DAVID JARVIS ASSOCIATES

CREST NICHOLSON

KILNWOOD VALE, CRAWLEY
PHASE 3DEFG

Landscape Specification

3015-5-SP-5400-P4

PLANNING

Date: OCT 2026

Landscape Institute Registered Practice

RTPI Chartered Town Planners

URBAN DESIGN GROUP

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CLIENT Crest Nicholson

PROJECT Kilnwood Vale, Crawley

REPORT TITLE Landscape Specification

DJA Reference: 3015-5-SP-5400

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REPORT REVISIONS

Revision	Date	Description	Prepared	Approved
P4	27/10/2026	HDC (P+C) comments incorp.	MS	AC
P3	22/03/2024	Q31/710A updated to suit planning	MS	AC
P2	25/01/2024	Dog bins added	MS	AC
P1	28/01/2022	First Issue	MS	AC

ITEMS OF SPECIFIC IMPORTANCE TO THE CONTRACTOR RESPONSIBLE FOR THE UNDERTAKING OF GENERAL LANDSCAPE OPERATIONS ON BEHALF OF THE CLIENT UNDER THE TERMS OF THE CONTRACT

General

- In undertaking his duties, the Landscape Contractor shall be compliant with all schedules, specifications, Maintenance Schedules, British Standards & Health & Safety legislation pertaining to this Contract.
- Non-compliance shall not alleviate the Contractor of his responsibilities under the Contract.
- The Contractor shall take care not to disturb / disrupt / break any underground services during the undertaking of his duties under the Contract.
- Rectification of non-compliant items & making good any damage arising from the undertaking of his contractual duties shall be at the Contractors own expense.

Subsoil Preparation

- The subsoil is to be thoroughly de-compacted / aerated / graded prior to the commencement of topsoiling operations.
- The Contractor shall notify David Jarvis Associates (DJA) no less than 2 weeks prior to the commencement of the subsoil operations to allow DJA to attend site and inspect random examples.
- The Contractor shall supply photographic evidence after the sub surface is de-compacted / aerated / graded but prior to topsoiling. This shall be submitted in A4 report format no later than 2 weeks after operations are complete and shall clearly identify the location of each photograph.
- Specified top & subsoil depths are a minimum after settlement.

Plant Selection & Procurement

- Plants are to conform to the plant specification & NBS spec.
- DJA will undertake detailed checks during the construction phase to ensure compliance with the specification. Soft plant materials are therefore to be of the correct size, specification & density.
- Submission of plant material receipts by the Contractor will be declared invalid if supplied plant materials are blatantly undersize. Non-conformities will be identified to the Contractor & rectified at the Contractors own expense prior to payment being authorised by the Contract Administrator.
- Planting to be undertaken during the next available planting season.

Mulch

- Mulch shall be supplied as per the NBS specification (Document: 3015-5-SP-5400, Section: Q31/485A).
- The Contractor shall supply a sample to DJA to approve prior to importing and spreading.
- **Wood chip / over coarse / oversized 'mulch' will not be accepted.**
- A sample is to be retained to compare against subsequent loads.

Maintenance

- Maintenance shall be in accordance with the Landscape Management & Maintenance Plan.
- DJA will undertake ongoing maintenance inspections to ensure the specification standards are being maintained. Of key importance at all times is that:
    i. The site must be free from litter.
    ii. Shrub & tree mulched areas are to be maintained as weed free.
    iii. Grass is to be kept mown.
    iv. Mulch is to be maintained at the specified thickness (after settlement) and within shrub beds.
    v. Hard surfaces are to be kept free from weeds, litter and arisings.

Reporting

- The Contractor shall provide a written statement of work completed in the month passed.
- This shall be supplied to the Client & DJA for review during DJA maintenance checks.

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D20 - Excavating and filling

GENERALLY/THE SITE

110A SITE INVESTIGATION / COMPLETION

1.1. Report: As determined by Campbell Reith (Engineers) drawings and drawings and specifications in line with the site wide parameter and previously approved information. General finished levels to be 500mm above remediation levels.

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*

1.2. Services: See section A12 for locations.
1.3. Site features to be retained: See section A12 for details.
1.4. Structures: See section A34 for details of protection.

CLEARANCE/EXCAVATING

164 *TREE ROOTS*

1.5. Protected area: Do not cut roots within precautionary protection area.
1.6. Size of area: As Tree Protection/Removal Plan
1.7. Excavation in protected area:
1.8. Method: By hand
1.9. Backfill as soon as possible or temporarily line with polyethylene sheet to reduce evaporation.
1.10. Outside protected area: Give notice of roots exceeding 25 mm and do not cut without approval.
1.11. Cutting:
1.12. Make clean smooth cuts with no ragged edges.
1.13. Pare cut surfaces smooth with a sharp knife.
1.14. Treatment of cut roots: Not required
1.15. Backfill: to match adjacent soil horizons

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.
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 HSE/ Arboriculture and Forestry Advisory Group safety leaflets.

175 *FELLING LARGE TREES*

1. Definition: Girth over 600 mm.
2. Identification: Clearly mark trees to be removed.
3. Safety: Comply with HSE/ Arboriculture and Forestry Advisory Group 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. Remove to an average depth of 200 mm.
2.2. 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: Included in the Weeds Act, section 2 or the Wildlife and Countryside Act, Schedule 9, part II.
   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.

240 *ADJACENT EXCAVATIONS*

1. Requirement: Where an excavation encroaches below a line drawn at an angle from the nearest formation level of another higher excavation, the lower excavation, all work within it and backfilling thereto, must be completed before the higher excavation is made.
2. Angle of line below horizontal: to Engineer's details
3. Backfill material: to Engineer's details

242 *EXCAVATIONS ADJACENT TO EXISTING BACKFILLED TRENCHES*

1. Proximity: When width of undisturbed ground between the two excavations will be less than 1m.
2. Action: Assume that the ground between the trenches is unstable and provide side support accordingly.

245 *EXCAVATIONS ADJACENT TO EXISTING FOUNDATIONS – CONTRACTOR'S DESIGN*

1. Prior to commencing excavation: Excavate trial pits adjacent to existing foundations to determine extent and formation levels.
2. Submit proposals: For ensuring the safety of the existing foundations if the formation level for the new excavation will be below the formation level of the existing foundation.
3. Backfill material to new excavation: to Engineer's details

248 *BACKFILL TO EXCAVATIONS LOWER THAN FOUNDATION FORMATION LEVEL*

1. Critical level:
   1.1. Distance between near faces of foundation and lower excavation less than 1 m: 150mm above foundation formation level
   1.2. Otherwise: 150mm above level at which line defined in clause 240 cuts near face of lower excavation
2. Backfill material:
   2.1. Below critical level: to Engineer's details
   2.2. Above critical level: to Engineer's details

250 *PERMISSIBLE DEVIATIONS FROM FORMATION LEVELS*

1. Beneath mass concrete foundations: ±25 mm.
2. Beneath ground bearing slabs and r.c. foundations: ±15 mm.
3. Embankments and cuttings: ±50 mm.
4. Ground abutting external walls: ±50 mm, but such as to ensure that finished level is not less than 150 mm below dpc.

320 *RECORDED FEATURES*

1. Recorded foundations, beds, drains, manholes, etc: If no longer used; break out and seal drain ends
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.

350 *EXISTING WATERCOURSES*

1. Diverted watercourses which are to be filled: Before filling, remove vegetable growths and soft deposits.

360 *EXCESS EXCAVATION*

1. Excavation taken wider than required
   1.1. Backfill: Obtain instruction from Engineers
2. Excavation taken deeper than required
   2.1. Backfill: Obtain instruction from Engineers

370 *UNDERGROUND STRUCTURES IN LANDSCAPE AREAS*

1. Generally: Remove walls, roads, foundations, disused services, drains, manholes and the like to minimum depth.
2. Minimum depth below finished levels
   2.1. Grass, ground cover and perennial planting: 500 mm.
   2.2. Shrub planting: 750 mm.
   2.3. Within 2 m of tree planting: 1000 mm.
3. Walls and slabs remaining: In every 10 m² of wall or slab, make a drainage hole at least 600 mm diameter.

DISPOSAL OF MATERIALS

410 *EXCAVATED TOPSOIL STORAGE*

1. Storage: Stockpile in temporary storage heaps: stockpile in temporary storage mounds in accordance w/t the Construction Phase Plan, Site Manager & the Contract Administrator

415A *EXCAVATED TOPSOIL REMOVAL*

1. General: Remove from site to alternative area within Kilnwood Vale as determined by Site Manager.

420 *TOPSOIL STORAGE HEAPS*

1. Location: to be agreed with Contract Administrator
2. Standard: To BS 3882.
3. Height (maximum): 1.5m
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.

