University Hospitals Birmingham NHS Foundation Trust

21E109

Road Repairs – Asphalt – FC 10618

Contents

[Q10 Kerbs/ edgings/ channels/ paving accessories 1](#_Toc66353602)

[Q20 Granular sub-bases to roads/ pavings 11](#_Toc66353603)

[Q22 Asphalt roads/ pavings 16](#_Toc66353604)

Q10
Kerbs/ edgings/ channels/ paving accessories

Types of kerbs/edgings and channels

110 Proprietary precast concrete

1. Description:
2. Standard: To BS EN 1340.
3. Manufacturer:
4. Product reference:
5. Recycled content:
6. Designations:
7. Size (width x height x length):
8. Special shapes:
9. Finish:
10. Colour:
11. Bedding:
12. Joints generally:
13. Sealant movement joints:
14. Accessories:

112 Precast concrete

1. Description:
2. Standard: To BS EN 1340.
3. Recycled content:
4. Designations:
5. Size (width x height x length):
6. Special shapes:
7. Finish:
8. Colour:
9. Bending strength:
10. Weathering resistance:
11. Abrasion resistance:
12. Slip/ skid resistance:
13. Bedding:
14. Joints generally:
15. Sealant movement joints:
16. Accessories:

115 Precast concrete safety kerbs

1. Manufacturer:
	1. Product reference:
2. Size:
3. Special shapes:
4. Finish:
5. Colour:
6. Bedding:
7. Joints generally:
8. Sealant movement joints:

120 Stone

1. Description:
2. Standard: To BS EN 1343.
3. Supplier:
4. Types:
	1. Tolerances on batter:
5. Stone type:
6. Size (width x height):
	1. Tolerances on overall width and height (nominal):
7. Freeze/ Thaw resistance:
8. Special shapes:
9. Finish:
10. Arrises:
11. Bedding:
12. Joints generally:
13. Sealant movement joints:
14. Accessories:

125 Reclaimed stone

1. Description:
2. Location and access:
3. Lifting, storage and protection:
4. Preparation:
5. Bedding:
6. Joints generally:
7. Sealant movement joints:
8. Accessories:

130 Clay brick

1. Description:
2. Bricks
	1. Manufacturer:
	2. Product reference:
	3. Special shapes:
3. Recycled content:
4. Colour:
5. Bedding:
6. Joints generally:
7. Sealant movement joints:
8. Accessories:

150 Concrete block

1. Description:
2. Standard: To BS EN 1338.
3. Manufacturer:
	1. Product reference:
4. Recycled content:
5. Size:
6. Special shapes:
7. Finish:
8. Colour:
9. Bedding:
10. Joints generally:
11. Sealant movement joints:

170 Linear slot drainage channel systems

1. Manufacturer:
	1. Product reference:
2. Bore:
3. Finish:
4. Colour:
5. Accessories:
6. Bedding:
7. Joints generally:

180 Drainage channel systems with gratings

1. Manufacturer:
	1. Product reference:
2. Size:
3. Type of fall:
4. Finish:
5. Colour:
6. Accessories:
7. Bedding:
8. Joints generally:
9. Cover gratings:
	1. Fixings:
	2. Loading grade to BS EN 124-1:
	3. Finish/ Colour:

185 Filtration drainage channels

1. Manufacturer:
	1. Product reference:
2. Size:
3. Finish:
4. Colour:
5. Filter medium:
6. Cover gratings:

190 Carriageway kerb and drainage channel systems

1. Manufacturer:
	1. Product reference:
2. Finish:
3. Colour:
4. Accessories:
5. Bedding:
6. Vertical joints:
7. Horizontal joints/ Bond:

200 Special

1. Description:
2. Manufacturer:
	1. Product reference:
3. Size:
4. Type/ Material:
	1. Finish:
	2. Colour:
5. Accessories:
6. Bedding:
7. Joints:

205 Pavement extenders

1. Description:
2. Manufacturer:
	1. Product reference:
3. Size:
4. Shape:
5. Material:
6. Recycled content:
7. Finish:
8. Colour:
9. Method of fixing:

250 Material samples

1. Samples representative of colour and appearance of designated materials: Submit before placing orders.
	1. Designated materials:

Roads/paving accessories/ marking/ demarcation

305 Tree grilles and surrounds

1. Manufacturer:
	1. Product reference:
2. Size:
3. Material:
4. Finish:
5. Colour:
6. Bedding/ fixing:
7. Accessories:

310 Cattle grids

1. Standard: To BS 4008.
2. Manufacturer:
	1. Product reference:
3. Steel protection: Hot dip galvanized to BS EN ISO 1461, after fabrication
4. Loading:
5. Bedding/ fixing:
6. Accessories:

312 Footway gratings

1. Description:
2. Manufacturer:
	1. Product reference:
3. Size:
4. Material:
	1. Finish:
	2. Colour:
5. Pattern:
6. Fixings:
7. Loading grade to BS EN 124-1:

315 Traffic calming humps

1. Manufacturer:
	1. Product reference:
2. Material:
	1. Finish and colour:
3. Method of fixing:
4. Accessories:

325 Traffic calming speed cushions

1. Manufacturer:
	1. Product reference:
2. Material: Precast concrete.
3. Finish and colour:
4. Method of installation:
5. Accessories:

390 Road marking (light duty)

1. Manufacturer:
	1. Product reference:
2. Colour:
3. Surfaces to receive markings: Clean and dry, loose material removed.
4. Application: Uniform, with no streaks or ragged edges.

395 Road marking (thermoplastic)

1. Standard: Road Safety Markings Association standard specification document for road marking and road studs (StanSpec).
2. Manufacturer:
	1. Product reference:
3. Colour:
4. Retroreflectivity to BS EN 1436:

400 Retroreflecting road studs

1. Standard: Road Safety Markings Association standard specification document for road marking and road studs (StanSpec).
2. Manufacturer:
	1. Product reference:
3. Colour:

410 Applied slip resistant accessories

1. Description:
2. Manufacturer:
	1. Product reference:
3. Material:
	1. Format:
		1. Predrilled:
	2. Slip resistance - water wet (minimum):
4. Size/ Coverage:
5. Colour:
6. Accessories/ Features:

415 Demarcation units

1. Description:
2. Manufacturer:
	1. Product reference:
3. Material/ Standard:
4. Recycled content:
5. Shape:
6. Size (width x height x length):
7. Finish:
8. Colour:
9. Bedding:
10. Joints generally:
11. Sealant movement joints:

420 Lane separators

1. Description:
2. Manufacturer:
	1. Product reference:
3. Size:
4. Shape:
5. Material:
6. Recycled content:
7. Finish:
8. Colour:
9. Method of fixing:

Laying

510 Laying kerbs, edgings and channels

1. Cutting: Neat, accurate and without spalling. Form neat junctions.
	1. Long units (450 mm and over) minimum length after cutting: 300 mm.
	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.
	1. Portland cement: Class CEM I 42.5 to BS EN 197-1.
	2. Sand: to BS EN 12620, grade 0/4 or 0/2 (MP).
3. Bed thickness: 12-40 mm.

543 Lime mortar bedding

1. General: To section Z21.
2. Mix:
3. Bed thickness: 12-40 mm.

545 Proprietary bedding

1. Description:
2. Manufacturer:
	1. Product reference:
3. Bed thickness:

547 Bedding/ Backing of units on fresh concrete races

1. Standard: To BS 7533-6.

550 Kerb dowels

1. Dowels: Steel bar to BS 4482.
	1. Size: 12 mm diameter, 150 mm long.
2. Installation of dowels: Vertically into foundation while concrete is plastic.
	1. Centres: To suit holes in kerbs.
	2. Projection: 75 mm.
3. Grouting of holes in kerbs: Filled with 1:3 cement:sand mortar finished flush.

