

Project: Barton Peveril college

Ref: 3055-SP-9000

Title: Landscape Specification

Client: Bidwells

Date: 18/04/2023

Rev: C

Rev	Description	Date
A	Q40 and Q50 amended to suit update drawing set	24/04/23
B	Q40 amended	27/04/23
C	Q35/500 amended	07/11/23

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Q10

Kerbs/ edgings/ channels/ paving accessories

Clauses

2 To be read with preliminaries/general conditions.

Types of kerbs/edgings and channels

112A Precast concrete

1. Description: Edgings
2. Standard: To BS EN 1340.
3. Recycled content: As manufactured
4. Designations: EF Edging, flat top
5. Size (width x height x length): 50 x 150 x 915 mm
6. Special shapes: n/a
7. Finish: As cast
8. Colour: Natural
9. Bending strength: To engineer's details
10. Bedding: To engineer's details
11. Joints generally: Dry, 2-3 mm gap
12. Sealant movement joints: Not required
13. Accessories: None

112B Precast concrete

1. Description: Kerbs
2. Standard: To BS EN 1340.
3. Recycled content: As manufactured
4. Designations: HB2 Kerb, half battered
5. Size (width x height x length): 255 x 125 x 915 mm
6. Special shapes: Dropper kerbs and centre stone units, as indicated on Ubu Design drawings
7. Finish: As cast
8. Colour: Natural
9. Bending strength: To engineer's details
10. Bedding: To engineer's details
11. Joints generally: Dry, 2-3 mm gap
12. Sealant movement joints: Not required
13. Accessories: None

Roads/paving accessories/ marking/ demarcation - Not Used

Laying

510 Laying kerbs, edgings and channels

1. Cutting: Neat, accurate and without spalling. Form neat junctions.
 - 1.1. Long units (450 mm and over) minimum length after cutting: 300 mm.

- 1.2. **Short units minimum length after cutting:** The lower of one third of their original length or 50 mm.
2. **Bedding of units:** Positioned true to line and levelled along top and front faces, in a mortar bed on accurately cast foundations or on a race of fresh concrete.
3. **Securing of units:** After bedding has set, secured with a continuous haunching of concrete or on a race of fresh concrete with backing concrete cast monolithically.

520 Adverse weather

1. **Conditions:** Do not construct if the temperature is below 3°C on a falling thermometer or 1°C on a rising thermometer. Adequately protect foundations, bedding and haunching against frost and rapid drying by sun and wind.

530A Concrete for foundations, races and haunching

1. Refer to engineer's drawings and information for requirements.
2. **Standard:** To BS 8500-2.
3. **Designated mix:** To engineer's details
4. **Workability:** Very low.

547 Bedding/ Backing of units on fresh concrete races

1. **Standard:** To BS 7533-6.

620 Accuracy

1. **Deviations (maximum)**
 - 1.1. **Level:** ± 6 mm.
 - 1.2. **Horizontal and vertical alignment:** 3 mm in 3 m.

625 Regularity of paved surfaces

1. **Maximum undulation of (non-tactile) paving surface:** 3 mm.
 - 1.1. **Method of measurement:** Under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface).
2. **Difference in level between adjacent units (maximum)**
 - 2.1. **Joints flush with the surface:** Twice the joint width (with 5 mm max difference in level).
 - 2.2. **Recessed, filled joints:** 2 mm.
 - 2.2.1. **Recess depth (maximum):** 5 mm.
 - 2.3. **Unfilled joints:** 2 mm.
3. **Sudden irregularities:** Not permitted.

Ω End of Section

Q20

Granular sub-bases to roads/pavings

To be read with preliminaries/ general conditions.

12 General requirements

1. Sub-bases, build-ups, geotextile membranes, required ground conditions and associated elements to be in accordance with engineer's drawings and information.

Ω End of Section

Q22

Asphalt roads/ pavings

To be read with preliminaries/ general conditions.

12 General requirements

1. Refer to engineer's drawings and information for requirements, design and associated elements to all Asphalt roads and pavings.

Types of paving - Not Used

Preparatory work/ requirements - Not Used

Laying - Not Used

Completion - Not Used

Ω End of Section

Q24

Interlocking brick/block roads/pavings

Clauses - Not Used

Types of paving - Not Used

Execution - Not Used

Completion - Not Used

Ω End of Section

Q25

Slab/brick/sett/cobble pavings

Clauses

2 To be read with preliminaries/ general conditions.

General - Not Used

System performance - Not Used

Products

315 Concrete flags

1. Description: Paving to building perimeter
2. Standard: To BS EN 1339.
 - 2.1. Manufacturer: Marshalls, or equivalent
 - 2.1.1. Product reference: Saxon paving
3. Recycled content: As manufactured
4. Colour: Buff
 - 4.1. Finish: Textured
 - 4.2. Nominal sizes: 450x 450 x 50 mm
5. Arrises: Square
6. Water absorption and freeze/ thaw resistance class: $\leq 1.0 \text{ kg/m}^2$ as a mean with no individual value $> 1.5 \text{ kg/m}^2$
7. Abrasion resistance class: $\leq 23\text{mm}$ (Wide Wheel Abrasion Test)
8. Slip/ Skid resistance: Mean polished skid resistance value (PSRV) : > 45
Mean unpolished skid resistance value (PSRV) : > 45

365 Geotextile sheet

1. Description: Below laying course
2. Manufacturer: Submit proposals
 - 2.1. Product reference: Submit proposals
3. Recycled content: Submit proposals

390 Sand/ fine aggregate for unbound laying course and jointing of concrete flag paving

1. Description: Bedding and jointing layer
2. Standard: To BS 7533-4, unbound construction laying course and jointing material.
3. Purity: Free from deleterious salts, contaminants, lime and cement.
4. Procurement: Obtain from one source and ensure consistent grading.

