Weeton, Wattisham, Kendrew SLA

# WATTISHAM LANDSCAPE SPECIFICATION

P01

# HLM Architects



# **Document Control Sheet**

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3 SLA buildings in Wattisham, Weeton and Kendew.



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# Ss\_20\_10\_70\_62 People shelter systems

## **Systems**

# Ss\_20\_10\_70\_62 People shelter systems

- Description: Sheldon Canopy SPG320 by Langley Design or similar and approved Materials: Galvanised steel, timber, and polycarbonate roofing Size: 2600 × 4630 × 2700 mm
- System manufacturer: Langley Design Unit L, Chelworth Industrial Estate, Cricklade, Swindon, SN6 6HE info@langleydesign.co.uk
- 3. Shelter type: Sheldon Canopy SPG320
- 4. Base: To manufacturer's details
- 5. Method of fixing to ground or base: Below Ground Base Fix
- 6. Execution: Ss\_20\_10\_70/600 Execution and installation generally
- 7. System completion: Ss\_20\_10\_70/820 Documentation for shelter systems; Ss\_ 20\_ 10\_ 70/895 Verification of performance

# Execution

# Ss\_20\_10\_70/600 Execution and installation generally

- 1. Appearance: Conceal fixings unless otherwise indicated on detailed drawings.
- 2. Frameworks: Assemble and brace, including temporary members required for installation. Do not subject members to non-design loadings.
- 3. Interfaces: Locate flashings, closers, etc. to form weathertight junctions between components.
- 4. Cutting and drilling into structure: Obtain approval before cutting and drilling in positions not shown on detailed design drawings.
- 5. Metal fixings: Protect from corrosion. Avoid contact between dissimilar metals.
- 6. In situ welding: Permitted, subject to completion of and compliance with a 'hot work permit' form.
- 7. Site-applied finishes
  - 7.1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.
- 8. Disposal of arisings
  - 8.1. Biodegradable arisings: Remove to recycling facility.
  - 8.2. Tree roots and stumps: Remove from site.
  - 8.3. Litter and non-biodegradable arisings: Remove from site.

# System completion

# Ss\_20\_10\_70/820 Documentation for shelter systems

- 1. Maintenance and replacement instructions
  - 1.1. Information: Include building description, date of completion, performance characteristics, repair methods, cleaning and maintenance requirements.
- 2. Record drawings

2.1. Content: Location and arrangement of components and installation details.

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# Ss\_20\_10\_70/895 Verification of performance

- 1. Requirement: 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.

 $\Omega$  End of System



# Ss\_25\_13\_50\_54 Masonry wall systems Boot Wash

#### Systems

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# Ss\_25\_13\_50\_54 Masonry wall systems Boot Wash

- 1. Description: Brick Boot Wash. Refer to detail drawing Z9A8403Y20-HLM-XX-WATT01ZZZZZ-DR-L-300004-BOOT WASH DETAILS-XX-G00400-XX
- 2. System performance: Ss\_25\_13\_50/200 Accuracy of brick and block walling; Ss\_ 25\_ 13\_ 50/206 Design working life of masonry systems; Ss\_25\_13\_50/235 Design of masonry walling
- 3. Masonry units: Common brickwork to match building external wall leaf. Refer to Architectural specification for further information.
- 4. Masonry units specific applications
  - 4.1. Below dpc: Pr\_20\_93\_52\_15 Engineering brick
- 5. Mortar: To match building external wall leaf. Refer to Architectural specification for further information.
- 6. Mortar specific applications
  - 6.1. Pointing: To match building external wall leaf. Refer to Architectural specification for further information.
  - 6.2. Below dpc: To match building external wall leaf. Refer to Architectural specification for further information.
- 7. Concrete fill: Dry lean concrete mix
- 8. Dpcs: To match building external wall leaf. Refer to Architectural specification for further information.
- 9. Dpc joint sealant: To match building external wall leaf. Refer to Architectural specification for further information.
- 10. Wall ties: To structural engineer's details and specification
- 11. Movement joint components: Pr\_30\_31\_76\_16 Construction joint sealants
- 12. System accessories: Pr\_40\_20\_87\_93 Wall-mounted bib taps; Pr\_25\_93\_60\_17 Concrete paving blocks P05; Pr\_25\_96\_30\_31 Footway gratings
- 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\_50/757 Laying walling below ground level
- 14. System completion: Ss\_25\_13\_50/895 Verification of performance

#### System performance

# Ss\_25\_13\_50/200 Accuracy of brick and block walling

- 1. Courses: Level and true to line.
- 2. Faces, angle and features: Plumb
- 3. Permissible deviations
  - 3.1. Position in plan of any point in relation to the specified building reference line and/ or point at the same level: ± 10 mm.
  - 3.2. Straightness in any 5 m length: ± 5 mm.
  - 3.3. Verticality up to 3 m height: ± 10 mm.
  - 3.4. Verticality up to 7 m height: ± 14 mm.
  - 3.5. Overall thickness of walls: ± 10 mm.
  - 3.6. Level of bed joints up to 5 m (brick masonry): ± 11 mm.
  - 3.7. Level of bed joints up to 5 m (block masonry): ± 13 mm.

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Ss\_25\_13\_50\_5 Masonry wall systems Boot Was Page 3 of 68



## Ss\_25\_13\_50/206 Design working life of masonry systems

1. Design working life category: Category 4 in accordance with BS EN 1990.

#### Ss\_25\_13\_50/235 Design of masonry walling

1. Standard: To BS EN 1996-1-1.

#### **Products**

#### Pr\_20\_93\_52\_15 Engineering brick

- 1. Description: Engineering brick to below ground brick work and DPC levels
- 2. Manufacturer: Forterra Building Products Ltd or similar and approved
- 3. Standard: To BS EN 771-1.
- 4. Brick description: Blue rustic butterley brick or similar and approved
- 5. Appearance: Blue rustic or similar and approved
- 6. Work size (length x width x height): 215 x 102 x 65 mm.
- 7. Tolerances
  - 7.1. Mean value: T2.
  - 7.2. Range: R1.
- 8. Compressive strength
  - 8.1. Mean compressive strength (minimum): 75 N/mm2
  - 8.2. Category: II.
- 9. Durability designation: F2.
- 10. Water absorption: Equal to or less than 7%.
- 11. Reaction to fire: Class A1 to BS EN 13501-1.
- Execution: Pr\_20\_93\_52/625 Brickwork and blockwork appearance; Pr\_ 20\_ 93\_ 52/630 Brickwork and blockwork bond; Pr\_20\_93\_52/655 Facing brickwork and blockwork joints; Pr\_20\_93\_52/660 Fair faced brickwork and blockwork; Pr\_20\_93\_52/690 Laying brick and block masonry units generally

# Pr\_25\_93\_60\_17 Concrete paving blocks P05

- 1. Description: Brick Paviors to Perimeter of Boot Wash Grating.
- 2. Manufacturer: Marshalls plcor equal and approved.
- 3. Contact details
  - 3.1. Address: Landscape House Lowfields Business Park Elland West Yorkshire HX5 9HT
  - 3.2. Telephone: +44 (0)330 0574472
  - 3.3. Web: www.marshalls.co.uk
  - 3.4. Email: info@marshalls.co.uk
- 4. Product reference: Keyblok (200 x 100 x 60 mm) or equal and approved.
- 5. Standard: To BS EN 1338.
- 6. Physical properties
  - 6.1. Colour: Brindle.
  - 6.2. Finish: Anti-slip.
  - 6.3. Profile

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- 6.4. Dimensions and associated tolerances
  - 6.4.1.Nominal sizes: 200 x 100 x 60 mm.
- 6.5. Weathering resistance: ≤1.0 kg/m<sup>2</sup> as a mean with no individual value > 1.5 kg/m<sup>2</sup> (freeze thaw durability).
- 6.6. Abrasion resistance: ≤23 mm (Wide Wheel Abrasion Test).
- 6.7. Slip resistance: > 45.
- 6.8. Skid resistance: > 45.

# Pr\_25\_96\_30\_31 Footway gratings

- 1. Description: Grating to Boot Wash
- 2. Manufactur er: Elefant Gratings T/A PcP Gratings Ltdor equal and approved.
- 3. Contact details
  - 3.1. Address: Enterprise Drive Four Ashes Wolver hampt on West - Midlands WV10 7DF
  - 3.2. Telephone: +44 (0)1902 797110
  - 3.3. Web: www.pcp-corp.com
  - 3.4. Email: sales@elefantgratings.com
- 4. Product reference: Metal Mesh Gratingsor equal and approved.
- 5. Size: 800mm x 1600mm
- 6. Grating type: Solid grating.
- 7. Material: Galvanised Steel
- 8. Fixing type: Clips to suit bar centres.
- 9. Execution:

#### Pr\_30\_31\_76\_16 Construction joint sealants

Description: Expansion joints to brick wall to match Architectural specification.
10mm joint to be provided every 12m of the brick wall.

#### Pr\_40\_20\_87\_93 Wall-mounted bib taps

- 1. Description: Brass Bib Tap
- 2. Manufacturer: Stevenson Plumbing or equal and approved.
- 3. Contact details
  - 3.1. Address: 1 Belfast Road Bangor County Down BT20 3PN United Kingdom
  - 3.2. Telephone: 028 91271880
  - 3.3. Web: www.stevensonplumbing.co.uk
  - 3.4. Email: sales@stevensonplumbing.co.uk
- 4. Product reference: 1/2" Outside Tap BS1010-2 Hose Union Bib Tap or equal and approved.
- 5. Approvals: Made to the British Standard BS1010-2
- 6. Form: Wall-mounted bib taps.
- 7. Materials
  - 7.1. Body: Brass.

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Ss\_25\_13\_50\_5 Masonry wall systems Boot Was Page 5 of 68



#### Execution

### Pr\_20\_93\_52/625 Brickwork and blockwork appearance

- 1. Brick/ block selection: Do not use units with damaged faces or arrises.
- 2. Cut masonry units: Where cut faces or edges are exposed, cut with table masonry saw.
- 3. Quality control: Lay masonry units to match relevant reference panels.
- 4. Setting out: To produce satisfactory junctions and joints with built-in features and components.
- 5. Coursing: Evenly spaced using gauge rods.
- 6. Lifts: Complete in one operation.

# Pr\_20\_93\_52/630 Brickwork and blockwork bond

1. Bond type: Half lap stretcher.

#### Pr\_20\_93\_52/655 Facing brickwork and blockwork joints

1. Profile: Recessed.

### Pr\_20\_93\_52/660 Fair faced brickwork and blockwork

- 1. Definition of facework: Applicable in this specification to brick and block walling finished fair.
- 2. Definition of painted facework: The only requirement to be waived is that relating to colour.

#### Pr\_20\_93\_52/690 Laying brick and block masonry units generally

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

#### Ss\_25\_13\_50/600 Adverse weather

- 1. Freezing conditions: Do not use frozen materials or lay on frozen surface
- 2. Air temperature
  - 2.1. 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)*.
  - 2.2. 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.*
  - 2.3. Thin joint mortar glue: *Do not lay units outside the temperature limits set by the mortar manufacturer.*
- 3. Temperature of masonry during curing: Above freezing until mortar hardens/ has fully set.
- 4. Newly erected walling
  - 4.1. Protect from precipitation: At all times.

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4.2. Protect from drying out too rapidly: At all times in hot conditions and in drying winds.

#### Ss\_25\_13\_50/601 Cleanliness

1. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

### Ss\_25\_13\_50/605 Execution Standards for masonry structures

1. Standard: To BS EN 1996-2.

### Ss\_25\_13\_50/674 Masonry movement joints

- 1. Joint frequency: 12m
- 2. Joint width: 10mm

#### Ss\_25\_13\_50/757 Laying walling below ground level

1. Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.

#### System completion

#### Ss\_25\_13\_50/895 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

 $\Omega$  End of System



# Ss\_25\_13\_50\_54 Masonry wall systems W01

#### Systems

# Ss\_25\_13\_50\_54 Masonry wall systems W01

- 1. Description: W01 Brick retaining wall. Refer to detail drawing Z9A8403Y20-HLM-XX-WATT01ZZZZZ-DR-L-300002- HARD LANDSCAPING DETAILS-XX-G00400-XX
- 2. System performance: Ss\_25\_13\_50/200 Accuracy of brick and block walling; Ss\_ 25\_ 13\_ 50/206 Design working life of masonry systems; Ss\_25\_13\_50/235 Design of masonry walling
- 3. Masonry units: Common brickwork to match building external wall leaf. Refer to Architectural specification for further information.
- 4. Masonry units specific applications
  - 4.1. Below dpc: Pr\_20\_93\_52\_15 Engineering brick
- 5. Mortar: To match building external wall leaf. Refer to Architectural specification for further information.
- 6. Mortar specific applications
  - 6.1. Pointing: To match building external wall leaf. Refer to Architectural specification for further information.
  - 6.2. Below dpc: To match building external wall leaf. Refer to Architectural specification for further information.
- 7. Concrete fill: Dry lean concrete mix
- 8. Dpcs: To match building external wall leaf. Refer to Architectural specification for further information.
- 9. Dpc joint sealant: To match building external wall leaf. Refer to Architectural specification for further information.
- 10. Wall ties: To structural engineer's details and specification
- 11. Movement joint components: Pr\_30\_31\_76\_16 Construction joint sealants
- 12. 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\_50/757 Laying walling below ground level
- 13. System completion: Ss\_25\_13\_50/895 Verification of performance

#### System performance

# Ss\_25\_13\_50/200 Accuracy of brick and block walling

- 1. Courses: Level and true to line.
- 2. Faces, angle and features: Plumb
- 3. Permissible deviations
  - 3.1. Position in plan of any point in relation to the specified building reference line and/ or point at the same level: ± 10 mm.
  - 3.2. Straightness in any 5 m length:  $\pm$  5 mm.
  - 3.3. Verticality up to 3 m height: ± 10 mm.
  - 3.4. Verticality up to 7 m height:  $\pm$  14 mm.
  - 3.5. Overall thickness of walls: ± 10 mm.
  - 3.6. Level of bed joints up to 5 m (brick masonry):  $\pm$  11 mm.
  - 3.7. Level of bed joints up to 5 m (block masonry): ± 13 mm.