421 *TOPSOIL STORAGE HEAP TREATMENT*

1. Treatment: Apply a suitable herbicide at appropriate times to prevent seeding of weeds

441 *SURPLUS SUBSOIL*

1. Excavated material: Stockpile in temporary storage heaps.
2. Retained material: Spread and level surplus subsoil on site.
   2.1. Locations: as determined by the Construction Phase Plan/Site Manager
   2.2. Protected areas: Do not raise soil level within root spead of trees that are to be retained.
3. Remaining material: Remove from site.

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.

457 *PUMPING*

1. General: Do not disturb excavated faces or stability of adjacent ground or structures.
2. Pumped water: Discharge without flooding the site or adjoining property.
3. Sumps: Construct clear of excavations. Fill on completion.
   3.1. Locations: Submit proposals

460 *PERMANENT DRAINAGE SYSTEM*

1. Disposal of water from the excavations through system: to Engineer's details

FILLING

610 *COMPACTED FILLING FOR LANDSCAPE AREAS*

1. Fill: Material capable of compaction by light earthmoving plant.
2. Filling: Layers not more than 200 mm thick. Lightly compact each layer to produce a stable soil structure.

615 *LOOSE TIP FILLING FOR LANDSCAPE AREAS*

1. Filling: Do not firm, consolidate or compact when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

Ω End of Section

Q10 - Kerbs/ edgings/ channels/ paving accessories

HIGHWAYS AND PEDESTRIAN PATHS: KERBS, CHANNELS, EDGINGS & ASSOCIATED DRAINAGE INFRASTRUCTURE AND/OR SYSTEMS

110A *ALL KERBS, CHANNELS & KERBS*

1. Description: To the remaining infrastructure
2. As determined by the Campbell Reith (Engineers) drawings and specifications in line with the site wide Design Code / to adoptable standards. [Generally Flat top PCC or 'Conservation' type textured edge in silver grey + matching Kerbs in line with earlier phases of the development].

Ω End of Section

Q20 - Granular sub-bases to roads/pavings

110A *THICKNESSES OF SUB-BASE/ SUBGRADE IMPROVEMENT LAYERS*

1. Thicknesses: All construction build up & associated specification as determined by the Campbell Reith (Engineers) drawings and specifications. All works in line with the site wide Design Code / adoptable standards.

130 *HERBICIDES*

1. Type: Contractor's choice
2. Application: To subgrade of play area surfacing and footpaths.

140 *EXCAVATION OF SUBGRADES*

1. Final excavation to formation or sub-formation level: Carry out immediately before compaction of subgrade.
2. Soft spots and voids: Give notice.
3. Old drainage and service trenches: Excavate to remove soft or damaged material, then backfill with specified granular sub-base material and compact.
4. Wet conditions: Do not excavate or compact when the subgrade may be damaged or destabilized.

145 *PREPARATION AND COMPACTION OF SUBGRADES*

1. Timing: Immediately before placing sub-base.
2. Soft or damaged areas: Excavate and replace with sub-base material, compacted in layers 300 mm (maximum) thick
3. Compaction: Thoroughly, by roller or other suitable means, adequate to resist subsidence or deformation of the subgrade during construction and of the completed roads/ pavings when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

170 *GEOTEXTILE FILTER/ SEPARATOR MEMBRANE:* ***TO PLAY AREA SAFETY SURFACING***

1. Manufacturer: Terram
   1.1. Product reference: T1000
2. Jointing: 300 mm overlap
3. Protect from:
   3.1. Exposure to light, except during laying (maximum five hours).
   3.2. Contaminants.
   3.3. Materials listed as potentially deleterious by geotextile manufacturer.
   3.4. Damage, until fully covered by fill.
   3.5. Wind uplift, by laying not more than 15 m before covering with fill.
4. Preparation: Remove humps and sharp projections and fill hollows before laying.

171 *GEOGRIDS:* TO MUGA & PLAY AREA SAFETY SURFACING

1. Manufacturer: Tensar International Limited.
2. Address: Cunningham Court, Shadsworth Business Park, Blackburn, BB1 2QX. United Kingdom. T: +44 (0)1254 266990 | F: +44 (0)1254 266868 | E: triax@tensar.co.uk | W: www.tensar-triax.co.uk
   2.1. Product reference: Tensar TriAx TX-160 or equal & approved
3. Protect from:
   3.1. Exposure to light, except during laying (maximum five hours).
   3.2. Contaminants.
   3.3. Materials listed as potentially deleterious by geotextile manufacturer.
   3.4. Damage, until fully covered by fill.
   3.5. Wind uplift, by laying not more than 15 m before covering with fill.
4. Preparation: Remove humps and sharp projections and fill hollows before laying.

211 *GRANULAR MATERIAL*

1. Quality: Of a known suitability for use in sub-bases, free from excessive dust, well graded, all pieces less than 75 mm in any direction, minimum 10% fines value of 50 kN when tested in a soaked condition to BS 812-111 or a resistance to fragmentation of LA50 for the Los Angeles test to BS EN 1097-2, and in any one layer only one of the following:
   1.1. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
   1.2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.

1.3. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
1.4. Natural gravel.
1.5. Natural sand.
2. Filling: Spread and levelled in 150 mm maximum layers, each layer thoroughly compacted.

215A *FREE DRAINING COARSE GRADED AGGREGATE FOR PLAY AREA SAFETY SURFACING AND SELF BINDING GRAVEL FOOTPATH SUB-BASES*

1. Description: -
2. Material: Hard crushed rock
2.1. Standard: To BS EN 13242 and paving manufacturers recommendations.
2.2. Aggregate size: 4/20
3. Testing
3.1. Materials: Provide suppliers' certificates for grading and specified properties
3.2. Sub-base: Not required
4. Laying: Lay in 150 mm thick layers and lightly compact to ensure maximum density and aggregate interlock without crushing individual particles or unacceptably reducing the void ratio
5. Protection: Prevent damage by traffic and contamination by mud and soil.

230 *PLACING GRANULAR MATERIAL GENERALLY*

1. Preparation: Loose soil, rubbish and standing water removed.
2. Structures, membranes and buried services: Ensure stability and avoid damage.

250 *LAYING GRANULAR SUB-BASES*

1. Description: For pedestrian areas
2. General: Spread and levelled.
3. Compaction
3.1. Timing: As soon as possible after laying.
3.2. Method: By roller or other suitable means, adequate to resist subsidence or deformation of the sub-base during construction and of the completed paving when in use. Take particular care to compact fully at intrusions, perimeters and where local excavation and backfilling has taken place.

310 *ACCURACY*

1. Permissible deviation from required levels, falls and cambers (maximum)
1.1. Subgrades
1.1.1. Roads and parking areas: +20 -30 mm.
1.1.2. Footways and recreation areas: ± 20 mm.
1.2. Sub-bases
1.2.1. Roads and parking areas: to Engineer's details
1.2.2. Footways and recreation areas: to Engineer's details

330 *COLD WEATHER WORKING*

1. Frozen materials: Do not use.
2. Freezing conditions: Do not place fill on frozen surfaces. Remove material affected by frost. Replace and recompact if not damaged after thawing.

340 *PROTECTION*

1. Sub-bases: As soon as practicable, cover with subsequent layers, specified elsewhere.
2. Subgrades and sub-bases: Prevent degradation by construction traffic, construction operations and inclement weather.

Ω End of Section

Q22 - Asphalt roads/ pavings

TYPES OF PAVING

99A *ALL BITUMEN BOUND VEHICULAR & PEDESTRIAN SURFACING:* TO THE REMAINING INFRASTRUCTURE

1. Road Network: All construction build up & associated specification as determined by the Campbell Reith (Engineers) drawings and specifications in line with the site wide Design Code / adoptable standards.
2. Leisure Park & Kilnwood Vale Park: All construction build up & associated specification as determined by the Campbell Reith (Engineers) drawings and specifications in line with the site wide Design Code / adoptable standards.

177 *PROPRIETARY PAVING:* TO THE MULTI-USE GAMES AREA (MUGA)

1. Standard: To BS EN 13108-1.
2. Subgrade improvement layer: As per Engineer's specification. Geogrid as per clause Q20/171.
3. Granular sub-base: Permeable to Engineer's requirements
   3.1. Compacted thickness: 150mm (min.) depth to Engineer's specification. Sub-base to extend 150mm beyond the path edge as per the edging manufacturer's instructions
4. Base: To Engineer's requirements
   4.1. Compacted thickness: To Engineer's requirements
5. Binder course: SUPERSPORT BINDER PLUS
   5.1. Paving grade: as manufactured
   5.2. Compacted thickness: 45mm depth
6. Surface course:
   6.1. Manufacturer: Aggregate Industries Ltd.
   6.2. Contact Details: Bardon Hill, Coalville, Leicestershire, LE67 1TL. T: 03332 228 148, 0845 600 0860 | Web: www.aggregate.com
   6.3. Product reference: SUPERSPORT MUGA
   6.4. Type: PA 6 open surf
   6.5. Paving grade: as supplied
   6.6. Compacted thickness: 30mm
   6.7. Laying / Compaction: As manufacturer's recommendations.
7. Drainage Requirements: install drainage system & surface falls to Engineer's specification.

