**Workflow- A96 Side Road Design Speed**

1. Calculate VISI (Harmonic Mean Visibility- m) using aerial photos/topo survey to work out average ver

TD9/93 Annex A

3. For existing roads, an empirical relationship has been derived which provides estimates of VISI given in bendiness and verge width (applicable up to VISI = 720m) i.e.

$$\text{Log}_{10}\ \text{VISI} = 2.46 + \text{VW}/25 - \text{B}/400$$

where:

VW = Average verge width (averaged for both sides of the road)

B = Bendiness (Degree per km - minimum Length of about 2 km)

2. Calculate Ac (Layout Constraint) using VISI from formula above and also using B from formaula above

TD9/93 Paragraph 1.3

Single Carriageways:

$Ac = 12 - VISI/60 + 2B/45$

where:

B = Bendiness Degrees/km

VISI = Harmonic Mean Visibility m (see Annex A).

3. Calculate Lc (Layout constraint) using Table 1

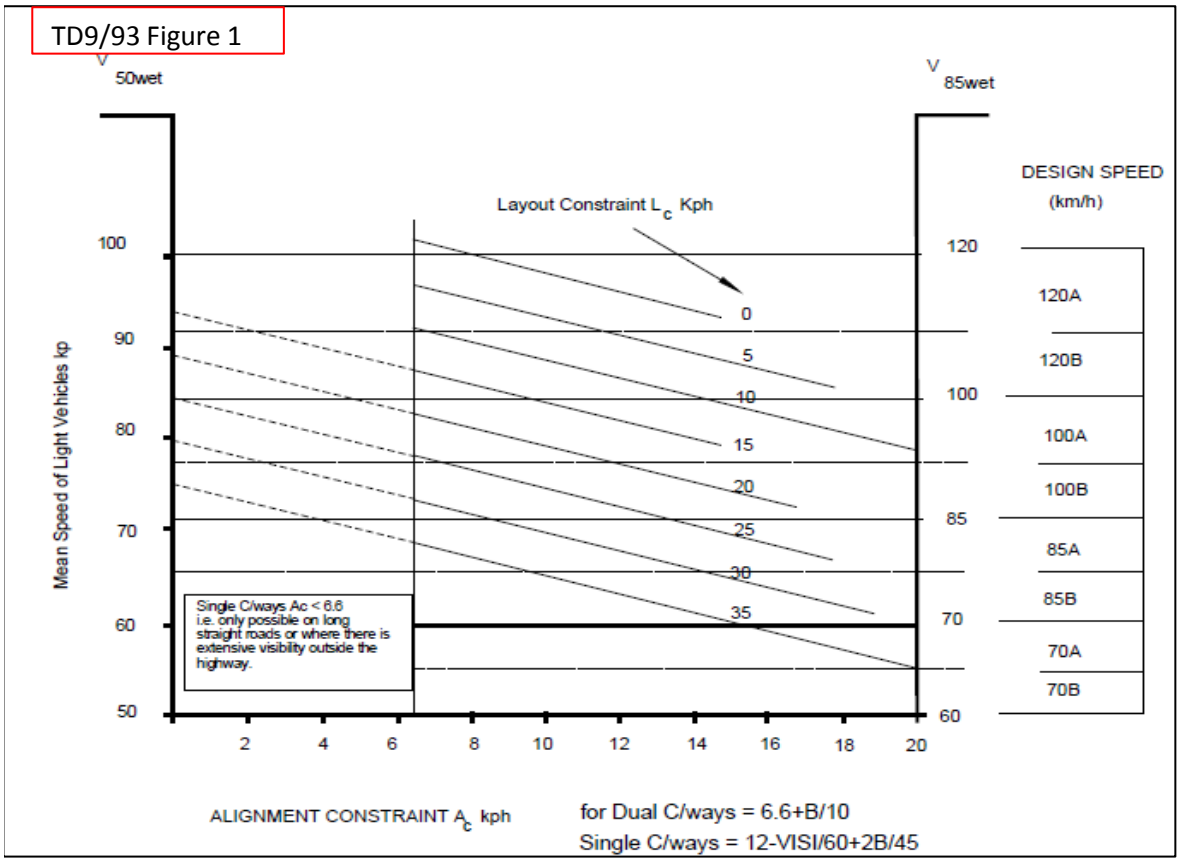
TD9/93 Table 1

| Road Type | S2 | | | | WS2 | | D2AP | | D3AP | D2M | D3M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Carriageway Width (Ex. Metre Strips) | 6m | | 7.3m | | 10m | | Dual 7.3m | | Dual 11m | Dual 7.3m & Hard Shoulder | Dual 11m & Hard Shoulder |
| Degree of Access and Junctions | H | M | M | L | M | L | M | L | L | L | L |
| Standard Verge Width | 29 | 26 | 23 | 21 | 19 | 17 | 10 | 9 | 6 | 4 | 0 |
| 1.5m Verge | 31 | 28 | 25 | 23 | | | | | | | |
| 0.5m Verge | 33 | 30 | | | | | | | | | |

There is no research data available for 4 lane Single Carriageway roads between 12 and 14.6m width (S4). In the limited cirumstances for their use descibed in this document, Design Speed should be estimated asuming a normal D2AP with a Layout Constraint of 15 - 13 kph

4. Calculate Design Speed using Ac (line 2 above) & Lc (line 3 above)

TD9/93 Figure 1



ge width (m) & bendiness (degree per Km).