# Ss\_25\_13\_50/206 Design working life of masonry systems

1. Design working life category: Category 4 in accordance with BS EN 1990.

#### Ss\_25\_13\_50/235 Design of masonry walling

1. Standard: To BS EN 1996-1-1.

## **Products**

## Pr\_20\_93\_52\_15 Engineering brick

- 1. Description: Engineering brick to below ground brick work and DPC levels
- 2. Manufacturer: Forterra Building Products Ltd or similar and approved
- 3. Standard: To BS EN 771-1.
- 4. Brick description: Blue rustic butterley brick or similar and approved
- 5. Appearance: Blue rustic or similar and approved
- 6. Work size (length x width x height): 215 x 102 x 65 mm.
- 7. Tolerances
  - 7.1. Mean value: T2.
  - 7.2. Range: R1.
- 8. Compressive strength
  - 8.1. Mean compressive strength (minimum): 75 N/mm2
  - 8.2. Category: II.
- 9. Durability designation: F2.
- 10. Water absorption: Equal to or less than 7%.
- 11. Reaction to fire: Class A1 to BS EN 13501-1.
- 12. Execution: Pr\_20\_93\_52/625 Brickwork and blockwork appearance; Pr\_ 20\_ 93\_ 52/630 Brickwork and blockwork bond; Pr\_20\_93\_52/655 Facing brickwork and blockwork joints; Pr\_20\_93\_52/660 Fair faced brickwork and blockwork; Pr\_20\_93\_52/690 Laying brick and block masonry units generally

# Pr\_30\_31\_76\_16 Construction joint sealants

 Description: Expansion joints to brick wall to match Architectural specification. 10mm joint to be provided every 12m of the brick wall.

#### Execution

#### Pr\_20\_93\_52/625 Brickwork and blockwork appearance

- 1. Brick/ block selection: Do not use units with damaged faces or arrises.
- 2. Cut masonry units: Where cut faces or edges are exposed, cut with table masonry saw.
- 3. Quality control: Lay masonry units to match relevant reference panels.
- 4. Setting out: To produce satisfactory junctions and joints with built-in features and components.
- 5. Coursing: Evenly spaced using gauge rods.
- 6. Lifts: Complete in one operation.

#### Pr\_20\_93\_52/630 Brickwork and blockwork bond

1. Bond type: Half lap stretcher generally. Refer to boundary wall drawings for NGH-HLM-XX-ZZ-DR-L-3012/3013/3014/3015 for details



# Pr\_20\_93\_52/655 Facing brickwork and blockwork joints

1. Profile: Recessed.

#### Pr\_20\_93\_52/660 Fair faced brickwork and blockwork

- 1. Definition of facework: Applicable in this specification to brick and block walling finished fair.
- 2. Definition of painted facework: The only requirement to be waived is that relating to colour.

## Pr\_20\_93\_52/690 Laying brick and block masonry units generally

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

### Ss\_25\_13\_50/600 Adverse weather

- 1. Freezing conditions: Do not use frozen materials or lay on frozen surface
- 2. Air temperature
  - 2.1. 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).*
  - 2.2. 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.*
  - 2.3. Thin joint mortar glue: *Do not lay units outside the temperature limits set by the mortar manufacturer*.
- 3. Temperature of masonry during curing: Above freezing until mortar hardens/ has fully set.
- 4. Newly erected walling
  - 4.1. Protect from precipitation: At all times.
  - 4.2. Protect from drying out too rapidly: At all times in hot conditions and in drying winds.

#### Ss\_25\_13\_50/601 Cleanliness

1. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

#### Ss\_25\_13\_50/605 Execution Standards for masonry structures

1. Standard: To BS EN 1996-2.

#### Ss\_25\_13\_50/674 Masonry movement joints

- 1. Joint frequency: 12m
- 2. Joint width: 10mm



## Ss\_25\_13\_50/757 Laying walling below ground level

1. Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.

#### System completion

# Ss\_25\_13\_50/895 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

 $\Omega$  End of System



#### Systems

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## Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

- 1. Description: F01 Timber Knee Rail
- 2. System performance: Ss\_25\_14\_63/201 Contractor design of fencing systems
- 3. System manufacturer: Jacksons Fencing
- 4. Contact details
  - 4.1. Address: 209 Stowting Common Ashford Kent TN25 6BN
  - 4.2. Telephone: 0800 408 4757
  - 4.3. Web: www.jacksons- securit y.co.uk
  - 4.4. Email: sales@jacksons-fencing.co.uk
- 5. Product reference: Demarcation Devices (Diamond rail fencing)
- 6. Posts: 900 mm-high (200900).
- 7. Rails: 1800 mm-long (640300).
- 8. Execution: Ss\_25\_14\_63/605 Alignment of fences; Ss\_25\_14\_63/607 Fencing work generally; Ss\_25\_14\_63/631 Formation of holes for cast-in fence posts for wooden post and rail fencing systems; Ss\_25\_14\_63/636 Erecting nailed wooden post and rail fencing systems
- 9. System completion: Ss\_25\_14\_63/870 Inspection of fencing systems

#### System performance

# Ss\_25\_14\_63/201 Contractor design of fencing systems

Shared by: Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems and Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 1. Design scope: Detail design and construction of fencing system.
- 2. Detailed design
  - 2.1. Standards: To the Eurocodes appropriate to the nature and location of the structure.
  - 2.2. Deflections and other structural movements: At serviceability limit state, these must be compatible with requirements of the pavement fabric, construction joints and weathertightness.
  - 2.3. Design load criteria: To fencing specialists details.

#### Execution

# Ss\_25\_14\_63/605 Alignment of fences

Shared by: Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems and Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 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.

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- 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\_67\_14 Cleft chestnut pale fencing systems and Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 1. Metal fixings: Protect from corrosion.
- 2. In situ welding: Permitted, subject to completion of and compliance with a 'hot work permit' form .
- 3. Treatment of minor damage to galvanized surfaces
  - 3.1. Repairs to areas of damage less than 40 mm<sup>2</sup>
    - 3.1.1. Method: At least two coats of zinc-rich paint.
    - 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\_63/631 Formation of holes for cast-in fence posts for wooden post and rail fencing systems

- 1. Standard: To BS 1722-7.
- 2. Post centres (maximum): 1800 mm.
- 3. Post settings
  - 3.1. Hole plan dimensions: 300 x 300 mm.
  - 3.2. Hole depth (minimum): 600 mm.
  - 3.3. Concrete fill depth (minimum): Half depth.

# Ss\_25\_14\_63/636 Erecting nailed wooden post and rail fencing systems

- 1. Standard: To BS 1722-7.
- 2. Fence height: 600 mm.
- 3. Number of rails: One.
- 4. Post centres (maximum): 1800 mm.
- 5. Fixing: Rails to be butt-jointed within the middle third of the 150 mm face of a main post. Joints to be staggered so that alternate joints occur on each post. Rails to be nailed (driven in on the skew) to each post with two 100 x 4 mm Annular ring shank nails.
- 6. Fasteners and fittings : Steel nails.

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# System completion

# Ss\_25\_14\_63/870 Inspection of fencing systems

Shared by: Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems and Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 1. Timing: Two weeks prior to date when principal contractor expects work to be practically com plete.
- 2. Period of notice (minimum): Three working days.

Ω End of System



# Ss\_30\_14\_90\_36 Flag and slab unbound paving systems

# Systems

# Ss\_30\_14\_90\_36 Flag and slab unbound paving systems

- 1. Description: Tactile paving to steps
- 2. System performance: Ss\_30\_14\_90/255 Slip and skid resistance of unit pavements Type A
- 3. System manufacturer: Tobermore or equal and approved
- 4. Standard: To BS 7533-8
- 5. Paving course
  - 5.1. Paving units: Pr\_25\_93\_60\_23 Concrete tactile flags P03

# System performance

# Ss\_30\_14\_90/255 Slip and skid resistance of unit pavements Type A

- 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. Demonstrating performance
  - 2.1. Submittals: Laboratory test results.
  - 2.2. Testing company: UKAS accredited (or European equivalent).

# Products

# Pr\_25\_93\_60\_23 Concrete tactile flags P03

- 1. Description: P03 Tactile paving to steps
- 2. Manufactur er: Toberm or eor equal and approved.
- 3. Contact details
  - 3.1. Address: 2 Lisnamuck Road Tobermore Co L'derry BT45 5QF
  - 3.2. Telephone: +44 (0)844 800 5736
  - 3.3. Web: www.tobermore.co.uk
  - 3.4. Email: NBSdataplatform@tobermore.co.uk
- 4. Product reference: Tactile Flag Hazard Warning
- 5. Standard: To BS EN 1339.
- 6. Physical properties
  - 6.1. Colour: Natural.
  - 6.2. Profile
    - 6.2.1.Flag type: Corduroy.
    - 6.2.2.Arrises: Square.
  - 6.3. Dimensions and associated tolerances
    - 6.3.1.Nominal sizes: 400 x 400 x 50 mm.
  - 6.4. Recycled content (minimum): Not less than 5%.
- 7. Skid resistance: Extremely low (>75 USRV).

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# HLM Architects

- 8. Slip resistance: Extremely low (>75 USRV).
- 9. BREEAM rating: A (A+ can be achieved when used with recycled sub-base).
- 10. SurfaceLayer: Hard-wearing surface layer with a minimum of 4 mm and >390 kg/m<sup>3</sup> cement.
- 11. TensileStrength: >5 MPa (Class 3).

 $\Omega$  End of System



#### **Systems**

Architects

HLM

## Ss\_30\_14\_90\_80 Small unit paving overlay systems

- 1. Description: Block paving to entrances and courtyards
- 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. System manufacturer: To civil engineer's details.
- 4. Standard: To BS 7533-1.
- 5. Preparation products: To civil engineer's details.
- 6. Geotextile below granular sub-base: To civil engineer's details.
- 7. Granular sub-base: To civil engineer's details.
- 8. Geotextile below laying course: To civil engineer's details.
- 9. Laying course: Pr\_20\_31\_04\_46 Laying course fine aggregates
- 10. Paving course
  - 10.1.Paving units: Pr\_25\_93\_60\_17 Concrete paving blocks P02
  - 10.2. Jointing: Pr\_20\_31\_04\_44 Jointing fine aggregates
  - 10.3. Movement joints: To civil engineer's details.
- 11.Samples required: Ss\_30\_14\_90/305 Product samples
- 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\_90/781 Final compaction of unbound paving
- 13.System completion: Ss\_30\_14\_90/805 Verification of performance; Ss\_30\_14\_90/801 Protection of completed pavements

#### System performance

#### Ss\_30\_14\_90/251 Accessibility of unit pavements

- 1. Inclusive design: Complete detailed design in accordance with BS 8300-1, allowing for use by children.
- 2. 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

- 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 49.
- 2. Skid resistance: PSV to HA DMRB 7.5.1 of 68+.
- 3. Demonstrating performance
  - 3.1. Submittals: Laboratory test results.
  - 3.2. Testing company: UKAS accredited (or European equivalent).



# Ss\_30\_14\_90/271 Compliance with performance requirements for unit paving systems

- 1. Requirement: Proof of compliance with specified performance.
- 2. Method
  - 2.1. Previous test results: For slip and skid resistance.
  - 2.2. Computer simulation testing: For hydraulic performance.
  - 2.3. Design calculations: For hydraulic performance.
- 3. Submittals
  - 3.1. Format: Test result and certification.
  - 3.2. Timing: Before commencing installation.

#### **Products**

#### Pr\_20\_31\_04\_44 Jointing fine aggregates

- 1. Supplied by: Contractor choice
- 2. Standard: To BS EN 12620.
- 3. Material: Natural sand.
- 4. Colour: Natural.
- 5. Aggregate size and grading category: Graded 0/1 (FP) GF85.
- 6. Fines content: Category f2.
- 7. Drying: Required.

#### Pr\_20\_31\_04\_46 Laying course fine aggregates

- 1. Supplied by: Contractor choice.
- 2. Standard: To BS EN 12620
- 3. Material: Natural sand.
- 4. Aggregate size and grading category: Graded 0/4 (CP) GF85.
- 5. Fines content: Category f4.

#### Pr\_25\_93\_60\_17 Concrete paving blocks P02

- 1. Description: P02 Block Paving
- 2. Manufactur er: Tobermoreor equal and approved.
- 3. Contact details
  - 3.1. Address: 2 Lisnamuck Road Tobermore Co L'derry BT45 5QF
  - 3.2. Telephone: +44 (0)844 800 5736
  - 3.3. Web: www.tobermore.co.uk
  - 3.4. Email: NBSdataplatform@tobermore.co.uk
- 4. Product reference: Tegula | Concrete Block Paving (Tegula 50mm)
- 5. Physical properties
  - 5.1. Colour: Heather.
  - 5.2. Finish: Tumbled.
  - 5.3. Profile
    - 5.3.1.Paver type: Regular plan form.

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5.4. Dimensions and associated tolerances

#### 5.4.1.Nominal sizes: Tegula Trio (197x173x50, 173x173x50 and 130x173x50mm)

- 6. Strength: >3.6 MPa.
- 7. FireRating: A1.
- 8. EnergyUsed: 100%.
- 9. WaterUsed: 100%
- 10. BREEAM rating: A (A+ can be achieved when used with recycled sub-base).

## Ss\_30\_14\_90/305 Product samples

- 1. Purpose: For use as a reference sample.
- 2. Labelling: Clearly label all submitted samples.
- 3. Timing: Before ordering for project.

### Execution

### Ss\_30\_14\_90/601 Installation control samples

- 1. Required samples
  - 1.1. Paving types: Concrete block paving.
  - 1.2. Purpose: For use as an installation reference sample.
  - 1.3. Size (minimum): 1.5 x 1.5 m.
  - 1.4. Location: Contractor choice.
  - 1.5. Features to be included: Edging. Kerb. Junction with building facade. Channel.
- 2. Timing: Construct during preliminary installation. Obtain approval of appearance before proceeding.

# Ss\_30\_14\_90/603 Protection of paving during works

- 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 paved areas to prevent damage from site traffic and plant.

# Ss\_30\_14\_90/605 Adverse weather and unit paving construction

- 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.

Ss\_30\_14\_90\_8 Small unit paving overlay systen Page 19 of 68



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

- 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

- 1. Standard: To BS 7533-4.
- 2. Permissible deviation from specified levels (mm)
  - 2.1. Conventional pavements
    - 2.1.1.Sub-base: -10 to +5 mm.
    - 2.1.2.Roadbase: -10 to +5 mm.
    - 2.1.3.Laying course: -5 to +10 mm.
    - 2.1.4.Surface course: ±6 mm.
- 3. Height of finished paving above features
  - 3.1. At gullies: +6 to +10 mm.
  - 3.2. At drainage channels and kerbs: +3 to +6 mm.

### Ss\_30\_14\_90/613 Regularity of finished paving surface

- 1. Standards: In accordance with BS 7533-3, BS 7533-4 and BS 7533-7.
- 2. Method of measurement: Under a 3 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
- 3. Maximum undulations in the pavement surface
  - 3.1. Precast concrete paving blocks and clay pavers for flexible pavements: 10 mm.
  - 3.2. Precast concrete flags or natural stone slabs: 3 mm.
  - 3.3. Natural stone setts and cobbles, and rigid construction with precast concrete block pavers: 3 mm.
- 4. Sudden irregularities: Not permitted.
- 5. Difference in level between adjacent paving units (maximum): 2 mm.

# Ss\_30\_14\_90/614 Regularity of finished paving surface for accessibility

- 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.

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# Ss\_30\_14\_90/617 Avoidance of colour banding in unit paving

- 1. General: Unless premixed by manufacturer, select from separate packs in rotation to avoid colour banding.
- 2. Number of separate packs: 3.

