

**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

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No. 2006/CE-II/CS/1

New Delhi, dt. 30.05.2007.

**The General Managers (Engg.)**

CR, ER, ECR, ECoR, NR, NCR, NER, NFR, NWR, SR, SCR, SER, SECR, SWR, WR, WCR and Metro Railway/Kolkata.

**The General Manager (Const.), N.F.Railway, Guwahati.**

**The CAO/Const. All Indian Railways.**

**The CAO/Const., Metro Railway, Mumbai & Chennai.**

**Managing Director, Konkan Railway Corporation Ltd, Rail Bhawan, New Delhi.**

**Managing Director, IRCON, New Delhi.**

**Managing Director, RITES, New Delhi.**

**Managing Director, DMRC, N.B.C.C. Building, Pragati Vihar, New Delhi.**

**Managing Director, CONCOR, New Delhi.**

**The Chief Project Officer, DMRC, Pragati Vihar, New Delhi.**

**Director, IRICEN, Pune.**

**Director, IRIEEN, Nasik.**

**Director, IRISSET, Secunderabad.**

**Director, IRIMEE, Jamalpur.**

**Director, IRITM, Vill. Kanausi, Hardoi, Manik Nagar, Lucknow.**

**Director General, Railway Staff College, Vadodara.**

**FA & CAO, All Indian Railways.**

**The Director General (Track), RDSO/Alambagh, Lucknow.**

**Chief Commissioner of Railway Safety, Lucknow.**

**Genl. Secy., AIRF, Rail Bhavan.**

**Genl. Secy., NFIR, Rail Bhavan.**

**Genl. Secy., IRPOF, Rail Bhavan.**

**Genl. Secy., FROA, Rail Bhavan.**

**Genl. Secy., AIRPFA, Rail Bhavan.**

**Genl. Secy., DAI (Railways) Rail Bhawan, New Delhi.**

*Sub: Advance Correction Slip No.102 to the Indian Railways Permanent Way Manual.*

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**Ministry of Railways (Railway Board) have decided that correction/addition as indicated in the enclosed Advance Correction Slip No. 102 dated 29.05.2007, to relevant para of the IRPWM, be made.**

**Receipt of this letter may please be acknowledged.**

**(H.L. SUTHAR)  
Director Civil Engg.(P),  
Railway Board.**

**INDIAN RAILWAYS PERMANENT WAY MANUAL**  
**ADVANCE CORRECTION SLIP No. 102 dated 29.05.2007**

The existing paras 244(2)(e), 273(1), 275(3), 276, 506(3), 716 (2) and 1404 of Indian Railways Permanent Way Manual shall be replaced by the following:

**Para 244 (2) Sleeper spacing** – (e) Where concrete sleepers are required to be laid in unavoidable circumstances, in SWR track, the sleeper spacing including at fish-plated joint, shall be kept uniform. In addition, 1 m long fishplates, be provided at fish plated joints.

**Para 273 Bridge Timbers** – (1) Minimum requirements of depth, length and spacing-Provisions in the Schedule of dimensions, indicating the minimum length of sleeper, minimum depth of sleeper and the maximum clear distance between the sleepers for the three gauges are summarized below (nearest to 5 mm):

Gauge	Clear distance between consecutive sleepers not to exceed	Depth of sleepers (exclusive of notching) not less than	Length of sleepers
B.G.	510 mm, For all new works like rebuilding, regirding or through sleeper renewal this shall be kept as 450mm.	150 mm	Outside to outside of girder flanges plus 305 mm. but not less than 2440 mm.
M.G.	305 mm	125 mm	Outside to outside of girder flanges plus 305 mm. but not less than 1675 mm.
N.G.	152 mm (for 610 mm gauge) 254 mm (for 762 mm gauge).	125 mm	Outside to outside of girder flanges plus 305 mm. but not less than 1525 mm.

**Note:** The details are for timbers directly resting on longitudinal girders.

**Para 275 (3) – Fixing of Guard rails:** The ends of guard rails should be bent vertically and buried and a block of timber fixed at the end to prevent entanglement of hanging loose couplings. To ensure that guard rails are effective, they should be spiked down systematically to every sleeper with two spikes towards the center of track and one spike on the opposite side. Notching of the rail foot for fixing the spikes of guard rails should be done on every sleeper. Sleepers should be tied at both ends by MS Flats/tie bars fixed through holding down bolts.

The fixing of guardrail on concrete sleepers shall be done as shown in drawing no. RDSO/T-4088 to 4097 by proper tightening of rail screws. Provision of MS flats/tie bars for tying PRC sleepers together at ends is not required.

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**Para 276 Provision of walkways** – Overall girder bridges, footways (walkways) should be provided in the center of track over sleepers to help the Engineering staff for inspection. The footways (walkways) should be made of chequered plates with holes.

**Para 506 (3) Sleepers** – The sleepers approved for use with SWR shall be as under:

- (a) Wooden sleepers with anti-creep or elastic fastenings.
- (b) Cast iron sleepers and steel through sleepers with key type or elastic fastenings.

Wooden sleepers with mild steel bearing plates and rail free fastenings may preferably be used at all fish plated joints when SWR is laid on metal sleepers. Concrete sleepers should be used in cases where SWR is likely to be converted to LWR/CWR immediately. In such cases the fish-plated joints shall have concrete sleepers at uniform spacing. In addition, 1 m long fishplates, be provided at fish plated joints.

**Para 716 Flooded Causeways/Dips:** (2) (a) Indication posts - Indication posts about 120 mm. in height shall be fixed at each dip, one at each end of the level portion, with flat bar attached to them to indicate level mentioned in Para 716(1).

(b) The posts should be painted black and white in 300 mm. length so arranged that the flat bars which shall be painted white, show up against 300 mm. length of black colour.

