



oobe

Client: AHR Architects

5585-OOB-XX-XX-OTH-L-6001 External Work Specification

P02

5585 - Kingsway Park Academy

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D20

Excavating and filling

Generally/the site

110 Site investigation

1. **Report:** Refer to Engineer's preliminaries information

145 Variations in ground water level

1. **Give notice:** If levels encountered are significantly different from levels in the site investigation report or previously measured.

150 Existing services, features and structures

1. **Services:** Refer to Engineer's drawings and topographical survey
2. **Site features to be retained:** Refer to Engineer's drawings, Landscape drawings and topographical survey
3. **Structures:** Refer to Engineer's drawings, Landscape drawings and topographical survey

Clearance/excavating

164 Tree roots

1. **Protected area:** Do not cut roots within precautionary protection area.
 - 1.1. **Size of area:** As per Arboricultural Impact Assessment and root protection information
2. **Excavation in protected area**
 - 2.1. **Method:** As per Arboricultural Method Statement . See Hand dig Zones and site methodology and tree survey.
 - 2.2. **Backfill** as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
3. **Outside protected area:** Give notice of roots exceeding 25 mm and do not cut without approval.
4. **Cutting**
 - 4.1. Make clean smooth cuts with no ragged edges.
 - 4.2. Pare cut surfaces smooth with a sharp knife.
 - 4.3. **Treatment of cut roots:** As per Arboricultural Method statement
5. **Backfill:** As per Arboricultural Method statement . As dug material, enriched with amelioration as section Q31

166 Tree root barriers

1. **Trench:** Sever all roots outside root protection zone
 - 1.1. **Depth:** 1.5 m
2. **Root barrier:** As per section Q31 510
3. **Cutting roots:** As clause 164.
4. **Root barrier installation:** Full depth of excavation. Fit closely to trench wall nearest the tree. To be used where trees are within 3m of services
5. **Backfill material:** As dug material excavated from trench.
6. **Backfilling:** Lay and compact thoroughly in layers not more than 300 mm thick.

168 Site clearance

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

2. **General:** Clear site of rubbish, debris and vegetation. Do not compact topsoil.
3. **Treatment:** Apply a suitable non-residual herbicide to areas to receive planting

170 Removing small trees, shrubs, hedges and roots

1. **Identification:** Clearly mark trees to be removed. Refer to arboricultural implications assessment and method statement for details
2. **Small trees, shrubs and hedges:** Cut down.
3. **Roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
4. **Safety:** Comply with Forest Industry Safety Accord safety leaflets.

175 Felling large trees

1. **Definition:** Girth over 600 mm.
2. **Identification:** Clearly mark trees to be removed. Refer to arboricultural implications assessment and method statement for details
3. **Safety:** Comply with Forest Industry Safety Accord safety leaflets.
4. **Felling:** As close to the ground as possible.
5. **Stumps:** Remove by stump grinding
6. **Work near retained trees:** Take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained, where tree canopies overlap and in confined spaces generally.

180 Chipping and shredding

1. **General:** Permitted, remove arisings from site

220 Stripping topsoil

1. **General:** Before beginning general excavation or filling, strip topsoil from areas where there will be regrading, buildings, pavings/ roads and other areas shown on drawings.
2. **Depth**
 - 2.1. Give notice where the depth of topsoil is difficult to determine.
3. **Handling:** Handle topsoil for reuse or sale in accordance with clause 225.
4. **Around trees:** Do not remove topsoil from below the spread of trees to be retained.
5. **Site storage:** Keep separate from excavated sub-soil

221 Treating topsoil

1. **Treatment:** Apply a suitable translocated nonresidual herbicide.
2. **Timing:** Not less than two weeks before excavating topsoil.

225 Handling topsoil

1. **Standard:** To BS 3882.
2. **Aggressive weeds**
 - 2.1. **Species:** Notify the presence of species included in the Weeds Act, section 2, or the appropriate Wildlife and Countryside Act for the relevant jurisdiction.
 - 2.2. **Give notice:** Obtain instructions before moving topsoil.
3. **Contamination:** Do not mix topsoil with:
 - 3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
 - 3.2. Other soil or material containing aggressive weeds, sharps, plastics and non soil forming materials and notifiable animal or plant diseases.

- 3.3. Oil, fuel, cement or other substances harmful to plant growth.
- 3.4. Other classifications of topsoil.
4. Multiple handling: Keep to a minimum. Use topsoil immediately after stripping.

270 Foundations generally

1. Give notice if
 - 1.1. A natural bearing formation of undisturbed subsoil is not obtained at the depth shown on the drawings.
 - 1.2. The formation contains soft or hard spots or highly variable material.

310 Unstable ground

1. **Generally:** Ensure that the excavation remains stable at all times.
2. **Give notice:** Without delay if any newly excavated faces are too unstable to allow earthwork support to be inserted.
3. **Take action:** If instability is likely to affect adjacent structures or roadways, take appropriate emergency action.

320 Recorded features

1. Recorded foundations, beds, drains, manholes, etc.: Refer to Engineer's drawings and specification
2. Contaminated earth: Remove and disinfect as required by Local Authority.

330 Unrecorded features

1. **Give notice:** If unrecorded foundations, beds, voids, basements, filling, tanks, pipes, cables, drains, manholes, watercourses, ditches, etc. not shown on the drawings are encountered.

Disposal of materials

415 Excavated topsoil removal

1. **General:** Store on site as per contractor's proposals

450 Water

1. **Generally:** Keep all excavations free from water until:
 - 1.1. Formations are covered.
 - 1.2. Below ground constructions are completed.
 - 1.3. Basement structures and retaining walls are able to resist leakage, water pressure and flotation.
2. **Drainage:** Form surfaces of excavations and fill to provide adequate falls.
3. **Removal of water:** Provide temporary drains, sumps and pumping as necessary. Do not pollute watercourses with silt laden water.

454 Ground water level, springs or running water

1. **Give notice:** If it is considered that the excavations are below the water table.
2. **Springs/ Running water:** Give notice immediately if encountered.