420 Sand/ fine aggregate for laying course of concrete sett paving

1. Material: Sand/ fine aggregate for laying courses to BS 7533-4

425 Fine aggregate for jointing concrete sett paving

1. Material: Limestone dust, 3-4 mm down

Execution

620 Adverse weather

1. General
 - 1.1. 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.
 - 1.2. Frozen materials: Do not use. Do not lay bedding on frozen or frost covered bases.
2. Paving with mortar joints and/ or bedding
 - 2.1. Protect from frost damage, rapid drying out and saturation until mortar has hardened.
3. Paving laid and jointed in sand/ fine aggregate
 - 3.1. Stockpiled laying course sand/ fine aggregate: Protect from saturation.
 - 3.2. Exposed areas of unbound laying course and uncompacted areas of unbound paving: Protect from heavy rainfall.
 - 3.3. Saturated unbound laying course: Remove and replace, or allow to dry before proceeding.
 - 3.4. Laying dry sand/ fine aggregate jointed paving in damp conditions: Brush in as much jointing sand as possible. Minimize site traffic over paving. As soon as paving is dry, top up joints and complete compaction.

625 Laying pavings – general

1. Appearance: Smooth and even with regular joints and accurate to line, level and profile.
2. Falls: To prevent ponding.
3. Bedding of paving units: Firm so that rocking or subsidence does not occur or develop.
 - 3.1. Bedding/ Laying course: Consistently and accurately graded, spread and compacted to produce uniform thickness and support for paving units.
4. Slopes: Lay paving units upwards from the bottom of slopes.
5. Paving units: Free of mortar and sand stains.
6. Cutting: Cut units cleanly and accurately, without spalling, to give neat junctions with edgings and adjoining finishes.

630 Levels of paving

1. Permissible deviation from specified levels
 - 1.1. Generally: ± 6 mm.
2. Height of finished paving above features
 - 2.1. At gullies: +6 to +10 mm.
 - 2.2. At drainage channels and kerbs: +3 to +6 mm.

637 Regularity of paved surfaces

1. Maximum undulations in the surface of pavings (except tactile paving surfaces) under a 1 m straight edge placed anywhere on the surface (where appropriate in relation to the geometry of the surface): 3 mm.
2. Joints between paving units or utility access covers
 - 2.1. 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).
 - 2.2. 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.
 - 2.3. Unfilled joints: difference in level between adjacent units to be no greater than 2 mm.
3. Sudden irregularities: Not permitted.

645 Protection

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. **Mortar bedded pavings:** Keep free from traffic after laying:
 - 4.1. **Pedestrian traffic (minimum):** 24 hours
5. **Access:** Restrict access to paved areas to prevent damage from site traffic and plant.

655 Condition of sub-bases/ bases before spreading laying course

1. **Trenches and excavation of soft or loose spots in subgrade:** Fill and thoroughly compact.
2. **Granular surfaces:** Lay and compact so as to be sound, clean, smooth and close-textured enough to prevent migration of bedding/ laying course materials into the sub-base during compaction and use, free from movement under compaction plant and free from compaction ridges, cracks and loose material.
3. **Prepared existing and new bound bases (roadbases):** Sound, clean, free from rutting or major cracking. Remove sharp stones, projections and debris.
4. **Sub-base/ Roadbase level tolerances:** To BS 7533-7, Annex A.
5. **Levels and falls:** Accurate and within the specified tolerances.
6. **Drainage outlets:** Within 0-10 mm of the required finished level.
7. **Features in unbound paving (including mortar bedded restraints and drainage ironwork):** Complete to required levels; adequately bed and haunch in mortar.
8. **Sub-bases containing cement/ hydraulic binder:** Cure for minimum times specified in BS 7533-4.

675 Laying geotextile sheet edging strips

1. **Location:** Immediately below the laying course, abutting features which interrupt the laying course, including:
 - 1.1. Perimeters/ Edge restraints/ Kerbs.
 - 1.2. Other types of paving.
 - 1.3. Drainage fittings, e.g. channels and manholes.
2. **Edge detail:** Turn sheet up to a height not less than thickness of the laying course to form an upstand fitted neatly against features.
3. **Width:** 300 mm
4. **Jointing:** Lap by 300 mm.

685 Laying geotextile sheet overlays

1. **Location:** Immediately below the laying course.
2. **Laying:** Fit neatly at edge restraints and other features that interrupt the laying course, e.g. drainage fittings, channels, manholes and kerbs.
3. **Edge detail:** Turn sheet up to form an upstand against features, height not less than thickness of the laying course.
4. **Width:** 300 mm
5. **Jointing:** Lap by 300 mm.

710 Laying flag and slab paving – sand/ fine aggregate laying course and jointing

1. **Standard:** In accordance with BS 7533-4.

2. Flag installation and cutting: To Interpave 'Concrete flag paving'.
3. Laying course
 - 3.1. Nominal thickness after compaction: To engineer's details
4. Joint width: 2-5 mm.

Completion

915 Completion of paving with dry sand or fine aggregate filled joints

1. Sand dressing: Leave a thin layer of dry jointing sand/ fine aggregate over the paving, sweep clean before practical completion
2. Final compaction of the surface course: In accordance with BS 7533-3.
3. Vacuum cleaning machines: Not allowed.

Ω End of Section

Q28

Topsoil and soil ameliorants

Clauses

2 To be read with preliminaries/ general conditions.

System outline - Not Used

Products

300 Preparation materials generally

1. Purity: Free of pests and disease.
2. Foreign matter: On visual inspection, free of fragments and roots of aggressive weeds, sticks, straw, subsoil, pieces of brick, concrete, glass, wire, large lumps of clay or vegetation, and the like.
3. Contamination: Do not use topsoil contaminated with subsoil, rubbish or other materials that are:
 - 3.1. Corrosive, explosive or flammable.
 - 3.2. Hazardous to human or animal life.
 - 3.3. Detrimental to healthy plant growth.
4. Subsoil: In areas to receive topsoil or planting media, do not use subsoil contaminated with the above materials.
5. Objectionable odour: None.
6. Give notice: If any evidence or symptoms of soil contamination are discovered on the site or in topsoil or planting media to be imported.

