

# 12-00- Road Markings and Traffic Signs

## 12-01 General

- a. All traffic signs used in the works (including reflectors and road markings), whether permanent or temporary, shall be of the size, shape, colour and type prescribed for use in the most recent version of the Traffic Signs Regulations and General Directions (TSRGD).
- b. The supply and installation of traffic signs and road markings shall follow the advice provided in The Traffic Signs Manual. The sections are:
  - Chapter 1 introduction
  - Chapter 2 primary route destinations in England by region
  - Chapter 3 regulatory signs
  - Chapter 4 warning signs
  - Chapter 5 road markings
  - Chapter 6 traffic control
  - Chapter 7 the design of traffic signs
  - Chapter 8 (part 1) road works and temporary situations – design
  - Chapter 8 (part 2) road works and temporary signs – operations
  - Chapter 8 (part 3) road works and temporary situations

## 12-02 Permanent Traffic Signs

- a. Sign plates shall be constructed from sheet aluminium, extruded aluminium or extruded plank sections. They shall conform to BS EN 12899-1:2007. The use of composite materials e.g. Di-bond is permitted.
- b. Sign plates shall all be reflectorised and comply with the UK National Annex to BS EN 12899-3:2007. They shall come with a ten-year manufacturer's guarantee. The supplier shall be a member of the Association for Road Traffic Safety and Management (ARTSM).
- c. Signs on roads with a 40 mph or lower speed limit shall be erected on tubular steel posts, which shall be hot dipped galvanised in accordance with BS EN ISO 1461. Where appropriate posts shall have square base plate and plastic caps fitted.
- d. Posts on roads with a speed limit greater than 40 mph shall be "passively safe" in accordance with the Council's 'Passive Safety Protocol' and with reference to "BS EN 12767– Passive safety of support structures for road equipment". Information on the classification and test methods shall be provided if requested by the Engineer.
- e. All post foundations shall be appropriate for the wind loading of the sign plate to be mounted on the post. They shall comply with support foundations to BS EN 12899-1: 2007 and the UK National Annex.
- f. On roads with a 40mph or lower speed limit illuminated signs shall have a wide based post with an access door in accordance with Section 13 - Road Lighting. Further

information can be obtained from the Road Lighting Unit whose contact details are listed in Section 1. For higher speed limits, passively safe posts should be considered in accordance with the Council's 'Passive Safety Protocol'.

- g. Unless in a formally signed 20mph zone, sites where traffic-calming features are installed shall have the required traffic calming traffic signs to TSRGD Diagram 557.1, with an associated distance sub-plate if required, when road humps are introduced; these shall be provided and installed at the Developer's expense. The location of any such signs must be agreed by the Engineer in writing before installation. Signs may be attached to street lighting columns if agreed in writing by the Engineer prior to installation. The minimum height to the bottom of a sign shall be 2.1 metres above a footway, and 2.4 metres above a cycleway.

#### 12-03 Electrical Supply Provision to Illuminated Signs

Details of electrical supply provisions to illuminated signs are provided in Section 13 – Road Lighting.

#### 12-04 Temporary Traffic Signs

- a. Any design required for temporary traffic signs shall be carried out by the Developer or his Contractor and submitted to the Engineer for approval in writing and a Licence obtained prior to any signs being installed on site. Temporary signs must comply with Schedule 13 of the TSRGD 2016.
- b. See Section 26-03 for Developer Signs
- c. Temporary Signage shall be relocated or removed upon request by the Engineer or within 6 months of the final property on the development being completed (ready for occupation).

#### 12-05 Permanent Road Markings and Temporary Markings

- a. Unless otherwise requested by the Engineer, permanent white road markings shall comply with the requirements of the following clauses.
- b. The material type shall be thermoplastic material, complying with BS EN 1463-1 and shall be either extruded or screen applied.
- c. All markings shall be retro-reflective; they shall have glass beads mixed into the thermoplastic before application and shall contain a minimum of 250g per m<sup>2</sup> of line to provide anti-skid and reflectivity.
- d. All road markings shall be laid in accordance with BS 3262-3.
- e. The exact colour of "yellow" lines will be dependent on location. They shall generally be "lemon" to BS 1436 and BS 4800. In conservation and environmentally sensitive areas "Primrose" to BS 1436 and BS 4800 may be requested.

- f. Road markings shall be laid on dry clean roads to BS 3262-3.
- g. Road markings applied to block paving shall have a proprietary bonding agent applied before thermoplastic lines are applied. (e.g. bondit-45th)

In locations where only a short length of lining is required, the use of thermoplastic tape may be permitted at the Engineer's discretion. This shall comply with BS EN 1463-1. The surface shall be clean, pre warmed and dry. The tape shall be fully melted onto the surface. The prior written approval of the Engineer shall be sought for any use of thermoplastic tape.

- h. The use of blackout / masking thermoplastic tape shall not be utilised unless prior approval in writing by the Engineer is agreed

#### 12-06 Permanent Reflective Road Studs and Crossing Studs

- a. Reflective road studs to BS EN 1436 that shall have received statutory type approval shall be used. A sample of the studs to be used shall be submitted to and approved in writing by the Engineer prior to work commencing on site.
- b. Road studs shall be fixed in strict accordance with the manufacturer's instructions.
- c. Only one type of stud shall be used in a particular location in any one carriageway.
- d. At controlled crossings stainless steel or aluminium pyramid studs with a grooved top surface shall be used, they shall be 100mm x 100mm square and have a shank no shorter than 70mm. They shall comply with Schedule 6 of the Traffic Signs Manual, Road Markings. The studs shall be spaced at 600mm centres.
- e. Bitumen grout to BS 8442 shall be used for the installation of road studs. The bitumen used for stud fixing shall be Bitumen 60% to 80% Pen of 25-30 with Limestone filler 80 – 90% 75-micron sieve and a softening point 85°C.
- f. Stick-on type road studs are not suitable for permanent installation unless agreed in writing by the Engineer.

#### 12-07 Street Nameplate Signs

- a. Street nameplate signs shall be square sectioned steel post and tray (recess) type, black in colour with 'Helvetica medium' text, with the principal street name being 89mm upper case lettering and subsequent wording such as "Leading to..." a maximum of 40mm in height.
- b. All letters shall be black on a non-reflective white background with only well-known abbreviations such as Ave., Cres., St. , Tce being used. A cul-de-sac symbol may be added and no other symbols are permitted.

- c. The length of the nameplate should not exceed 1250mm and should be no more than 225mm high for single line text and 375mm high for double line text
- d. Posts should be 1450mm in length and set in 450mm cube of concrete with a deformed end or other mechanical fixing method to prevent the posts from being pulled out of the ground. The sign should be mounted approx. 1 metre above ground level with at least 600mm to the bottom of the plate.
- e. NYC will not accept liability for bespoke street nameplates typically attached to stoneplinths or entrance pillars unless agreement is reached on commuted sums. These nameplates and the supporting structures remain the liability of the housing developer or their management company. The Council reserves the right to erect a standard street nameplate as necessary within the highway where problems are arising.
- f. The Street Name shall be provided in accordance with designated name given by the Street Naming Authority and shall be installed by the Developer or his Contractor. t
- g. The signs shall be placed in a location to be approved in writing by the Engineer prior to installation. They shall not obstruct visibility at road junctions or be an obstruction to pedestrians.
- h. The Developer shall ensure street name signs are installed prior to the occupation of the first house in each street. The use of any temporary street nameplate sign shall be agreed in writing by the Engineer prior to installation.