Filling - Not Used

Bioremediation - Not Used

'specification for highway works: earthworks specification' appendices - Not Used

Ω End of Section

L37

External stair, ramps, handrail and balustrades systems

General

150 Handrail systems

1. Description: Handrail to all steps
2. System manufacturer: Contractor's Choice
3. Material: 316 grade Stainless Steel
 - 3.1. Cross section: 40mm
 - 3.2. Finish: Brushed
4. Height (to upper surface of handrail)
 - 4.1. Above pitch line: 1000 mm
 - 4.2. Above landing: 1100mm
5. Mid-rail height (to upper surface of handrail):
 - 5.1. Above pitch line:: 500mm
 - 5.2. Above landing:: 550mm
6. Method of setting posts:: Set parallel to pitch of steps
7. Notes:: Verticals to be drilled fixed and secured in accordance with Engineer's specification. Number to be confirmed by others.
Refer to Engineer's specification for foundation and more details

System performance - Not Used

Products

310 Precast concrete step unit

1. Description: Steps throughout external landscape
2. Manufacturer: Marshalls or equal and approved
 - 2.1. Product reference: Conservation X step
3. Standard: To BS EN 771-2 and -3.
4. Size
 - 4.1. Surface width: 1000mm
 - 4.2. Going: 400
 - 4.3. Rise: As per levels drawing
5. Colour: Silver grey textured
6. Finish: Textured
7. Accessories: 55mm wide visibility strips that are set 35mm from the edge of the kerb both horizontally and vertically. These standard strip colours meet the BS 8300 light reflectance values (LRV) standards.

311 Precast concrete top step unit

1. Description: Steps throughout external landscape
2. Manufacturer: Marshalls or equal and approved
 - 2.1. Product reference: Conservation X step
3. Standard: To BS EN 771-2 and -3.

4. Size
 - 4.1. Surface width: 1000mm
 - 4.2. Going: 300mm
 - 4.3. Rise: As per levels drawing
5. Colour: Silver grey textured
6. Finish: Textured
7. Accessories: 55mm wide visibility strips that are set 35mm from the edge of the kerb both horizontally and vertically. These standard strip colours meet the BS 8300 light reflectance values (LRV) standards.

Fabrication

510 Fabrication generally

1. Design: Complete the detailed design and obtain approval prior to commencing fabrication.
2. Shop drawings: Submit.
3. Structural calculations: Submit.
4. Frameworks: Assemble and brace, including temporary members required for installation.
5. Contact between dissimilar metals: Avoid.
6. Fixings: Welded
7. Temporary support: Do not subject members to non-design loadings.

Execution

620 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Concrete: To Engineer's specification. Designated not less than GEN 1 or standard prescribed not less than ST2.
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.

630 Setting components in concrete

1. Holes: Size to be confirmed by Engineer
2. Components: Accurately positioned and securely supported.
3. Concrete fill: Compact as filling proceeds.
4. Concrete foundations exposed to view: Finished to weathering profile to shed water and trowel smooth.
5. Temporary component support: Maintain undisturbed for minimum 48 hours.

650 Installation generally

1. Fasteners: Refer to fabrication drawings
2. Structural members: Do not modify, cut, notch or make holes in structural members, except as indicated on drawings.
3. Temporary support: Do not use finished work as temporary support or strutting for other work.
4. Applied finishes: Substrates to be even, dry, sound and free from contaminants. Make good substrate surfaces and prepare/ prime as finish manufacturer's recommendation before application.

662 Adverse weather

1. **General:** Do not use frozen materials and do not lay on frozen surfaces.
2. **Working limits:** Do not lay blocks/ dressings:
 - 2.1. **Cement gauged mortars:** When the air temperature is at or below 3°C and falling or below 1°C and rising (unless mortar has a temperature of not less than 4°C when laid and work is thoroughly protected).
 - 2.2. **Hydraulic lime:sand mortars:** When the air temperature is at or below 5°C and falling or below 3°C and rising.
3. **Temperature of the work:** Maintain above freezing until mortar has fully set.
4. **Newly erected work:** Protect from precipitation; Prevent rapid drying in hot conditions.
5. **Remedial work:** Rake out and replace mortar damaged by frost.
 - 5.1. **Damaged work:** Rebuild.

Completion

910 Inspection

1. **Timing:** Two weeks prior to date when principal contractor expects work to be practically complete
2. **Period of notice (minimum):** 1 week

Ω End of Section

Q10

Kerbs/ edgings/ channels/ paving accessories

Types of kerbs/edgings and channels

110 Precast Concrete Pin Kerb Flat top kerb

1. Description: Flat top edging kerb
2. Standard: To BS EN 1340.
3. Manufacturer: Marshalls or equal and approved
4. Product reference: EF Flat Top Edgings
5. Recycled content: 3% (minimum) to BS EN ISO 14021
6. Designations: EF
7. Size (width x height x length): 50 x 150 x 914 mm
8. Special shapes: -
9. Finish: Smooth
10. Colour: Grey
11. Bedding: To Engineer's detail and specification
12. Joints generally: Narrow mortar
13. Sealant movement joints: To Engineer's detail and specification
14. Accessories: Submit proposals

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.

530 Concrete for foundations, races and haunching

1. Standard: To BS 8500-2.
2. Designated mix: Not less than GEN0 or Standard mix ST1.
3. Workability: Very low.

540 Cement mortar bedding

1. General: To section Z21.

2. Mix (Portland cement:sand): 1:3.
 - 2.1. Portland cement: Class CEM I 42.5 to BS EN 197-1.
 - 2.2. Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
3. Bed thickness: 12-40 mm.