310 Materials not permitted

1. Materials: Products containing peat

315 Imported topsoil to BS 3882

1. Description: For planting beds and tree pits
2. Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
3. Standard: To BS 3882.
4. Classification: Multipurpose
 - 4.1. Soil textural class to BS 3882, Figure 1: Loamy sand or Sandy loam
5. Source: Submit proposals
 - 5.1. Product reference: Submit proposals

Execution

610 Topsoil analysis

1. Soil to be analysed: Imported topsoil
2. Soil analyst: Contractor's proposal
3. Samples: Collect in accordance with BS 3882.
4. Submit
 - 4.1. Declaration of analysis: In accordance with BS 3882, clause 6 and Table 1.
 - 4.2. Additional analysis: Chemical analysis

- 4.3. Report detailing soil analyst's recommendations.

630 Documentation for imported topsoil

1. **Description:** For planting beds and tree pits
2. **Timing:** Submit at handover.
3. **Contents**
 - 3.1. Full description of all soil components.
 - 3.2. Record of source for all soil components.
 - 3.3. Record drawings showing the location and depth of all soils by type and grade.
 - 3.4. **Declaration of analysis:** in accordance with BS 3882, clause 6 and Table 1.
4. **Number of copies:** 1no. electronic

650 Notice

1. Give notice before
 - 1.1. Setting out.
 - 1.2. Spreading topsoil.
 - 1.3. Applying herbicide.
 - 1.4. Applying fertilizer.
 - 1.5. Visiting site during maintenance period.
2. **Period of notice:** 1 week

655 Mechanical tools

1. **Restrictions:** Do not use within 100 mm of tree and plant stems.

670 Inspecting formations

1. Give notice: Before spreading topsoil for planting beds.
2. **Notice period:** 7 days

675 Preparation of undisturbed topsoil

1. **Standard:** In accordance with BS 4428.
 - 1.1. **Grading and cultivation:** Category D
2. **Hard ground:** Break up thoroughly.
3. **Clearing:** Remove visible roots and large stones with a diameter greater than 50 mm.
4. **Areas covered with turf or thick sward:** Plough or dig over to full depth of topsoil.
5. **Fallow period (minimum):** One month
 - 5.1. **Weed control:** At appropriate times re-cultivate to suppress weed growth.

685 Surplus materials to be removed

1. **Topsoil removal from site:** Topsoil remaining after completion of all landscaping work
2. **Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings:** Remove.

700 Grading of topsoil

1. **Topsoil condition:** Reasonably dry and workable.
2. **Contours:** Smooth and flowing, with falls for adequate drainage.
 - 2.1. **Hollows and ridges:** Not permitted.

3. Give notice: If required levels cannot be achieved by movement of existing soil.

705 Handling topsoil

1. Standard: In accordance with BS 3882.
2. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
3. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
4. Contamination: Do not mix topsoil with:
 - 4.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 4.2. Other grades of topsoil.
5. Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
6. Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall, or when the moisture content is greater than the plastic limit.

718 Final cultivation

1. Description: For planting beds
2. Compacted topsoil: Break up to full depth.
3. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
4. Depth: 150 mm
5. Particle size (maximum): 5 mm
6. Timing: Within a few days before planting
7. Weather and ground conditions: Suitably dry.
8. Surface: Leave regular and even.
9. Levels: 25 mm above adjoining paving or kerbs
10. Undesirable material brought to the surface
 - 10.1. Remove visible weeds.
 - 10.2. Remove roots and large stones with any dimension exceeding 50 mm.

720 Finished levels of topsoil after settlement

1. In relation to adjoining paving, kerbs or hard surfaces: 50 mm below
2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
3. In relation to adjacent grass areas: 50 mm below
4. Seeded areas: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.
5. Sportsfields: To even levels and within the following permitted deviations:
 - 5.1. From levels or gradients shown on drawings: ± 75 mm.
 - 5.2. From line between boning rods 30 m apart: ± 25 mm.
6. Within root spread of existing trees and shrubs to be retained: Do not dig or cultivate.
7. Adjoining soil areas: Marry in.
8. Thickness of turf or mulch: Included.

845 Applying loose mulch

1. Description: To planting beds
2. Timing: Immediately after planting
3. Preparation: Water soil thoroughly
4. Coverage of mulch (minimum)
 - 4.1. Planting beds (depth): 50 mm depth

- 4.2. Trees: 50 mm depth
- 5. Finished level of mulch: 30 mm below adjacent grassed or paved areas

Completion

905 Applying maintenance fertilizer to soil

- 1. Description: To planting beds
- 2. Duration: Carry out the following operations from completion of seeding/ turfing until practical completion.
- 3. Time of year: March or April
- 4. Application: Evenly spread, carefully incorporating below mulch materials.
- 5. Rate: To manufacturer's recommendations

920 Applying mulch

- 1. Timing: At end of the maintenance period
- 2. Watering: Ensure that soil is thoroughly moistened prior to mulching, applying water where necessary.
- 3. Planting beds: Re-mulch.
 - 3.1. Depth (minimum): 50 mm
- 4. Trees: Remulch.
 - 4.1. Depth (minimum): 50 mm

Ω End of Section

Q30

Seeding/turfing

Clauses

2 To be read with preliminaries/general conditions.

General information/requirements

115 Seeded and turfed areas

1. **Growth and development:** Healthy, vigorous grass sward, free from the visible effects of pests, weeds and disease.
2. **Appearance:** A closely knit, continuous ground cover of even density, height and colour.

120 Climatic conditions

1. **General:** Carry out the work while soil and weather conditions are suitable.

145 Watering

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 all seeding/turfing.

150 Water restrictions

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

160 Notice

1. **Give notice before**
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Preparing seed bed.
 - 1.5. Seeding or turfing.
 - 1.6. Visiting site during maintenance period.
2. **Period of notice:** 1 week

170 Setting out

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

Preparation

212 Seed bed cleaning before sowing

1. **Description:** All grassed areas
2. **Operations:** Remove weeds by hand weeding and hoeing.

250 Soil requirements

1. Type
 - 1.1. Seeded areas: Existing topsoil with imported material as required
 - 1.2. Turfed areas: n/a
 - 1.3. Reinforced grass areas: n/a

Seeding

312 Wildflower seed mixture

1. Description: To species rich grass areas
2. Supplier: Emorsgate Seeds or equivalent
 - 2.1. Mixture reference: EM1- Basic General Purpose Meadow Mixture
3. Origin of each species (as defined in Flora Locale's Code of practice for collectors, growers and suppliers of native flora): British Native
4. Application rate: 4 g/m²

322 Quality of wildflower seed

1. Description: Wildflower Seed
2. Standard: In accordance with Flora Locale's 'Code of practice for collectors, growers and suppliers of native flora'.
3. Germination testing: Not required
4. Freshness of seed: Produced for the current growing season
5. Samples: Submit when requested.

