0 1 SEP 2010

Infrastructure Works

Penarth Heights



# Q10 Kerbs/ edgings/ channels/ paving accessories

To be read with Preliminaries/General conditions.

#### TYPES OF KERBS/EDGINGS AND CHANNELS

## 110 PROPRIETARY PRECAST CONCRETE KERBS FOR PLANTERS ON RIDGEWAY

- Standard: To BS EN 1340.
- Manufacturer: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Tel: 0845 302 0600 Technical Tel: 08704 113 344. Web: http://www.marshalls.co.uk/kerb.
  - Product reference: Conservation Kerb or similar approved.
     Designations: Conservation Kerb for Laying Flat Straight.
     Size (width x height x length): 145 x 255mm x 300 / 450 / 600 / 915mm Flat Straight.
- Special shapes: None.
- · Finish: Exposed aggregate.
- · Colour: Charcoal.
- · Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

# 110A PROPRIETARY PRECAST CONCRETE PIN KERB Type EF

- Standard: To BS EN 1340.
- Manufacturer: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Tel: 0845 302 0600 Technical Tel: 08704 113 344. Web: http://www.marshalls.co.uk/kerb.
  - Product reference: BS EN 1340 Edgings or similar approved.
     Designations: Edging Flat Top: 50 x 150 EF.
     Size (width x height x length): 50mm x 150mm x 915mm.
- · Special shapes: None.
- · Finish: As cast.
- · Colour: Natural.
- Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

# 110B PROPRIETARY PRECAST CONCRETE HALF BATTERED KERBS UPSTAND AND FLUSH

- Standard: To BS EN 1340.
- Manufacturer: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Tel: 0845 302 0600 Technical Tel: 08704 113 344. Web: http://www.marshalls.co.uk/kerb.
  - Product reference: Charnwood Kerb or similar approved.
     Designations: Charnwood Kerb Straight: Half Battered HB2
     Charnwood Kerb Radius: 125 x 225 (convex and concave).
     Size (width x height x length): 125mm x 255mm x 915mm Half Battered HB2 125mm x 255mm Kerb Radius.
- Special shapes: Charnwood Kerb Centre Stone, Charnwood Kerb Drop Kerb: Half Battered to Bullnosed Left and Right Hand, Charnwood Kerb Angles Internal: Concave (Internal) Angle, Charnwood Kerb Angles External: Convex (External) Angle.
- · Finish: Exposed aggregate.
- · Colour: French Grey.
- · Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

# 110C PROPRIETARY PRECAST CONCRETE FLUSH STRAIGHT KERBS

- · Standard: To BS EN 1340.
- Manufacturer: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Tel: 0845 302 0600 Technical Tel: 08704 113 344. Web: http://www.marshalls.co.uk/kerb.
  - Product reference: Charnwood Kerb or similar approved.
     Designations: Charnwood Centre Stone.
     Size (width x height x length): 125mm x 150mm x 915mm.
- Special shapes: None.
- · Finish: Exposed aggregate.
- · Colour: French Grey.
- Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

#### 110D PROPRIETARY PRECAST CONCRETE 25mm UPSTAND KERBS

- Standard: To BS EN 1340.
- Manufacturer: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Tel: 0845 302 0600 Technical Tel: 08704 113 344. Web: http://www.marshalls.co.uk/kerb.
  - Product reference: Charnwood Kerb or similar approved.
     Designations: Charnwood Centre Stone BN.
     Size (width x height x length): 125mm x 150mm x 915mm.
- · Special shapes: None.
- · Finish: Exposed aggregate.
- · Colour: French Grey.
- · Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

# 150 CONCRETE BLOCK Chamfered low rise kerb block

- Standard: To BS EN 1338.
- Manufacturer: CEMEX UK Operations, Coldharbour Lane, Thorpe, Egham. Surrey. TW20 8TD. http://www.cemex.co.uk or similar approved.
  - Product reference: System L Low Rise Kerb Sett.
- · Size: 190mm length, 160mm depth, 100mm wide with a 45° front chamfer, 50mm wide and deep.
- Special shapes: Standard block in low-rise position System L, Low-rise 45 ° angles, Low-rise right
  angles, low rise radius blocks, Low-rise to Crossover (System L to System X).
- · Finish: Smooth.
- · Colour: Charcoal.
- · Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

## 150A CONCRETE BLOCK Crossover kerb block

- Standard: To BS EN 1338.
- Manufacturer: CEMEX UK Operations, Coldharbour Lane, Thorpe, Egham. Surrey. TW20 8TD. http://www.cemex.co.uk or similar approved.
  - Product reference: Standard kerb block Crossover or similar approved.
- · Size: 190mm length, 160mm depth, 100mm wide with a 18.5° front chamfer.
- · Special shapes: Crossover internal corner block, Crossover external corner block.
- · Finish: Smooth.
- · Colour: Charcoal.
- · Bedding: To Engineers Specification.
- · Joints generally: To Engineers Specification.
- · Sealant movement joints: To Engineers Specification.