Ω End of Section

Q22

Asphalt roads/ pavings

Types of paving

115 Pedestrian Tarmacadam

1. **Description:** Proposed Tarmacadam to Pedestrian Areas
2. **Supplier:** : To Engineer's Detail and Specification

116 Coloured Tarmac footpaths

1. **Description:** Proposed Pedestrian Asphalt
2. **Supplier:** : Ulticolour or similar and approved
3. **Colour:** White
4. **Product:** Ulticolour coloured asphalt
5. **Size:** 6mm SMA surface course

170 Vehicular Tarmacadam

1. **Description:** Proposed Vehicular Tarmacadam - Build up to Engineer's specification

Preparatory work/ requirements - Not Used

Laying - Not Used

Completion - Not Used

Ω End of Section

Q25

Slab/ brick/ sett/ cobble pavings

General - Not Used

System performance - Not Used

Products

320 Tactile flags and slabs

1. Description: Tactile Paving
2. Standard: To DD CEN/TS 15209.
3. Material: Concrete
 - 3.1. Manufacturer: Marshalls or similar and approved
 - 3.1.1. Product reference: Tactile Hazard Warning Paving
4. Nominal sizes: 400x400x50mm
5. Colour: Standard - Natural
6. Type of surface: Corduroy

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.

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.

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:
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.

660 Drainage holes in existing bases

1. **Location:** Impervious layers of existing road/ paving.
2. **Drainage:** Form regular grid of holes, through base and any additional build up, down to sub-base:
 - 2.1. Do not weaken or excessively disturb road/ paving.

Completion - Not Used

Ω End of Section

Q28

Topsoil and soil ameliorants

System outline

135 Planting bed soil system

1. **Description:** For all planting beds - 450mm topsoil
2. **Composition**
 - 2.1. **Topsoil:** Imported topsoil to BS 3882
 - 2.2. **Ameliorants:** Sanitized and stabilized composted materials
 - 2.3. **Accessories:** None

145 Plant pit backfilling soil system

1. **Description:** For Tree pits - 600mm topsoil and 500mm of subsoil
2. **Composition**
 - 2.1. **Topsoil:** Imported topsoil to BS 3882
 - 2.2. **Ameliorants:** Sanitized and stabilized composted materials
 - 2.3. **Accessories:** None

155 Mulching and top dressing system

1. **Description:** To all planting areas - 75mm
2. **Composition**
 - 2.1. **Material:** Thoroughly composted bark mulch

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, the roots of pernicious weeds especially couch grass, 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. If any evidence of couch grass or other pernicious weeds is found in topsoil.

305 Permitted materials

1. **Materials:** Composted bark
2. **Give notice:** before ordering or using.
3. **Declaration of compliance in accordance with BS EN 13650:** Not required

310 Materials not permitted

1. **Materials:** Products containing peat or River and canal dredgings

315 Imported topsoil to BS 3882

1. **Description:** For all proposed planting and grassed areas
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:** Sandy clay loam
5. **Source:** Contractor's choice
 - 5.1. **Product reference:** Submit proposals

360 Sanitized and stabilized composted materials certified to PAS 100

1. **Description:** For all planting beds
2. **Standard:** In accordance with PAS 100 and Compost Quality Protocol
3. **Source:** Submit proposals
 - 3.1. **Product reference:** Submit proposals
4. **Horticultural parameters**
 - 4.1. **pH (1:5 water extract):** 7.0-8.7
 - 4.2. **Electrical conductivity (maximum, 1:5 water extract):** 200 mS/m
 - 4.3. **Moisture content (m/m of fresh weight):** 35-55%.
 - 4.4. **Organic matter content (minimum):** 25%
 - 4.5. **Grading (air dried samples):** 99% passing 25 mm and 90% passing 10 mm screen mesh apertures
 - 4.6. **Carbon:Nitrogen ratio (maximum):** 20:1.
5. **Texture:** Friable.
6. **Objectionable odour:** Not permitted.
7. **Compost Certification Scheme certification:** Required
8. **Declaration of analysis:** Submit.
9. **Additional analyses:** Not required
10. **Samples:** Submit details of recent chemical and physical analysis before ordering

Execution

610 Topsoil analysis

1. **Soil to be analysed:** Imported topsoil, Site won topsoil
2. **Soil analyst:** Contractors choice
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:** Not required
 - 4.3. **Report detailing soil analyst's recommendations.**

620 Importing topsoil

1. Give notice: Before stripping topsoil for transfer to site.
 - 1.1. Notice period: 7 days

625 Sample loads

1. Description: FOR IMPORTED TOPSOIL
2. Deliver to site a sample load: of 5 kg
3. Give notice: Allow inspection before making further deliveries to site. Retain for comparison with subsequent loads. Submit copy of confirmation of receipt of soil sample and associated documentation to client on receipt.
 - 3.1. Notice period: 7 days

630 Documentation for imported topsoil

1. Description: For planting beds
2. Timing: Submit copy of confirmation of receipt of soil sample and associated documentation to client on receipt.
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: One

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 : Supply record of site visits to client following monthly site visits
2. Period of notice: 1 week

655 Mechanical tools

1. Restrictions: Do not use within 100 mm of tree and plant stems. Refer to Arboricultural method statement for hand dig zones.

660 Grading subsoil for:

1. Description: Ornamental planting beds
2. Standard: In accordance with BS 8601.
3. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
4. Areas of thicker topsoil: Excavate locally.
5. Avoid compaction.: Subsoil to be free draining. Relieve any potential compaction due to earlier site works prior to placing topsoil
6. Excess subsoil: Remove.

665 Subsoil surface preparation for:

1. **Description:** Grassed areas
2. **Standard:** In accordance with BS 3882.
3. **General:** Excavate and/ or place fill to required profiles and levels
4. **Loosening**
 - 4.1. When ground conditions are sufficiently dry to allow breaking up of soils, loosen thoroughly to specified depth: Subsoil to be free draining. Relieve any potential compaction due to earlier site works prior to placing topsoil.
 - 4.1.1. Light and noncohesive subsoils: 150 mm
 - 4.1.2. Stiff clay and cohesive subsoils: 300 mm
 - 4.1.3. Rock and chalk subgrades: Lightly scarify to promote free drainage.
 - 4.2. Wet conditions: Do not loosen subsoils.
5. **Stones:** Immediately before spreading topsoil, remove stones larger than 50 mm.
6. **Remove from site:** Arisings, contaminants and debris and Builders rubble

680 Surplus topsoil to be retained

1. **Generally:** Spread and level on site:
 - 1.1. **Locations:** As directed by Landscape Architect
 - 1.2. **Protected areas:** Do not raise soil level within root spread of trees that are to be retained.