(c) The posts shall be fixed 3 metres from the center of the track in the case of Broad Gauge and 2.5 metres from the center of track in the case of Metre and Narrow Gauge.

(d) The details for fixing indication Posts have been shown in Annexure 7/3.

**Para 1404 Location where Concrete Sleepers are used** – Concrete sleepers should normally be used only with LWR/CWR track. Hence the conditions for laying LWR/CWR should equally apply for laying concrete sleepers.

Use of concrete sleepers on long lengths of track where provisions of check rails or guard rails is necessary, is prohibited unless special arrangements are made to provide the necessary flange way clearance.

Where concrete sleepers are used in yards with fish-plated track, the sleeper spacing at fish-plated joint shall be kept uniform. In addition, 1m long fishplates may preferably, be provided at such joints.

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**GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

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No. 2006/CE-II/CS/1

New Delhi, dt. 21.06.2007.

**CORRIGENDUM**

**The General Managers (Engg.)**

CR, ER, ECR, ECoR, NR, NCR, NER, NFR, NWR, SR, SCR, SER, SECR, SWR, WR, WCR and Metro Railway/Kolkata.

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**Genl. Secy., DAI (Railways) Rail Bhawan, New Delhi.**

*Sub: Advance Correction Slip No.102 dated 30.5.07 to the Indian Railways Permanent Way Manual.- Corrigendum.*

*Ref: Board's letter of even no. dated 30.5.07.*

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Kindly refer to advance correction slip to IRPWM referred under reference. It is to mention that one typographical error is there in the figure of para 716 (2) (a), namely the height of indication post, which has been mentioned as **120mm** instead of **1200 mm**. The corrected para 716 (2) (a) to be read as under:

**Para 716 Flooded Causeways/Dips:** (2) (a) Indication posts - Indication posts about 1200 mm. in height shall be fixed at each dip, one at each end of the level portion, with flat bar attached to them to indicate level mentioned in Para 716(1).

(b) The posts should be painted black and white in 300 mm. length so arranged that the flat bars which shall be painted white, show up against 300 mm. length of black colour.

(c) The posts shall be fixed 3 metres from the center of the track in the case of Broad Gauge and 2.5 metres from the center of track in the case of Metre and Narrow Gauge.

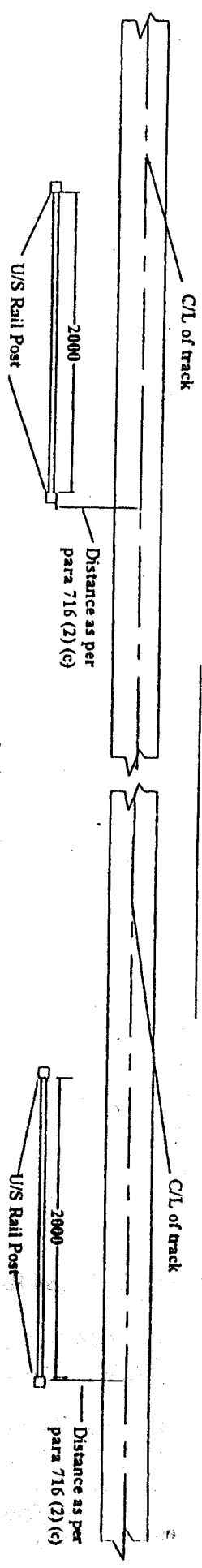
(d) The details for fixing indication Posts have been shown in Annexure 7/3.

Receipt of this letter may please be acknowledged.

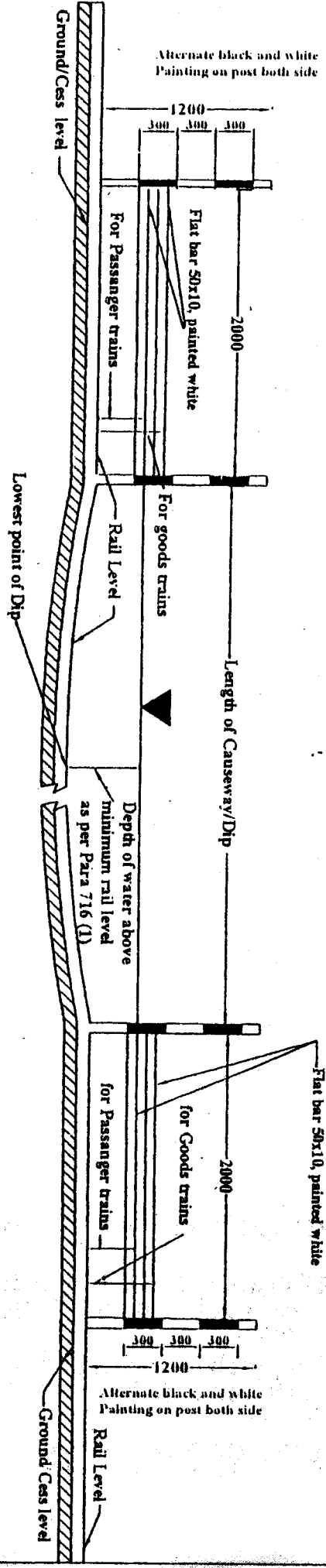
**(H.L. SUTHAR)**  
**Director Civil Engg.(P),**  
**Railway Board.**

# INDICATION POSTS FOR FLOODED CAUSEWAYS/DIPS

ANNEXURE 7/3 - PARA 716(2)



PLAN



SIDE VIEW

**NOTE:-**

1. All dimensions are in mm.
2. Flat bar shall be overlapping on rail post and be fixed with post by bolts and nuts/welding.
3. The height of Flat bars at each end of Dip is to be decided based on permissible depth of water (as per Para 716 (1)) at the lowest rail level in the Causeway/Dip.