330 Sowing

1. General: Establish good seed contact with the root zone.
2. Method: To suit soil type, proposed usage, location and weather conditions during and after sowing
 - 2.1. Distribution: 2 equal sowings at right angles to each other

336 Wildflower sowing season

1. Wildflower seed generally: Autumn or Spring

352 Edges to seeded areas

1. Description: Adjacent to planting beds and tree pits
2. Timing: After seeded areas are well established.
3. Edges: Clean straight lines or smooth curves.
 - 3.1. Mulch and soil: Draw back to permit edging.
4. Arisings: Remove.
5. Completion: Respread soil and mulch.

Turfing - Not Used

Protecting/cutting

565 Timber/ plastics edgings

1. Material: Softwood board

- 1.1. Size: 150 mm x 38 mm.
2. Fixings: Nailed.
 - 2.1. Pegs: 50 mm x 50 mm x 450 mm long.
 - 2.2. Centres: 1200 mm.
 - 2.3. Installation height: Flush
3. Curved boards: Closely spaced vertical grooves cut in the back to achieve smooth flowing lines.
4. Preservative treatment: To softwood
 - 4.1. Type: To provide a min. 15 year service life

590 Cleanliness

1. Soil and arisings: Remove from hard surfaces.
2. General: Leave the works in a clean, tidy condition at Completion and after any maintenance operations.

Maintenance

610 Failures of seeding/ turfing

1. Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
2. Defective materials or workmanship: Areas that have failed to thrive.
 - 2.1. Exclusions: Theft or malicious damage.
3. Method of making good: Recultivation and reseeding/ returfing.
4. Timing of making good: The next suitable planting season

650A Maintaining grassed areas with perennial flowers

1. Duration: Carry out the following operations from completion of seeding/ turfing until: practical completion.
2. Preparation: Before each cut remove all litter and debris.
3. Height and frequency of cut in first growing season
 - 3.1. Time of first cut: Late summer
 - 3.2. Height of first cut: 50 mm
 - 3.3. Frequency of subsequent cutting (minimum): As required to maintain 40-60mm height and to control weed growth
 - 3.4. Height of growth permitted (maximum): 75 mm
4. Trimming: All edges.
 - 4.1. Arisings: Remove.
5. Watering: When instructed

Ω End of Section

Q31

External planting

Clauses

2 To be read with preliminaries/general conditions.

General information/ requirements

112 Site clearance generally

1. **General:** Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. **Stones:** Remove those with any dimension exceeding 75 mm.
3. **Contamination:** Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4. **Vegetation:** Remove weeds, refer to AIA for trees to be retained
5. **Large roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
6. **Additional requirements:** To be agreed

118 Soil conditions

1. **Soil for cultivating and planting:** Moist, friable and (except in aquatic/ marginal planting) not waterlogged.
2. **Frozen or snow covered soil:** Give notice before planting. Provide additional root protection. Prevent planting pit sides and bases and backfill materials from freezing.

120 Climatic conditions

1. **General:** Carry out the work while soil and weather conditions are suitable.
 - 1.1. **Strong winds:** Do not plant.

125A Times of year for planting

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. **Container grown plants:** At any time if ground and weather conditions are favourable.
 - 4.1. **Watering and weed control:** Provide as necessary.

130 Mechanical tools

1. **Restrictions:** Do not use within 100 mm of tree and plant stems.

145 Watering

1. **Quantity:** Wet full depth of topsoil.
2. **Application:** Even and without damaging or displacing plants or soil.
3. **Frequency:** As necessary to ensure establishment and continued thriving of planting.

150 Water restrictions

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

160 Notice

1. Give notice before
 - 1.1. Setting out.
 - 1.2. Applying herbicide.
 - 1.3. Applying fertilizer.
 - 1.4. Delivery of plants/ trees.
 - 1.5. Planting shrubs.
 - 1.6. Planting trees into previously dug pits.
 - 1.7. Watering.
 - 1.8. Visiting site during maintenance period.
2. Period of notice: One week

170 Soil requirements

1. Type
 - 1.1. Planted beds: Existing topsoil with imported soil as Q28 as required
 - 1.2. Tree pits, shrub pits and other backfilling: Existing topsoil with imported soil as Q28 as required
 - 1.3. Mulch applied after planting: Mulching and top dressing system, as section Q28

200 Plants/ Trees – general

1. Condition: Materially undamaged, sturdy, healthy and vigorous.
2. Appearance: Of good shape and without elongated shoots.
3. Hardiness: Grown in a suitable environment and hardened off.
4. Health: Free from pests, diseases, discoloration, weeds and physiological disorders.
5. Budded or grafted plants: Bottom worked.
6. Root system and condition: Balanced with branch system.
 - 6.1. Standard: The National Plant Specification
7. Species: True to name.
8. Origin/ Provenance: British grown
9. Definition: Origin and Provenance have the meaning given in the National Plant Specification.

215 Plants/ Trees – specification criteria

1. Name, forms, dimensions, provenance and other criteria: As scheduled and defined in the National Plant Specification (available on CS Design Software Limited's website).

235 Container grown plants/ Trees

1. Growing medium: With adequate nutrients for plants to thrive until permanently planted.
2. Plants: Centred in containers, firmed and well watered.
3. Root growth: Substantially filling containers, but not root bound, and in a condition conducive to successful transplanting.
4. Hardiness: Grown in the open for at least two months before being supplied.
5. Containers: With holes adequate for drainage when placed on any substrate commonly used under irrigation systems.

245 Labelling and information

1. **General:** Provide each plant/ tree or group of plants/ trees of a single species or cultivar with supplier's labelling for delivery to site, showing:
 - 1.1. Full botanical name.
 - 1.2. Total number.
 - 1.3. Number of bundles.
 - 1.4. Part bundles.
 - 1.5. Supplier's name.
 - 1.6. Employer's name and project reference.
 - 1.7. Plant specification, in accordance with scheduled National Plant Specification categories.
2. **Additional information:** Submit on request: Country of origin.