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.

690 Topsoil storage heaps

1. **Location:** To be agreed on site
2. **Height (maximum):** 1m
3. **Width (maximum):** 2m
 - 3.1. **Formation:** Loose tip and shape from the side only, without running machinery on the heap at any time.
4. **Protection**
 - 4.1. Do not place any other material on top of storage heaps.
 - 4.2. Do not allow construction plant to pass over storage heaps.
 - 4.3. Prevent compaction and contamination, by fencing and covering as appropriate.

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.

710 Spreading topsoil on:

1. **Description:** Amenity Grass Areas
2. **Standard:** In accordance with BS 3882.
3. **Temporary roads/ surfacing:** Remove before spreading topsoil.
4. **Layers**
 - 4.1. **Depth (maximum):** 150 mm.
 - 4.2. Gently firm each layer before spreading the next.
5. **Depth after firming and settlement:** 150mm
6. **Crumb structure:** Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

711 Spreading topsoil on:

1. **Description:** Wildflower Grass Areas
2. **Standard:** In accordance with BS 3882.
3. **Temporary roads/ surfacing:** Remove before spreading topsoil.
4. **Layers**
 - 4.1. **Depth (maximum):** 50 mm.
 - 4.2. Gently firm each layer before spreading the next.
5. **Depth after firming and settlement:** 150mm
6. **Crumb structure:** Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

712 Spreading topsoil on:

1. **Description:** ORNAMENTAL PLANTING BEDS
2. **Standard:** In accordance with BS 3882.
3. **Temporary roads/ surfacing:** Remove before spreading topsoil.
4. **Layers**
 - 4.1. **Depth (maximum):** 450 mm.
 - 4.2. Gently firm each layer before spreading the next.
5. **Depth after firming and settlement:** 450mm
6. **Crumb structure:** Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

713 Spreading topsoil on:

1. **Description:** Hedge Planting Areas
2. **Standard:** In accordance with BS 3882.
3. **Temporary roads/ surfacing:** Remove before spreading topsoil.

4. Layers
 - 4.1. Depth (maximum): 450 mm.
 - 4.2. Gently firm each layer before spreading the next.
5. Depth after firming and settlement: 450mm
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

716 Spreading topsoil on:

1. Description: Tree Pits
2. Standard: In accordance with BS 3882.
3. Temporary roads/ surfacing: Remove before spreading topsoil.
4. Layers
 - 4.1. Depth (maximum): 900 mm.
 - 4.2. Gently firm each layer before spreading the next.
5. Depth after firming and settlement: 900mm
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

720 Finished levels of topsoil after settlement

1. In relation to adjoining paving, kerbs or hard surfaces: 25 mm above
2. In relation to dpc of adjoining buildings: Not less than 150 mm below.
3. In relation to adjacent grass areas: 80 mm above (75mm of bark mulch to make up level of planting beds)
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 all planted areas including trees
2. Timing: Immediately after planting
3. Preparation: Ensure that soil is thoroughly moistened, applying water where necessary, Clear all weeds, Water soil thoroughly
4. Coverage of mulch (minimum)
 - 4.1. Planting beds (depth): 75mm
 - 4.2. Trees: 75mm
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 the end of the rectification period.
3. **Time of year:** March or April
4. **Application:** Evenly spread, carefully incorporating below mulch materials.
5. **Rate:** To manufacturer's recommendations and to suit soil report recommendations

910 Applying maintenance fertilizer to grass swards

1. **Description:** to all grassed areas except wildflower areas
2. **Duration:** Carry out the following operations from completion of seeding/turfing until the end of the rectification period.
3. **Time of year:** March or April
4. **Application:** Evenly spread, carefully incorporating below mulch materials.
5. **Rate:** To manufacturer's recommendations and to suit soil report recommendations

920 Applying mulch

1. **Timing:** At end of the rectification 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):** 75mm
4. **Trees:** Remulch.
 - 4.1. **Depth (minimum):** 75mm
5. **Container planting:** Remulch.
 - 5.1. **Depth (minimum):** 75mm

Ω End of Section

Q30

Seeding/ turfing

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 from the contractor within the first 12 months or from the client thereafter.

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

210 Herbicide

1. **Description:** for Lawns
2. **Type:** Suitable for suppressing perennial weeds.
3. **Timing:** Allow fallow period before cultivation.
 - 3.1. **Duration:** 1 week

250 Soil requirements - Amenity Grass

1. Type
 - 1.1. Seeded areas: Topsoil Depth: 150mm
 - 1.2. Turfed areas: Topsoil depth: 150mm

Seeding

311 Grass seed

1. Description: Amenity grass sitewide
2. Supplier: Emorsgate Seeds or equal and approved
 - 2.1. Mixture reference: EG22 Strong lawn grass mixture
3. Application rate: 25g/m2

319 Quality of seed

1. Description: for grassed areas
2. Freshness: Produced for the current growing season.
3. Certification: Blue label certified varieties.
 - 3.1. Standard: EC purity and germination regulations.
 - 3.2. Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
4. Samples of mixtures: 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 and diagonally to main axis

335 Grass sowing season

1. Grass seed generally: April to October

Turfing - Not Used

Protecting/cutting - Not Used

Maintenance

610 Failures of seeding/ turfing

1. Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
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 reseeded/ returfing.
4. Timing of making good: The next suitable planting season