560 Haunching dowels

1. Dowels: Steel bar to BS 4482.
	1. Size: 12 mm diameter, 150 mm long.
2. Installation of dowels: Vertically into foundation while concrete is plastic.
	1. Centres: 450 mm.
	2. Distance from back face of kerb: 50 mm.
	3. Projection: 75 mm.
3. Haunching: Rectangular cross section, cast against formwork, fully enclosing and protecting dowels.

570 Channels

1. Installation: To an even gradient, without ponding or backfall.
2. Lowest points of channels: 6 mm above drainage outlets.

580 Drainage channel systems

1. Installation: To an even gradient, without ponding or backfall. Commence laying from outlets.
2. Silt and debris: Removed from entire system immediately before handover.
3. Washing and detritus: Safely disposed without discharging into sewers or watercourses.

590 Drainage channel systems with built in fall

1. Installation: Top of channels level, installed in correct sequence to form an even gradient without ponding or backfall. Commence laying from outlets.
2. Silt and debris: Removed from entire system immediately before handover.
3. Washings and detritus: Safely disposed without discharging into sewers or watercourses.

600 Radius kerbs/ channels

1. Usage: Radii of 15 m or less.

610 Angle kerbs

1. Usage: Internal and external 90° changes of direction.
2. Cutting of mitres: Not permitted.

620 Accuracy

1. Deviations (maximum)
	1. Level: ± 6 mm.
	2. Horizontal and vertical alignment: 3 mm in 3 m.

625 Regularity of paved surfaces

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

630 Narrow mortar joints

1. Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled, tightly butted and surplus mortar removed immediately.
	1. Joint width: 3 mm.

640 Tooled mortar joints

1. Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and tooled to a neat flush profile.
	1. Joint width: 6 mm.

641 Tooled coloured mortar joints

1. Jointing: Ends of units buttered with bedding mortar as laying proceeds. Joints completely filled and raked out to a depth of 10 mm for pointing.
	1. Joint width: 6 mm.
2. Pointing: Joints refilled and tooled to a neat flush profile.
	1. Pointing mortar: 1:3 cement:sand.
	2. Pigment colour: Select from list

650 Sealant movement joints

1. Joint filler: Compressible cellular rubber or plastics compatible with specified sealant.
2. Filler installation: Built in as work proceeds, extending through haunching and foundation. Filler positioned accurately to fully support sealant at the recommended depth below exposed faces of units.
3. Joint width:
4. Sealant:
	1. Colour:
5. Sealant application: As section Z22.

Ω End of Section

Q20
Granular sub-bases to roads/ pavings

To be read with preliminaries/ general conditions.

110 Thicknesses of sub-base/ subgrade improvement layers

1. Thicknesses: See sections:
	1. ……….

120 Checking of subgrades

1. Anticipated subgrade conditions
	1. Soil type:
	2. Plasticity index:
	3. CBR (minimum):
	4. Depth below formation level to groundwater table:
2. Subgrade variation: If material appears to vary from anticipated conditions, or if there are extensive soft spots, ……….
3. Submit: Results and obtain instructions before proceeding.

130 Herbicides

1. Type:
2. Application: To subgrade of ……….

140 Excavation of subgrades

1. Final excavation to formation or subformation level: Carry out immediately before compaction of subgrade.
2. Soft spots and voids: Give notice.
3. Old drainage and service trenches:
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:
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.

150 Subgrades for vehicular areas

1. Preparation and treatment: To Highways Agency ‘Specification for highway works’, clauses 616 and 617.

170 Geotextile filter/ separator membrane

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

175 Impermeable membrane

1. Description:
2. Manufacturer:
	1. Product reference:
3. Jointing:
4. Protect from:
	1. Exposure to light, except during laying (maximum five hours).
	2. Contaminants.
	3. Materials listed as potentially deleterious by geotextile manufacturer.
	4. Damage, until fully covered by fill.
	5. Wind uplift, by laying not more than 15 m before covering with fill.
5. Preparation: Remove humps and sharp projections and fill hollows before laying.
6. Other requirements:

180 Notice

1. Give notice:
	1. Period of notice:

200 Subgrade improvement layer (capping)

1. Material: To Highways Agency ‘Specification for highway works’, table 6/1, Class ……….
2. Standard: Placed and compacted to Highways Agency ‘Specification for highway works', table 6/1, clauses 612 and 613.3, 613.8, 613.9, 613.10 and 613.13.