260 Plant/ Tree substitution

1. **Plants/ trees unobtainable or known to be likely to be unobtainable at time of ordering:** Submit alternatives, stating:
 - 1.1. Price.
 - 1.2. Difference from specified plants/ trees.
2. **Approval:** Obtain before making any substitution.

265 Plant handling, storage transport and planting

1. **Standard:** To CPSE 'Handling and establishing landscape plants'.
2. **Frost:** Protect plants from frost.
3. **Handling:** Handle plants with care. Protect from mechanical damage and do not subject to shock, e.g. by dropping from a vehicle.
4. **Plant packaging:** Coextruded polyethylene bags with black interior and white exterior
5. **Packaging of bulk quantities:** Pallets or bins sealed with polyethylene and shrink wrapped
6. **Planting:** Upright or well balanced with best side to front.

275A Permanent identification of plants

1. Not required, all nursery tags to be removed prior to completion of works.

280A Treatment of tree wounds

1. **General:** Care to be taken to avoid damaging or wounding trees.
2. **Cutting:** Keep wounds as small as possible.
 - 2.1. Cut cleanly back to sound wood using sharp, clean tools.
 - 2.2. Leave branch collars. Do not cut flush with stem or trunk.
 - 2.3. Set cuts so that water will not collect on cut area.
3. **Fungicide/ Sealant:** Do not apply unless instructed.

290 Surplus material

1. **Subsoil, stones, debris, wrapping material, canes, ties, temporary labelling, rubbish, prunings and other arisings:** Remove.

Plant containers - Not Used

Preparation of planting beds/ planting materials

300 Herbicide

1. Description: To clear existing vegetation
2. Locations: As agreed, care and suitable precautions to be taken when working in school grounds
3. Type: Suitable for suppressing perennial weeds.
4. Timing: Allow fallow period before cultivation.
 - 4.1. Duration (minimum): As manufacturer's recommendation

Planting shrubs/ herbaceous plants/ bulbs

401 Regular plant layout

1. Description: To planting beds
2. Spacing: As Ubu Design planting plans
3. Density: As Ubu Design planting plans

405 Shrub planting pits

1. Timing: Excavate 1-2 days (maximum) before planting.
2. Sizes: Wide enough to accommodate roots when fully spread and 75 mm deeper than root system
3. Pit bottom improvement Break up to a depth of 150 mm, incorporating 25 g of slow release fertilizer per planting pit.

471 Naturalized hedges

1. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

480 After planting

1. Watering: Immediately after planting, thoroughly and without damaging or displacing 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.
3. Top dressing: Mulching and top dressing system, as section Q28
 - 3.1. Depth: 50 mm

Planting trees

500 Tree planting

1. Standard: Prepare trees and transplant in accordance with BS 8545

505 Tree pits

1. Sizes: Refer to Ubu Design drawings
2. Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. Excavated material: Separate topsoil and subsoil material and stockpile for backfilling
4. Pit bottoms: Excavate with slightly raised centre: Break up base to a depth of 150 mm.
 - 4.1. Treatment: Not required

5. Pit sides: Scarify.
6. Backfilling material: Excavated material from tree pit, installed to original soil profiles in accordance with BS 8545

512 Tree pit irrigation and ventilation accessories

1. Locations: To all tree pits
2. Manufacturer: GreenTech, or equivalent
 - 2.1. Product reference: Mona Relief Grande Aria inlet
3. Type: Perforated plastics irrigation pipe with inlet
4. Pipe diameter: 60 mm
5. Ring diameter: To suit rootball dimensions
6. Inlet: Black plastics, with cap
7. Installation
 - 7.1. Pipe: Lay in loop above root ball with slight fall away from inlet pipe. Trim length to ensure a close fit in the tree pit. Connect both ends of pipe securely into plastics tee junction on inlet.
 - 7.2. Top cap of inlet: Protruding slightly above finished surround level.
 - 7.3. Backfill material: Carefully compact in layers.

535 Tree stakes

1. Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - 1.1. Preservative treatment: Not required
2. Stake size (minimum): 75 mm diameter
3. Stake length (minimum): 1800 mm

550A Double staking for

1. Description: Trees in planting/grass areas
2. Staking
 - 2.1. Position: Either side of tree position and perpendicular to wind direction.
 - 2.2. Driving: Vertically at least 300 mm into bottom of pit before planting.
 - 2.3. Backfilling: Consolidate material around stake.
 - 2.4. Firming: Sufficiently firm to prevent movement of the rootball/ rootstock.
3. Height of stakes: Cut off to approximately 600 mm above ground level
4. Horizontal bracing: Biodegradable fabric - gtNatural tie supplied by GreenTech or equivalent
 - 4.1. Ties: Biodegradable natural fibre
5. Ties: Biodegradable natural fibre
6. Tying: Fabric to be twisted to secure tree in upright position
7. Nails for fixing ties, belts and webbing: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
8. Nails for fixing tie fabrics: To BS 1202-1, galvanized round wire, minimum 75 mm long and 3.75 mm gauge

576 Tree pit surfacing – loose fill

1. Surfacing material: Mulch, as section Q28
2. Area: 600 mm radius circle
3. Depth: 50 mm

4. Watering: Water soil thoroughly before laying.
5. Installation: Ensure the base of the tree stem is kept free from loose filled material.

Woodland/ matrix/ buffer zone planting

680 Setting out

1. Planting density: As indicated on drawings and plant schedule
2. Layout: Random groups of no less than 3 or more than 7 of the same species, ensuring that no three plants are aligned in any one direction.

Protecting/ maintaining/ making good defects

710 Maintenance

1. Duration: Carry out the operations in the following clauses from completion of planting until practical completion.
2. Frequency of maintenance visits: In accordance with the agreed maintenance schedule

720 Failures of planting

1. Defects due to materials or workmanship not in accordance with the Contract: Plants/ trees/ shrubs that have failed to thrive.
 - 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

740 Cleanliness

1. Soil and arisings: Remove from hard surfaces and grassed areas.
2. General: Leave the works in a clean tidy condition at completion and after any maintenance operations.