620 Maintaining - Amenity Grass areas

1. Description: All Amenity Grass areas

2. Duration: Carry out the following operations from completion of seeding/ turfing until: the end of the rectification period.
3. Maximum height of growth at any time: 75 mm
4. Preparation: Before each cut remove all litter and debris.
5. Cutting: As and when necessary to a height of 50 mm.
 - 5.1. Arisings: Remove
6. Trimming: All edges.
 - 6.1. Arisings: Remove.
7. Weed control: Substantially free of broad leaved weeds.
 - 7.1. Method: Application of a suitable selective herbicide.
8. Stones brought to the surface: Remove regularly.
 - 8.1. Size: Exceeding 25 mm in any dimension.
9. Areas of settlement: Make good.
10. Watering: As instructed in line with maintenance schedule

650 Maintaining grassed areas with perennial wildflowers

1. Preparation: Before each cut remove all litter and debris.
2. Height and frequency of cut in first growing season
 - 2.1. Time of first cut: March/April after autumn sowing or June/July after spring sowing
 - 2.2. Height of first cut: 75 mm
 - 2.3. Frequency of subsequent cutting (minimum): Once a year
3. Height and frequency of cut in second growing season
 - 3.1. Time of cut: Single cut in October
 - 3.2. Height of cut: 75 mm

Ω End of Section

Q31

External planting

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 50 mm.
3. **Contamination:** Remove material containing toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
4. **Vegetation:** Clear scrub to ground level by flail mowing and remove arisings; retain and protect trees indicated on drawings
5. **Large roots:** Grub up and dispose of without undue disturbance of soil and adjacent areas.
6. **Additional requirements:** Remove remnants of old fence posts and mesh

120 Climatic conditions

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

125 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.
5. **Dried bulbs, corms and tubers:** September/ October.
6. **Colchicum (crocus):** July/ August.
7. **Green bulbs:** After flowering in spring.
8. **Wildflower plugs:** Late August to mid November or March/ April.
9. **Aquatic plants:** May/ June or September/ October.

130 Mechanical tools

1. **Restrictions:** Do not use within 100 mm of tree and plant stems.
2. **Restrictions:** : Do not use in area indicated on Arboricultural method statement. Hand dig only.

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 from the contractor within the first 12 months or from the client thereafter.

160 Notice

1. Give notice before: Site Visit Log to be shared with client
 - 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. Maintenance visit log to be shared with client following monthly site visits
2. Period of notice: One week

170 Soil requirements

1. Type
 - 1.1. Planted beds: Existing topsoil 450mm Deep
 - 1.2. Hedge Rows: Existing topsoil 450mm Deep
 - 1.3. Tree pits, shrub pits and other backfilling: Existing topsoil Shrubs 450mm Deep, Trees 900mm Deep
 - 1.4. Mulch applied after planting: 75mm around the base of the tree

200 Proposed Tree

1. Description:: Proposed Tree
2. Planting Density:: Counted
3. Mulch Layer:: 75mm
4. Topsoil Depth:: min 700mm topsoil on Washed horticultural sand
5. Drainage Layer:: 100mm depth clean washed gravel (5-10mm) layer to aid drainage
6. Notes:: 3 no. 75mm diameter softwood tree stakes. No preservative treatment required. Driven vertically into ground. Min 600mm height above ground. 100mm circular ridge surrounding tree pit for irrigation.

210 Woodland Planting To Tree Planted Areas

1. Description:: Proposed Woodland Planting
2. Application:: 5g/m²
3. Topsoil Depth:: 600mm
4. Base Depth:: Broken up soil in base of pit to a depth of 150mm
5. Notes:: The soil around the young tree planting is to be sown with Emorsgate EM3 (Special tgeneral purpose Meadow Mixture) or similar.

Backfill topsoil mixed with 20L tree planting compost

220 Ornamental Planting

1. Description:: Proposed Ornamental Planting
2. Planting Density:: 9/m²
3. Mulch Layer:: 75mm
4. Topsoil Depth:: 450mm

Plant containers - Not Used

Preparation of planting beds/ planting materials - Not Used

Planting shrubs/ herbaceous plants/ bulbs

486 Shrub protection

1. **Manufacturer:** Post and PVC coated wire fence
 - 1.1. **Product reference:** Contractor's choice
2. **Type:** Round
3. **Material:** PVC coated Wire mesh and timber posts
4. **Size:** refer to detail. 0.75 m high x 150 mm diameter
5. **Colour:** Mesh colour green
6. **Support:** Single timber stake
7. **General:** Ensure that protection methods do not impede natural movement of shrubs or restrict growth.

Planting trees

505 Tree pits

1. **Sizes:** 1000mm x 1000mm
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 200 mm.
 - 4.1. **Treatment:** Soil ameliorant worked into pit bottoms. A small amount of RootStart (Green Blue Urban) mycorrhiza added to the backfill immediately surrounding the root ball, will increase the establishment rate of the root system. Quantity to Manufacturer's specification.
5. **Pit sides:** Scarify.
6. **Backfilling material:** Topsoil, as section Q28

510 Tree pit root barriers

1. **Locations:** To proposed trees within close proximity to services
2. **Manufacturer:** Green Blue Urban or equal and approved
 - 2.1. **Product reference:** RootStop
3. **Thickness:** 2.0 mm
4. **Barrier depth:** 1500 mm
5. **Foil liner:** Not required
6. **Top of root barrier in relation to finished topsoil level:** 10 mm above ground level
7. **Installation:** With sides vertical. Remove all sharp objects adjacent to barrier.

526 Underground guying for:

1. **Description:** Trees lining the main pedestrian boulevard
2. **Manufacturer:** Green Blue Urban or equal and approved
 - 2.1. **Product reference:** SASLCB Arborguy strapped anchor system c/w ground anchors
3. **Anchoring system:** 3 no pre-cast concrete dead-man anchors,
4. **Installation:** Ensure tree is positioned correctly and vertically prior to tightening guy line tensioners.