205 Highways agency Type 2 unbound mixture for sub-base

1. Material: Type 2 unbound mixture to Highways Agency ‘Specification for highway works’, clauses 801 and 804.
	1. Recycled aggregate:
	2. CBR (minimum):

210 Highways agency Type 1 unbound mixture for sub-base

1. Material: Type 1 unbound mixture to Highways Agency ‘Specification for highway works’, clauses 801 and 803.
	1. Recycled aggregate:

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. Crushed rock (other than argillaceous rock) or quarry waste with not more binding material than is required to help hold the stone together.
	2. Crushed concrete, crushed brick or tile, free from plaster, timber and metal.
	3. Gravel or hoggin with not more clay content than is required to bind the material together, and with no large lumps of clay.
	4. Natural gravel.
	5. Natural sand.
2. Filling: Spread and levelled in 150 mm maximum layers, each layer thoroughly compacted.

213 Blinding protection for membranes

1. Location:
2. Material:
3. Thickness (minimum):
4. Compaction: Moisten as necessary before final rolling to provide a flat, closed, smooth surface.
5. Permissible deviations on surface level:

215 Coarse graded aggregate for permeable paving

1. Description:
2. Material:
	1. Standard: To BS EN 13242 ……….
	2. Aggregate size:
	3. Grading:
	4. Other properties:
3. Testing
	1. Materials:
	2. Sub-base:
4. Laying:
5. Protection: Prevent damage by traffic and contamination by mud and soil.

217 Additional requirements for hydraulically bound coarse graded aggregate for permeable paving

1. Standard: To BS EN 14227-1 ……….
2. Aggregate and general requirements:
3. Mixture
	1. Binder type: Cement.
	2. Binder content by mass (minimum):
4. Water content (range):
5. Mechanical properties:
6. Mixing
	1. Batch by weight and mix using a forced action mixer to thoroughly distribute the binder.
	2. Aggregate to be free from contamination at time of mixing.
7. Transporting/ placing: Protect mixture from segregation, weather and contamination. Place and compact mixture within ……….
8. Protection: Prevent damage from frosting and protect from traffic ……….
9. Testing
	1. Sample preparation/ testing: Prepare and test three 150 mm cubes to BS EN 13286-41 from each sample of mixture. Cure cubes at 20° C ……….
	2. Preliminary:
	3. Project testing:

220 Frost susceptible granular material

1. Definition (non frost susceptible material): To Highways Agency 'Specification for highway works' clause 801.8.
2. Depth of frost susceptible material below final surface of paving (minimum):
3. Testing: Test materials used if required and supply certificates.

225 Placing of material with high sulfate content

1. Standard: To Highways Agency 'Specification for highway works', clauses 801.2 and 801.3.
	1. Separation distance (minimum):

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.

240 Laying granular sub-bases for vehicular areas

1. General: Spread and levelled in layers. As soon as possible thereafter compact each layer.
2. Standard: To Highways Agency ‘Specification for highway works’ clause 802.
3. At drainage fittings, inspection covers, perimeters and where local excavation and backfilling has taken place: Take particular care to compact fully.

241 Laying granular sub-bases for vehicular areas

1. Proposals: Well in advance of starting work submit details of:
	1. Maximum depth of each compacted layer.
	2. Type of plant.
	3. Minimum number of passes per layer.
2. General: Spread and levelled in layers. As soon as possible thereafter compact each layer.
3. At drainage fittings, inspection covers, perimeters and where local excavation and backfilling has taken place: Take particular care to compact fully.
4. Defective areas: Remove loose, segregated or otherwise defective areas to the full thickness of the layer and lay and compact new material.
5. Sub-base surface after compaction and immediately before overlaying: Uniformly well closed and free from loose material, cracks, ruts or hollows.