LAYING

310 *LAYING GENERALLY*

1. Preparation: Remove all loose material, rubbish and standing water.
2. Adjacent work: Form neat junctions. Do not damage.
3. Channels, kerbs, inspection covers etc: Keep clean.
4. New paving:
   4.1. Keep traffic free until it has cooled to prevailing atmospheric temperature.
   4.2. Do not allow rollers to stand at any time.
   4.3. Prevent damage.
   4.4. Lines and levels: With regular falls to prevent ponding.
   4.5. Overall texture: Smooth, even and free from dragging, tearing or segregation.
   4.6. State on completion: Clean.

320 *ADVERSE WEATHER*

1. Frozen materials: Do not use.
2. Suspend laying:
   2.1. During freezing conditions
   2.2. If the air temperature reaches 0°C, or in calm dry conditions -3°C, on a falling thermometer.
   2.3. Hot rolled asphalt: During periods of continuous or heavy rain or if there is standing water on the base.

330 *LEVELS*

1. Permissible deviation from the required levels, falls and cambers (maximum): In accordance with BS 594987, clause 5.2.

340 *FLATNESS/ SURFACE REGULARITY*

1. Deviation of surface: Where appropriate in relation to the geometry of the surface, the variation in gap under a 3 m straightedge placed anywhere on the surface to be not more than:
   1.1. Base: Hand laid, 25 mm and Machine laid, 25 mm
   1.2. Binder course: Hand laid, 13 mm and Machine laid, 13 mm
   1.3. Surface course: Hand laid, 10 mm and Machine laid, 7 mm
   1.4. Where a straightedge cannot be used the surface must be of a comparable standard of accuracy when judged by eye.

345 *ACCURACY FOR BASES BENEATH SPORTS SURFACING*

1. Profile: Crossfall
2. Gradients in any direction: Not greater than 1:100.
3. Surface regularity: To BS 7044-4
4. Sudden irregularities: Not permitted.

350 *CONTRACTOR'S USE OF PAVEMENTS*

1. Before use:
   1.1. Timing: allow newly laid sections to cool before trafficking.
   1.2. Open-grained surface: Fill with 0/4 mm size coated grit. Remove surplus.
   1.3. Finish: Uncoated chipping and binder surface treatment.
2. Preparation for final surfacing:
   2.1. Timing: Defer laying until as late as practicable.
   2.2. Immediately before laying final surfacing: Clean and make good the base/ binder course. Allow to dry.
   2.3. Adhesion: Tack coat to BS 434-1 or BS EN 13808
      2.3.1. Application rate: As manufacturer's recommendation
      2.3.2. Accuracy: Uniform, without puddles.
   2.4. Finishing: Allow emulsion to break completely before applying surface.

COMPLETION

390 *DOCUMENTATION*

1. Standard: BS EN 13108-1 and BS EN 13108-4
   1.1. Declaration of conformity: Submit.
2. Number of copies: 3
3. Submission: Two weeks prior to date when Contractor expects work to be complete

Ω End of Section

Q23 - Gravel/ hoggin/ woodchip/ resin bound roads/ paving/ overlays

TYPES OF SURFACING

130A *SELF BINDING GRAVEL*

1. Description: To footpaths
2. Subgrade improvement layer: Not required
   2.1. Compacted thickness: -
3. Geotextile: As section Q20/170
4. Geogrid: As section Q20/171
5. Granular sub-base: Coarse graded aggregate as section Q20/215A
   5.1. Compacted thickness: 150mm
6. Surface course:
   6.1. Manufacturer: CED Stone Ltd.
   6.2. Contact: 728 London Road, West Thurrock, Grays, Essex, RM20 3LU. T: 01708 867237 | E:sale@cedstone.co.uk | W: www.cedstone.co.uk
   6.3. Product reference: Cedec Gold Footpath Gravel
   6.4. Compacted thickness: 50mm
7. Completion: Compact to produce a firm, regular surface, stable in use to manufacturer's recommendations.

160A *LOOSE GRAVEL*

1. Description: For play area river bed feature
2. Geotextile: Ase section Q20/170
3. Granular sub-base: Coarse graded aggregate, as section Q20/215A
   3.1. Compacted thickness: 150mm
4. Blinding to sub-base: Not required
5. Gravel: Loose laid and raked to uniform thickness.
6. Manufacturer: CEDStone Ltd. (address as Q23/130A.
   6.1. Product reference: Gravelsafe
7. Thickness: 300mm

LAYING

310 *TIMBER EDGING*

1. Softwood board:
   1.1. Size: 150 x 22 / 50 mm.
   1.2. Fixing: Galvanized nails into softwood pegs.
2. Softwood pegs:
   2.1. Size: 50 x 50 x 600 mm long
   2.2. Fixing: Drive into ground.
   2.3. Centres: 1200mm or Maximum 500 mm on radii of less than 6 m
3. Preservative treatment: As section Z12 and WPA Commodity Specification C4, with 15 year desired service life

315 *MATERIALS*

1. Compatibility: Chippings suitable for use with respective binders/ emulsions/ resin/ epoxy.

340 *LAYING GENERALLY*

1. Channels, gullies, etc: Keep clear.
2. Finished surfaces:
   2.1. Lines and levels: To prevent ponding.
   2.2. Overall texture: Even.
   2.3. State at completion: Clean.

350 *COLD WEATHER WORKING*

1. Frozen materials: Do not use.
2. Freezing conditions: Do not lay pavings.
3. Cold bituminous surface dressings: Do not apply when ambient temperature is below 10°C.
4. Other dressings or overlays: As manufacturers’ recommendations.

360 *DRAINAGE FALLS*

1. Sealed surfaces:
   1.1. Falls and cross falls (minimum): 1:40.
   1.2. Camber (minimum): 1:50.
2. Unsealed surfaces (minimum): 1:30.

380 *LAYING GRANULAR SURFACES IN PEDESTRIAN AREAS AND CYCLE TRACKS*

1. Permissible deviation from required levels, falls and cambers (maximum): ±12 mm.
2. General: Spread and level in 100 mm maximum layers. As soon as possible, compact each layer.
3. Dry weather: Lightly water layers during compaction.

390 *PROTECTION FROM TRAFFIC AND PLANT*

1. Paved areas: Restrict access to prevent damage.

Ω End of Section

Q25 - Slab/brick/sett/cobble pavings

GENERAL

99A *GENERAL:* ALL VEHICULAR & PEDESTRIAN SURFACING TO THE REMAINING INFRASTRUCTURE & RESIDENTIAL PLOTS

1. As determined by the Campbell Reith (Engineers) drawings and specifications in line with the site wide Design Code / adoptable standards.

Ω End of Section

Q26 - Special surfacings/ pavings for sport/ general amenity

SPORTS SURFACING

120 *SURFACING FOR:* MULTISPORT AREA

1. Type: Specialist Sport Asphalt Surface. Refer to Section Q22, clause 177
   1.1. Coating: green, anti-slip acrylic.
   1.2. Line Markings: as Q26/420.
2. Performance: To BS 7044-4 heavy duty outdoor
3. Anticipated usage:
   3.1. Hours per day: 10
   3.2. Days per week: 7
4. Priority of activities: 1. Five-a-side Football, 2. Basketball, 3. Netball
5. Standard of play: Recreational
6. Permeability: install drainage system & surface falls to Engineer's Specification
7. Minimum life expectancy: 10 years

140 *SURFACE GRADIENTS, EVENNESS AND FLATNESS*

1. Surface regularity: As specified by BS 7044-4.
2. Deviation from the finished plane: When checked on a 10 m grid the difference in level between adjacent grid points, after taking design gradients into account, must not exceed ±6 mm.
3. Profile: Crossfall in a single plane
4. Gradients: Not greater than 1:100 in any direction

150 *SUITABILITY OF BASE/ SUB-BASE*

1. Preparation: Before starting work ensure the following:
   1.1. Accuracy: Base/ sub-base will permit specified flatness/ regularity of finished surfacing.
   1.2. Falls/ camber: Accurately incorporated in the base/ sub-base.

IMPACT ATTENUATING SURFACINGS FOR PLAY AREAS

301A *EXTENT OF IMPACT ABSORBING SURFACING*

1. General: Lay impact absorbing surfacing as required by the Play Equipment manufacturer.

310A *BARK SURFACING*

1. Geotextile membrane
   1.1. Manufacturer: as section Q20/170
   1.2. Product reference: as section Q20/170
   1.3. Jointing: As manufacturer's recommendations
2. Surface course: Play Grade Bark
   2.1. Supplier: Rolawn Ltd., The Airfield, Seaton Ross, York, YO42 4NF.T: 01904 757372 | E: info@rolawn.co.uk | W: www.rolawn.co.uk
   2.2. Product reference: Play Grade Bark
   2.3. Grade: Playground grade bark free from dust, pests, disease, weeds, coarse angular fragments and sharp pieces.
   2.4. Nominal particle size: 20-80 mm, well graded.
   2.5. Wood content (maximum): 5%.
   2.6. Ease of ignition: To BS 7188.
   2.7. Additives, dyes or any substance harmful to humans or the environment: Not permitted.
   2.8. Depth (minimum): 300 mm
3. Submit
   3.1. Ease of ignition: Evidence of testing to BS 7188.
   3.2. Critical fall height: Evidence of testing to BS EN 1177.