## Ss\_30\_14\_90/619 Disposal of arisings

- 1. Biodegradable arisings: Remove to recycling facility.
- 2. Tree roots and stumps: Remove from site.
- 3. Litter and nonbiodegradable arisings: Remove from site.

### Ss\_30\_14\_90/781 Final compaction of unbound paving

- 1. Sand dressing: Leave a thin layer of dry fine aggregate jointing material over the paving, sweep clean before practical completion.
- 2. Final compaction of the surface course: In accordance with BS 7533-4.

#### System completion

### Ss\_30\_14\_90/801 Protection of completed pavements

- 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: 24 hours.
    - 1.2.2.Vehicular traffic: 7 days.
- 2. Grass filled paving: Protect from traffic for 6-8 weeks or until grass can tolerate traffic.

#### Ss\_30\_14\_90/805 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.

Ω End of System



# Ss\_30\_60\_45\_85 Traffic kerb systems

### **Systems**

# Ss\_30\_60\_45\_85 Traffic kerb systems

- 1. Description: To concrete kerbs
- 2. Foundations: To civil engineer's details.
- 3. Units: Pr\_25\_93\_45\_18 Concrete kerbs K01; Pr\_25\_93\_45\_18 Concrete kerbs K02; Pr\_25\_93\_45\_18 Concrete kerbs K03
- 4. Haunching: To civil engineer's details.
- 5. Jointing: To civil engineer's details.
- 6. Movement joints: To civil engineer's details.

#### **Products**

### Pr\_25\_93\_45\_18 Concrete kerbs K01

- 1. Description: K01 Pin Kerb Flush
- 2. Manufactur er: Marshalls plc or equal and approved.
- 3. Contact details
  - 3.1. Address: Landscape House Lowfields Business Park Elland West Yorkshire HX5 9HT
  - 3.2. Telephone: +44 (0)330 0574472
  - 3.3. Web: www.marshalls.co.uk
  - 3.4. Email: info@marshalls.co.uk
- 4. Product reference: Standard Edging (Bullnose Edging)
- 5. Standard: To BS EN 1340:2003.
- 6. Physical properties
  - 6.1. Finish: Textured.
  - 6.2. Profile
    - 6.2.1.Designation: BN.
  - 6.3. Dimensions: 50 x 150 x 914 mm.
  - 6.4. Weathering resistance: ≤1.0 kg/m<sup>2</sup> as a mean with no individual value >1.5 kg/m<sup>2</sup> (freeze thaw durability).
  - 6.5. Abrasion resistance: ≤23 mm (Wide Wheel Abrasion Test).
  - 6.6. Unpolished Slip Resistance Value (USRV) (minimum): >45.

# Pr\_25\_93\_45\_18 Concrete kerbs K02

- 1. Description: K02 HB2 Kerb 125mm Upstand
- 2. Manufactur er: Marshalls plc or equal and approved.
- 3. Contact details
  - 3.1. Address: Landscape House Lowfields Business Park Elland

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#### West Yorkshire HX5 9HT

- 3.2. Telephone: +44 (0)330 0574472
- 3.3. Web: www.marshalls.co.uk
- 3.4. Email: info@marshalls.co.uk
- 4. Product reference: Half Battered Kerb
- 5. Standard: To BS EN 1340:2003.
- 6. Physical properties

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- 6.1. Colour: Natural grey.
- 6.2. Finish: Textured.
- 6.3. Profile
  - 6.3.1.Designation: Half battered kerb.
- 6.4. Dimensions: 125 x 255 mm (HB2).
- 6.5. Weathering resistance: ≤1.0 kg/m<sup>2</sup> as a mean with no individual value >1.5 kg/m<sup>2</sup> (freeze thaw durability).
- 6.6. Abrasion resistance: ≤23 mm (Wide Wheel Abrasion Test).
- 6.7. Bending strength: Characteristic bending strength of 3.5 MPa with no individual result less than 2.8 MPa.
- 6.8. Unpolished Slip Resistance Value (USRV) (minimum): >45.

### Pr\_25\_93\_45\_18 Concrete kerbs K03

- 1. Description: K03 Bullnosed Kerb 25mm Upstand
- 2. Manufactur er: Marshalls plc or equal and approved.
- 3. Contact details
  - 3.1. Address: Landscape House Lowfields Business Park Elland West Yorkshire HX5 9HT
  - 3.2. Telephone: +44 (0)330 0574472
  - 3.3. Web: www.marshalls.co.uk
  - 3.4. Email: info@marshalls.co.uk
- 4. Product reference: Bullnosed Kerb
- 5. Standard: To BS EN 1340:2003.
- 6. Physical properties
  - 6.1. Colour: Natural grey.
  - 6.2. Finish: Textured.
  - 6.3. Profile
    - 6.3.1.Designation: BN.
  - 6.4. Dimensions: 125 x 150 x 915 mm.
  - 6.5. Weathering resistance: ≤1.0 kg/m<sup>2</sup> as a mean with no individual value >1.5 kg/m<sup>2</sup> (freeze thaw durability).
  - 6.6. Bending strength: Characteristic bending strength of 3.5 MPa with no individual result less than 2.8 MPa.
  - 6.7. Unpolished Slip Resistance Value (USRV) (minimum): >45.
- 7. Special shapes: Transition 125 x 255 left hand (HB to BN). Transition 125 x 255 right hand (BN to HB).

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 $\Omega$  End of System

# Ss\_35\_10\_25\_34 Ground bearing external ramp systems

### **Systems**

Architects

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# Ss\_30\_14\_05\_06 Asphalt concrete paving systems P01

- 1. Description: P01 Pedestrian asphalt surface
- 2. System performance: To civil engineer's details.
- 3. Standard: To BS EN 13108-1 and PD 6691.
- 4. Subgrade improvement layer: To civil engineer's details.
- 5. Geotextile membrane: To civil engineer's details.
- 6. Granular sub-base: To civil engineer's details.
- 7. Base course: To civil engineer's details.
- 8. Binder course: To civil engineer's details.
- 9. Surface course: To civil engineer's details.
- 10. Edge restraints: Required

# Ss\_35\_10\_25\_34 Ground bearing external ramp systems

- 1. Description: External ramps
- 2. Surface
  - 2.1. Material: Ss\_30\_14\_05\_06 Asphalt concrete paving systems P01
  - 2.2. Perimeters, edge restraints and kerbs.: Required.
  - 2.3. Landings: To match.
- 3. Balustrade guarding: Required.

 $\Omega$  End of System



#### Systems

Architects

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# Ss\_25\_60\_05\_35 Handrail systems

- 1. Description: Handrail to steps
- 2. System performance: Ss\_25\_60\_05/210 Design of balustrade and handrail systems generally; Ss\_25\_60\_05/220 Structural performance of handrails, balustrade and guarding systems
- 3. System manufacturer: Contractor's choice
- 4. Handrails: Pr\_25\_30\_36\_11 Carbon steel handrails R02

### Ss\_35\_10\_25\_35 Ground bearing external stair systems

- 1. Description: External steps
- 2. System manufacturer: Tobermore
- 3. Surface
  - 3.1. Layout: Pr\_25\_30\_90\_18 Concrete step units P04
- 4. Balustrade guarding: Ss\_25\_60\_05\_35 Handrail systems

### System performance

### Ss\_25\_60\_05/210 Design of balustrade and handrail systems generally

1. Detailed design: Complete the design to meet structural and safety requirements of BS 6180 and in accordance with BS 8300-2.

# Ss\_25\_60\_05/220 Structural performance of handrails, balustrade and guarding systems

1. Structure and associated features: Complete the detailed design in accordance with BS 8300-2.

#### **Products**

#### Pr\_25\_30\_36\_11 Carbon steel handrails R02

- 1. Description: Handrail to steps
- 2. Manufacturer: Contractor's choice
- 3. Diameter: 48.3 mm.
- 4. Cross section: Circular.
- 5. Fin ish
  - 5.1. Requirement: Powder coating to BS EN 13438.
  - 5.2. Colour: RAL 7043
  - 5.3. Film thickness (minimum): Coating applicator to determine.
- 6. Accessories
  - 6.1. Materials generally: To match handrail.
  - 6.2. Brackets: Handrail tube bracket with straight flat top, size to suit handrail diameter.
  - 6.3. Base plates and covers: Base plate, size to suit handrail diameter. Cover for base plate, size to suit handrail diameter.
  - 6.4. End caps: Handrail tube scroll, size to suit handrail diameter.



## Pr\_25\_30\_90\_18 Concrete step units P04

- 1. Description: P04 Concrete steps
- 2. Manufacturer: Tobermoreor equal and approved.
- 3. Contact details
  - 3.1. Address: 2 Lisnamuck Road Tobermore Co L'derry BT45 5QF
  - 3.2. Telephone: +44 (0)844 800 5736
  - 3.3. Web: www.tobermore.co.uk
  - 3.4. Email: NBSdataplatform@tobermore.co.uk
- 4. Product reference: Mayfair Step Flags with Contrasting Nosing | Concrete Paving Slab
- 5. Standards: To BS EN 1339.
- 6. Colour: Silver with black delineation strip.
- 7. Fin ish
  - 7.1. Treads: Granite aggregate.
  - 7.2. Risers: Granite aggregate.
- NominalSize: Top and Bottom Steps 400 x 400 x 40 mm Intermediate Steps - 300 x 400 x 40 mm Risers - 400 x 150 x 40 mm.
- 9. Efflorescence: Minimum 12 hour vapour curing to significantly reduce the possibility of efflorescence.
- 10. Strength: >3.5 MPa.
- 11. BREEAM rating: A (A+ can be achieved when used with recycled sub-base).
- 12. Surface finish: Hard wearing surface layer with a minimum layer of 4 mm and >390 kg/m<sup>3</sup> cement.
- 13. PhysicalPropertiesProfileArrises: Chamfered.
- 14. PhysicalPropertiesSlipResistance: Extremely low (>75 USRV).

 $\Omega$  End of System



# Ss\_45\_35\_05\_66 Pit-planted large tree systems

# Systems

# Ss\_45\_35\_05\_66 Pit-planted large tree systems

- 1. Description: To trees in soft landscape
- 2. Standard: Prepare trees and transplant in accordance with BS 8545.
- 3. Preparatory work to soil
  - 3.1. Herbicide: Pr\_45\_31\_37\_76 Selective herbicides
  - 3.2. Fertilizer: Pr\_45\_31\_89\_16 Composted materials; Ss\_45\_35\_05/505 Designed organic fertilizer
- 4. Trees: Pr\_45\_30\_90\_74 Root-balled trees
- 5. Tree pit
  - 5.1. Drainage
    - 5.1.1. Geotextile membrane below drainage layer: Non-woven permeable geotextile, to match civil engineer's specification
    - 5.1.2. Drainage layer: Pr\_20\_31\_04\_13 Coarse general aggregates
    - 5.1.3. Collector drains: To civil engineer's specification.
    - 5.1.4.Geotextile membrane above drainage layer: Non-woven permeable geotextile, to match civil engineer's specification
  - 5.2. Underground supports: Pr\_45\_63\_64\_72 Root ball securing frames
  - 5.3. Tree pit backfill material: Pr\_45\_31\_89\_41 Imported growing media; Ss\_ 45\_ 35\_ 05/509 Site-prepared tree and shrub pit backfilling material
- 6. Tree pit surfacing
  - 6.1. Loose fill tree pit surfacing: Pr\_45\_31\_63\_56 Natural bark mulch
- 7. Execution: Ss\_45\_35\_05/603 Times of year for amenity planting; Ss\_45\_35\_05/605 Climatic conditions for amenity planting; Ss\_45\_35\_05/610 Water restrictions; Ss\_45\_35\_05/611 Disposal of arisings; Ss\_45\_35\_05/612 Cultivation of topsoil; Ss\_45\_35\_05/613 Preparation of undisturbed topsoil; Ss\_45\_35\_05/646 Application rates for ameliorants and fertilizer to backfill; Ss\_45\_35\_05/600 Delivery of soil ameliorants; Ss\_45\_35\_05/607 Notice for tree and shrub planting operations; Ss\_45\_35\_05/621 Applying soil ameliorant to topsoil; Ss\_45\_35\_05/642 Planting amenity trees in pits; Ss\_45\_35\_05/692 Applying loose mulch around trees
- System completion: Ss\_45\_35\_05/801 Operations immediately after planting; Ss\_45\_35\_05/802 Establishment of new planting; Ss\_45\_35\_05/803 Weeding new planting; Ss\_45\_35\_05/806 Watering new planting; Ss\_45\_35\_05/807 Final mulching of planting beds and trees; Ss\_45\_35\_05/807 Final mulching of planting beds and trees; Ss\_45\_35\_05/809 Plants that have failed to thrive; Ss\_45\_35\_05/810 Instructions for maintenance

# **Products**

# Pr\_20\_31\_04\_13 Coarse general aggregates

- 1. Description: Clean gravel layer to tree pit details.
- 2. Supplied by: Contractor's choice.
- 3. Material: Clean gravel or broken stone.
- 4. Particle shape: Angular.
- 5. Aggregate size: Graded, 20/40. with no fines.
- 6. Washing: Required.

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# Pr\_45\_30\_90/305 Nursery stock generally -trees, shrubs and woody climbers

#### Shared by: Pr\_45\_30\_80\_20 Container-grown shrubs

#### 1. General requirements

- 1.1. Condition: Materially undamaged, sturdy, healthy and vigorous.
- 1.2. Appearance: Of good shape and without elongated shoots, appropriate to species and variety.
- 1.3. Hardiness: Grown in a suitable environment and hardened off.
- 1.4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
- 1.5. 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.
- 1.6. Root system and condition: Balanced with branch system.
- 1.7. Species: True to name.
- 2. Delivery label requirements
  - 2.1. Standard: To the National Plant Specification.
  - 2.2. Labels to provide the following information: Full botanical name; Total number; Number of bundles; Part bundles; Supplier's name; Employer's name and project reference; and Plant specification, in accordance with scheduled National Plant Specification categories.

# Pr\_45\_30\_90\_74 Root-balled trees

- 1. Description: Trees in soft landscape.
- 2. General requirements: Pr\_45\_30\_90/305 Nursery stock generally -trees, shrubs and woody climbers
- 3. Supplied by: Contractor's choice.
- 4. Standards: Trees and shrubs to BS 3936-1. In accordance with the National Plant Specification.
- 5. Botanical name: Refer to plant schedule for details.
- 6. Form: Heavy standard.
- 7. Age and condition: Refer to plant schedule for details.
- 8. Girth: Refer to plant schedule for details.
- 9. Height: Refer to plant schedule for details.
- 10. Clear stem height (minimum): Refer to plant schedule for details.
- 11. 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.
- 12. Number of breaks or stems (minimum): Three.
- 13. Origin and provenance: British grown.
- 14. Shape: Natural.
- 15. Execution: Pr\_45\_30\_90/614 Plant handling, storage and transport

# Pr\_45\_31\_37\_76 Selective herbicides

Shared by: Ac\_85\_30\_02/190 Amenity planting maintenance, Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems and Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Description: To be used only when absolutely required.
- 2. Manufacturer: Submit proposals
- 3. Third party certification: Manufactured under a quality system complying with BS EN ISO 9001. or Pesticide Safety Directorate.