#### ROADS/PAVING ACCESSORIES/MARKING

# 305A TREE GRILLES - IN HARD LANDSCAPE AREA (PEDESTRIAN ONLY)

- Manufacturer: Jones Of Oswestry, Whittington Road, Oswestry, Shropshire, SY11 1HZ United Kingdom Tel: 01691 653251 Fax: 01691 658222, www.jonesofoswestry.co.uk.
  - Product reference: DPA Arborslot Tree Grille, Block Infill Tree Surround system Code /A or similar approved.
- Size: 1200 x 1200 x Tray depth at of 85mm x tree aperture size 514mm.
- · Material: Galvanised Steel at 6mm thickness.
- · Finish: N/A.
- · Colour: N/A.
- Accessories: Refer to Q31 Irrigation pipe, Root barrier, underground guying, geotextile layer, gravel drainage layer and perforated drainage pipe.

# 395 ROAD MARKING (THERMOPLASTIC)

- Standard: Road Safety Markings Association standard specification document for road marking and road studs (StanSpec).
- · Manufacturer: Submit proposals.
  - Product reference: Submit proposals.
- Colour: 75mm x 100mm White numbering and lettering on a Black Square used for allocated parking bays. Car park makers to be painted white...
- Retroreflectivity to BS EN 1436: Not required (Class R0).

Interlocking brick/block roads/pavings

# Q24 Interlocking brick/block roads/pavings

## 110 CONVENTIONAL CONCRETE BLOCK PAVING FOR FOOTWAYS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
     Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-3.
     Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk. Product reference: Eco-granite Cornish Setts or similar approved.
  - Sizes: 100 x 150, 100 X 100, 150 X 150mm all at 80mm depth.
  - Special blocks: None.
  - Colour/ Finish: Truro/ Bush Hammered.
- lointing:
  - Material: In accordance with BS 7533-3.
  - Joint width: 2-5 mm.
- · Sealer/ Stabilizer: To engineers specification.
- Setting out:
  - Bond: Stretcher.
  - Features: None.

# 110A CONVENTIONAL CONCRETE BLOCK PAVING FOR RIDGEWAY FOOTWAYS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
     Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-3.
     Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk.
     Product reference: Eco-granite Cornish Paving.
  - Sizes: 150, 200, 250, 300 and 400 mm @ 275mm gauge, 80mm depth.
  - Special blocks: None.
  - Colour/ Finish: Truro/ Bush Hammered.
- Jointing:
  - See Engineers' Specification
- · Sealer/ Stabilizer: To engineers specification.
- Setting out:
  - Bond: Stretcher.
  - Features: None.

#### Infrastructure Works

## 110B CONVENTIONAL CONCRETE BLOCK PAVING FOR HIGHWAYS TABLES/JUNCTIONS

- Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
     Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-3.
     Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk. Product reference: Eco-granite Royal Deeside Setts or similar approved.
  - Sizes: 200 x 100 x 80mm depth.
  - Special blocks: None.
  - Colour/ Finish: Lochnager/ Bush Hammered.
- Jointing:
  - See Engineers' Specification
- · Sealer/ Stabilizer: To engineers specification.
- · Setting out:
  - Bond: 90° herringbone.
  - Features: None.

# 110C CONVENTIONAL CONCRETE BLOCK PAVING FOR HIGHWAYS TABLES/JUNCTIONS - SINGLE SOLIDER COURSE

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
     Product reference: To engineers specification.
- Laying course:
  - Material: In accordance with BS 7533-3.
    - Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk. Product reference: Eco-granite Royal Deeside Setts or similar approved.
  - Sizes:  $200 \times 100 \times 80$ mm depth.
  - Special blocks: None.
  - Colour/ Finish: Lochnager/ Bush Hammered.
- lointing:
  - See Engineers' Specification
- · Sealer/ Stabilizer: To engineers specification.
- Setting out:
  - Bond: Running.
  - Features: None.

