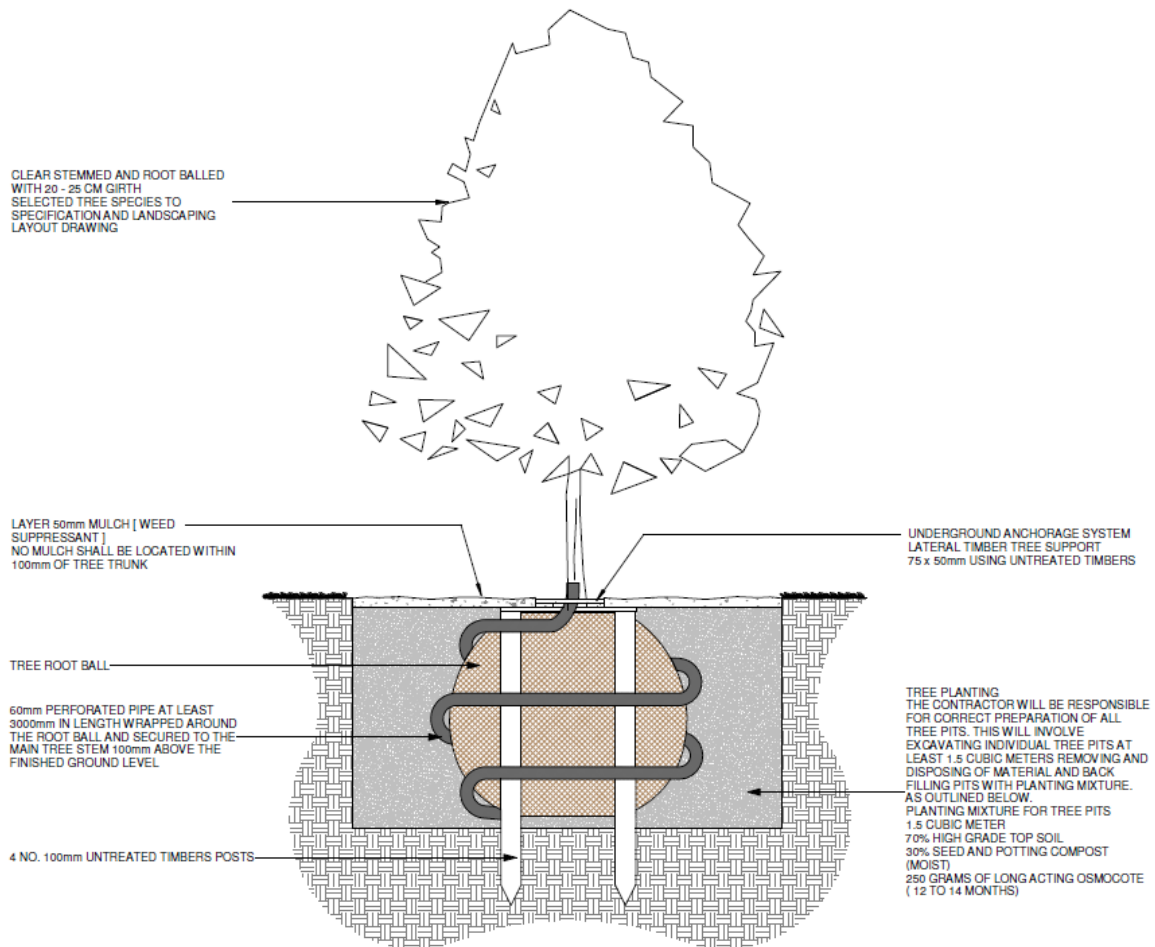
Maintain all surfaces free from plant growth, mud, dirt, litter, chewing gum and any other debris at all times.

Apply a suitable foliar acting or residual herbicide according to the manufacturer's recommendations. Allow recommended period before clearing arisings.

Sweep hard surfaces to keep free of litter, leaves and other debris.

Remove mud, silt and debris from surface gutters and channels in hard surfaces and empty drainage gullies.

Rake gravel areas to remove litter, leaves and other debris and to reduce potential for weed growth. Leave gravel level.



TREE DETAIL T1 TYPICAL TREE PIT DETAIL