

In order to ensure proper sight distance, it may be necessary to acquire additional right of way over that indicated in the Table.

- Notes
1. Right of way should be enough to ensure minimum set back of 5 m for building line from edge of road land boundary.
 2. Additional land is required at locations involving deep cuts, high fills and unstable/landslide area.
 3. If the road is planned to be upgraded in the future, land width should correspond to higher class of road.

6.5.2. Width of carriageway, shoulders and roadway for various categories of roads are given in Table 6.5.

Table 6.5. Widths of Carriageway, Shoulder and Roadway

Highway Classification	Carriageway width (m)	Shoulder width (m)	Roadway width (m)
a National Highways and State Highways			
i. Single lane	3.75	2 x 1.25	6.25
ii. Double lane	7.00	2 x 0.9	8.8
b Major District Roads and other District Roads	3.75	2 x 0.5	4.75
c Village Roads	3.00	2 x 0.5	4.00

- Notes
1. The roadway widths are exclusive of parapets (usual width 0.6 m) and side drains (usual width 0.6 m)
 2. In hard rock stretches or unstable locations where excessive cutting may lead to slope failure, width may be reduced by 0.8 m on two lane and 0.4 m on other roads. Where Such stretches are to be provided continuously for long distances, passing places should be provided.
 3. On horizontal curves, roadway width should be increased to provide for extra widening at curve.
 4. On roads subject to heavy snow fall, where snow clearance is done over long periods, roadway width may be increased by 1.5 m. However, the requirement of such widening may be examined with reference to ground conditions in each case considering terrain, traffic and other influencing conditions/factors.

6.5.3. The clear roadway width on culverts and causeways (measured from inside to inside of parapet walls or kerbs) should be the same as given in Table 6.5 but for village roads the desirable is 4.25 m.

6.5.4. For bridges, the clear width between kerbs should be 4.25 m for single lane bridges and 7.5 m for double lane bridges.

6.6. Camber/Cross Fall

6.6.1. Generally, the pavement in straight reaches should be provided with a crown in the middle and surface on either side sloping towards the edge. In case of winding alignments where straight sections are few and far between, a uni-directional cross fall towards the hill side may be given having regard to factors such as the direction of superelevation at the flanking horizontal curve, easy drainage and problem of erosion of downhill face etc. Typical section of road with camber and cross-fall is given in Fig. 6.4.

6.6.2. Camber/crossfall on straight section should be as follows :-

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|-----------------------------------|--|
| a. Earth road | - 3 to 4 per cent (1 in 33 to 1 in 25) |
| b. Gravel or WBM surface | - 2.5 to 3 per cent (1 in 40 to 1 in 33) |
| c. Thin bituminous surfacing | - 2.0 to 2.5 per cent (1 in 50 to 1 in 40) |
| d. High type bituminous surfacing | - 1.7 to 2.0 per cent (1 in 60 to 1 in 50) |