535 Tree stakes

1. **Stakes:** To all trees (except those that line the boulevard). Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
 - 1.1. **Preservative treatment:** To provide a 20 year service life
2. **Stake size (minimum):** Refer to drawings
3. **Stake length (minimum):** Refer to drawings

566 Tree protection

1. **Manufacturer:** Farm Forestry Company Ltd
 - 1.1. **Product reference:** Strimmer-Guard
2. **Material:** HDPE
3. **Size:** 80 - 200mm diameter guard
4. **Colour:** Brown
5. **General:** Ensure that protection methods do not impede natural movement of trees or restrict growth.

576 Tree pit surfacing – mulch

1. **Surfacing material:** Thoroughly composted bark mulch, as section Q28
2. **Area:** 1000 mm radius circle
3. **Depth:** 75 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 - Not Used

Protecting/ maintaining/ making good defects

710 Maintenance

1. **Duration:** Carry out the operations in the following clauses from completion of planting until the end of the rectification period.
2. **Frequency of maintenance visits:** In accordance with the agreed maintenance schedule
3. **Log of maintenance visits:** To be submitted on completion of visit and made available to client as required.

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
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:** Contractor's choice

760 Planting maintenance – pruning

- 1. **General:** Prune to promote healthy growth and natural shape. Refer to Landscape Management Plan – 5435-OOB-XX-XX-RP-L6100 for plant maintenance
 - 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.

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):** 75 mm
- 5. **Trees:** Remulch.
- 6. **Depth (minimum):** 75 mm

Ω End of Section

Q35

Landscape maintenance

Generally

105 Maintenance objectives

1. Location: Sitewide
 - 1.1. Duration: 1 year maintenance requirement by contractor, maintenance and management thereafter by client's management representative
2. Aims: Improved landscape visual amenity, Provide wildlife habitat and increase biodiversity, Opportunities for recreation and sport and Enhanced landscape quality
3. Restrictions: As described in the landscape maintenance manual
4. Results: As scheduled

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: 2 days

130 Reinstatement

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

140 Control of mammalian pests

1. Specialist firms: Submit proposals
 - 1.1. Method: Rabbit-proof fencing, as section Q40

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.

156 Watering

1. Supply: No site supply available, submit proposals
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: In dry spells

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.

170 Disposal of arisings

1. **General:** Unless specified otherwise, dispose of arisings as follows:
 - 1.1. **Biodegradable arisings:** Compost on site in designated area
 - 1.2. **Grass cuttings:** Spread evenly
 - 1.3. **Tree roots and stumps:** Remove from site
 - 1.4. **Shrub and tree prunings:** Chip on site and spread across planting beds
 - 1.5. **Litter and nonbiodegradable arisings:** Remove from site and recycle is applicable

181 Mechanical equipment

1. **General:** Minimize.
2. **Prohibited equipment:** Leaf blowers, Litter vacuums
3. **Timing:** Use of mechanical equipment allowed between the hours of 10:00 am and 4:00 pm only

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

210 Maintenance of amenity grass areas

1. **General:** Maintain grass in a manner appropriate to the intended use.
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.
3. **Ornamental lawns:** Maintain reasonably free from moss, excessive thatch, weeds, frost heave, worm casts and mole hills.
 - 3.1. **Edges:** Neat and well defined, in clean straight lines or smooth flowing curves.
4. **Litter and fallen leaves:** Remove regularly to maintain a neat appearance.

211 Maintenance of wildflower grass areas

1. **General:** Maintain grass in a manner appropriate to the intended use.
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.

212 Maintenance of wetland wildflower areas

1. **General:** Maintain grass in a manner appropriate to the intended use.
2. **Soil and grass**
 - 2.1. **Condition:** Maintain a healthy vigorous sward, free from disease, fungal growth, discolouration, scorch or wilt.
 - 2.2. **Damage:** Repair trampling, abrasion or scalping.

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.

225 Tree stems

1. **Precautions:** Do not use mowing machinery closer than 100 mm to tree stems. Use nylon filament rotary cutters and other hand held mechanical tools carefully to avoid damage to bark.

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.

240 Mowing strips

1. **Location:** Along the base of walls, fences and hedges and around each tree trunk
2. **Width (approximate):** 150 mm.
3. **Operations:** Maintain by hand weeding and cultivation

255 First cut of Amenity Grass

1. **Description:** ALL AMENITY GRASSED AREAS
2. **Height of initial growth:** 75 mm
3. **Preparation**
 - 3.1. **Debris and litter:** Remove.
 - 3.2. **Stones and earth clods larger than 25 mm in any dimension:** Remove
4. **Height of first cut:** 50 mm
5. **Mower type:** Contractor's choice
6. **Arisings:** Remove for composting on site

260 Mowing lawns

1. **Grass height:** 75 mm maximum
2. **Arisings:** Remove for composting on site

272 Maintaining grassed areas with perennial wild flowers

1. Preparation: Before each cut remove litter and debris.
2. Height and frequency of cut in first growing season
 - 2.1. Time of first cut: No earlier than October
 - 2.2. Height of first cut: 50 mm
 - 2.3. Frequency of subsequent cutting (minimum): once a year
3. Height and frequency of cut in second growing season
 - 3.1. Time of cut: October
4. Trimming: All areas
 - 4.1. Arisings: Remove.

300 Scarifying

1. Location: All lawns
2. Timing: February or March, before first cut
3. Operations: Relieve thatch conditions and remove dead grass.
4. Depth (maximum): 15 mm
5. Arisings: Remove

320 Levelling hollows and bumps in turf

1. Standard: To BS 7370-3, clauses 12.4 and 12.5.

325 Relieving surface compaction in turf

1. Standard: To BS 7370-3.
2. Method: Spiking
3. Top dressing: Fine sand
 - 3.1. Depth: 2-3 mm

Flower beds/ seasonal beddings

460 Beds of perennials or perennials and annuals

1. Plant supports: not required
2. Gaps in planting: Refill by replanting.
3. Watering
 - 3.1. New plants: Before and after planting out.
 - 3.2. Ongoing: As necessary for the continued thriving of all planting.
4. Operations at end of growing season
 - 4.1. Trim: Older flowering stems of herbaceous perennials.
 - 4.2. Remove: Redundant plant supports, litter, debris and arisings.
 - 4.3. Cultivate: Fork over the soil, taking care not to cause undue disturbance to plants.
 - 4.4. Top dress: Apply sanitized and stabilized compost top dressing.