750 Planting maintenance generally

1. Weed control: Maintain weed free area around each tree and shrub.
 - 1.1. Diameter (minimum): The larger of 1 m or the surface of original planting pit.
 - 1.2. Keep planting beds clear of weeds: By maintaining full thickness of mulch and hoeing
2. Planted areas: Fork over beds as necessary to keep soil loose, with gentle cambers and no hollows. Take care not to reduce depth or effect of mulch.
3. Precautions: Ensure that trees and shrubs are not damaged by use of mowers, nylon filament rotary cutters and similar powered tools.
4. Firming up: Gently firm loosened soil around trees/ shrubs. Straighten leaning trees/ shrubs.
5. Trees: Spray crown when in leaf during warm weather.
 - 5.1. Timing: After dusk.
6. Tree accessories: Check condition of stakes, ties, guys, guards and irrigation and ventilation systems.
 - 6.1. Broken or missing items: Replace.
 - 6.2. Loose stakes: Re-firm in the ground or replace as necessary to provide support to the tree.
 - 6.3. Loose guys: Re-firm anchor points and adjust as necessary to provide support to the tree.
 - 6.4. Ties: Adjust to accommodate growth and prevent constriction or abrasion.

- 6.5. **Damage to bark:** Cut back neatly with sharp knife. Prevent further damage.
- 6.6. **Frequency of checks:** At each scheduled maintenance visit
- 7. **Watering:** As required for healthy establishment, depending on weather conditions

760 Planting maintenance – pruning

- 1. **General:** Prune to promote healthy growth and natural shape.
 - 1.1. **Dead, dying, diseased wood and suckers:** Remove.
 - 1.2. **Timing:** As appropriate to the species
 - 1.3. **Trees:** Favour a single central leading shoot.
- 2. **Arisings:** Remove.

780 Maintenance instructions

- 1. **General:** Before end of the maintenance period, submit printed instructions recommending procedures to be established by the Employer for maintenance of the planting work for one full year: Provide a schedule of any ongoing maintenance problems experienced during the rectification period.

790 Final mulching

- 1. **Timing:** At end of the maintenance period.
- 2. **Watering:** Ensure that soil is thoroughly moistened prior to remulching, applying water where necessary.
- 3. **Planting beds:** Remulch.
- 4. **Depth (minimum):** 50 mm
- 5. **Trees:** Remulch.
- 6. **Depth (minimum):** 50 mm

Ω End of Section

Q35

Landscape maintenance

Clauses

2 To be read with preliminaries/ general conditions.

Generally

110 Notice

1. Give notice before
 - 1.1. Application of herbicide.
 - 1.2. Application of fertilizer.
 - 1.3. Watering.
 - 1.4. Each site maintenance visit.
2. Period of notice: 7 days

130 Reinstatement

1. Damage or disturbance to soil structure, planting, grass, fencing, hard landscaping, structures or buildings: Reinstatement to original condition.

155 Watering

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

160 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.

175 Disposal of arisings

1. General: Unless specified otherwise, dispose of arisings as follows: Remove from site

180 Chipping or shredding

1. General: Not permitted on site.

181 Mechanical equipment

1. General: Minimize.
2. Prohibited equipment: Any equipment likely to cause a disturbance to the school or classroom activities
3. Timing: Not permitted during school hours in proximity to school buildings

190 Litter

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

195 Protection of existing grass

1. **General:** Protect areas affected by maintenance operations using boards/tarpaulins. Do not place excavated or imported materials directly on grass.

197 Cleanliness

1. **Soil and arisings:** Remove from hard surfaces.
2. **General:** Leave the works in a clean, tidy condition at completion and after any maintenance operations.

Grassed areas

220 Grass cutting generally

1. **Before mowing:** Remove litter, rubbish and debris.
2. **Finish:** Neat and even, without surface rutting, compaction or damage to grass.
3. **Edges:** Leave neat and well defined. Neatly trim around obstructions.
4. **Adjoining hard areas:** Sweep clear and remove arisings.
5. **Drought or wet conditions:** Obtain instructions.

226 Tree stems

1. **Precautions:** Do not allow nylon filament rotary cutters and other mechanical tools closer than 100 mm to the stem of any tree.
 - 1.1. **Operations close to stems:** Complete using hand tools.

272A Maintaining grassed areas with perennial wild flowers

1. **Preparation:** Before each cut remove litter and debris.
2. **Height and frequency of cut in second growing season**
 - 2.1. **Frequency of subsequent cutting (minimum):** Summer cut at end of flowering season with winter cuts as required to maintain height of 50mm
 - 2.2. **Height of growth permitted (maximum):** Summer cut to take place after flowering and once seeds have dropped
3. **Trimming:** All edges.
 - 3.1. **Arisings:** Remove.
4. **Watering:** As schedule and when instructed

309 Edges to seeded areas

1. **Location:** Planting beds and around newly planted trees.
2. **Timing:** After seeded areas are well established.
3. **Edges:** Cut to clean straight lines or smooth curves. Draw back soil to permit edging.
4. **Arisings:** Remove.

310 Re-forming grass edges

1. **Location:** Planting bed edges
2. **Edges:** Draw back soil and re-form edges to clean straight lines or smooth flowing curves, sloping slightly back from vertical.

350 Fertilizer – spring application

1. **Type:** Slow release

2. Application rate: To manufacturer's guidelines

360 Fertilizer – autumn application

1. Type: Slow release
2. Application rate: To manufacturer's guidelines

Flower beds/ seasonal beddings - Not Used

Shrubs/ trees/ hedges

500 Establishment of new planting

1. Duration: 2 years
2. Weed control
 - 2.1. Method: Keep planting beds clear of weeds by maintaining full thickness of mulch and hand weeding.
 - 2.2. Area: Maintain a weed free area around each tree and shrub, minimum diameter the larger of 1 m or the surface of the original planting pit.
3. Soil condition: Fork over beds to keep soil loose, with gentle cambers and no hollows. Do not reduce depth or effect of mulch.
4. Watering: As schedule and when instructed

502 Establishment of new planting – fertilizer

1. Time of year: March or April.
2. Type: Slow release
3. Spreading: Spread evenly. Carefully lift and replace any mulch materials.
 - 3.1. Application rate: As manufacturer's recommendations

510 Tree stakes and ties

1. Inspection/ maintenance times: As part of each maintenance visit
2. Stakes
 - 2.1. Replace loose, broken or decayed stakes to original specification.
 - 2.2. If longer than half of clear tree stem height, cut to this height in spring. Retie to tree firmly but not tightly with a single tie.
3. Ties: Adjust, refix or replace loose or defective ties, allowing for growth and to prevent chafing.
 - 3.1. Where chafing has occurred, reposition or replace ties to prevent further chafing.
4. Removal of stakes and ties: During spring when no longer required to support the tree
 - 4.1. Fill stake holes with lightly compacted soil.