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- 4. Target weeds: Perennial weeds.
- 5. Active ingredient(s): 2, 4-dichlorophenoxy acetic acid (2,4-D).
- 6. Carrier: Water.
- 7. Pack size (minimum): 10 L.
- 8. Execution: Pr\_45\_31\_37/601 Application of selective herbicides

# Pr\_45\_31\_63\_56 Natural bark mulch

Shared by: Ac\_85\_30\_02/190 Amenity planting maintenance and Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Description: To be used as Bark Mulch.
- 2. Supplied by: Contractor's choice.
- 3. Source: Local, within a 10 mile radius.
- 4. Quality: Dry, no decomposition, no signs of mould or fungi. Free of methyl bromide and other contam inants.

# Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally

Shared by: Pr\_45\_31\_89\_41 Imported Low Fertility soils

- 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.
- 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. Give notice: If evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.
- 6. 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\_16 Composted materials

- 1. Description: For tree planting
- 2. Supplier: Contractor's choice
- 3. Source: Contractor's choice
- 4. Certification: To PAS 100 and Compost Quality Protocol.
- 5. Compost type: Well rotten composted green material.
- 6. Horticultural parameters
  - 6.1. pH (1:5 water extract): 7.5-8.5.
  - 6.2. Electrical conductivity (maximum, 1:5 water extract): 750 1400 mS/m.
  - 6.3. Moisture content (m/m of fresh weight): 35-55%.
  - 6.4. Organic matter content (minimum): 30%.

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- 6.5. Grading (air-dried samples): 95% passing 25 mm and 90% passing 10 mm screen mesh apertures.
- 6.6. Carbon:Nitrogen ratio (maximum): 20:1.
- 7. Texture: Friable.
- 8. Objectionable odour: Not permitted.

# Pr\_45\_31\_89\_41 Imported growing media

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems and Ac\_85\_30\_01/190 Amenity grass maintenance

- 1. Description: To provide as necessary to make up any deficiency of topsoil and subsoil existing on site and to complete the work.
- 2. General requirements: Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally
- 3. Supplier: Submit proposals.
- 4. Source: Local, within a 10 mile radius.
- 5. Growing medium: Urban tree planting soil.
- 6. Soil textural class
  - 6.1. Standard: To BS 3882.
  - 6.2. Class: Sandy loam.
- 7. Permitted materials for special imported topsoil and growing media
  - 7.1. Permitted materials: Bark.
  - 7.2. Notice: Give notice prior to ordering or using permitted materials.
  - 7.3. Declaration of compliance
    - 7.3.1.Materials generally: In accordance with BS EN 13650.
    - 7.3.2.Composted materials: In accordance with PAS 100.
- 8. Materials not permitted: Peat. Products containing peat. River and canal dredgings.

#### Pr\_45\_63\_64\_72 Root ball securing frames

- 1. Manufacturer: GreenBlue Urban Ltd or equal and approved.
- 2. Contact details
  - 2.1. Address: Northpoint Compass Park Junction Road Bodiam East Sussex TN32 5BS
  - 2.2. Telephone: +44 (0)1580 830800
  - 2.3. Web: www.greenblue.com
  - 2.4. Email: hello@greenblueurban.com
- 3. Product reference: ArborGuy drive-in (SASLCB) or equal and approved.
- 4. Tensioning devices: Galvanized steel cables and ratchet tensioner.
- 5. Anchors
  - 5.1. Type: Drive-in ground anchors.
- 6. Components: 4 x 1000 mm galvanized steel wire and 35 mm x 6 m webbing strap.
- 7. Anchor: Composite.
- 8. Execution: Pr\_45\_63\_64/675 Installing underground guying



## Ss\_45\_35\_05/505 Designed organic fertilizer

- 1. Supplier: SoilFixer, or equal and approved.
- 2. Product: Biochar Granules 0-13 mm grade.
- 3. Standard: In accordance with the Fertiliser Industry Assurance Scheme (FIAS).
- 4. Plant requirements: Establishment.
- 5. Application
  - 5.1. Heavy standard specimen trees
    - 5.1.1. Topsoil: 4kg / tree pit
  - 5.2. Specimen shrub planting
    - 5.2.1.Top soil: 1kg / m2
- 6. Properties
  - 6.1. Qualities: To be heat treated, odourless, free of noxious weeds, soil or sand, free of any harmful pathogens or nematodes and free of any toxic heavy metals.
- 7. Form: Granular.

# Ss\_45\_35\_05/509 Site-prepared tree and shrub pit backfilling material

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Composition: Previously prepared mixture of topsoil excavated from pit and additional soil ameliorants and/ or fertilizer as required.
- 2. Backfill base material: Excavated topsoil.
- 3. Additional soil ameliorant materials: To be confirmed subject to soil test report and recommendation.
- 4. Fertilizer: Not required.

#### Execution

# Pr\_45\_30\_90/614 Plant handling, storage and transport

Shared by: Pr\_45\_30\_80\_20 Container-grown shrubs

- 1. Standard: In accordance with HTA Handling and establishing landscape plants.
- 2. Plants reserved at supplier's premises
  - 2.1. Species: As Plant schedule.
  - 2.2. Pre-delivery inspection: Required. Give notice.
  - 2.3. Labelling: Identify inspected plants as reserved for use on this project.
- 3. Extreme cold: Protect plants from frost.
- 4. Handling: Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
- 5. Packaging of bulk quantities: Pallets or bins sealed with polyethylene and shrink wrapped.

# Pr\_45\_31\_37/601 Application of selective herbicides

- 1. Target weeds: Included in the Weeds Act 1959, section 2 or the Wildlife and Countryside Act 1981 (as amended), schedule 9, part II.
- 2. Application rate: See supplier's catalogues for details
- 3. Timing and frequency: Apply once during summer as instructed.
- 4. Areas not to be treated: Desirable herbaceous plantings.
- 5. Disposal of arisings
  - 5.1. Timing: Allow recommended period for herbicide to take effect before clearing dead weeds.

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5.2. Operations: Remove to contractor's tip.

# Pr\_45\_63\_64/675 Installing underground guying

- 1. Installation
  - 1.1. Deadman anchors: Ensure that anchors do not impede the rootball.
  - 1.2. Drive-in anchors: Drive anchors to the required depth in the bottom of the tree pit and firmly fix in position prior to loading.
  - 1.3. Guying: Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners. Ensure no damage to the rootball.

## Ss\_45\_35\_05/600 Delivery of soil ameliorants

- 1. Submissions: Details of recent chemical and physical analysis before ordering.
- 2. Delivery to site: In original, sealed and fully labelled containers.

# Ss\_45\_35\_05/603 Times of year for amenity planting

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Deciduous trees and shrubs: Late October to late March.
- 2. Conifers and evergreens: September/ October or April/ May.
- 3. Herbaceous plants (including marginal): September/ October or March/ April.
- 4. Wildflower plugs: Late August to mid-November or March/ April.
- 5. Container grown plants: At any time if ground and weather conditions are favourable.
- 6. Dried herbaceous bulbs, corms and tubers: September/ October.
- 7. Colchicum (crocus): July/ August.
- 8. Green herbaceous bulbs: After flowering in spring.
- 9. Aquatic plants: May/ June or September/ October.

# Ss\_45\_35\_05/605 Climatic conditions for amenity planting

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

1. General: Carry out the work while soil and weather conditions are suitable. Do not plant in strong winds.

#### Ss\_45\_35\_05/607 Notice for tree and shrub planting operations

- 1. Give notice before: Applying fertilizer. Applying herbicide. Setting out. Delivery of plants. Planting trees into previously dug pits.
- 2. Period of notice: 1 week.

#### Ss\_45\_35\_05/610 Water restrictions

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Planting: If water supply is or is likely to be restricted by emergency legislation, do not carry out planting until instructed.
- 2. After planting: If planting has been carried out, obtain instructions on watering.

# Ss\_45\_35\_05/611 Disposal of arisings

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Generally: Leave the works in a clean, tidy condition at completion.
- 2. Surplus topsoil: Remove from site.

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- 3. Biodegradable arisings: Remove to recycling facility.
- 4. Grass cuttings: Remove to recycling facility.
- 5. Tree roots and stumps: Remove from site.
- 6. Shrub and tree prunings: Remove to recycling facility.
- 7. Litter and nonbiodegradable arisings: Remove from site.
- 8. Diseased plant material: Remove from site.
- 9. Stones removed during cultivation and topsoil preparation: Remove from site.
- 10. Contamination: Remove from site material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

#### Ss\_45\_35\_05/612 Cultivation of topsoil

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. General requirements: Ss\_45\_35\_05/611 Disposal of arisings
- 2. Grading and cultivation
  - 2.1. Standard: In accordance with BS 4428.
  - 2.2. Category: A.
- 3. Working conditions
  - 3.1. Soil condition: Reasonably dry and workable.
  - 3.2. Timing: Within a few days before planting.
  - 3.3. Weather and ground conditions: Suitably dry.
- 4. Compacted topsoil: Break up to full depth.
- 5. Soil with root spread of trees and shrubs to be retained: Do not dig or cultivate.
- 6. Tilth

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Architects

- 6.1. Generally: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
- 6.2. Depth: 450mm Depth for Perennials and Shrubs Planting Beds.
- 6.3. Particle size (maximum): 10 mm.
- 7. Surface
  - 7.1. Contours: Grade to accurate configurations as shown on drawings.
  - 7.2. Hollows and ridges: Not permitted.
- 8. Remove visible weeds, roots and large stones with any dimensions exceeding: 50 mm.
- 9. Give notice: If required levels cannot be achieved by movement of existing soil.

#### Ss\_45\_35\_05/613 Preparation of undisturbed topsoil

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. General requirements: Ss\_45\_35\_05/611 Disposal of arisings
- 2. Hard ground: Break up thoroughly.
- 3. Remove visible roots and large stones with a diameter greater than: 50mm.
- 4. Areas covered with turf or thick sward: Plough or dig over to full depth of topsoil.
- 5. Fallow period (minimum): One month.

#### Ss\_45\_35\_05/621 Applying soil ameliorant to topsoil

- 1. Locations for application: Tree pits.
- 2. Fully incorporate into topsoil to a depth of: 300 mm.
- 3. Application



- 3.1. Method: Spread evenly.
- 3.2. Timing: Apply prior to cultivation.
- 3.3. Rate: Refer to Refer to Ss\_45\_35\_05/505 Designed organic fertilizer and Pr\_45\_31\_89\_41 Composted materials

#### Ss\_45\_35\_05/642 Planting amenity trees in pits

- 1. Pit dimensions
  - 1.1. Plan size (minimum): 900 mm diameter.
  - 1.2. Depth (minimum): 900 mm.
- 2. Sloping ground: Maintain minimum depth throughout.
- 3. Excavated material: Separate topsoil and subsoil material and stockpile for backfilling.
- 4. Pit bottoms
  - 4.1. Generally: Break up base.
  - 4.2. Profile: Slightly raise centre.
  - 4.3. Break up depth (nominal): 150 mm.
  - 4.4. Treatment: Work soil ameliorant into pit bottoms.
- 5. Pit sides
  - 5.1. Profile: Vertical.
  - 5.2. Treatment: Scarify.

#### Ss\_45\_35\_05/646 Application rates for ameliorants and fertilizer to backfill

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

1. Ameliorant and conditioner application rate (minimum): Refer to: Ss\_45\_35\_05/505 Designed organic fertilizer and Pr\_45\_31\_89\_41 Composted materials

#### Ss\_45\_35\_05/692 Applying loose mulch around trees

- 1. Preparation: Clear weeds. Water soil thoroughly.
- 2. Coverage area: In a circular area of 500 mm radius measured from tree stem.
- 3. Depth: 75 mm.
- 4. Finished level of mulch: 30 mm below adjacent grassed or paved areas.

#### System completion

#### Ss\_45\_35\_05/801 Operations immediately after planting

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Watering: Immediately after planting, water thoroughly. Do not damage or displace plants or soil.
- 2. 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\_67 Pit-planted small tree and shrub systems

- 1. Duration: One full growing season from the date of planting.
- 2. 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\_05/803 Weeding new planting

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. All planting areas: Keep planting beds clear of weeds.
- 2. Trees and shrubs
  - 2.1. Area: Maintain a weed-free area around each tree and shrub.
  - 2.2. Diameter (minimum): The larger of 1 m or the surface of the original planting pit.

#### Ss\_45\_35\_05/806 Watering new planting

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Quantity: Wet full depth of topsoil.
- 2. Application: Even and without damaging or displacing plants or soil.
- 3. Trees: Spray crown when in leaf during warm weather.
- 4. Frequency: As necessary to ensure establishment and continued thriving of planting.
- 5. Interval (nominal) : As Landscape maintenance schedule.
- 6. Timing: After dusk.

#### Ss\_45\_35\_05/807 Final mulching of planting beds and trees

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Timing: At end of the maintenance period.
- 2. Watering: Thoroughly moisten soil before remulching. Water where necessary.
- 3. Depth of mulch (minimum): 75mm.

#### Ss\_45\_35\_05/809 Plants that have failed to thrive

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Defects due to materials or workmanship not in accordance with the Contract
  - 1.1. Exclusions: Theft or malicious damage after completion.
  - 1.2. Rectification: Replace with equivalent plants/ trees/ shrubs.
- 2. Replacements: To match size of adjacent or nearby plants of same species or match original specification, whichever is the greater.
- 3. Timing of making good: During the next suitable planting season.

#### Ss\_45\_35\_05/810 Instructions for maintenance

Shared by: Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Recommended procedures for maintenance of planting work for one year
  - 1.1. Format: Printed report.
  - 1.2. Timing: Before end of maintenance period.
  - 1.3. Content: Schedule of ongoing maintenance problems experienced during the rectification period.