340A *RUBBER MAT AND TILE SURFACING*

1. Play area grass safety mat
2. Manufacturer: The Rubber Company Ltd.
   2.1. Contact: Romsey Industrial Estate, Greatbridge Road, Romsey, Hampshire, SO51 0HR. T:+44 (0) 1794 513 184 | E: sales@therubbercompany.com | W: www.therubbercompany.com

2.2. Product reference: Rubbagrass SS04100.
3. Type: Rubber Grass mats.
3.1. Size: 1.0 x 1.5m x 22mm.
3.2. Fixing/ Jointing: Edges to be buried into surrounding soil, pegged into place & soil replaced around edges all as per manufacturer's recommendations.
3.3. Topsoil dressing: Mulching and top dressing as section Q28.
3.4. Thickness: critical fall height compliant.
4. Additional seeding: As grass seed for all grassed areas.
5. Removal of fixings: Not required.

360A *IN SITU SYNTHETIC SURFACING:* JUNGLE MULCH

1. Sub-base: As section Q20
1.1. Thickness: 150 mm
2. Base: SBR rubber crumb
2.1. Thickness: critical fall height complaint depth
3. Surface course: shredded rubber crumb surface.
3.1. Standard: To BS 7188.
3.2. Manufacturer: Playsmart UK Ltd.Birchy Cross Business Centre, Unit 4, Broad Ln, Solihull, B94 5DN.T: 01564 742811 | E: info@playsmartuk.co.uk | W: www.playsmartuk.co.uk
3.3. Product reference: Jungle Mulch
3.4. Colour: Cypress Brown
3.5. Critical fall height when tested to BS EN 1177: 3.0 m
3.6. Health and safety:
3.6.1. Substance known to be toxic or carcinogenic on skin contact or released as vapour or dust during normal use: Not permitted.
4. Submit:
4.1. Resistance to abrasive wear, slip resistance, resistance to indentation and ease of ignition: Evidence of testing to BS 7188.
4.2. Critical fall height: Evidence of testing to BS EN 1177.

ASSOCIATED ACCESSORIES

420 *LINE MARKINGS TO SURFACING TYPE Q26/120*

1. Method of application: Thermoplastic paint
2. Setting out: TBC
3. Colour: Basketball = white; Five-a-side Football = yellow; Netball = red.
4. Width: 50mm

430 *EDGES*

1. Finish: Flush
2. Edge detail: Specialist kerbs as section Q10. Safety surfacing 310A and 360A to be flush with grass surrounds.

COMPLETION

910 *SPORTS SURFACE TESTING*

1. Standard: To BS 7044-4
2. Testing body: A United Kingdom Accreditation Service (UKAS) independent laboratory.
3. Timing: Within ten days of completing the surfacing works.
3.1. Additional testing: At practical completion.
4. Notice before commencing tests: 7 days
5. Test results: Submit.

920 *PLAY SURFACE TESTING*

1. Standard: To BS EN 1177 and BS 7188, where applicable.
2. Testing body: A United Kingdom Accreditation Service (UKAS) independent laboratory.
3. Timing: Within ten days of completing the surfacing works.
4. Test results: Submit.

930 *DOCUMENTATION*

1. General: For all types of surfacing, provide the following:

1.1. Name and contact details of installer.
1.2. Date of installation.
1.3. Name and contact details of manufacturer.
1.4. Type/ description/ reference of products used.
1.5. Manufacturer's recommended inspection and maintenance procedures to maintain safety and impact absorbing performance.
1.6. Manufacturer's recommended cleaning and maintenance methods, where relevant.

2. Manufacturer's recommended cleaning and maintenance methods, where relevant.

940 *LABELLING*

1. Signs: Provide permanent labelling in approved locations on all types of surfacing stating: Manufacturer's name and contact details.

Ω End of Section

Q28 - Topsoil and soil ameliorants

SYSTEM OUTLINE

110A *NATURALLY OCCURRING TOPSOIL SYSTEM:* TO ALL AREAS

1. **GENERAL TOPSOILING AND TREE PIT PREPARATION COMPLETED BY THE SITE CIVILS TEAM AMELIORANTS AND ACCESSORIES ARE INCLUDED IN THE SOFTWORKS PACKAGE (REFER TO SECTION Q31 FOR TREE PIT AMELIORANTS).**
2. Topsoil: Site sourced topsoil & imported topsoil to BS 3882
3. Ameliorants: Sanitized and stabilized PAS 100 compost
4. Accessories: General fertiliser & pre-seeding fertiliser

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.

315A *IMPORTED TOPSOIL TO BS 3882 FROM A SPECIFIED SOURCE TO ALL SOFT LANDSCAPE PLANTING BEDS*

1. Quantity: Provide as necessary to make up any deficiency of topsoil existing on site and to complete the work.
2. Standard: To BS 3882 & NHBC Approved.
3. Classification: Multipurpose
   3.1. Grade: Within the parameters of 'clay' textural class
4. Manufacturer: Freeland Horticulture. (Alternative source an equal / equivalent product by British Sugar).
   4.1. Contact:(Head Office) Freeland Horticulture Limited, Rosedale Nursery, College Road, Hextable, Kent, BR8 7LT.T: 01322 619161, F: 01322 619135, E: philippa@freelandhorticulture.
   4.2. Product reference: Multi-purpose (normal phosphorus)
   4.3. Local Source: Eversley, Hampshire.

360 *SANITIZED AND STABILIZED COMPOSTED MATERIALS CERTIFIED TO PAS 100*

1. Description: To all planted beds
2. Standard: In accordance with PAS 100.
3. Source: Contractor's choice
   3.1. Product reference: Contractor's choice
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 screen, and 90% passing 10 mm screen mesh aperture.
   4.6. Carbon:Nitrogen ratio (maximum): 20:1.
5. Texture: Friable.
6. Objectionable odour: None.

400A *ESTABLISHMENT FERTILIZERS* TO ALL SEEDED AREAS

1. Type: slow release
2. Source: Yates (or equal / approved equivalent)
   2.1. Product reference: Triabon Slow Release Fertiliser with Crotodur® Plant Food (or equal / approved equivalent)
   2.2. Application: All planting areas.

2.3. Scatter slow release fertilizer (to manufacturers rates) over planted areas on completion of planting prior to mulching.

401A *MAINTENANCE FERTILIZERS* TO ALL PUBLIC SHRUB / TREE PLANTING AREAS

1. Type: slow release
2. Source: Yates (or equal / approved equivalent)
   2.1. Product reference: Triabon Slow Release Fertiliser with Crotodur® Plant Food (or equal / approvedequivalent)
   2.2. Application: All planting areas.
   2.3. Scatter slow release fertilizer (to manufacturers rates) over planted areas & water in.

EXECUTION

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: Three working days

655 *MECHANICAL TOOLS*

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

660A *GRADING SUBSOIL FOR PLANTING BED PREPARATION*: EXCLUDING TREE PITS

1. General: Grade to smooth flowing contours to achieve specified finished levels of topsoil.
2. Debris:
   2.1. Remove: stones larger than 75mm & all debris, litter, builders rubble to leave clean / clear areas for topsoil. Take care not to damage or loosen any haunch areas / pre-buried root barriers.
3. Loosening:
   3.1. Subsoils generally: When ground conditions are reasonably dry, loosen thoroughly to a depth of 100mm, prior to spreading topsoil.
   3.2. Margin: Leave 100mm margin to haunches / structures and ensure that area of loosening avoids underground structures.
4. Avoid: over compaction.

675 *PREPARATION OF UNDISTURBED TOPSOIL*

1. Standard: In accordance with BS 4428.
   1.1. Grading and cultivation: Category B
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): Two months
   5.1. Weed control: At appropriate times treat with a suitable translocated nonresidual herbicide.

680 *SURPLUS TOPSOIL TO BE RETAINED*

1. Generally: Spread and level on site:
   1.1. Locations: as determined within Construction Phase Plan / Site Manager
   1.2. Protected areas: Do not raise soil level within root spread of trees that are to be retained.

690 *TOPSOIL STORAGE HEAPS*

1. Location: As determined within Construction Phase Plan / Site Manager
2. Height (maximum): 1.5 m
3. Width (maximum): 3.0 m
   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.