250 Laying granular sub-bases

1. Description:
2. General: Spread and levelled.
3. Compaction
	1. Timing: As soon as possible after laying.
	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. Subgrades
		1. Roads and parking areas: +20 -30 mm.
		2. Footways and recreation areas: ± 20 mm.
	2. Sub-bases
		1. Roads and parking areas:
		2. Footways and recreation areas:

315 Accuracy for sub-bases to sports surfacing

1. Profile: Lay sub-base to levels shown on drawings and with a ……… .
2. Maximum gradient in any direction:
3. Degree of evenness: As specified by ……… .
4. Deviation from finished plane:
5. General accuracy: Sufficient to ensure that the surface will not cause a hazard or a ball to deflect from its true path.

320 Surfaces to receive sand bedding for paving

1. Description:
2. Blind surface: As necessary before compaction to ensure that surface is tight and dense enough to prevent laying course sand being lost into it during construction or use.
3. Material:

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

110 Asphalt concrete paving

1. Description:
2. Standard:
3. Subgrade improvement layer:
	1. Compacted thickness:
4. Geotextile:
	1. Manufacturer:
		1. Product reference:
5. Granular sub-base:
	1. Compacted thickness:
6. Base:
	1. Paving grade:
	2. Compacted thickness:
7. Binder course:
	1. Paving grade:
	2. Compacted thickness:
8. Surface course:
	1. Paving grade:
	2. Slip/ Skid resistance:
	3. Compacted thickness:
9. Reclaimed content
	1. Standard: To BS EN 13108-8.
	2. Value (maximum):
10. Surface treatment:
11. Other requirements:

115 Asphalt concrete paving

1. Description:
2. Standard:
3. Subgrade improvement layer:
	1. Compacted thickness:
4. Geotextile:
	1. Manufacturer:
		1. Product reference:
5. Granular sub-base:
	1. Compacted thickness:
6. Binder course:
	1. Paving grade:
	2. Compacted thickness:
7. Surface course:
	1. Paving grade:
	2. Slip/ Skid resistance:
	3. Compacted thickness:
8. Reclaimed content
	1. Standard: To BS EN 13108-8.
	2. Value (maximum):
9. Surface treatment:
10. Other requirements:

127 Porous asphalt concrete paving

1. Description:
2. Standard: To BS EN 13108-7.
3. Geomembrane:
	1. Manufacturer:
		1. Product reference:
4. Granular sub-base:
	1. Compacted thickness:
5. Water collection:
6. Base:
	1. Compacted thickness:
7. Binder course:
	1. Paving grade:
	2. Compacted thickness:
8. Surface course
	1. Manufacturer:
		1. Product reference:
	2. Type:
	3. Paving grade:
	4. Slip/ Skid resistance:
	5. Compacted thickness:
9. Reclaimed content
	1. Standard: To BS EN 13108-8.
	2. Value (maximum):

140 Hot rolled asphalt paving

1. Description:
2. Standard:
3. Subgrade improvement layer:
	1. Compacted thickness:
4. Geotextile:
	1. Manufacturer:
		1. Product reference:
5. Granular sub-base:
	1. Compacted thickness:
6. Base:
	1. Paving grade:
	2. Compacted thickness:
7. Binder course:
	1. Paving grade:
	2. Compacted thickness:
8. Surface course:
	1. Paving grade:
	2. Slip/ Skid resistance:
	3. Compacted thickness:
9. Reclaimed content
	1. Standard: To BS EN 13108-8.
	2. Value (maximum):
10. Surface treatment:
11. Other requirements ……….