 $\Omega$  End of System



### Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

#### Systems

#### Ss\_45\_35\_05\_67 Pit-planted small tree and shrub systems

- 1. Description: Hedgerow planting
- 2. Preparatory work to soil
  - 2.1. Herbicide: Pr\_45\_31\_37\_76 Selective herbicides
  - 2.2. Fertilizer: Not required.
  - 2.3. Additional materials: Not required.
  - 2.4. Weed control fabric: Not required.
- 3. Trees and shrubs: Pr\_45\_30\_80\_20 Container-grown shrubs
- 4. Tree and shrub pit backfill material: Ss\_45\_35\_05/509 Site-prepared tree and shrub pit backfilling material; Pr\_45\_31\_89\_41 Imported growing media
- 5. Mulch: Pr\_45\_31\_63\_56 Natural bark mulch
- 6. Execution: Ss\_45\_35\_05/601 Amenity planting generally; Ss\_45\_35\_05/603 Times of year for amenity planting; Ss\_45\_35\_05/605 Climatic conditions for amenity planting; Ss\_45\_35\_05/609 Protection of existing grass during amenity planting; Ss\_45\_35\_05/610 Water restrictions; Ss\_45\_35\_05/612 Cultivation of topsoil; Ss\_45\_35\_05/613 Preparation of undisturbed topsoil; Ss\_45\_35\_05/615 Applying compost to topsoil; Ss\_45\_35\_05/631 Random setting out of amenity planting; Ss\_45\_35\_05/646 Application rates for ameliorants and fertilizer to backfill; Ss\_45\_35\_05/691 Applying loose mulch to planting beds
- System completion: Ss\_45\_35\_05/801 Operations immediately after planting; Ss\_45\_35\_05/802 Establishment of new planting; Ss\_45\_35\_05/803 Weeding new planting; Ss\_45\_35\_05/806 Watering new planting; Ss\_45\_35\_05/807 Final mulching of planting beds and trees; Ss\_45\_35\_05/809 Plants that have failed to thrive; Ss\_45\_35\_05/810 Instructions for maintenance

#### **Products**

#### Pr\_45\_30\_80\_20 Container-grown shrubs

- 1. General requirements: Pr\_45\_30\_90/305 Nursery stock generally –trees, shrubs and woody climbers
- 2. Supplied by: Submit proposals
- 3. Standards: In accordance with the National Plant Specification.
- 4. Root condition and protection: 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. Container to have adequate holes for drainage when placed on any substrate.
- 5. Execution: Pr\_45\_30\_90/614 Plant handling, storage and transport

See Pr\_45\_30\_90/305 Nursery stock generally –trees, shrubs and woody climbers in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_37\_76 Selective herbicides in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_63\_56 Natural bark mulch in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_89\_41 Imported growing media in Ss\_45\_35\_05\_66 Pit-planted large tree systems

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See Ss\_45\_35\_05/509 Site-prepared tree and shrub pit backfilling material in Ss\_ 45\_ 35\_ 05\_ 66 Pit-planted large tree systems

#### Execution

See Pr\_45\_30\_90/614 Plant handling, storage and transport in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_37/601 Application of selective herbicides in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Ss\_45\_35\_05/601 Amenity planting generally

- 1. Standard: To HTA Handling and establishing landscape plants.
- 2. Planting: Upright or well balanced with best side to front.

See Ss\_45\_35\_05/603 Times of year for amenity planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/605 Climatic conditions for amenity planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Ss\_45\_35\_05/609 Protection of existing grass during amenity planting

- 1. General: Protect areas affected by planting operations, using boards or tarpaulins.
- 2. Excavated or imported material: Do not place directly on grass.
- 3. Duration of planting operations: Minimum period.

See Ss\_45\_35\_05/610 Water restrictions in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/611 Disposal of arisings in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/612 Cultivation of topsoil in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/613 Preparation of undisturbed topsoil in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Ss\_45\_35\_05/615 Applying compost to topsoil

- 1. Locations for application: To be confirmed subject to soil test result and recommendation
- 2. Application rate: To be confirmed subject to soil test result and recommendation
- 3. Timing: Apply prior to cultivation.

#### Ss\_45\_35\_05/631 Random setting out of amenity planting

- 1. Layout: Random groups of 3, 5, 7 of the same species, such that no three plants are aligned.
- 2. Planting density: As Plant schedule.

#### Ss\_45\_35\_05/633 Regular setting out of amenity planting For hedging

- 1. Spacing: In regular, staggered rows.
- 2. Planting density: 500mm centres double staggered row at 300mm offset.

See Ss\_45\_35\_05/646 Application rates for ameliorants and fertilizer to backfill in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Ss\_45\_35\_05/691 Applying loose mulch to planting beds

- 1. Preparation: Clear weeds. Water soil thoroughly.
- 2. Coverage: 75 mm depth.
- 3. Finished level of mulch: 30 mm below adjacent grassed or paved areas.

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#### System completion

See Ss\_45\_35\_05/801 Operations immediately after planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/802 Establishment of new planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/803 Weeding new planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/806 Watering new planting in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/807 Final mulching of planting beds and trees in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/809 Plants that have failed to thrive in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Ss\_45\_35\_05/810 Instructions for maintenance in Ss\_45\_35\_05\_66 Pit-planted large tree systems

 $\Omega$  End of System



### Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

#### Systems

#### Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 1. Description: Temporary protection fencing to meadow seeded areas
- 2. System performance: Ss\_25\_14\_63/201 Contractor design of fencing systems
- 3. System manufacturer: Jacksons Fencing
- 4. Contact details
  - 4.1. Address: 209 Stowting Common Ashford Kent TN25 6BN
  - 4.2. Telephone: 0800 408 4757
  - 4.3. Web: www.jacksons- securit y.co.uk
  - 4.4. Email: sales@jacksons-fencing.co.uk
- 5. Product reference: Cleft Chestnut Fencing
- 6. Posts: 1500mm high post, 900mm high panel, spacing to manufacturer's recommendation.
- 7. Post foundations: Set in concrete.
- 8. Wire: Two or three rows of 2 mm galvanized wire strands.
- 9. Continuous materials: Cleft, peeled and pointed at one end.
- 10. Fence topping: Pointed.
- 11. Site applied finishes: None.
- 12. System accessories: None.
- 13. Execution: Ss\_25\_14\_63/605 Alignment of fences; Ss\_25\_14\_63/607 Fencing work generally
- 14. System completion: Ss\_25\_14\_63/870 Inspection of fencing systems

# Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

- 1. Description: To the meadow and rain garden areas.
- 2. System performance: Ss\_45\_35\_45/220 Performance of grass swards and wildflower meadows
- 3. Topsoil: Pr\_45\_31\_89\_41 Imported Low Fertility soils
- 4. Temporary Protective Fencing : Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems
- 5. Seed: Pr\_45\_30\_76\_97 Wildflower seeds Meadow seed; Pr\_45\_30\_76\_97 Wildflower seeds Rain Garden Seed
- 6. Execution: Ss\_45\_35\_45/601 Notice for seeding and turfing operations; Ss\_45\_35\_45/612 Cultivation of topsoil; Ss\_45\_35\_45/623 Finished levels of topsoil after settlement; Ss\_45\_35\_45/602 Water restrictions; Ss\_45\_35\_45/624 Setting out of seeded and turfed areas; Ss\_45\_35\_45/631 Final preparatory works to seed beds and areas to be turfed; Ss\_45\_35\_45/635 Wildflower seeding
- 7. System completion: Ss\_45\_35\_45/802 Seeding and turf maintenance up to the end of the rectification period; Ss\_45\_35\_45/803 Failures in the establishment period; Ss\_45\_35\_45/811 Watering; Ss\_45\_35\_45/821 Finishing edges to seeded or turfed areas; Ss\_45\_35\_45/801 Seeding and turf maintenance up to practical completion; Ss\_45\_35\_45/854 Cutting meadows prior to practical completion

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#### System performance

See Ss\_25\_14\_63/201 Contractor design of fencing systems in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

#### Ss\_45\_35\_45/220 Performance of grass swards and wildflower meadows

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 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**

#### Pr\_45\_30\_76\_97 Wildflower seeds Meadow seed

- 1. Description: Meadow seed mix to seeded meadow areas
- 2. Supplied by: Emorsgate Seed or equal and approved
- 3. Standard: In accordance with the Flora Locale Code of practice for collectors, growers and suppliers of native flora. Planting with wildlife in mind.
- 4. Mix type: EM10 Tussock Mixture
- 5. Species: Refer to planting schedule for specification.
- 6. Origin and provenance: UK origin.
- 7. Germination testing: Submit germination test results to ISTA International rules for seed testing.
- 8. Freshness: Produced for the current growing season.
- 9. Execution: Pr\_45\_30\_76/603 Protection of seeds

#### Pr\_45\_30\_76\_97 Wildflower seeds Rain Garden Seed

- 1. Description: Rain garden mix to seeded rain garden areas
- 2. Supplied by: Emorsgate Seed or equal and approved
- 3. Standard: In accordance with the Flora Locale Code of practice for collectors, growers and suppliers of native flora. Planting with wildlife in mind.
- 4. Mix type: EM8 Meadow Mixture for Wetlands
- 5. Species: Refer to planting schedule for specification.
- 6. Origin and provenance: UK origin.
- 7. Germination testing: Submit germination test results to ISTA International rules for seed testing.
- 8. Freshness: Produced for the current growing season.
- 9. Execution: Pr\_45\_30\_76/603 Protection of seeds

See Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Pr\_45\_31\_89\_41 Imported Low Fertility soils

- 1. Description: For meadow and rain garden seeded areas only
- 2. General requirements: Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally
- 3. Supplier: Contractor's choice
- 4. Source: Local, within a ten-mile radius.
- 5. Growing medium: Low Fertility soils to BS3882:2015
- 6. Soil textural class

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- 6.1. Standard: To BS 3882.
- 6.2. Class: Sandy loam.
- 7. Permitted materials for special imported topsoil and growing media
  - 7.1. Permitted materials: Composted coir fibre.
  - 7.2. Notice: Give notice prior to ordering or using permitted materials.
  - 7.3. Declaration of compliance
    - 7.3.1.Materials generally: In accordance with BS EN 13650.
    - 7.3.2.Composted materials: In accordance with PAS 100.
- 8. Materials not permitted: Peat. Products containing peat. River and canal dredgings.

#### Execution

#### Pr\_45\_30\_76/603 Protection of seeds

Shared by: Pr\_45\_30\_76\_34 Grass seeds

1. Protection during handling, storage and transport: Protect seeds from moisture and frost.

See Ss\_25\_14\_63/605 Alignment of fences in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

See Ss\_25\_14\_63/607 Fencing work generally in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

#### Ss\_45\_35\_45/601 Notice for seeding and turfing operations

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Give notice before: Preparing seed bed.
- 2. Period of notice: Two weeks.

#### Ss\_45\_35\_45/602 Water restrictions

- 1. Timing of seeding or turfing operations: If water supply is or is likely to be restricted by emergency legislation do not carry out seeding/ turfing until instructed.
- 2. After seeding or turfing: If seeding or turfing has been carried out and the water supply is or is likely to be restricted by emergency legislation, obtain instructions on watering.

#### Ss\_45\_35\_45/612 Cultivation of topsoil

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Grading and cultivation
  - 1.1. Standard: In accordance with BS 4428.
  - 1.2. Category: C.
  - 1.3. Depth: 150 mm.
- 2. Timing: Two to three days before seeding.
- 3. Working conditions
  - 3.1. Soil condition: Reasonably dry and workable.
  - 3.2. Weather conditions: Suitably dry.
- 4. Compacted topsoil: Break up to full depth.
- 5. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.
- 6. Surface

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- 6.1. Contours: Grade to accurate configurations as shown on drawings.
- 6.2. Hollows and ridges: Not permitted.
- 7. Remove visible weeds, roots and large stones with any dimensions exceeding: 75 mm.
- 8. Marrying in with adjacent levels: Extend cultivation into adjacent areas sufficiently to ensure full marrying in with no step in level.
- 9. Notice: Give notice if required levels cannot be achieved by movement of existing soil.

#### Ss\_45\_35\_45/623 Finished levels of topsoil after settlement

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Finished level of topsoil for grass or meadows in relation to adjoining paving, kerbs or hard surfaces: 25 mm below.
- 2. Finished level of topsoil for grass or meadows in relation to DPC of adjoining buildings (minimum): 150 mm below.
- 3. Finished level of topsoil for grass or meadows in relation to adjoining planting areas: 25 mm below.
- 4. Tolerance for specified levels on sportsfields
  - 4.1. From levels shown on drawings: ±75 mm.
  - 4.2. Evenness along a 2 m straight edge: ±25 mm.
- 5. Within root spread of existing trees: Do not change levels.
- 6. Adjoining grassed areas: Marry in with adjacent levels.
- 7. Thickness of turf or top dressing: Included in stated values.

#### Ss\_45\_35\_45/624 Setting out of seeded and turfed areas

- 1. Boundaries: Mark clearly.
- 2. Delineation: In straight lines or smoothly flowing curves as shown on drawings.

# Ss\_45\_35\_45/631 Final preparatory works to seed beds and areas to be turfed

- 1. Seed bed
  - 1.1. Generally: Loosen, aerate and break up topsoil to a tilth suitable for blade grading. Reduce to fine, firm tilth with good crumb structure. Remove visible weeds.
  - 1.2. Depth of final cultivation: 100 mm.
  - 1.3. Surface preparation: Rake to a regular, even surface, friable and lightly firmed but not over compacted.
  - 1.4. Size (minimum) of surface stones and earth clods to be removed
    - 1.4.1.General grass areas to be seeded: 10 mm.
    - 1.4.2. Fine lawn areas to be seeded: 10 mm.
    - 1.4.3.Areas to be turfed: 25 mm.
    - 1.4.4.Meadow areas: 50 mm.

#### Ss\_45\_35\_45/635 Wildflower seeding

- 1. Generally: Establish good seed contact with the seed bed.
- 2. Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- 3. Distribution: Two equal sowings at right angles to each other and diagonally to main axis.
- 4. Timing: March to May or August to October.

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- 5. Application rate: To manufacturer's recommendation.
- 6. Raking and firming of seed bed: Lightly rake or harrow the seed bed after seeding. Firm with a lightweight roller.

#### System completion

See Ss\_25\_14\_63/870 Inspection of fencing systems in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

#### Ss\_45\_35\_45/801 Seeding and turf maintenance up to practical completion

- 1. Generally: Maintain in a manner appropriate to the intended use. Leave the works in a clean, tidy condition.
- 2. Seeded and turfed areas
  - 2.1. Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
  - 2.2. Waterlogging and compaction: Prevent.
  - 2.3. Damage: Repair trampling, abrasion or scalping.
  - 2.4. Litter and fallen leaves: Remove regularly to maintain a neat appearance.
- 3. Visits to site for inspection
  - 3.1. Notice: Give notice before visiting site up to practical completion
  - 3.2. Period of notice: One week.

# Ss\_45\_35\_45/802 Seeding and turf maintenance up to the end of the rectification period

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Generally: Maintain in a manner appropriate to the intended use. Leave the works in a clean, tidy condition.
- 2. Seeded and turfed areas
  - 2.1. Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
  - 2.2. Waterlogging and compaction: Prevent.
  - 2.3. Damage: Repair trampling, abrasion or scalping.
  - 2.4. Litter and fallen leaves: Remove regularly to maintain a neat appearance.
- 3. Visits to site for inspections
  - 3.1. Notice: Give notice before visiting site up to the end of the rectification period.
  - 3.2. Period of notice: One week.

#### Ss\_45\_35\_45/803 Failures in the establishment period

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Defective materials or workmanship: Areas that have failed to thrive.
- 2. Exclusions: Theft or malicious damage.
- 3. Method of making good: Re-cultivation and re-seeding/ re-turfing.
- 4. Timing of making good: The next suitable planting season.

#### Ss\_45\_35\_45/811 Watering

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix



- 1. Quantity: Wet full depth of topsoil.
- 2. Application: Even and without displacing seed, seedlings or soil.
- 3. Frequency: As necessary to ensure the establishment and continued thriving of seeding and turfing.