695 *CULTIVATION*

1. Compacted topsoil: Break up to full depth.
2. Tilth: Loosen, aerate and break up topsoil to a tilth suitable for blade grading.
   2.1. Depth: 150 mm
   2.2. Particle size (maximum): 10 mm
   2.3. Timing: Within a few days before planting.
   2.4. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even.
4. Levels: 25 mm above adjoining paving or kerbs
5. Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding: 50 mm
6. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

700A *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. Finished levels after settlement: CREST NICHOLSON'S SECTION 21 GARDEN & COMMUNAL AREA LANDSCAPING DOCUMENT.
4. Give notice: If required levels cannot be achieved by movement of existing soil.

705 *HANDLING TOPSOIL*

1. Aggressive weeds: Give notice and obtain instructions before moving topsoil.
2. Plant: Select and use plant to minimize disturbance, trafficking and compaction.
3. Contamination: Do not mix topsoil with:
   3.1. Subsoil, stone, hardcore, rubbish or material from demolition work.
   3.2. Other grades of topsoil.
4. Multiple handling: Keep to a minimum. Use or stockpile topsoil immediately after stripping.
5. Wet conditions: Handle topsoil in the driest condition possible. Do not handle during or after heavy rainfall or when it is wetter than the plastic limit: less 3%, to BS 1377-2

710A *SPREADING TOPSOIL / SUBSOIL*

1. Locations: as per plans.
2. Exclusions: Tree Root Protection Zones. Existing levels retained.
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. Depths* after firming and settlement (minimum) in accordance w/t BS 3882 (2015) Specification for Topsoil:
   5.1. Grass: 150mm topsoil, 300mm subsoil.
   5.2. Shrubs: 300mm topsoil, 300mm subsoil.
   5.3. Trees: 300mm topsoil, 600mm subsoil.
   5.4. *: **N.B.** In areas not subject to groundwork/topsoil/subsoil stripping operations, but that are subject to general landscape operations (e.g. tree/hedge planting) & in areas of uncompacted/undisturbed ground, with suitable topsoil & subsoil provision (e.g. open ground, fields, parks, etc.) such soil reprofiling procedures may not be required.
6. Crumb structure: Do not compact topsoil. Preserve a friable texture of separate visible crumbs wherever possible.

715 *LOOSE TIPPING OF TOPSOIL*

1. General: Do not firm, consolidate or compact topsoil when laying. Tip and grade to approximate levels in one operation with minimum of trafficking by plant.

720A *FINISHED LEVELS OF TOPSOIL AFTER SETTLEMENT*

1. Compliance: CREST NICHOLSON'S SECTION 21 GARDEN & COMMUNAL AREA LANDSCAPING DOCUMENT.

COMPLETION

905A *APPLYING MAINTENANCE FERTILIZER*

1. Time of year: March or April.
2. Application: Evenly spread, as Q28/401A.

3. Rate: To manufacturer's recommendations

Ω End of Section

Q30 - Seeding/turfing General information/requirements

99A *GENERAL INFORMATION/REQUIREMENTS*

1. All mixes / sowing rates as per notes on Softworks Drawing.

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

210 *HERBICIDE:* TO ALL GRASSED & WILD FLOWER AREAS

1. Type: Suitable for suppressing perennial weeds.
2. Timing: Allow fallow period before cultivation.
   2.1. Duration: 1 week

212 *SEED BED CLEANING BEFORE SOWING:* WILD FLOWER MEADOWS

1. Operations: Kill pernicious weeds with selective contact herbicide.

280A *FINAL CULTIVATION*

1. Timing: After grading and fertilizing.
2. Seed bed: Reduce to fine, firm tilth with good crumb structure.
   2.1. Depth: 25 mm.
   2.2. Surface preparation: Rake to a true, even surface, friable and lightly firmed but not over compacted.
   2.3. Remove surface stones/earth clods exceeding:
      2.3.1. General &Wild Flower Areas: 50mm prior to seeding & 25mm prior to turfing
      2.3.2. Fine lawn areas: 10 mm.
3. Adjacent levels: Extend cultivation into existing adjacent grassed areas sufficient to ensure full marrying in of levels.

SEEDING

310 *GRASS SEED:* FOR ALL GRASSED AREAS

1. Mixture: Refer to drawing schedule & notes

2. Application rate: Refer to drawing schedule & notes

319 *QUALITY OF SEED:* FOR ALL GRASSED AREAS

1. Freshness: Produced for the current growing season.
2. Certification: Blue label certified varieties.
   2.1. Standard: EC purity and germination regulations.
   2.2. Official Seed Testing Station certificate of germination, purity and composition: Submit when requested.
3. 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

335 *GRASS SOWING SEASON*

1. Grass seed generally: April to June or August to October

336A *WILDFLOWER SOWING SEASON*

1. Wildflower seed generally: March to May or August to October
2. Wet Meadow Mix: March to May, or August to October, once the land has drained after winter flooding.

340 *PRE-EMERGENT HERBICIDE:* FOR ALL GRASSED AREAS

1. Standard: Pesticide Safety Directorate approved.
2. Application rate: In accordance with manufacturer's written recommendation.
   2.1. Timing: Immediately after sowing.

350A *TURF EDGING TO SEEDED AREAS:* ADJACENT TO PAVEMENT

1. Standard: To BS 3969, with no perennial ryegrass.
   1.1. Seed mix: Similar to seeded area.
2. Timing: Before sowing & upon receiving instruction from the Contract Administrator.
3. Preparation: Rake back a 750 mm wide margin around prepared seed beds.
   3.1. Level of seed bed: Married in with turf.
4. Placement: Single row laid end to end and trimmed to a line.
5. Watering: On completion.

352 *EDGES TO SEEDED AREAS:* ADJACENT TO PLANTING BEDS & TREE PITS

1. Timing: After seeded areas are well established.
2. Edges: Clean straight lines or smooth curves.
   2.1. Mulch and soil: Draw back to permit edging.
3. Arisings: Remove.
4. Completion: Respread soil and mulch.

TURFING

399A *TURFING*

1. All turfing shall be as instructed by the Contract Administrator.

405 *CULTIVATED TURF:* FOR FORMAL AREAS & GRASS SLOPES

1. Supplier: Turfgrass Growers Association (TGA) member, to TGA quality standards.
2. Seed mixture: 35% Chewings fescue, 35% Slender red fescue, 20% Smooth stalked meadow grass, 10% Brown top bent
3. Properties of soil used for turf production: Well drained sandy loam

410 *TURF TO BS 3969:* FOR ROAD VERGES

1. Standard: To BS 3969, free from undesirable grasses and weeds.
   1.1. Grade: General purpose utility turf with perennial ryegrass
2. Source: Submit proposals.
3. Herbicide treatment: Apply not less than four weeks and not more than three months before lifting.

420 *DELIVERY AND STORAGE*

1. Timing: Lay turf with minimum possible delay after lifting. If delay occurs, lay turf out on topsoil and keep moist.
2. Frosty weather or waterlogged ground: Do not lift turf.
3. Delivery: Arrange to avoid need for excessive stacking.
4. Stacking height (maximum): 1 m.
5. Dried out or deteriorated turf: Do not use.

428 *COMPOST DRESSING FOR TURF*

1. Type: Sanitized and stabilized compost.
2. Supplier: Contractor's choice
   2.1. Product reference: Contractor's choice
3. Standard: To PAS 100.
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): 100% passing screen mesh aperture of: 5 mm
   4.6. Carbon:Nitrogen ratio (maximum): 20:1.
5. Texture: Friable.
6. Objectionable odour: None.
7. Composting Association certification: Required
8. Declaration of analysis: Submit.
9. Additional analyses: Not required
10. Samples: Not required
11. Application rate: 2-4 kg/m²
12. Timing: Apply prior to cultivation.

430 *TURFING GENERALLY*

1. Time of year: As agreed, subject to the following:
   1.1. Any time if weather & soil conditions are suitable.
   1.2. Autumn & Winter if conditions unsuitable during Spring Summer
2. Timing of laying
   2.1. Spring and summer: Within 18 hours of delivery.
   2.2. Autumn and winter: Within 24 hours of delivery.
3. Weather conditions: Do not lay turf when persistent cold or drying winds are likely to occur or soil is frost bound, waterlogged or excessively dry.
4. Working access: Planks laid on previously laid turf. Do not walk on prepared bed or newly laid turf.
5. Jointing: Laid with broken joints, well butted up. Do not stretch turf.
6. Edges: Whole turfs, trimmed to a true line.
7. Adjusting levels: Remove high spots and fill hollows with fine soil.
8. Consolidating: Lightly and evenly firm as laying proceeds to ensure full contact with substrate. Do not use rollers.
9. Dressing, brushed well in to completely fill all joints: Sandy loam
10. Watering: Thoroughly water completed turf immediately after laying. Check that water has penetrated into the soil below.

440 *TURFING ON BANKS EXCEEDING 30° SLOPE*

1. Turf configuration: Diagonal or horizontal.
2. Securing turfs:
   2.1. Fixings: Submit proposals
   2.2. Frequency of fixings: Each turf
3. Removal of fixings: When turf is thoroughly self-anchored by its roots. Make good any damage to grass until area is accepted.