150 Light duty mastic asphalt paving

1. Description:
2. System manufacturer:
3. Standard:
4. Subgrade improvement layer:
	1. Compacted thickness:
5. Preparatory work:
6. Geotextile:
	1. Manufacturer:
		1. Product reference:
7. Base:
	1. Thickness:
8. Surface course:
	1. Colour:
	2. Slip/ Skid resistance:
	3. Application:
9. Edge restraints:
10. Surface treatment:

154 Hot rolled asphalt paving

1. Description:
2. Standard: To BS EN 13108-4.
3. Subgrade improvement layer:
4. Compacted thickness:
5. Geotextile:
	1. Manufacturer:
		1. Product reference:
6. Granular sub-base:
	1. Compacted thickness:
7. Base: Hot rolled asphalt to BS EN 13108-4.
	1. Compacted thickness: 75 mm.
8. Binder course: Hot rolled asphalt to BS EN 13108-4.
	1. Compacted thickness:
9. Surface course
	1. Manufacturer:
		1. Product reference:
	2. Type:
	3. Slip/ Skid resistance:
	4. Compacted thickness:
10. Reclaimed content
	1. Standard: To BS EN 13108-8.
	2. Value (maximum):

160 Stone mastic asphalt paving

1. Description:
2. System manufacturer:
3. Standard:
4. Subgrade improvement layer:
5. Preparatory work:
6. Geotextile:
	1. Manufacturer:
		1. Product reference:
7. Granular sub-base:
8. Regulating course:
9. Binder course:
10. Surface course
	1. Manufacturer:
		1. Product reference:
	2. Slip/ Skid resistance:
11. Surface finish:
12. Edge restraints:
13. Embedded features:
14. Surface features:
15. Other requirements:

170 Proprietary vehicular paving

1. Description:
2. Subgrade improvement layer:
	1. Compacted thickness:
3. Geotextile:
	1. Manufacturer:
		1. Product reference:
4. Granular sub-base:
	1. Compacted thickness:
5. Base: To BS EN 13108-1, ……….
	1. Paving grade:
	2. Compacted thickness:
6. Binder course: To BS EN 13108-1, ……….
	1. Paving grade:
	2. Compacted thickness:
7. Laying/ Compaction: Base and binder course to BS 594987.
8. Surface course
	1. Manufacturer:
		1. Product reference:
	2. Slip/ Skid resistance:
	3. Compacted thickness:
	4. Laying/ Compaction:

175 Proprietary pedestrian paving

1. Description:
2. Subgrade improvement layer:
	1. Compacted thickness:
3. Geotextile:
	1. Manufacturer:
		1. Product reference:
4. Granular sub-base:
	1. Compacted thickness:
5. Binder course: To BS EN 13108-1, ……….
	1. Paving grade:
	2. Slip/ Skid resistance:
	3. Compacted thickness:
	4. Laying/ Compaction: To BS 594987.
6. Surface course
	1. Manufacturer:
		1. Product reference:
	2. Compacted thickness:
	3. Laying/ Compaction:

180 Surface treatment to existing paving

1. Description:
2. Base:
3. Preparation: Cut out depressions, fill to match existing surface and compact.
4. Surface to receive dressing: Clean and dry. All patching complete.
5. Binder:
6. Finish:
	1. Slip/ skid resistance:

185 Proprietary surface treatment to existing paving

1. Description:
2. Base:
	1. Preparation: Cut out depressions, fill to match existing surface and compact.
	2. Surface to receive dressing: Clean and dry. All patching complete.
3. Surface treatment
	1. Manufacturer:
		1. Product reference:
	2. Binder:
		1. Colour:
	3. Aggregate:
	4. Colour:
	5. Thickness:
	6. Application:
	7. Slip/ skid resistance:

190 Applied slip resistant

1. Description:
2. Manufacturer:
	1. Product reference:
3. Material:
	1. Format:
	2. Slip resistance - water wet (minimum):
4. Size/ Coverage:
5. Colour:

Preparatory work/ requirements

195 Hard landscaping materials specification

1. Minimum 'BRE Green Guide to Specification' online rating:

210 Timber edging

1. Description:
2. Softwood board
	1. Size: 38 x 150 mm.
	2. Fixing: Galvanized nails into softwood pegs.
3. Softwood pegs
	1. Size:
	2. Fixing: Drive into ground.
	3. Centres:
4. Preservative treatment:
	1. Type:

220 Bituminous materials generally

1. Suppliers' names: Submit.
	1. Timing (minimum): Two weeks before starting work.
2. Test certificates: At the time of delivery for each manufacturing batch submit certificate:
	1. Confirming compliance with this specification and the relevant standard.
	2. Stating full details of composition of mix.