#### Ss\_45\_35\_45/821 Finishing edges to seeded or turfed areas

Shared by: Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Finishing edges: Draw back adjacent topsoil and re-form edges to neat straight lines or smooth flowing curves, sloping slightly back from vertical. Keep clear of adjacent topsoil or mulch.
- 2. Turf edging: Keep moist at all times.

#### Ss\_45\_35\_45/854 Cutting meadows prior to practical completion

- 1. Conditions for cutting: When the sward is reasonably dry.
- 2. Preparation: Before each cut remove litter and debris.
- 3. Initial cutting
  - 3.1. Height: 100 mm.
  - 3.2. Timing: Late July/August
- 4. Cuttings: Spread evenly over cut areas and remove from site after three days.

 $\Omega$  End of System

### Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

#### Systems

Architects

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#### Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems

- 1. Description: Temporary protection fencing to grass seeded areas
- 2. System performance: Ss\_25\_14\_63/201 Contractor design of fencing systems
- 3. System manufacturer: Jacksons Fencing
- 4. Contact details
  - 4.1. Address: 209 Stowting Common Ashford Kent TN25 6BN
  - 4.2. Telephone: 0800 408 4757
  - 4.3. Web: www.jacksons- securit y.co.uk
  - 4.4. Email: sales@jacksons-fencing.co.uk
- 5. Product reference: Cleft Chestnut Fencing
- 6. Posts: 1500mm high post, 900mm high panel, spacing to manufacturer's recommendation.
- 7. Post foundations: Set in concrete.
- 8. Wire: Two or three rows of 2 mm galvanized wire strands.
- 9. Continuous materials: Cleft, peeled and pointed at one end.
- 10. Fence topping: Pointed.
- 11. Site applied finishes: None.
- 12. System accessories: None.
- 13. Execution: Ss\_25\_14\_63/605 Alignment of fences; Ss\_25\_14\_63/607 Fencing work generally
- 14. System completion: Ss\_25\_14\_63/870 Inspection of fencing systems

#### Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

- 1. Description: To be used for General Amenity Grass Seed Areas.
- 2. System performance: Ss\_45\_35\_45/220 Performance of grass swards and wildflower meadows
- 3. Topsoil preparation
  - 3.1. Herbicide: Pr\_45\_31\_37\_76 Selective herbicides
- 4. Temporary Protection Fencing: Ss\_25\_14\_67\_14 Cleft chestnut pale fencing systems
- 5. Seed: Pr\_45\_30\_76\_34 Grass seeds
- Execution: Ss\_45\_35\_45/601 Notice for seeding and turfing operations; Ss\_ 45\_ 35\_ 45/612 Cultivation of topsoil; Ss\_45\_35\_45/633 Grass seeding; Ss\_45\_35\_45/623 Finished levels of topsoil after settlement
- System completion: Ss\_45\_35\_45/802 Seeding and turf maintenance up to the end of the rectification period; Ss\_45\_35\_45/803 Failures in the establishment period; Ss\_45\_35\_45/811 Watering; Ss\_45\_35\_45/821 Finishing edges to seeded or turfed areas; Ss\_45\_35\_45/851 First cut of grassed areas; Ss\_45\_35\_45/853 Cutting grassed areas prior to practical completion

#### System performance

See Ss\_25\_14\_63/201 Contractor design of fencing systems in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

See Ss\_45\_35\_45/220 Performance of grass swards and wildflower meadows in Ss\_ 45\_ 35\_ 45\_ 33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

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#### **Products**

#### Pr\_45\_30\_76\_34 Grass seeds

Shared by: Ac\_85\_30\_01/190 Amenity grass maintenance

- 1. Supplied by: Germinal Seeds or equal and approved.
- 2. Mix type: A19 All Purpose Landscaping
- 3. Species: Refer to Planting Schedule for Specification
- 4. Certification
  - 4.1. Standard: In accordance with EC purity and germination regulations and DEFRA Higher Voluntary Standard.
  - 4.2. Level of certification: Blue label certification.
  - 4.3. Submittals: Official Seed Testing Station certificate of germination, purity and composition.
- 5. Freshness: Produced for the current growing season.
- 6. Execution: Pr\_45\_30\_76/603 Protection of seeds

See Pr\_45\_31\_37\_76 Selective herbicides in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Execution

See Pr\_45\_30\_76/603 Protection of seeds in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

See  $Pr_45_31_37/601$  Application of selective herbicides in  $Ss_45_35_05_66$  Pit-planted large tree system s

See Ss\_25\_14\_63/605 Alignment of fences in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

See Ss\_25\_14\_63/607 Fencing work generally in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

See Ss\_45\_35\_45/601 Notice for seeding and turfing operations in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

See Ss\_45\_35\_45/612 Cultivation of topsoil in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

See Ss\_45\_35\_45/623 Finished levels of topsoil after settlement in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

#### Ss\_45\_35\_45/633 Grass seeding

- 1. Generally: Establish good seed contact with the seed bed.
- 2. Method: To suit soil type, proposed usage, location and weather conditions during and after sowing.
- 3. Distribution: Two equal sowings at right angles to each other and diagonally to main axis.
- 4. Timing: April to October.
- 5. Raking and firming of seed bed: Lightly rake or harrow the seed bed after seeding. Firm with a lightweight roller.

#### System completion

See Ss\_25\_14\_63/870 Inspection of fencing systems in Ss\_25\_14\_63\_97 Wood post and rail fencing systems R01

See Ss\_45\_35\_45/802 Seeding and turf maintenance up to the end of the rectification period in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed HLM & LD Ss\_45\_35\_45\_35\_45

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See Ss\_45\_35\_45/803 Failures in the establishment period in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

See Ss\_45\_35\_45/811 Watering in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

See Ss\_45\_35\_45/821 Finishing edges to seeded or turfed areas in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

#### Ss\_45\_35\_45/851 First cut of grassed areas

- 1. Conditions for cutting: When grass is reasonably dry.
- 2. Height of initial growth (nominal): 40-75 mm.
- 3. Preparation
  - 3.1. Debris and litter: Remove from site.
  - 3.2. Stones and earth clods larger than 25 mm in any dimension: Remove from site.
- 4. Height of first cut (nominal): 35 mm.
- 5. Arisings: Remove for composting on site.

#### Ss\_45\_35\_45/853 Cutting grassed areas prior to practical completion

- 1. Conditions for cutting : When grass is reasonably dry.
- 2. Preparation: Before each cut remove litter and debris.
- 3. Height of growth at any time (maximum): 50 mm.
- 4. Cutting
  - 4.1. Timing: As and when necessary.
  - 4.2. Height (nominal): 25 mm.
  - 4.3. Arisings: Remove from site.
- 5. Trimming
  - 5.1. Locations: All edges.
  - 5.2. Arisings: Remove from site.

 $\Omega$  End of System



### Ss\_45\_55\_05\_29 Animal species introduction systems Biodiverse Enhancement

#### Systems

# Ss\_45\_55\_05\_29 Animal species introduction systems Biodiverse Enhancement

- 1. Description: Bat, and Bird Boxes are to be recommended by the Project Ecologist.
- 2. System performance: Ss\_45\_55\_05/220 Biodiversity
- 3. Introduction
  - 3.1. Species: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4-1-H00100
  - 3.2. Source: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4-1-H00100
  - 3.3. Proposed measures: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4-1-H00100
- 4. Welfare aids
  - 4.1. Roosting and nesting boxes: Pr\_40\_30\_04\_06 Bat boxes; Pr\_40\_30\_04\_08 Bird boxes

#### System performance

#### Ss\_45\_55\_05/220 Biodiversity

- 1. Source data provided for reference and verification: To Preliminary Ecological Appraisal Z9A8416Y20- ARC- XX- XX- RP- Y- 10- S4- 1- H00100
- 2. Target species: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4-1-H00100
- 3. Biodiversity targets
  - 3.1. Requirement: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4- 1-H00100
  - 3.2. Timing: To Preliminary Ecological Appraisal Z9A8416Y20-ARC-XX-XX-RP-Y-10-S4-1-H00100

#### Products

#### Pr\_40\_30\_04\_06 Bat boxes

- 1. Description: Bat Boxes
- 2. Type: Large colony bat box by the Nestbox Company.

#### Pr\_40\_30\_04\_08 Bird boxes

- 1. Description: Bird Boxes
- 2. Type: Schwegler 1B Nest Box.

Ω End of System



### Ss\_50\_70\_85\_08 Bioretention area systems

#### **Systems**

#### Ss\_50\_70\_85\_08 Bioretention area systems

- 1. Description: To Rain Gardens.
- 2. Collector drains
  - 2.1. Pipe bedding and surround
    - 2.1.1.Bedding: Pr\_20\_31\_04\_07 Base, bed and fill coarse aggregates
    - 2.1.2.Surround: Selected as dug fill.
  - 2.2. Pipes: To civil engineer's details.
  - 2.3. Geotextile pipe wrapping: To civil engineer's details.
- 3. Transition layer: Pr\_25\_57\_65\_60 Plastics sheets
- 4. Filter medium: Pr\_20\_31\_04\_30 Sand base topsoil to swales and rain garden
- 5. Edge restraints: Light duty kerb.
- 6. Vegetation

#### 6.1. Planting: Emorsgate Seeds EM8 Meadow Mixture for Wetlands or equal and approved

- 7. Boulders: Pr\_20\_31\_04\_16 Boulders
- 8. Execution: Ss\_50\_70\_85/610 Forming bioretention areas
- System completion: Ss\_50\_70\_85/825 Handover at completion of sustainable drainage systems; Ss\_50\_70\_85/820 Removal of debris and cleaning sustainable drainage systems; Ss\_50\_70\_85/840 Verification of performance

#### **Products**

#### Pr\_20\_31\_04\_07 Base, bed and fill coarse aggregates

- 1. Description: Clean gravel bed.
- 2. Supplied by: Contractor's choice
- 3. Standard: To BS EN 13242.
- 4. Certification: Provide CE Mark/ UKCA marking and a Declaration of Performance (DoP).
- 5. Material: Crushed gravel.
- 6. Geometrical properties
  - 6.1. Aggregate size: 4/20.

#### Pr\_20\_31\_04\_16 Boulders

- 1. Description: Boulders to rain garden and swales system
- 2. Supplied by: Contractor's choice
- 3. Standard: To BS EN 12620
- 4. Certification: Provide CE Mark/ UKCA marking and a Declaration of Performance (DoP).
- 5. Material: Natural Boulder
- 6. Size: 500mm x 500mm x 500mm 750mm x 750mm x 750mm 1000mm x 1000mm x 1000mm

#### Pr\_20\_31\_04\_30 Sand base topsoil to swales and rain garden

1. Description: Filter medium to rain garden and swales.

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- 3. Material: 55% sand 30% topsoil and 15% compost.
- Aggregate size: Soil specification to be: Clay and silt (<0.063mm) <5% Fine sand (0.063-0.2mm) <20% Medium sand (0.2-0.6mm) 35% to 65% Coarse sand (0.60-2mm) 50% to 60% Fine gravel (2.0mm-6mm)<10%</li>

#### Pr\_25\_57\_65\_60 Plastics sheets

- 1. Description: Permeable geotextile to transition layer.
- 2. Manufacturer: Contractor's choice
- 3. Material: Polypropylene.
- 4. Purpose: Filter layer to prevent particle to travel through to drainage layer
- 5. Standard: To BS EN 13249.
- 6. Performance characteristics
  - 6.1. Tensile strength (minimum): 22kN/m2
  - 6.2. Tear resistance: 220N
  - 6.3. Elongation to break: 50%
  - 6.4. UV stabilization: To BS EN 13859-2, 336 hours.
  - 6.5. Anti-static properties: Required.
- 7. Third-party certification: British Board of Agrément (BBA) certificate.
- 8. Form: Non-woven.

#### Execution

#### Ss\_50\_70\_85/610 Forming bioretention areas

- 1. Weather conditions
  - 1.1. Requirement: Install bioretention areas in good weather, using methods suitable for the site conditions.
  - 1.2. Plastics pipes: Do not install or backfill at temperatures lower than 5°C.
- 2. Collector drains
  - 2.1. Bedding thickness (consolidated): 100 mm.
  - 2.2. Pipes
    - 2.2.1.Position: As per civil engineer's specification
    - 2.2.2.Orientation: As per civil engineer's specification
  - 2.3. Drains closer than 6 m to trees or hedges: As per civil engineer's specification
- 3. Filter medium: 300mm
- 4. Planting medium: As per soft landscape plan
- 5. Mulch: 100mm depth gravel mulch

#### System completion

# Ss\_50\_70\_85/820 Removal of debris and cleaning sustainable drainage system s

1. General: Immediately before handover, thoroughly flush out the whole system with clean water. Remove silt and debris.



- 2. Preparation: Lift covers to any access points which form part of the system. Remove mortar droppings, debris and loose wrappings.
- 3. Timing: Before cleaning, final testing, CCTV inspection (if specified) and immediately before handover.
- 4. Cleaning: Thoroughly flush any pipes with water to remove silt and check for blockages. Where appropriate, rod pipes between access points if there is any indication that they may be obstructed.
- 5. Washings and detritus: Dispose of safely. Do not discharge into sewers or watercourses.
- 6. Covers: Securely replace after cleaning and testing.

#### Ss\_50\_70\_85/825 Handover at completion of sustainable drainage systems

1. Tools for operation, maintenance and cleaning, including keys for access covers: Supply at completion.

#### Ss\_50\_70\_85/840 Verification of performance

- 1. Requirement: Check completed system and provide assurance of compliance with specified performance.
- 2. Submittals
  - 2.1. Format: Provide description of inspections, water testing results (if performed) and actions taken (if any), remedial works carried out and certification of compliance.
  - 2.2. Timing: At completion of installation.

 $\Omega$  End of System



### Ac\_10\_10\_25/120 Demolition

#### Activities

#### Ac\_10\_10\_25/120 Demolition

- 1. Requirement: Ac\_10\_10\_25/220 Site clearance
- 2. Filling of basements and voids: Earthworks filling system.
- 3. Execution: Ac\_10\_10\_25/615 Demolition generally; Ac\_10\_10\_25/618 Contractor; Ac\_10\_10\_25/625 Services affected by demolition; Ac\_10\_10\_25/630 Location and marking of existing services; Ac\_10\_10\_25/635 Disconnection of services; Ac\_10\_10\_25/645 Maintenance of existing services; Ac\_10\_10\_25/660 Health hazards during demolition; Ac\_10\_10\_25/665 Gas and vapour risks during demolition; Ac\_10\_10\_25/670 Dust control; Ac\_10\_10\_25/675 Removal of asbestos-containing materials; Ac\_10\_10\_25/680 Unforeseen hazards; Ac\_10\_10\_25/690 Treatment of adjoining property affected by demolition; Ac\_10\_10\_25/695 Structures and services to be retained; Ac\_10\_10\_25/705 Management of water on the site during demolition; Ac\_10\_10\_25/710 Groundworks during demolition; Ac\_ 10\_ 10\_25/715 Components and materials arising from demolition; Ac\_10\_10\_25/730 Grading and laying site surfaces on completion
- 4. Completion: Ac\_10\_10\_25/810 Condition of services on completion; Ac\_10\_10\_25/820 Site condition following completion

#### System performance

#### Ac\_10\_10\_25/220 Site clearance

- 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.
- 2. Lim itations
  - 2.1. Prohibited operations: Use of explosives.
  - 2.2. Timing: Throughout the demolition works.
- 3. Considerations for vegetation
  - 3.1. Trees, hedgerows and conservation areas: Check for conservation area requirements and planning conditions relating to protection of existing trees and landscaping.