PROTECTING/CUTTING

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

1. Refer to Landscape Management & Maintenance Plan

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 reseeding/ returfing.
4. Timing of making good: Submit proposals

Ω End of Section

Q31 - External planting

GENERAL INFORMATION/ REQUIREMENTS

1. All species / mixes as per the Drawings.

112 *SITE CLEARANCE GENERALLY*

1. General: Remove rubbish, concrete, metal, glass, decayed vegetation and contaminated topsoil.
2. Stones: Remove those with any dimension exceeding 20 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: N.A

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.

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.

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

165 *PREPARATION, PLANTING AND MULCHING MATERIALS*

1. General: Free from toxins, pathogens or other extraneous substances harmful to plant, animal or human life.
2. Certification of source, analysis, suitability for purpose and absence of harmful substances: Submit.
3. Certified materials:
4. Composted food waste;
5. Composted horticultural waste; and
6. Wood waste
7. Give notice before ordering or using.

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: Local provenance where possible; otherwise seek approval from the Contract Administrator
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.

225 *BULBS/ CORMS/ TUBERS*

1. Condition: Firm, entire, not dried out or shrivelled.
2. Health: Free from pests, diseases and fungus.
3. Handling: Remove from packaging immediately.
4. Storage: Permitted only when necessary.
   4.1. Location: Well ventilated, dark, covered, rodent proof container, away from exhausts and fruit.
   4.2. Duration: Minimum period.
   4.3. Temperature: 18-21°C.

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:
   2.1. Country of origin;
   2.2. Date supplied and consignment details or reference;
   2.3. Impact of pest/ disease;
   2.4. Name or designation of rootstock of budded or grafted plants;
   2.5. Propagation method and dates; and

2.6. Type of container.

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 HTA '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.

280 *TREATMENT OF TREE WOUNDS*

1. Cutting: Keep wounds as small as possible.
   1.1. Cut cleanly back to sound wood using sharp, clean tools.
   1.2. Leave branch collars. Do not cut flush with stem or trunk.
   1.3. Set cuts so that water will not collect on cut area.
2. Fungicide/ Sealant: Do not apply unless instructed.

285 *PROTECTION OF EXISTING GRASS*

1. General: Protect areas affected by planting operations using boards/ tarpaulins.
   1.1. Excavated or imported material: Do not place directly on grass.
   1.2. Duration: Minimum period.

290 *SURPLUS MATERIAL*

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

PREPARATION OF PLANTING BEDS/ PLANTING MATERIALS

300 *HERBICIDE:* TO CLEAR OVERGROWN BEDS

1. Locations: All planting areas
2. Type: Suitable for suppressing perennial weeds.
3. Timing: Allow fallow period before cultivation.
   3.1. Duration (minimum): As manufacturer's recommendation

305 *WEED CONTROL:* FOR INVASIVE NON-NATIVE WEEDS

1. Locations: All planting areas
2. General: Prevent weeds from seeding and perennial weeds from becoming established, by contractor's choice of herbicide.

375 *CULTIVATION*

1. Compacted topsoil: Break up to full depth.
2. Cultivation: Loosen, aerate and break up soil into particles of 2-8 mm.
   2.1. Depth: 350 mm
   2.2. Timing: Within a few days before planting.
   2.3. Weather and ground conditions: Suitably dry.
3. Surface: Leave regular and even.
4. Levels: TO CREST NICHOLSON SPEC
5. Undesirable material brought to the surface: Remove visible weeds, roots and large stones with any dimension exceeding: 50 mm
6. Soil within root spread of trees and shrubs to be retained: Do not dig or cultivate.

PLANTING SHRUBS/ HERBACEOUS PLANTS/ BULBS

401 *REGULAR PLANT LAYOUT*

1. Description: To shrub planting
2. Spacing: As Softworks Schedule
3. Density: As plant schedule

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 Not required.
4. Backfilling material: Reuse excavated material.

415 *ANTIDESICCANT FOR CONIFERS/ EVERGREENS*

1. Manufacturer: Contractor's choice
   1.1. Product reference: Contractor's choice
2. Application: Dip before delivering to site. Spray soon after planting.
   2.1. Do not apply in wet or frosty weather.
   2.2. Ensure full coverage of underside of foliage.

445 *PLANTING BULBS/ CORMS/ TUBERS*

1. Depth: Top of bulb/ corm/ tuber at a depth of approximately twice its height, base in contact with bottom of hole.
2. Backfilling: Finely broken soil. Lightly firm to existing ground level.
3. Naturalized planting in existing grassed areas:
   3.1. Scattering: Random. Plant bulbs/ corms/ tubers where they fall.
   3.2. Planting: Neatly remove a plug of turf and replace after planting.

470 *FORMAL HEDGES*

1. Shrubs for hedges: Consistent in species, cultivar and clone to ensure a uniform hedge.
2. Planting: In trenches large enough to take full spread of roots. Set out plants evenly.

472 *FENCING SUPPORT FOR NEW HEDGES*

1. Type: Timber post and general pattern wire mesh.
2. Standard: To BS 1722-2.
3. Height: 600 mm.
4. Timing: Before planting hedge.
5. Support: Lightly secure hedge plants to fence wires at appropriate intervals.

476A *SHRUB, HERBACEOUS AND BULB BACKFILLING MATERIAL:* FOR PLANTED BEDS

1. Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required:
2. Ameliorant/ Conditioner: as section Q28/360
   2.1. Application rate: To manufacturer's/ supplier's recommendations
3. Fertilizer: as section Q28/401A
   3.1. Application rate: To manufacturer's/ supplier's recommendations

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: Not required
   3.1. Depth: N.A.

485A *MULCHING PLANTING BEDS*

1. Material: [medium grade, well composted bark mulch].
   1.1. Purity: Free of pests, disease, fungus and weeds.
   1.2. Recycled content: [Contractor's choice].
   1.3. Particle size: 8-40mm.
   1.4. Colour: mid dark brown.
   1.5. Manufacturer: Rolawn or equal & approved.
2. Preparation: Clear all weeds. Water soil thoroughly.

3. Coverage: 75 mm depth after settlement.
4. Finished level of mulch at edges: 25 mm below adjacent grassed or paved areas.
5. USE OF NON APPROVED MATERIALS: (such as wood chip, coarse grade, over sized mulch): not accepted. Contractor to make good at own expense.
6. APPROVAL: Contractor to submit sample prior to importing and spreading. Sample to be retained for comparison against subsequent loads.
   6.1. Notice period: 2wks prior to spreading.
   6.2. Notice period: 2wks prior to spreading.

PLANTING TREES

505A *TREE PITS*

1. Sizes and design: refer to tree pit detail drawing
2. Sloping ground: Maintain horizontal bases and vertical sides with no less than minimum depth throughout.
3. Pit sides: Scarify.
4. Backfilling material: Reuse excavated material to match adjacent soil horizons
5. Accessories: as identified on drawings

510A *TREE PIT ROOT BARRIERS*

1. ROOT BARRIERS:
2. Zone of Deployment: protections of hard surfacing / channels / kerbs / edging / services lying within a 5m radius of the tree.
3. Manufacturer: TERRAM Global Office, Avintiv - A Berry Plastics Company, Fiberweb Geosynthetics Ltd., Blackwater Trading Estate, The Causeway, Maldon, Essex, CM9 4GG.
4. T: 01621 874200. F: 01621 874299. E: info@terram.com.
   4.1. Product reference: Terram RootGuard (permeable).
5. Depth of top of root barrier below finished soil level: +10mm above G.L
6. Installation: With sides vertical.

512A *TREE PIT ACCESSORIES*

1. Locations: refer to tree pit detail drawings

525A *SEMI-MATURE TREES*

1. Standard: Prepare roots and transplant to BS 4043.
2. Backfilling material: As clause 586.
3. Support: refer to tree pit detail drawing
4. Protection: Not required

535A *STAKING GENERALLY*

1. For staking information refer to tree pit detail drawing
2. Stakes: Softwood, peeled chestnut, larch or oak, straight, free from projections and large or edge knots and with pointed lower end.
   2.1. Preservative treatment: Not required
3. Nails: To BS 1202-1, galvanized, minimum 25 mm long and with 10 mm diameter heads.
4. Stake size (minimum): refer to tree pit drawing

586 *TREE BACKFILLING MATERIAL*

1. Composition: Previously prepared mixture of topsoil excavated from pit and additional topsoil as required.
2. Ameliorant/ Conditioner: Broadleaf P4 water retention granules
   2.1. Application rate: 0.5kg
3. Fertilizer: as Q28/401A
   3.1. Application rate: To manufacturer's/ supplier's recommendations

590 *MULCHING TREES*

1. Material: Medium grade bark mulch as planting beds (Q31/485A)
   1.1. Purity: Free of pests, disease, fungus and weeds.
   1.2. Recycled content: Contractor's choice
2. Preparation: Clear all weeds. Water soil thoroughly.
3. Coverage: In a circular area of 500 mm radius measured from the tree stem, 75mm depth after settlement
4. Finished level of mulch: 30 mm below adjacent grassed or paved areas

WOODLAND/ MATRIX/ BUFFER ZONE PLANTING

600 *WOODLAND WORK GENERALLY*

1. Services: Check for below and above ground services, including land drainage, in the vicinity. Give notice if they may be affected and obtain instructions before proceeding.
2. Safety: Comply with Arboriculture and Forestry Advisory Group Safety leaflets.