230 Samples

1. Submit:

240 Acceptance of surfaces

1. Surface: Sound, clean and suitably close textured.
2. Level tolerances: To BS 594987.
3. Kerbs and edgings: Complete, adequately bedded and haunched and to the required levels.

250 Abutments

1. Vertical edges of manholes, gullies, kerbs and other abutments: Clean and paint with a thin uniform coating of ……….
2. Finishing: Tamp surface around projections.
	1. Level: Flush or not more than 3 mm above projections.

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
	1. Keep traffic free until it has cooled to prevailing atmospheric temperature.
	2. Do not allow rollers to stand at any time.
	3. Prevent damage.
	4. Lines and levels: With regular falls to prevent ponding.
	5. Overall texture: Smooth, even and free from dragging, tearing or segregation.
	6. State on completion: Clean.

320 Adverse weather

1. Frozen materials: Do not use.
2. Suspend laying
	1. During freezing conditions
	2. If the air temperature reaches 0°C, or in calm dry conditions -3°C, on a falling thermometer.
	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. Base:
	2. Binder course:
	3. Surface course:
	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:
2. Gradients in any direction: Not greater than ……….
3. Surface regularity:
4. Sudden irregularities: Not permitted.

350 Contractor’s use of pavements

1. Before use
	1. Timing: allow newly laid sections to cool before trafficking.
	2. Open-grained surface: Fill with 0/4 mm size coated grit. Remove surplus.
	3. Finish: Uncoated chipping and binder surface treatment.
2. Preparation for final surfacing
	1. Timing: Defer laying until as late as practicable.
	2. Immediately before laying final surfacing: Clean and make good the base/ binder course. Allow to dry.
	3. Adhesion:
		1. Application rate:
		2. Accuracy: Uniform, without puddles.
	4. Finishing: Allow emulsion to break completely before applying surface.

351 Contractor’s use of pavements

1. Preparation for final surfacing
	1. Timing: Defer laying until as late as practicable.
	2. Immediately before laying final surfacing: Clean and make good the base/ binder course. Allow to dry.
	3. Adhesion:
		1. Application rate:
		2. Accuracy: Uniform, without puddles.
	4. Finishing: Allow emulsion to break completely before applying surface.

360 Uncoated chippings for surface treatment

1. Chippings: Clean aggregate to BS EN 13043 and PD 6682-2, size 2.8/6.3, grading category Gc85/15.
	1. Type/ Source:
	2. Colour:
2. Binder
	1. Cutback bitumen to BS EN 12591 or bitumen emulsion to BS 434-1.
	2. Do not use cut-back bitumen at temperatures below 15°C.
	3. Do not use modified binders without prior approval.
3. Application
	1. Binder application rate: In accordance with TRL Road Note 39. Adjust rate for modified binders in accordance with manufacturer's instructions.
	2. Coverage: 100–105% shoulder to shoulder to BS 598-1.
	3. Compaction: Roll. Do not crush chippings.
4. Completion
	1. Before trafficking, remove excess chippings.
	2. Carry out further removal of loose chippings disturbed by traffic as necessary.

365 Proprietary surface treatment

1. Manufacturer:
	1. Product reference:
2. Chippings
	1. Type:
	2. Size:
3. Binder
	1. Type:
	2. Colour:
4. Application: As manufacturer's recommendations.

370 Coated chippings

1. Chippings and application: To BS EN 13108-4.
	1. Type/ Source:
	2. Size:
	3. Colour:

Completion

390 Documentation

1. Standard:
	1. Declaration of conformity: Submit.
2. Number of copies:
3. Submission:

395 Slip resistance testing

1. Surfaces to be tested:
	1. Surface condition:
2. Timing:
3. Period of notice (minimum): 3 working days.
4. Test standard:
	1. Testing authority:
	2. Witnessing/ Certification: Arrange for tests to be witnessed/ certified by: ……….
	3. Report: Submit.
		1. Format:

Ω End of Section



Specification created using NBS Chorus