#### Execution

#### Ac\_10\_10\_25/615 Demolition generally

1. Standard: To BS 6187.

#### Ac\_10\_10\_25/618 Contractor

- 1. Quality control: Corporate membership of the National Federation of Demolition Contractors.
- 2. Personnel
  - 2.1. Supervisory staff: Required to be experienced in the assessment of risks involved and methods of demolition to be used.
  - 2.2. 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\_25/625 Services affected by demolition

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- 1. Statutory services: Execute work which may affect statutory services in accordance with the bylaws or regulations of the relevant statutory authority or statutory undertaker.
- 2. Private services: Execute work which may affect the operation of privately supplied services in accordance with the requirements of the individual service providers.

#### Ac\_10\_10\_25/630 Location and marking of existing services

- 1. Services affected by the Works: Locate and mark positions.
- 2. Mains services: Arrange with the appropriate authorities for location and marking of positions.
- 3. 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\_25/635 Disconnection of services

- 1. Disconnection of supplies and removal of fittings and equipment : Arrange with the appropriate authorities and responsible private organizations. Remove fittings and equipment where agreed
- 2. Drains: Locate, disconnect and seal disused drain connections. Agree where drains are to be sealed.
- 3. Person or organization responsible for arranging disconnection of supplies with appropriate authorities: Contractor.
- 4. Timing: Before demolition works start.

#### Ac\_10\_10\_25/645 Maintenance of existing services

- 1. Unrecorded features: Give notice if unrecorded pipes, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.
- 2. Requirement: Protect existing services, drains and watercourses, including all associated structures such as manholes, inspection chambers, gullies, vent pipes and fittings still in use. Keep them free from debris.
- 3. Existing watercourses: Divert or construct culvert or drain to ensure continued passage of water all in accordance with the requirements of the local authority and environmental protection agency.

#### Ac\_10\_10\_25/660 Health hazards during demolition

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

#### Ac\_10\_10\_25/665 Gas and vapour risks during demolition

1. Requirement: Prevent fire or explosion caused by gas or vapour.

#### Ac\_10\_10\_25/670 Dust control

1. Requirement: Minimize airborne dust. Keep public roadways and footpaths clear of mud and debr is.

#### Ac\_10\_10\_25/675 Removal of asbestos-containing materials

- 1. Discovered asbestos: Give notice immediately. Do not disturb.
- 2. Managing personnel or organization: A contractor licensed by the Health and Safety Executive.
- 3. Timing: Following a statutory risk assessment. Before other works start in these locations.

#### Ac\_10\_10\_25/680 Unforeseen hazards

- 1. Unrecorded voids, tanks, chemicals, etc. discovered during demolition: Give notice immediately.
- 2. Removal of unforeseen hazards: Submit method statement.

#### Ac\_10\_10\_25/690 Treatment of adjoining property affected by demolition

- 1. Extent of adjoining property: As drawings.
- 2. Requirements: Minimize disturbance. Remove unnecessary or unstable projections. Make safe, secure and weathertight.
- 3. Foundations of adjoining property: Do not disturb.
- 4. Defects exposed or becoming apparent: Submit report.

#### Ac\_10\_10\_25/695 Structures and services to be retained

- 1. Removal of structures and services to be retained: Cut away and strip out with care. Minimize the amount of making good needed.
- 2. 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.
- 3. Repairs: Submit proposals.

#### Ac\_10\_10\_25/705 Management of water on the site during demolition

- 1. Disposal of excess water
  - 1.1. Approvals to discharge: Seek approval from the appropriate regulatory authority.
  - 1.2. Requirements: Install a catchpit where discharge is either to a sewer or surface water drain.

#### Ac\_10\_10\_25/710 Groundworks during demolition

- 1. Filling of basements and voids: Backfill to level of surrounding site.
- 2. Removal of contaminated material: Remove and dispose of contaminated material to appropriate site.
- 3. Removal of deleterious material: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil

#### Ac\_10\_10\_25/715 Components and materials arising from demolition

1. Components and materials arising from demolition work: Property of the contractor, except for designated items which remain the property of the employer.

#### Ac\_10\_10\_25/730 Grading and laying site surfaces on completion

- 1. Topography: Grade the site to follow the levels of adjacent areas.
- 2. Extent of surface treatments
  - 2.1. Hard landscaping: As per HLM hard landscape drawings.
  - 2.2. Soft landscaping: As per HLM soft landscape drawings.

#### System completion

#### Ac\_10\_10\_25/810 Condition of services on completion

1. Condition of services: Clean and in working order.

#### Ac\_10\_10\_25/820 Site condition following completion

1. Condition of site: Clean, tidy and secure.

Ω End of Activity

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## Ac\_85\_30\_01 / 190 Amenity grass maintenance

#### **Activities**

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#### Ac\_85\_30\_01/190 Amenity grass maintenance

- 1. Description: For seeded grass areas
- 2. Spot weedkilling herbicide: Pr\_45\_31\_37\_15 Combined selective lawn herbicide and feed mixes
- 3. Seed: Pr\_45\_30\_76\_34 Grass seeds
- 4. Fill material for minor hollows and minor level adjustment: Pr\_45\_31\_89\_41 Imported growing media
- 5. System facility management: Ac\_85\_30\_01/901 Grass and meadow management objectives; Ac\_85\_30\_01/902 Notice to inspect and carry out maintenance operations; Ac\_85\_30\_01/945 General maintenance of grassed areas (including sports turf); Ac\_85\_30\_01/903 Disposal of arisings during maintenance operations; Ac\_85\_30\_01/911 Watering; Ac\_85\_30\_01/912 Water restrictions; Ac\_85\_30\_01/921 Weed control generally; Ac\_85\_30\_01/922 Restrictions to applying selective herbicide; Ac\_85\_30\_01/923 Spot weedkilling; Ac\_85\_30\_01/949 Reforming grass edges; Ac\_85\_30\_01/950 Reinstatement of damaged turf; Ac\_85\_30\_01/952 Leaf removal; Ac\_85\_30\_01/953 Overseeding; Ac\_85\_30\_01/962 Mowing amenity grassland areas; Ac\_85\_30\_01/968 Maintaining edges to grassed areas; Ac\_85\_30\_01/933 Applying top dr essing; Ac\_85\_30\_01/973 Scarifying; Ac\_85\_30\_01/974 Harrowing; Ac\_85\_30\_01/977 Levelling hollows and bumps in turf; Ac\_85\_30\_01/978 Relieving surface compaction in turf

#### **Products**

See Pr\_45\_30\_76\_34 Grass seeds in Ss\_45\_35\_45\_35 Grass seeding systems Amenity Grass Mix

#### Pr\_45\_31\_37\_15 Combined selective lawn herbicide and feed mixes

- 1. Manufacturer: Contractor's choice
- 2. Third-party certification: Registered by the Health and Safety Executive (HSE) and listed on the HSE website under plant protection products.
- 3. Target weeds: Broadleaved weeds.

See Pr\_45\_31\_89/305 Topsoil, growing medium, subsoil and preparation materials generally in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_89\_41 Imported growing media in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Execution

See Pr\_45\_30\_76/603 Protection of seeds in Ss\_45\_35\_45\_33 Grass and wildflower seeding systems Meadow and Rain Garden Seed

#### System facility management

#### Ac\_85\_30\_01/901 Grass and meadow management objectives

Shared by: Ac\_85\_30\_50/195 Meadow grass maintenance

- 1. Duration: 5 years.
- 2. Aims: Enhanced landscape quality.
- 3. Restrictions: Adequate establishment in accordance with the grant scheme contract.

#### Ac\_85\_30\_01/902 Notice to inspect and carry out maintenance operations

Shared by: Ac\_85\_30\_50/195 Meadow grass maintenance

1. Notice (minimum)

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- 1.1. Watering: 2 weeks.
- 1.2. Each site maintenance visit: 2 weeks.
- 1.3. Grass management: 2 weeks.
- 1.4. Grass cutting: 2 weeks.
- 1.5. Cutting of meadows: 2 weeks.
- 1.6. Soil management operations: 2 weeks.

#### Ac\_85\_30\_01/903 Disposal of arisings during maintenance operations

Shared by: Ac\_85\_30\_50/195 Meadow grass maintenance

- 1. Generally: Leave the works in a clean, tidy condition after maintenance operations.
- 2. Surplus topsoil and arisings: Remove from site.
- 3. Biodegradable arisings: Remove to recycling facility.
- 4. Grass cuttings: Remove to recycling facility.
- 5. Litter and non-biodegradable arisings: Remove from site.
- 6. Diseased plant material: Remove from site.
- 7. Contamination: Remove from site material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.

#### Ac\_85\_30\_01/911 Watering

- 1. Application generally: Do not damage or loosen plants or compact topsoil.
- 2. Supply: Potable mains water.
- 3. Quantity: Wet full depth of topsoil.
- 4. Frequency: As necessary to maintain a healthy and thriving sward.

#### Ac\_85\_30\_01/912 Water restrictions

1. Watering instructions: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding. For seeding/ turfing carried out before emergency legislation comes into force, obtain instructions on watering.

#### Ac\_85\_30\_01/921 Weed control generally

Shared by: Ac\_85\_30\_50/195 Meadow grass maintenance

- 1. Weed tolerance: At all times, weed cover to be less than 5% and no weed to exceed 100 mm high.
- 2. Method: Hand weeding.
- 3. Stones brought to the surface: Remove regularly any exceeding 25 mm in any dimension.
- 4. Areas of settlement: Make good.
- 5. Adjacent plants, trees and grass: Do not damage.

#### Ac\_85\_30\_01/922 Restrictions to applying selective herbicide

1. Areas not to be treated: Bulb and corm planted areas when in leaf. Desirable herbaceous plantings. Wildflower areas.

#### Ac\_85\_30\_01/923 Spot weedkilling

1. Weeds to be spot-treated: Broad leaved weeds.



#### Ac\_85\_30\_01/933 Applying top dressing

- 1. Locations for application: All grassed areas.
- 2. Top dressing mix
  - 2.1. Mix proportions: 70 % aggregate for soil amelioration, 30 % imported topsoil.
  - 2.2. Site mixing: Mix materials fully to a uniform consistency.
- 3. Application
  - 3.1. Spreading: Evenly on surface, in transverse directions.
  - 3.2. Timing: Autumn.
  - 3.3. Application rate: 2 kg/m<sup>2</sup>.

# Ac\_85\_30\_01/945 General maintenance of grassed areas (including sports turf)

- 1. General requirements: Maintain turf in a manner appropriate to the intended use. Keep free of litter and plant debris.
- 2. Soil and grass
  - 2.1. Condition: Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
  - 2.2. Waterlogging and compaction: Prevent.
  - 2.3. Damage: Repair trampling, abrasion or scalping.

#### Ac\_85\_30\_01/949 Re-forming grass edges

- 1. Standard: To BS 7370-3.
- 2. Reforming edges: Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical. Dress damaged parts of turned turf top with suitable soil and seed mix matching the sward.

#### Ac\_85\_30\_01/950 Reinstatement of damaged turf

- 1. Standard: To BS 7370-3.
- 2. Damaged turf: Remove damaged turf leaving neat even edges.
- 3. Depth (maximum): 25 mm.
- 4. Preparation: Cultivate substrate to a fine tilth to a depth of 75 mm. Break up lumps and removed stones greater than 25 mm. Lightly consolidate and rake level. Apply fertilizer in accordance with manufacturer's recommendations.
- 5. Reinstatement
  - 5.1. Returfing: Lay replacement turf to match existing in stretcher bond pattern. Apply top dressing material evenly to match existing levels.
  - 5.2. Reseeding: Fill with fine topsoil to BS 3882 multi-purpose class, free from stones, debris and weeds. Reseed with a seed mix to match existing grass in quality and appearance.
- 6. Protection and watering: Protect and water to ensure good establishment.

#### Ac\_85\_30\_01/952 Leaf removal

- 1. Method: Hand-raking.
- 2. Disposal: Remove from site for recycling.

#### Ac\_85\_30\_01/953 Overseeding

Shared by: Ac\_85\_30\_50/195 Meadow grass maintenance

1. Generally: Establish good seed contact with the soil.

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- 2. Distribution: Two equal sowings at right angles to each other and diagonally to main axis.
- 3. Timing: August to October.
- 4. Application rate: To supplier's recommendations.
- 5. Raking and firming: Lightly rake or harrow the seed bed after seeding. Firm with a lightweight roller.

#### Ac\_85\_30\_01/962 Mowing amenity grassland areas

- 1. Grass height: 25-50 mm.
- 2. Arisings: Remove from site.

#### Ac\_85\_30\_01/968 Maintaining edges to grassed areas

- 1. Locations: Grass edges to planting beds. Grass edges around newly planted trees.
- 2. Timing: After seeded areas are well established.
- 3. Method: Cut to clean straight lines or smooth curves. Draw back soil to form an edge.
- 4. Arisings: Remove from site.

#### Ac\_85\_30\_01/973 Scarifying

- 1. Timing: October or November, before top dressing.
- 2. Operations: Relieve thatch conditions. Remove dead grass and moss.
- 3. Depth (maximum): 25 mm into soil.
- 4. Arisings: Remove from site.

#### Ac\_85\_30\_01/974 Harrow ing

- 1. Timing: October or November, after top dressing.
- 2. Operations: Aerate soil and remove worm casts.
- 3. Type of harrow: Chain harrow or drag mat.

#### Ac\_85\_30\_01/977 Levelling hollows and bumps in turf

1. Standard: To BS 7370-3.

#### Ac\_85\_30\_01/978 Relieving surface compaction in turf

- 1. Standard: To BS 7370-3.
- 2. Method: Spiking.