#### Infrastructure Works

## 110E CONVENTIONAL CONCRETE BLOCK PAVING FOR RIDGEWAY PARKING BAYS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
     Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-3.
     Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk. Product reference: Eco-granite Royal Deeside Setts or similar approved.
  - Sizes: 100 x 150, 100 X 100, 150 X 150mm all at 80mm depth.
  - Special blocks: None.
  - Colour/ Finish: Lochnager/ Bush Hammered.
- · Jointing:
  - See Engineers' Specification
- · Sealer/ Stabilizer: To engineers specification.
- · Setting out:
  - Bond: Running, perpendicular to long edge of car parking bays.
  - Features: None.

## 110F CONVENTIONAL CONCRETE BLOCK PAVING FOR CAR PARKING BAY MARKERS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
    Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-3.
    - Category: To engineers specification.
  - Method of screeding, in accordance with BS 7533-3: To engineers specification.
  - Nominal thickness after compaction: To engineers specification.
- Blocks: To BS EN 1338: 2003 PSRV 70.
  - Manufacturer: Formpave Ltd. Tufthorn Avenue, Coleford, Gloucestershire. GL6 8PR. Tel: 01594 836999. Fax: 01594 810577. E-mail: sales@formpave.co.uk Web: www.formpave.co.uk. Product reference: Eco-granite Cornish Setts or similar approved.
  - Sizes: 100mmx 100mm x 80mm depth.
  - Special blocks: None.
  - Colour/ Finish: Cornish/ Bush Hammered.
- · Jointing:
  - Material: In accordance with BS 7533-3.
  - Joint width: 2-5 mm.
- · Sealer/ Stabilizer: To engineers specification.
- Setting out:
  - Bond: 3 rows of cobbles to create a line or 'T' shape.
  - Features: None.

## 130 NATURAL STONE SETT PAVING FOR SLOPE OF ROAD RAMPS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
    Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-7, clause 6.1.1.1.
  - Compaction: In accordance with BS 7533-7, clauses 9.4.1 and 12.1 and Annex E.
  - Nominal thickness after compaction: To engineers specification.
- Setts: Granite Setts.
  - Supplier: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Office Tel: 08704 112266. Fax: 08704 112277 Web: http://www.marshalls.co.uk/naturalstone.
  - Product reference: Granite setts or similar approved.
  - Sizes: 100 x 100 x 100mm.
  - Method of cutting sett sides: Diamond sawn.
  - Dimensional tolerance: In accordance with BS 7533-7, clause 6.3.
  - Freeze/ thaw resistance to BS EN 1342: Class I (FI).
  - Colour/ Finish: Silver Grey GRA900/Cropped.
  - Special setts: None.
- · Jointing:
  - Material: In accordance with BS 7533-7, clause 6.2.1.1.
  - Joint width: 2-4 mm.
- · Sealer/ Stabilizer: To engineers specification.
- · Setting out: To engineers specification.
  - Bond: Stretcher.
  - Features: To engineers specification.

# 130A NATURAL STONE SETT PAVING FOR FLAT AREA ON ROAD RAMPS

- · Granular sub-base: To engineers specification.
  - Thickness: To engineers specification.
- · Geotextile: To engineers specification.
  - Manufacturer: To engineers specification.
    Product reference: To engineers specification.
- · Laying course:
  - Material: In accordance with BS 7533-7, clause 6.1.1.1.
  - Compaction: In accordance with BS 7533-7, clauses 9.4.1 and 12.1 and Annex E.
  - Nominal thickness after compaction: To engineers specification.
- · Setts: Granite Setts.
  - Supplier: Marshalls, Landscape House, Premier Way, Lowfields Business Park, Elland, West Yorkshire, HX5 9HT. Sales Office Tel: 08704 112266. Fax: 08704 112277 Web: http://www.marshalls.co.uk/naturalstone.
  - Product reference: Granite setts or similar approved.
  - Sizes: 100 x 100 x 100mm.
  - Method of cutting sett sides: Diamond sawn.
  - Dimensional tolerance: In accordance with BS 7533-7, clause 6.3.
  - Freezel thaw resistance to BS EN 1342: Class I (FI).
  - Colour/ Finish: Silver Grey GRA900/Fine Picked.
  - Special setts: None.
- Jointing:
  - Material: In accordance with BS 7533-7, clause 6.2.1.1.
  - Joint width: 2-4 mm.
- · Sealer/ Stabilizer: To engineers specification.
- · Setting out: To engineers specification.
  - Bond: Chequerboard.
  - Features: To engineers specification.