615A *EXISTING TREES/ SEEDLINGS/ COPPICE SHOOTS*

1. Existing trees and seedlings: Retain / remove as per the Tree Protection / Removals Plan.

617 *REMOVING TREES AND HEDGES*

1. Identification: Clearly mark trees and hedges to be removed.
2. Work near retained trees: Where canopies overlap, take down trees carefully in small sections to avoid damage to adjacent trees that are to be retained.
3. Arisings: Remove.
4. Tree stumps: Remove mechanically to a minimum depth of 300 mm below ground level

PROTECTING/ MAINTAINING/ MAKING GOOD DEFECTS

710A *MAINTENANCE*

1. Duration: Carry out the operations in accordance with: DJA Landscape Management & Maintenance Plan.

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: In accordance with an agreed defects rectification programme

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.

Ω End of Section

Q35 - Landscape maintenance

GENERALLY

105A *MAINTENANCE OBJECTIVES*

1. Location: Kilnwood Vale
   1.1. Refer: DJA Landscape Management & Maintenance Plan.

Ω End of Section

Q40 - Fencing

FENCING SYSTEMS

310A *CLOSE BOARD FENCING*

2. Refer: to drawing DR-5601
3. Standard: To BS 1722-5, type [WPW 180].
4. Height: 1800
5. Wood: Softwood.
   5.1. Treatment: to provide a 15 year service life.
   5.2. Finish: none.
6. Centres of posts (maximum): 2.4 m.
7. Method of setting posts: 1800mm height: 300mm square or round holes, 750mm deep filled to not less than half the depth with concrete.
8. Accessories:
   8.1. Single leaf gate;
   8.2. Wood gravel board;
   8.3. Wood trellis;
   8.4. Wood panel capping; and
   8.5. Wood post caps
9. Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

320B *CLEFT CHESTNUT KNEE RAIL*

1. Refer: to drawing DR-5600
2. Manufacturer: Contractor’s choice to match Phase 1.
   2.1. Product reference: Contractor’s choice to match Phase 1.
3. Height: as per drawings
4. Posts & struts: Wood.
   4.1. Treatment: none.
   4.2. Method of setting posts: Concrete foundation.
   4.3. Accessories: rails to be screwed to posts to prevent vandalism / theft.

410A *PURPOSE MADE FENCING:* MULTI-USE GAMES AREA (MUGA)

1. Standard: To BS 1722- 14 except as varied on drawings and below.
2. Manufacturer: Zaun Fencing Ltd. (or equal & approved).
   2.1. Contact Details: Steel Drive, Wolverhampton, WV10 9ED. T: 01902 796699 | E: sales@zaun.co.uk | W: www.zaun.co.uk
   2.2. Product reference: Duo 8 (Sports)
3. Access:
   3.1. Gate: Not required.
   3.2. Openings: 6no. total - 2no. opposite centreline [1.5m wide], 4no. @ goal ends (open sides)
4. Height: 3m
5. Materials: Carbon steel
   5.1. Mesh panels: 50x200mm
   5.2. Mesh horizontals: dual 8mm @ 200mm O/C.
   5.3. Mesh verticals: single 6mm @ 50mm O/C.
   5.4. Posts: 80x40 RHS.
   5.5. Fixings: vandal proof.
   5.6. Finish: Hot dip galvanized to BS EN ISO 1461 and Polyester powder coated, as section Z31
      5.6.1. Colour: RAL 7016 Anthracite Grey
6. Post to panel fixing: full height 40mm x 5mm clamp bar supplied w/t bolt fixings at 200mm centres & EPDM inserts to create a flush safe finish with the mesh ends behind the clamp bar.
7. Centres of posts (maximum): 2.525m or as per manufacturer's recommendations
8. Method of setting posts: As manufacturer's recommendations
9. Accessories: Goal ends & basketball hoop

430A *PROPRIETARY FENCING:* BOW TOP PLAY AREA FENCING

1. Manufacturer: Zaun Fencing Ltd,

1.1. Contact Details: Steel Drive, Wolverhampton, WV10 9ED. T: 01902 796699 | E: sales@zaun.co.uk | W: www.zaun.co.uk
1.2. Product reference: Bow Top Playground Fencing
2. Height: 1000mm
3. Materials: Steel
3.1. Treatment: Galvanised and polyester powder coated Anthracite Grey (RAL 7016)
3.2. Centres of posts (maximum): 2.76m as manufacturer's recommendations
3.3. Vertical Bar: 12mm Ø solid @ 101mm O/C
3.4. Horizontals: 40x10mm flats
3.5. Posts: 50mm SHS supplied w/t plastic post caps.
3.6. Fixings: vandalproof.
4. Centres of posts (maximum):
5. Method of setting posts: As manufacturer's recommendations
6. Accessories: None

INSTALLATION

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)
2.2. NHSS Sector Scheme 2C sub categories: Not required

720 *SETTING POSTS IN CONCRETE*

9.1. Standard: To BS 8500-2.
9.2. Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
9.3. 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.
9.4. Admixtures: Do not use.
9.5. Holes: Excavate neatly and with vertical sides.
9.6. Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
9.7. Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

740 *SETTING POSTS IN EARTH*

9.8. Holes: Excavated neatly, with vertical sides and as small as practicable to allow refilling.
9.9. Filling: Position posts/ struts and replace excavated material, well rammed as filling proceeds.

750 *DRIVEN POSTS*

9.10. Damage to heads: Minimize.
9.11. Repair: Neatly finish post tops after installation.

760 *NAILED WOOD RAILS*

9.12. Length (minimum): Two bays, with joints in adjacent rails staggered.
9.13. Fixing: Nail each length of rail to each post with two 100 mm galvanized nails.
9.14. Rails with split ends: replace.

765 *CLEFT WOOD RAILS*

9.15. Length (maximum): 3.05m.
9.16. Fixing: Rail end section shaped to adequately fill the post mortice. Nail each rail to each prick post with two galvanized nails.
9.17. Rails with split ends: replace.

770 *SITE CUTTING OF WOOD*

9.18. General: Kept to a minimum.
9.19. Below or near ground level: Cutting prohibited.
9.20. Treatment of surfaces exposed by minor cutting and drilling: Two flood coats of solution recommended for the purpose by main treatment solution manufacturer.

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.

Ω End of Section

Q50 - Site/street furniture/equipment

GATES, BARRIERS AND PARKING CONTROLS

190A *BOLLARDS [LEISURE PARK]:* FIXED

1. Manufacturer: Bailey Streetscene Ltd.
   1.1. Contact Details: Adlington Business Park, London Road, Adlington, Cheshire, SK10 4NL. T: 01625 855900 | E: enquiries@baileystreetscene.co.uk | W: www.baileystreetscene.co.uk
   1.2. Product reference: Timberclad bollard 200 x 200 x 1300mm)
2. Material: Hot dip galvanised steel clad with Cumaru Hardwood
   2.1. Finish as delivered: Polyester powder coated core Anthracite Grey RAL 7016
   2.2. Colour: Timber as manufactured
3. Height above ground: 900mm
4. Special features: Flat Top
5. Method of fixing: Root fixed

190B *BOLLARDS [LEISURE PARK]:* REMOVABLE

9.21. Manufacturer: Bailey Streetscene Ltd.
9.22. Contact Details: Adlington Business Park, London Road, Adlington, Cheshire, SK10 4NL. T: 01625 855900 | E: enquiries@baileystreetscene.co.uk | W: www.baileystreetscene.co.uk
9.23. Product reference: Timberclad bollard 200 x 200 x 1300mm)
9.24. Material: Hot dip galvanised steel clad with Cumaru Hardwood
9.25. Finish as delivered: Polyester powder coated core Anthracite Grey RAL 7016
9.26. Colour: Timber as manufactured
9.27. Height above ground: 900mm
9.28. Special features: removable
9.29. Method of fixing: base to be root fixed

191A *BOLLARDS [RESIDENTIAL]:* FIXED

9.30. Manufacturer: Woodscape Ltd.
9.31. Contact Details: 1 Sett End Road West, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QJ. T: 01254 685185 | F: 01254 671237 | E: sales@woodscape.co.uk. | W: www.woodscape.co.uk
9.32. Product reference: SP 150/1500 Square bollard with square top profile
9.33. Material: Piquia Hardwood
9.34. Colour: Timber as manufactured
9.35. Height above ground: 900mm
9.36. Special features: Pointed top profile, reflective strip as described
9.37. Method of fixing: Root fixed

