

Govt. of India Ministry of Railways
(Railway Board)

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Extracts from the
Rules for the opening of the
railway

CHAPTER XI
LEVEL CROSSINGS

Classification of, and standard specification for Level Crossings

The classification of level crossings will be settled in consultation with local Governments and Administrations concerned based on the joint consideration of the nature of the road, the number of road vehicles and number of trains passing over the level crossing, and should be as follows :

6. Provision of lights on gates at night

(a)	Light as observed by road users	Red when the gate is closed to the road. White when open to road	Same as for Special Class	Same as for Special Class	Same as for Special, but reflectors may be provided as alternative to lamps, if posts & chains are provided, no light should be used, but posts should be painted white	Not to be provided	An economical arrangement would be to fit the gate lamp to the revolving hinge posts and to fit to the fixed gate post a cowl to mask the lamp in both direction along the track. If the local conditions make it expedient to fit the lamp in the centre of the gate, a suitable rod operated cowl may be provided.
(b)	Lights as observed by drivers of approaching trains	Red when the gates are closed across the track	Nil	Nil	Nil	Not to be provided.	N.B. This applies also in the case of existing level crossings

7. Interlocking of gates with signals or other protection against trains running through a crossing when open to road traffic.

All gates, if within station limits shall be interlocked with station signals, or if outside station limits with special signals provided at an adequate distance on both sides of the crossings, except in special cases under rules approved by the Senior Govt. Inspector of Railways. Where the sighting by an engine driver of a gate signal outside station limits is inadequate, a warning board should be placed not less than 1320 ft (400 mtrs.) in the rear of the gate signal. The board should be vertical 6'-3" (1900 mm) by 1'-6" (450 mm) with alternate black and yellow stripes 5" wide painted on it	Same as for Special Class if within station limits. If outside station limits gates should be coupled and a warning bell controlled from adjacent stations may be provided	No Special provision to be made unless the line is on the curve and the view is obstructed.	Same as for 'B' Class	Same as for 'B' Class.	Where level crossings are inside station limits they should preferably be beyond the advanced starters or should be at adequate distance [i.e. about 800 ft (250 m)] ahead of the starters and trailing point of the station (see general Rule 35). It is very desirable on busy level crossings to couple both the gates on each side. Where "A" and "B" Class level crossings are outside station limits the clear distance between the crossings and the outer signal should not be less than a full train length.
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at an angle of 45°. The top of the board should be about 12' (3700 mm) above rail level. The board need not be lighted at night.

8.	Width of metalling :						
	(a) Between gates.	Same width as gates	(a) and (b) same as for Special	(a) and (b) same as for Special	(a) and (b) same as for Special C.S.No. 14 dated 11.8.60	(a) and (b) same width as gates.	In the case of 'D' Class crossings the metalling need not be carried beyond 10' (3 m) outside the gates.
	(b) Outside gates upto the railway boundary	Same width as metalling on the road outside the railway boundary					
9.	Formation width of road surface outside gates	Same as the rest of the road outside railway boundary	12 ft. (4 m) wider than the metalling	9 ft. (3 m) wider than the metalling	6* ft. (2 m) wider than the metalling	10 ft. (3 m)	*Way and Works Manual C.S. No. 3 of 17.12.1955.
10.	Gradients of roadway :						
	(a) Between gates :	(a) Level	(a) Level	(a) Level	(a) Level	(a) Level	
	(b) Outside gates	(b) Level for 25 ft. (8 m) and not steeper than 1 in 40	(b) Level for 20 ft and not steeper than 1 in 30	(b) Level for 20 ft. and then not steeper than 1 in 30	(b) Level for 20 ft. and then not steeper than 1 in 20	(b) Not steeper than 1 in 10	
11.	Angle of crossing between gates :	Not less than 45° between centre lines of road and railway	Same as for Special	Same as for Special	Same as for Special	At right angle to the centre line of railway	
12.	Minimum length of straight portion of road outside gates	40 ft. (12 m)	30 ft. (9 m)	20 ft. (6 m)	10 ft. (3 m)	Nil	On important roads except in hill sections these dimensions should, when the cost will not be too great, be increased to 100 ft. for Special and 'A' 75 ft. for 'B' to 50 ft. for C Class level crossings.
13.	Minimum radius of centre line of road on curved approaches within 150 ft. of centre line of railway	200 ft. (60 m)	150 ft.	100 ft.	70 ft.	25 ft.	
14.	Minimum number of Gate-keepers	Three	Two	One	One	One	Gate-keepers will not be provided at "C" and "D" Class crossings where gates or post chains, are not provided. Gate-keepers may be dispensed with at "C" Class level crossings on canal roads which are provided with gates

tem, the following criteria may be followed provisionally while formulating planning proposals :

- (i) Grade separations should be provided in lieu of the existing level crossings on National Highways when the product of gate closures per day and the fast traffic per day on the National Highway in the design year exceeds 50,000.
- (ii) In the case of new constructions including re-alignments and bypasses grade separations might be provided when the product of gate closures per day on the National Highway in the design year exceeds 25,000.
- (iii) Level crossings within shunting limits of railway stations might be given special consideration in preparing proposals for substitution by overbridges because of unusually long duration of closures in such cases.
- (iv) Strategic and other planning factors like opening up of new industries which may not get recognised in the projected traffic figures should also be considered in individual cases involving new constructions.