Ω End of Activity

### Ac\_85\_30\_02/190 Amenity planting maintenance

#### **Activities**

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#### Ac\_85\_30\_02/190 Amenity planting maintenance

- 1. Spot weedkilling herbicide: Pr\_45\_31\_37\_76 Selective herbicides
- 2. Mulch: Pr\_45\_31\_63\_56 Natural bark mulch
- 3. System facility management: Ac\_85\_30\_02/904 Mechanical equipment use in amenity plant maintenance operations, Ac\_85\_30\_02/905 Maintenance of shrub and herbaceous planting areas; Ac\_85\_30\_02/907 Maintenance of beds of perennials or mixed perennials and annuals; Ac\_85\_30\_02/909 Reinstatement after maintenance, Ac\_85\_30\_02/910 Disposal of arisings; Ac\_85\_30\_02/912 Water restrictions; Ac\_85\_30\_02/913 Watering; Ac\_85\_30\_02/914 Watering beds of perennials or perennials and annuals; Ac\_85\_30\_02/921 Weed control generally; Ac\_85\_30\_02/924 Hand-weeding; Ac\_85\_30\_02/925 Weeding loose mulch; Ac\_85\_30\_02/927 Weed cutting by hand or machine, Ac\_85\_30\_02/932 Litter removal; Ac\_85\_30\_02/933 Snow removal from trees and shrubs; Ac\_85\_30\_02/942 Soil and mulch level adjustment; Ac\_85\_30\_02/943 Maintenance of loose mulch; Ac\_85\_30\_02/951 Refirming of trees and shrubs; Ac\_85\_30\_02/954 Prevention of disease transmission; Ac\_85\_30\_02/955 Bark damage, Ac\_85\_30\_02/957 Dead and diseased plants; Ac\_85\_30\_02/961 Tree work generally; Ac\_85\_30\_02/962 Pruning amenity trees and shrubs; Ac\_85\_30\_02/970 Pruning ornamental shrubs; Ac\_85\_30\_02/971 Pruning flowering species of shrubs and roses; Ac\_85\_30\_02/973 Cleaning out and deadwooding; Ac\_85\_30\_02/974 Giving notice of defective, diseased or unsafe trees; Ac\_85\_30\_02/975 Cavities in trees; Ac\_85\_30\_02/978 Trimming rapidly establishing hedges

#### **Products**

See Pr\_45\_31\_37\_76 Selective herbicides in Ss\_45\_35\_05\_66 Pit-planted large tree systems

See Pr\_45\_31\_63\_56 Natural bark mulch in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### Execution

See Pr\_45\_31\_37/601 Application of selective herbicides in Ss\_45\_35\_05\_66 Pit-planted large tree systems

#### System facility management

# Ac\_85\_30\_02/904 Mechanical equipment use in amenity plant maintenance operations

- 1. General: Do not damage trees and shrubs.
- 2. Restrictions
  - 2.1. Proximity to plants: Do use not mowers, nylon filament rotary cutters and similar powered tools within 100 mm of plant stems.
  - 2.2. Prohibited equipment: Chippers. Shredders.
  - 2.3. Times during which mechanical equipment may be used: Between 10:00 and 16:00 on weekdays.

#### Ac\_85\_30\_02/905 Maintenance of shrub and herbaceous planting areas

- 1. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
- 2. Firming up: Gently firm loosened soil around plants. Straighten leaning trees and shrubs.
- 3. Dead and damaged plants: Remove.

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- Mulch and matting materials: Carefully move to one side and dig over the soil, leaving it fit for replanting. Do not disturb roots of adjacent plants.
- 5. Replacement plants
  - 5.1. Size of pits and plants: To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
  - 5.2. Details: Submit details and cost of plants before ordering.

# Ac\_85\_30\_02/907 Maintenance of beds of perennials or mixed perennials and annuals

- 1. Operations at end of growing season
  - 1.1. Older flowering stems of herbaceous perennials: Trim.
  - 1.2. Redundant plant supports, litter, debris and arisings: Remove.
  - 1.3. Cultivation: Fork over the soil. Do not cause undue disturbance to plants.
  - 1.4. Firming up: Gently firm loosened soil around plants.
  - 1.5. Top dressing application rate (minimum): 60 g/m<sup>2</sup>.

#### Ac\_85\_30\_02/909 Reinstatement after maintenance

- 1. Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstate to original condition.
- 2. Cleanliness: Leave the works in a clean tidy condition at completion and after maintenance operations.

#### Ac\_85\_30\_02/910 Disposal of arisings

- 1. Generally: Maintain the site in a clean, tidy condition.
- 2. Biodegradable arisings: Remove to recycling facility.
- 3. Grass cuttings: Remove to recycling facility.
- 4. Tree roots and stumps: Remove from site.
- 5. Shrub and tree prunings: Remove to recycling facility.
- 6. Litter and nonbiodegradable arisings: Remove from site.
- 7. Diseased plant material: Remove from site.
- 8. Surplus topsoil following routine maintenance: Spread evenly.

#### Ac\_85\_30\_02/912 Water restrictions

1. General: If water supply is, or is likely to be, restricted by emergency legislation, submit proposals for an alternative suitable source of water. Obtain instructions before proceeding.

#### Ac\_85\_30\_02/913 Watering

- 1. Supply: TBC by client
- 2. Quantity: Wet full depth of topsoil.
- 3. Application: Do not damage or loosen plants.
- 4. Compacted soil: Loosen or scoop out. Direct water to rootzone.
- 5. Frequency: As necessary for the continued thriving of all planting.

#### Ac\_85\_30\_02/914 Watering beds of perennials or perennials and annuals

- 1. New plants: Before and after planting out.
- 2. Ongoing: As necessary for the continued thriving of planting.



#### Ac\_85\_30\_02/921 Weed control generally

- 1. Scope: All planting areas.
- 2. General: Keep clear of weeds and prevent from seeding. Prevent perennial weeds from becoming established.
- 3. Method: By maintaining full thickness of mulch.
- 4. Individual trees and shrubs: Maintain weed-free area around each tree and shrub to the larger of 1 m diameter or the surface of original planting pit (if any).

#### Ac\_85\_30\_02/924 Hand-w eeding

- 1. General: Remove weeds entirely, including roots.
- 2. Disturbance: Remove the minimum quantity of soil, and disturb plants, bulbs and mulched surfaces as little as possible.
- 3. Completion: Rake area to a neat, clean condition.
- 4. Mulch: Reinstate to original depth.

#### Ac\_85\_30\_02/925 Weeding loose mulch

- 1. Weeding: Remove weeds growing on or in mulch.
- 2. Method: Hand weeding.

#### Ac\_85\_30\_02/927 Weed cutting by hand or machine

- 1. Undesirable grass, brambles and herbaceous growth: Cut down cleanly.
- 2. Height (maximum): 50 mm.

#### Ac\_85\_30\_02/932 Litter removal

1. Extraneous rubbish not arising from the contract work: Collect and remove from site.

#### Ac\_85\_30\_02/933 Snow removal from trees and shrubs

- 1. Description:
- 2. General requirements:
- 3. Standard: To BS 7370-4.
- 4. Plants subject to snow removal: All evergreens.
- 5. Timing: Within 24 hours of snowfall.

#### Ac\_85\_30\_02/942 Soil and mulch level adjustment

1. Level of soil and mulch at edges of beds: Reduce to 50 mm below adjacent grass or hard surface.

#### Ac\_85\_30\_02/943 Maintenance of loose mulch

- 1. Thickness (minimum): 75 mm.
- 2. Top up: Every 6 weeks.
- 3. Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.

#### Ac\_85\_30\_02/951 Refirming of trees and shrubs

- 1. Timing: After strong winds, frost heave and other disturbances.
- 2. Refirming: Tread around the base until firmly bedded.
- 3. Collars in soil at base of tree stems, created by tree movement: Break up by fork, avoiding damage to roots. Backfill with topsoil and refirm.



#### Ac\_85\_30\_02/954 Prevention of disease transmission

1. Standard: To BS 3998.

#### Ac\_85\_30\_02/955 Bark damage

- 1. Wounds
  - 1.1. Sap bleeding: Do not attempt to stop.
  - 1.2. Bark: Remove ragged edges using a sharp knife.
  - 1.3. Wood: Remove splintered wood from deep wounds.
  - 1.4. Size: Keep wounds as small as possible.
- 2. Liquid or flux oozing from apparently healthy bark: Give notice.

#### Ac\_85\_30\_02/957 Dead and diseased plants

- 1. Dead plant material
  - 1.1. Removal: At the end of the growing season, check shrubs and remove dead foliage, dead wood, and broken or damaged plants, branches and stems.
  - 1.2. Timing: As soon as possible.
  - 1.3. Replacement: In the next suitable planting season.

#### Ac\_85\_30\_02/961 Tree work generally

- 1. Identification: Before starting work agree which trees, shrubs and hedges to be removed or pr uned.
- 2. Protection: Avoid damage to neighbouring trees, plants and property.
- 3. Standards: To BS 3998 and Health and Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
- 4. Appearance: Leave trees with a well-balanced, natural appearance. Favour a single central leading shoot.
- 5. Dead, dying, diseased wood and suckers: Remove. Prune to promote healthy growth.
- 6. Timing: As appropriate to the species.
- 7. Chain saw work: Operatives must hold a Certificate of Competence.
- 8. Tree work: To be carried out by a member of the Arboricultural Association.
- 9. Tree worker: To be carried out by a member of the Arboricultural Association.

#### Ac\_85\_30\_02/962 Pruning amenity trees and shrubs

- 1. Standard: In accordance with good horticultural and arboricultural practice.
- 2. Prunin g
  - 2.1. Removing branches: Do not damage or tear the stem or bark.
  - 2.2. Wounds: Keep as small as possible and cut cleanly back to sound wood.
  - 2.3. Cutting: Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
  - 2.4. Larger branches: Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
- 3. Appearance: Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well-balanced, natural appearance.
- 4. Tools: Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
- 5. Disease or infection: Give notice if detected.
- 6. Growth retardants, fungicide or pruning sealant: Do not use.

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#### Ac\_85\_30\_02/970 Pruning ornamental shrubs

- 1. General: Prune to encourage healthy and bushy growth and desirable ornamental features, e.g. flowers, fruit, autumn colour, stem colour.
- 2. Suckers: Remove by cutting back level with the source stem or root.

#### Ac\_85\_30\_02/971 Pruning flowering species of shrubs and roses

1. Time of year

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- 1.1. Winter flowering shrubs: Spring.
- 1.2. Shrubs flowering between March and July: Immediately after the flowering period.
- 1.3. Shrubs flowering between July and October: Back to old wood in winter.
- 1.4. Rose bushes: Early spring to encourage basal growths and a balanced, compact habit.

#### Ac\_85\_30\_02/973 Cleaning out and deadwooding

1. Remove: Dead, dying or diseased wood, broken branches and stubs. Fungal growths and fruiting bodies. Rubbish, windblown 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.

#### Ac\_85\_30\_02/974 Giving notice of defective, diseased or unsafe trees

1. Defective, diseased, unsafe or weak parts of trees additional to those scheduled for attention: Give notice if detected.

#### Ac\_85\_30\_02/975 Cavities in trees

- 1. Investigation: Remove rubbish and rotten wood. Probe the cavity to find the extent of any decay, and give notice.
- 2. Water filled cavities: Do not drain.
- 3. Sound wood inside cavities: Do not remove.
- 4. Cavity openings: Do not cover.

#### Ac\_85\_30\_02/978 Trimming rapidly establishing hedges

- 1. General: Allow to reach planned height as rapidly as possible.
- 2. Form: Trim back lateral branches moderately.

 $\Omega$  End of Activity

## Ac\_85\_30\_50/195 Meadow grass maintenance

#### **Activities**

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#### Ac\_85\_30\_50/195 Meadow grass maintenance

- 1. Description: For seeded meadow areas.
- System facility management: Ac\_85\_30\_01/901 Grass and meadow management objectives; Ac\_85\_30\_01/902 Notice to inspect and carry out maintenance operations; Ac\_85\_30\_50/943 General maintenance of meadows; Ac\_85\_30\_01/903 Disposal of arisings during maintenance operations; Ac\_85\_30\_01/921 Weed control generally; Ac\_85\_30\_01/953 Overseeding; Ac\_85\_30\_01/961 Mowing operations generally; Ac\_85\_30\_50/970 Mowing meadows containing perennial or mixed perennial and annual wildflowers; Ac\_85\_30\_01/969 Protecting tree stems in grassed or meadow areas

#### System facility management

See Ac\_85\_30\_01/901 Grass and meadow management objectives in Ac\_85\_30\_01/190 Amenity grass maintenance

See Ac\_85\_30\_01/902 Notice to inspect and carry out maintenance operations in Ac\_ 85\_ 30\_01/190 Amenity grass maintenance

See Ac\_85\_30\_01/903 Disposal of arisings during maintenance operations in Ac\_ 85\_ 30\_01/190 Amenity grass maintenance

See Ac\_85\_30\_01/921 Weed control generally in Ac\_85\_30\_01/190 Amenity grass maintenance

See Ac\_85\_30\_01/953 Overseeding in Ac\_85\_30\_01/190 Amenity grass maintenance

#### Ac\_85\_30\_01/961 Mowing operations generally

- 1. Before mowing: Remove litter, rubbish and debris.
- 2. Finish: Neat and even, without surface rutting, compaction or damage.
- 3. Edges: Leave neat and well-defined. Neatly trim around obstructions.
- 4. Adjoining hard areas: Sweep clear and remove arisings.
- 5. Drought or waterlogged conditions: Give notice and obtain instructions prior to proceeding with cutting operations.
- 6. Restrictions to mowing operations: Mowing only to take place between 8:30am and 6pm, Monday to Friday.

#### Ac\_85\_30\_01/969 Protecting tree stems in grassed or meadow areas

- 1. General requirements: Do not damage bark.
- 2. Mowing machinery: Do not use closer than 100 mm to tree stems.
- 3. Nylon filament rotary cutters and other hand held mechanical tools: Do not use closer than 100 mm to tree stems.
- 4. Operations close to stems: Complete using hand tools.

#### Ac\_85\_30\_50/943 General maintenance of meadows

- 1. General requirements: Keep free of litter, excessive weed growth and plant debris.
- 2. Waterlogging and compaction of soils: Prevent.



# Ac\_85\_30\_50/970 Mowing meadows containing perennial or mixed perennial and annual wildflowers

- 1. Cut in first growing season
  - 1.1. Height: 50 mm.
  - 1.2. Timing: Mow through winter and early spring as needed. Stop mowing in April. Hay cut in August.
- 2. Cutting in second growing season
  - 2.1. Height: 50 mm.
  - 2.2. Timing: Single cut in August.
- 3. Subsequent cutting
  - 3.1. Height: 100 mm.
  - 3.2. Timing: October and March.
- 4. Arisings: Spread evenly over cut areas and remove from site after three to four days.

Ω End of Activity



## Pr\_20\_85\_06\_85 Stainless steel hoops DB1

#### **Products**

#### Pr\_20\_85\_06\_85 Stainless steel hoops DB1

- 1. Description: Door barriers
- 2. Manufacturer: Langley Design Malford Door Barrier MDB203 or equal and approved.
- 3. Standard: In accordance with BS 6180.
- 4. Form: Static.
- 5. Duty: Light.
- 6. Dimensions
  - 6.1. Width: 760mm
  - 6.2. Height: 1100mm
- 7. Hoops
  - 7.1. Size and profile: 48 x 3 mm CHS
  - 7.2. Post base: Root fixed
  - 7.3. Finishes
    - 7.3.1.Worked finish: To BS EN 10088-2, 1K/2K Satin polished
    - 7.3.2.Applied finish: Retro-reflective tape.
- 8. Infill: Stainless steel rail
- 9. Accessories:

 $\Omega$  End of Product



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