

## NOTES FOR THE SPECIFICATION FOR THE MAINTENANCE OF EDGE MARKER POSTS

### 1. GENERAL

These notes are for the guidance of Supervising Officers only and must not be included in Contract documents.

### 2. RESPONSE TIMES

Response times required by the Engineer should be shown in a separate schedule in the Contract documents according to the particular traffic requirements and location.

Suggested response times are:

Road Group	Engineer Review
1	3 days
2	8 days
3	10 days
4	16 days

### 3. MAINTENANCE REQUIREMENTS

**3.1** Supervisory staff should note that currently there are two standards for edge delineation, namely the “old” standard and the “revised” standard specified in TNZ General Circular 91/3 of 25 January 1991.

**3.2** The Engineer is required to undertake night inspections to identify any substandard marker posts or areas where delineation does not satisfy TNZ requirements.

- 3.3** The criteria used in determining whether a marker post requires replacement should include a minimum night time visibility level. Studies overseas cited by the CIE and the Federal Highway Association (US) have arrived at a minimum of 3 seconds preview time for roadmarkings, but preferably 5 seconds for driver response to continuous long term driving (e.g. long distance driving on open roads). For an open road with a 100 km/h speed limit and an uninterrupted view this equates to a minimum visibility distance of 80 metres (3 seconds preview times) or preferably 140 metres (5 seconds preview time).

Although no studies appear to have been conducted on edge marker posts in this context, studies have been conducted on roadmarkings of up to two years age. These studies have shown raised pavement markers to be capable of exceeding the above 80 metre minimum visibility distance for driving in clear night time conditions at 100 km/h for at least 2 years after installation. It is considered that the visibility requirements for edge marker poses should be similar to that of raised pavement markers, i.e. that in clear night conditions, on a road with no overhead lighting, edge marker posts should be visible for a distance of a minimum of 80 metres but preferably 140 metres.

- 3.4** Longer than standard posts may be required to achieve the requirements of height above ground and minimum embedment length.

Anchoring is extremely important for heavy poses such as “Superflexo posts” and also for posts placed in areas where they are likely to be impacted or deflected (for example by the wind).

- 3.5** Details about work carried out within the contract is required to be recorded so that it can be made available to tenderers for future contracts to assess the likely workload.

#### **4. INSTALLATION OF PLASTIC POSTS**

It is recommended that the backfilling be packed to form a depression around the base of the post. Embedding a post so that levelled ground surrounds the base of the post has been found to increase the likelihood of the pose snapping off at the base on impact.

#### **5. SCHEDULE OF EDGE MARKER POSTS**

The historic trend applying to replacement of edge marker posts should be made available to tenderers if this is available, for information only.