191B *BOLLARDS [RESIDENTIAL]:* REMOVABLE

9.38. Manufacturer: Woodscape Ltd.
9.39. Contact Details: 1 Sett End Road West, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QJ. T: 01254 685185 | F: 01254 671237 | E: sales@woodscape.co.uk. | W: www.woodscape.co.uk
9.40. Product reference: SG 150/1350 Square bollard with square top profile
9.41. Material: Piquia Hardwood
9.42. Colour: Timber as manufactured
9.43. Height above ground: 900mm
9.44. Special features: Pointed top profile, reflective strip as described
9.45. Method of fixing: Root fixed

SITE AND STREET FURNITURE

210A *CYCLE STANDS*

1. Manufacturer: Broxap Ltd.
   1.1. Contact Details: Rowhurst Industrial Estate, Chesterton, Newcastle-under-Lyme, Staffordshire, ST5 6BD.T: 0844 800 4085 | E: enquires@broxap.com | W: www.broxap.com
   1.2. Product reference: BXMW/GS/SHEFFIELD-STAND
2. Dimensions: 715mm wide x 800mm high.
3. Material: Steel

3.1. Finish: - Hot dip galvanized to BS EN ISO 1461;- Polyester powder coated
3.2. Colour: RAL 7016
4. Number of stands: as per drawings
5. Accessories: None
6. Method of fixing: Root, 300 mm below ground, set in concrete base

225 *SEATS [LEISURE PARK]:* TIMBER

1. Manufacturer: Bailey Streetscene Ltd.
1.1. Contact Details: Adlington Business Park, London Road, Adlington, Cheshire, SK10 4NL.T: 01625 855900 | E: enquiries@baileystreetscene.co.uk | W: www.baileystreetscene.co.uk
1.2. Product reference: Stoke Seat
2. Material: Cumaru Hardwood
2.1. Finish: Polyester powder coated core Anthracite Grey RAL 7016
2.2. Colour: Hardwood as manufactured
3. Size: 1800 x 770mm
4. Accessories/ Special requirements: None
5. Method of fixing: Root fixed

230A *PICNIC SET*

1. Manufacturer: Woodscape Ltd.,1 Sett End Road West, Shadsworth Business Park, Blackburn, Lancashire, BB1 2QJ.T: 01254 685185 | E: sales@woodscape.co.uk | W: www.woodscape.co.uk
1.1. Product reference: Standard Picnic Set Type 2, straight seats with rectangular table
2. Material: NVD hardwood, FSC certified timber
2.1. Finish: As manufactured
3. Size: 580 x 1800mm table, 1800mm seats
4. Accessories/ Special requirements: None
5. Method of fixing: Root fixed

240 *LITTER BINS [LEISURE PARK]:* TIMBER

1. Manufacturer: Bailey Streetscene Ltd.
1.1. Contact Details: Adlington Business Park, London Road, Adlington, Cheshire, SK10 4NL.T: 01625 855900 | E: enquiries@baileystreetscene.co.uk | W: www.baileystreetscene.co.uk
1.2. Product reference: Urbanis Quadrat Litter Bin
2. Material: Cumaru Hardwood
2.1. Finish: Polyester powder coated core Anthracite Grey RAL 7016
2.2. Colour: Hardwood as manufactured
3. Accessories/ Special requirements: stainless steel liner and locking device
4. Method of fixing: Root fixed

242 *DOG POO BINS [LEISURE PARK]:*

5. Manufacturer: JRB Enterprise Ltd.
5.1. Contact Details: Unit 27 Old Wool Lane, Demmings Road Ind Est., Cheadle, Cheshire, SK8 2PE. T: 0161 491 5001 | E: info@jrbenterprises.com | W: www. jrbenterprises.com
5.2. Product reference: Gladiator Dog Poo Bin
6. Material: Heavy Gauge Zintec steel
6.1. Finish: Polyester powder coated
6.2. Colour: Green
7. Accessories/ Special requirements: Post mounted & installation fixings
8. Method of fixing: Root fixed / manufacturers own.

INSTALLATION

510 *CONCRETE FOUNDATIONS GENERALLY*

1. Standard: To BS 8500-2.
2. Concrete: Designated, not less than GEN 1 and 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.

515 *SETTING COMPONENTS IN CONCRETE*

1. Holes: to manufacturer's recommendations
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.

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

Q52 - Play and sports equipment

GENERAL

115A *PLAYGROUND EQUIPMENT:* TO LEISURE PARK

1. Equipment: As drawings
2. System Manufacturers:
3. Miracle Design & Play Ltd: 14 Duncan Close, Redhouse Square, Moulton Park, Northampton NN3 6WL. T: 01604 658240 | E: sales@miracledandp.co.uk | W: www.miracledandp.co.uk
4. Kompan Ltd: 21 Roebuck Way, Knowlhill, Milton Keynes, MK5 8HL. T: 01908 201002 | E: kompan.uk@kompan.com | W: www.kompan.com
5. Timberplay Ltd: Aizlewood's Mill, Nursery Street, Sheffield, S3 8GG. T: +44 114 282 3474 | E: sales@timberplay.com | W: www.timberplay.com
6. Inclusive Play (UK) Ltd.: 50 Imex Business Centre, Dryden Road, Loanhead, Midlothian, EH20 9LZ. T: 0131 214 1180 | E: sales@inclusiveplay.com | W: www.inclusiveplay.com
7. Fahr Industries Ltd.: Spitfire Road, Old Sarum, Wiltshire, SP4 6GB. T: 01722 349793 | F: 01722 349792 | E: info@fahr-industries.com | W: www.fahr-industries.com
8. Surfacing / Containment / Accessories: As drawings

140A *MULTI USE GAMES AREA:* TO LEISURE PARK

1. Equipment: As drawings
   1.1. System manufacturer: As drawings
2. Surfacing: As drawings, refer to Q26
   2.1. Coating: as Q26/120
   2.2. Line markings: as Q26/420
3. Containment: Open mesh steel panel general purpose fencing, as section Q40
4. Accessories: A1 size Information Board: as drawings

EXECUTION

710 *PLAY EQUIPMENT INSTALLATION GENERALLY*

1. Standard: To manufacturer's written instructions provided in accordance with BS EN 1176-1.

720 *CONCRETE FOUNDATIONS GENERALLY*

1. Standard: To BS 8500-2.
2. Concrete: 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.

725 *SETTING COMPONENTS IN CONCRETE*

1. Holes: to manufacturer's recommendations
2. Components: Accurately positioned and securely supported.
3. Concrete fill: Fully compacted 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.

730 *SETTING COMPONENTS IN EARTH*

1. Holes: As small as practicable.
2. Components being fixed: Accurately positioned and securely supported.
3. Buried depth (minimum): To manufacturer's recommendations
4. Earth refilling: Well rammed as filling proceeds.

740 *PRESERVATIVE TREATED TIMBER*

1. Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

750 *DAMAGE TO GALVANIZED SURFACES*

1. Minor damage in areas up to 40 mm² (including on fixings and fittings): Make good.

1.1. Materials: 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.

760 *SITE PAINTING*

1. Timing: Prepare surfaces and apply finishes as soon as possible after installing components.

COMPLETION

910 *INSPECTION*

1. Standard: To BS EN 1176-1
2. Timing: 2 weeks prior to date when work is expected to be practically complete
3. Period of notice (minimum): 3 working days.

920 *CLEANING*

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

930 *TESTING*

1. Standard: To BS EN 1176-1.

940 *LABELS*

1. Standard: To BS EN 1176-1
2. Labels: Provide permanent labelling on all types of play equipment.
3. Location: Where visible when erected on site.

950 *DOCUMENTATION*

1. Standard: To BS EN 1176-1
2. Contents:
   2.1. Copies of test reports.
   2.2. General product information.
   2.3. Installation information.
   2.4. Inspection and maintenance information.
3. Number of copies: 3
4. Submission: 2 weeks prior to date when work is expected to be practically complete

970 *OPERATING TOOLS*

1. Tools: Supply tools required for operation, maintenance and cleaning purposes.

Ω End of Section

Z20 - Fixings and adhesives

PRODUCTS

310 *FASTENERS GENERALLY*

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

320 *PACKINGS*

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

340 *MASONRY FIXINGS*

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

350 *PLUGS*

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

390 *ADHESIVES*

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

410 *POWDER ACTUATED FIXING SYSTEMS*

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

EXECUTION

610 *FIXING GENERALLY*

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

620 *FIXING THROUGH FINISHES*

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

630 *FIXING PACKINGS*

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

640 *FIXING CRAMPS*

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

670 *PELLETED COUNTERSUNK SCREW FIXING*

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

680 *PLUGGED COUNTERSUNK SCREW FIXING*

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

3. Finished level of plugs: Projecting above surface.

690 *USING POWDER ACTUATED FIXING SYSTEMS*

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

700 *APPLYING ADHESIVES*

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

Ω End of Section