520 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.

540 Pruning generally

1. Pruning: In accordance with good horticultural and arboricultural practice.
 - 1.1. Removing branches: Do not damage or tear the stem or bark.
 - 1.2. Wounds: Keep as small as possible and cut cleanly back to sound wood.

- 1.3. **Cutting:** Make cuts above and sloping away from an outward facing healthy bud, angled so that water will not collect on cut area.
- 1.4. **Larger branches:** Prune neither flush nor leaving a stub, but using the branch bark ridge or branch collar as a pruning guide.
2. **Appearance:** Thin, trim and shape each specimen appropriately to species, location, season, and stage of growth, leaving a well balanced natural appearance.
3. **Tools:** Use clean sharp secateurs, hand saws or other approved tools. Trim off ragged edges of bark or wood with a sharp knife.
4. **Disease or infection:** Give notice if detected.
5. **Growth retardants, fungicide or pruning sealant:** Do not use unless instructed.

545 Pruning of excessive overhang

1. **Timing:** To be agreed
2. **Operations:** Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
3. **Special requirements:** None

550 Pruning of excessive height

1. **Timing:** To be agreed
2. **Operations:** Remove excessive height To be agreed.

570 Formative pruning of young trees

1. **Standard:** Type and timing of pruning operations to suit the plant species.
2. **Time of year:** Do not prune during the late winter/ early spring sap flow period.
3. **Young trees up to 4 m high**
 - 3.1. **Crown prune** by removing dead branches and reducing selected side branches by one third to preserve a well balanced head and ensure the development of a single strong leader.
 - 3.2. **Remove duplicated branches** and potentially weak or tight forks. In each case cut back to live wood.
4. **Whips or feathered trees:** Do not prune.
5. **Operatives:** Member of the Arboricultural Association

575 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.

580 Pruning flowering species of shrubs and roses

1. **Time of year**
 - 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.

615 Trimming field hedges

1. **Operations:** Trim to specified height and profile using suitable mechanical cutters.

620 Removal of dead plant material

1. **Operations:** At the end of the growing season, check all shrubs and remove all dead foliage, dead wood, and broken or damaged branches and stems.

630 Dead and diseased plants

1. **Removal:** As soon as possible
2. **Replacement:** In the next suitable planting season

635 Reinstatement of shrub/ herbaceous areas

1. **Dead and damaged plants:** Remove.
2. **Mulch/ matting materials**
 - 2.1. Carefully move to one side and dig over the soil, leaving it fit for replanting.
3. Do not disturb roots of adjacent plants.
4. **Replacement plants**
 - 4.1. **Use pits and plants:** To original specification or to match the size of adjacent or nearby plants of the same species, whichever is the greater.
 - 4.2. **Additional requirements:** Submit proposals
5. **Dressing:** Slow release fertilizer:
 - 5.1. **Type:** Submit proposals
 - 5.2. **Application rate:** As manufacturer's recommendations

645 Weed control generally

1. **Weed tolerance:** Maintain planting beds weed free
2. **Adjacent plants, trees and grass:** Do not damage.

650 Hand-weeding

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.

675 Digging over

1. **General:** Dig over beds. Do not damage existing plants, bulbs and roots.
 - 1.1. **Depth of dig (minimum):** 75 mm

680 Soil aeration

1. **Compacted soil surfaces**
 - 1.1. **Prick up:** To aerate the soil of root areas and break surface crust.
 - 1.2. **Size of lumps:** Reduce to crumb and level off.
 - 1.3. **Damage:** Do not damage plants and their roots.

685 Soil level adjustment

1. **Level of soil/mulch at edges of beds:** Reduce to 50 mm below adjacent grass or hard surface.
 - 1.1. **Arisings (if any):** Spread evenly over the bed.

690 Maintenance of loose mulch

1. Thickness (minimum): 50 mm
 - 1.1. Top up: As part of maintenance visits to maintain specified depth
2. Mulch spill on adjacent areas: Remove weeds and rubbish and return to planted area.
3. Weeding: Remove weeds growing on or in mulch by hand weeding.

Green walls - Not Used

Tree work

810 Tree work generally

1. Identification: Before starting work agree which trees, shrubs and hedges are to be removed or pruned.
2. Protection: Avoid damage to neighbouring trees, plants and property
3. Standards: To BS 3998 and Health & Safety Executive (HSE) 'Forestry and arboriculture safety leaflets'.
4. Removing branches: Cut vertical branches similarly, with no more slope on the cut surface than is necessary to shed rainwater.
5. Appearance: Leave trees with a well balanced natural appearance.
6. Chain saw work: Operatives must hold a Certificate of Competence.
7. Tree work: To be carried out by an approved member of the Arboricultural Association.

815 Additional work

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

820 Prevention of wound bleeding

1. Standard: To BS 3998.

825 Prevention of disease transmission

1. Standard: To BS 3998.

835 Cutting and pruning generally

1. Tools: Appropriate, well maintained and sharp.
2. Final pruning cuts
 - 2.1. Chainsaws: Do not use on branches of less than 50 mm diameter.
 - 2.2. Hand saws: Form a smooth cut surface.
 - 2.3. Anvil type secateurs: Do not use.
3. Removing branches: Do not damage or tear the stem.
4. Wounds: Keep as small as possible, cut cleanly back to sound wood leaving a smooth surface, and angled so that water will not collect on the cut area.
5. Cutting: Cut at a fork or at the main stem to avoid stumps wherever possible.
6. Large branches: Remove only with prior approval
 - 6.1. Remove in small sections and lower to ground with ropes and slings.
7. Dead branches and stubs: When removing, do not cut into live wood.
8. Unsafe branches: Remove epicormic shoots and potentially weak forks that could fail in adverse weather conditions.