470 Flower beds generally

1. Operations

- 1.1. **Remove:** Fallen leaves, litter and debris. DO NOT REMOVE DEAD FLOWER HEADS. Cut perennials and grasses (NOT evergreens) down to 150mm above ground level in spring after threat of frosts.
- 1.2. **Weeds:** Thoroughly hand weed.
- 1.3. **Cultivate:** Lightly hoe.
- 1.4. **Trim:** Clip grass edges.
2. **Fungicide:** Not required
3. **Insecticide:** Not required

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.
 - 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 and following periods of dry weather

515 Tree guy wires

1. **Inspection/ Maintenance times:** Immediately after strong winds
2. **Operations**
 - 2.1. Replace or resecure loose or missing guy wires.
 - 2.2. Adjust to suit stem growth and to provide correct and uniform tension.
3. **Removal:** When instructed

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.

525 Tree guards

1. **Loose or defective guards:** Adjust, refix or replace to original specification and to prevent chafing.

537 Nesting wild birds

1. **Survey:** Before starting hedge or tree work during the period of February to August (inclusive), carry out a survey by a qualified ecologist and submit report
2. **Accidental disturbance:** Report immediately.

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:** Annually
2. **Operations:** Remove growth encroaching onto grassed areas, paths, roads, signs, sightlines and road lighting luminaires.
3. **Special requirements:** Allow ground cover plants to partially overlap paths and lawns

550 Pruning of excessive height

1. **Timing:** As instructed
2. **Operations:** Remove excessive height As instructed.

555 Pruning trees and shrubs

1. **Standard:** To BS 7370-4.
2. **Special requirements:** Growth retardants not permitted. Do not prune trees subject to tree preservation orders without consent from the local authority.

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:** Approved specialist contractor/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. Refer to Landscape Management Plan 5435-OOB-XX-XX-RP-L6100 and refer to main schedule for individual plants
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. Refer to Landscape Management Plan 5435-OOB-XX-XX-RP-L6100 and refer to main schedule for individual plants
 - 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.

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 scheduled round of replacement planting

645 Weed control generally

1. Weed tolerance: At all times, weed cover less than 5% and no weed to exceed 100 mm high
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: Reinstall 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): 75 mm
 - 1.1. Top up: Twice per year
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.

705 Winter leaf removal

1. Operations: Take down temporary leaf fences. Collect accumulations of drifted leaves from the vicinity and from planting beds.
2. Arisings: Remove to recycling facility

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. **Standard:** To BS 3998.
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. Do not prune trees subject to tree preservation orders without consent from the local authority.

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.

830 Cleaning out and deadwooding

1. **Remove**
 - 1.1. Dead, dying, or diseased wood, broken branches and stubs.
 - 1.2. Fungal growths and fruiting bodies.
 - 1.3. Rubbish, windblown or accumulated in branch forks.
 - 1.4. Wires, clamps, boards and metal objects, if removable without causing further damage and not part of a support structure that is to be retained.
 - 1.5. Other unwanted objects, e.g. tree houses, swings.
 - 1.6. Climbing plants as maintenance schedule.

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:**
 - 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:** To be confirmed by Client.

845 Crown lifting

1. **Clearances:** Remove branch systems to give clearance.
 - 1.1. **Height:** As recommended by BS 7370-4, clause 3.7.2.3
2. **Removing branches:** Remove whole branches back to the stem, or cut lower portions of branches back to lateral or sublateral buds or branches. Do not leave stumps.

855 Cutting tree roots

1. **Excavating:** Use hand tools only.
2. **Protected area:** Do not cut roots within root protection zone
 - 2.1. The branch spread of the tree.
 - 2.2. An area with a radius of half the tree's height, measured from the trunk.
3. **Outside protected area:** Give notice of roots exceeding 50 mm in diameter. Do not cut without approval.
4. **Cutting**
 - 4.1. **Cutting:** Make clean smooth cuts with a hand saw.
 - 4.2. **Wounds:** Minimize. Avoid ragged edges.
 - 4.3. **Finishing:** Pare cut surfaces smooth with a sharp knife.
5. **Backfilling**
 - 5.1. **Protection:** Cover cut roots with clean sharp sand.
 - 5.2. **Material:** Backfill with original topsoil.

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.

870 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

Water areas - Not Used

Hard landscape areas/fencing

900 Snow clearance

1. **Clearance:** On reaching a depth of 5 mm
2. **De-icing:** To footpaths
 - 2.1. **Material:** *Acetate-based granules in the vicinity of planting. In other areas Rock salt to BS 3247*
 - 2.2. **Timing:** When freezing precipitation is forecast
 - 2.3. **Application rate:** Spread evenly at a rate of As manufacturer's recommendations.

910 Hard surfaces and gravel areas

1. **Herbicide:** Apply a suitable foliar acting or residual herbicide. Allow recommended period for herbicide to take effect before clearing arisings.
2. **Hard surfaces:** Remove litter, leaves and other debris.
3. **Surface gutters and channels:** Remove mud, silt and debris.
4. **Drainage gullies:** Empty traps and flush clean.
5. **Gravel areas:** Rake over. Remove weeds, litter, leaves and debris, and level off.
6. **Repairs to flexible bituminous pavings:** In accordance with the original paving specification or BS 7370-2, clause 4.12.
7. **Stain removal:** In accordance with BS 7370-2, table 4.

920 Fencing

1. **Fences:** Inspect and repair to maintain protection against intruders.