9. **Disease or fungus:** Give notice if detected. Do not apply fungicide or sealant unless instructed.

840 Crown reduction/ shaping

1. **General:** Cut back selectively to lateral or sublateral buds or branches to retain flowing branch lines without leaving stumps.
2. **Operations:** Only to be carried out with prior agreement

865 Bark damage

1. **Wounds**
 - 1.1. Do not attempt to stop sap bleeding.
 - 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.

Water areas - Not Used

Hard landscape areas/ fencing

930 Graffiti removal

1. **Method:** To be agreed as required
2. **Subsequent treatment:** To be agreed
 - 2.1. **Finish:** To be agreed

Ω End of Section

Q40 Fencing

Fencing systems

310 Hit and miss fencing A

1. Manufacturer: Jackson's Fencing or equivalent
 - 1.1. Product reference: Vertical hit and miss fencing
2. Height: 1800 mm
3. Wood: Softwood
 - 3.1. Treatment: Jakcure, or equivalent to provide min. 25 year lifespan
 - 3.2. Finish: PAR
4. Posts: Wood
5. Centres of posts (maximum): To manufacturer's standard and adjusted to suit bin store dimensions
6. Method of setting posts: Set in concrete foundation to engineer's details
7. Accessories: Matching gates, refer to drawing and with gravel board and capping rail
8. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

340 Steel vertical bar fencing

1. Manufacturer: Submit proposals
 - 1.1. Product reference: To match existing fencing
2. Standard: To BS 1722-9.
3. Height: 2500 mm
4. Verticals: To match existing
5. Centres of verticals: To match existing
6. Posts: To match existing
 - 6.1. Finish: Hot-dip galvanized to BS EN ISO 1461
7. Centres of posts (maximum): To manufacturer's standard and to suit extents of areas to be fenced
8. Method of setting posts/ stays/ legs: Set in concrete foundations, or engineer's details
9. Accessories: Matching single leaf pedestrian gates and double leaf vehicle gates. Double leaf gates to provide clear opening of 3.5m with 1.2m clear opening single leaf pedestrian gate; and 2no. 1.5m clear opening single leaf pedestrian gates set side by side. Gates to have keypad and fob controls linked to maglock release mechanism; fire control override requirements TBC with end user and M&E engineer
10. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-9.

Gates, posts and stiles - Not Used

Accessories - Not Used

Execution

710 Installation generally

1. Set out and erect
 - 1.1. Alignment: Straight lines or smoothly flowing curves.
 - 1.2. Tops of posts: Following profile of the ground.

- 1.3. **Setting posts:** Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
- 1.4. **Fixings:** All components securely fixed.

715 Competence

1. **Operatives:** Contractors must employ competent operatives.
2. **Qualifications:** Submit certification of training.
 - 2.1. **NHSS Sector Scheme 2A sub categories:** (b) and (g)

720 Setting posts in concrete

1. **Standard:** To BS 8500-2.
2. **Mix:** To engineer's details
3. **Admixtures:** Do not use.
4. **Holes:** Excavate neatly and with vertical sides.
5. **Filling:** Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
6. **Backfilling of holes not completely filled with concrete:** Excavated material, well rammed and consolidated.

780 Making good galvanized surfaces

1. **Treatment of minor damage (including on fasteners and fittings):** Low melting point zinc alloy repair rods or powders made for this purpose, or at least two coats of zinc-rich paint to BS 4652.
2. **Thickness:** Apply sufficient material to provide a zinc coating at least equal in thickness to the original layer.

Completion

910 Cleaning

1. **General:** Leave the works in a clean, tidy condition.
2. **Surfaces:** Clean immediately before handover.

920 Fixings

1. **All components:** Tighten.
 - 1.1. **Timing:** Before handover.

930 Gates

1. **Hinges, latches and closers:** Adjust to provide smooth operation. Lubricate where necessary.
 - 1.1. **Timing:** Before handover.

Ω End of Section

Q50

Site/street furniture/equipment

Clauses

2 To be read with preliminaries/ general conditions.

Gates, barriers and parking controls

190 Bollards

1. Description: Bollards to prevent vehicle access
2. Manufacturer: Broxap, or equivalent
 - 2.1. Product reference: Manchester bollard - BX 1539RT
3. Material: DURACAST Polyurethane
 - 3.1. Finish as delivered: Painted
 - 3.2. Colour: Black - RAL 9005
4. Height above ground: 950 mm
5. Sectional size: 227 mm overall diameter
6. Top: Domed
7. Special features: Removeable bollard with locking plate
8. Method of fixing: Fixing socket to be root fixed, set in concrete base to engineer's details

Site and street furniture

213 Cycle shelters

1. Manufacturer: Bikedock Solutions, or equivalent.
 - 1.1. Product reference: BDS Cycle enclosure
2. Material: Mild steel frame with polycarbonate panels, including anti-climb end frames with anti-vandal PET panels
3. Finish:: Hot dipped galvanised with powder coated finish, colour to match existing shelters
4. Accessories:: Cycle stands to match existing shelters
5. Dimensions: Cycle shelter sizes vary, refer to individual sizing of each shelter.
6. Method of fixing: Fixed to concrete foundation to engineer's details.

Installation

510 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Concrete: To engineer's details
3. Admixtures: Do not use.
4. Foundation holes: Neat vertical sides.
5. Depth of foundations, bedding, haunching: Appropriate to provide adequate support and to receive overlying soft landscape or paving finishes.

515 Setting components in concrete

1. Holes: To suit required foundation size, refer to engineer's details
2. Components: Accurately positioned and securely supported.

3. Concrete fill: Fully compacted as filling proceeds.
4. Concrete foundations exposed to view: Compacted until air bubbles cease to appear on the upper surface, then weathered to shed water and trowelled smooth.
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

Ω End of Section



Specification created using NBS Chorus