Ω End of Section

Q37

Green roofs

General - Not Used

Performance - Not Used

Products

400 Vegetation blanket

1. Description: Canopy and Building
2. Manufacturer: Refer to Architect's specification
3. Vegetation coverage (minimum): To suppliers specification

Execution

710 Installation generally

1. Preparation: Clear all surfaces of debris.
 - 1.1. Timing: After certification of waterproof membrane integrity.
 - 1.2. Surface condition: Visually inspect waterproof membrane, report any damage.
2. Faults in waterproof membrane: Report.
3. Contamination: Do not use materials detrimental to healthy plant growth.
4. Storage: Do not overload.
 - 4.1. Point loads: Avoid.
5. Outlets: Do not block.
 - 5.1. Outlet grilles: Installed.

720 Adverse weather

1. Unfinished work: Secure from damage and wind uplift.
2. Conditions: Do not install or work with frozen materials.

Completion

910 Inspection

1. Timing: Before handover.
 - 1.1. Give notice (minimum): Three days.

920 Completion

1. General: Leave the works in a clean, tidy condition.
2. Surfaces: Clean immediately before handover.
3. Outlets: Clean and clear of obstructions.
4. Completed green roof: Protect from adjacent or high level working.

930 Documentation

1. Timing: Submit at handover.

Ω End of Section

Q40 Fencing

Fencing systems

125 Proposed Weldmesh Fence 2.4m

1. **Manufacturer:** CLD Fencing Systems
 - 1.1. **Web:** www.cld-fencing.com
 - 1.2. **Email:** sales@cld-fencing.com
2. **Product:** Exempla Fencing
 - 2.1. **Reference:** <https://www.cld-systems.com/products/perimeter-fencing/welded-mesh-fencing-exempla>
3. **Height:** 2.4m height
4. **Colour and finish:** Galvanized and polyester powder-coated, Black RAL 9005
5. **Fixing:** To Manufacturer's detail and specification
6. **Anti-intruder security topping:** No spikes to the top.

Gates, posts and stiles

570 Gates

1. **Manufacturer:** To match adjacent fence
 - 1.1. **Product reference:** To match adjacent fence

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.

720 Setting posts in concrete

1. **Standard:** To BS 8500-2.
2. **Mix:** Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
3. **Alternative mix for small quantities:** 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
4. **Admixtures:** Do not use.
5. **Holes:** Excavate neatly and with vertical sides.

6. **Filling:** Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
7. **Backfilling of holes not completely filled with concrete:** Excavated material, well rammed and consolidated.

730 Exposed concrete foundations

1. **Not allowed:**

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.

790 Site painting

1. **Timing:** Prepare surfaces and apply finishes as soon as possible after fixing.

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. All gates and hinges to be anti finger trap.
 - 1.1. **Timing:** Before handover.

Ω End of Section

Q50

Site/ street furniture/ equipment

Gates, barriers and parking controls - Not Used

Site and street furniture

210 Cycle Stands

1. Description: BXMW/GS5/S/800
2. Manufacturer: Broxap or similar approved
 - 2.1. Product reference: Sheffield Cycle Stands
3. Material: Galvanised Steel
 - 3.1. Finish: Galvanised to BS EN ISO 1461:2009
4. Method of fixing: To supplier's detail

212 Cycle Shelter

1. Description: BXMW/WAR50
2. Manufacturer: Broxap or similar approved
 - 2.1. Product reference: Wardale Standard 5000m Shelter
3. Material: Galvanised Steel
 - 3.1. Finish: Galvanised to BS EN ISO 1461:2009
4. Method of fixing: To supplier's detail
5. Size:: 2140(W) x 2150(H) x 5000(L)mm

212 Covered canopy

1. Description: Proposed covered canopy [by others]
2. Accessories: Photovoltaic Panels
3. Method of fixing: To Manufacturer's specification

220 Benches

1. Description: BX14 1020-FSC
2. Manufacturer: Broxap or similar approved
 - 2.1. Product reference: 'Hemstone' curved steel frame Bench - FSC Certified Timber
3. Material: Frame: Heavy duty galvanized steel
Slats: Hardwood Iroko
Legs: Solid Granite Block
4. Method of fixing: Root fixed

242 Bins

1. Description: BX45G 2550-CMP
2. Manufacturer: Broxap or similar approved
 - 2.1. Product reference: Broxap's Derby Compact Litter Bin
3. Material: Galvanised Steel
 - 3.1. Finish: Powder galvanised prime
 - 3.2. Colour: Jet Black

4. Capacity: 120 Litres
5. Size: 496(W) x 1011(H) x 494(D)mm

243 Bins

1. Description: BX45G 2556-40(W)
2. Manufacturer: Broxap or similar approved
 - 2.1. Product reference: Broxap's Hercules Litter Bin 40ltr
3. Material: 1.5mm Galvanised Steel
 - 3.1. Finish: Powder galvanised prime
 - 3.2. Colour: Jet Black
4. Capacity: 40 Litres
5. Size: 310(W) x 580(H) x 310(D)mm

260 Door barrier

1. Description: Door guards throughout building
2. Manufacturer: Broxap or equal and approved
 - 2.1. Product reference: BX14/DB
3. Material: Grade 316 stainless steel
 - 3.1. Finish: Galvanised
 - 3.2. Colour: Anthracite grey RAL 7016
4. Size: 1320 x 450 x 42mm
5. Accessories/ Special requirements: Rubber Buffer
6. Method of fixing: Root fixed

Installation

510 Concrete foundations generally

1. Standard: To BS 8500-2.
2. Concrete: To Engineers detail and specification
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:
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.

545 Erection of timber and prefabricated structures

1. Checking: 5 days (minimum) before proposed erection date, check foundations, holding down bolts, etc.

2. Inaccuracies or defects in prepared bases or supplied structures: Report immediately. Obtain instructions before proceeding.

550 Damage to galvanized surfaces

1. Minor damage in areas up to 40 mm² (including on fixings and fittings): Make good.
 - 1.1. **Material:** 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.
 - 1.2. **Thickness:** Sufficient to provide a zinc coating at least equal to the original layer.

560 Site painting

1. **Timing:** Prepare surfaces and apply finishes as soon as possible after fixing.

Ω End of Section

