East Central Railway

Office of the
General Manager(Engg.)/Hajipur

PCE's Circular No.- 32 /2009/Works
Sub. : Pre- cast speed breakers.

Speed breakers are provided in the approaches of manned/unmanned level crossings either with metalled or un-metalled road approaches to ensure that the road vehicles reduce their speed so that the driver of the road vehicle may have better appreciation and more time to react to the aspects such as closure of gates & train movements etc.

Guidelines regarding provision of speed breakers on level crossings have been stipulated in para 918 of the Indian Railway Permanent Way Manual which stipulates that it is incumbent upon railways to provide one speed breaker on either approach of level crossings located within the Railway land boundary at a distance maximum feasible but not exceeding 20m covering full width of the road including berms as a safety measure, till such time these are replaced with rumble strips of proper design by the Road authorities. For safety reasons, the paint marking should be provided and their maintenance should be ensured.

It is seen in practice that speed breakers provided at site don't conform to the laid down standards. As such it has been decided to provide speed breakers with pre-cast blocks of M-35 grade concrete as per CE's Drg. No. D-22-2009, enclosed herewith as Annex.'A'. In order to ensure proper quality of construction, it has been decided that these bocks should preferably be obtained from Plant Depot/MGS. Otherwise, these can also be cast in IOW's workshop in controlled condition.

Procedure of placement of pre-cast blocks on road:

1. A test hole shall be dug upto a depth of 400 mm in the road to find out the composition of different layers of pavement.
2. If the depth of WBM/Base Course continues beyond 350mm from the top surface of the road, the area where the speed breakers are to be provided, shall be dug upto a depth of 200 mm below the road level. Otherwise, the surface shall be dug to a minimum depth of 350mm and a well compacted layer of 150mm WBM shall be provided over it.
3. After levelling the WBM properly, 50 mm thick layer of P.C.C. (1:3:6) shall be laid and compacted.

4. Over this layer of PCC, pre-cast concrete blocks shall be laid as shown in drawing.
5. Care shall be taken to ensure that the camber of the road is maintained.

This has got the approval of PCE.

DA:C.E.'s Drawing No. D-22-2009.

(V. Kumar)
Chief Engineer/Works

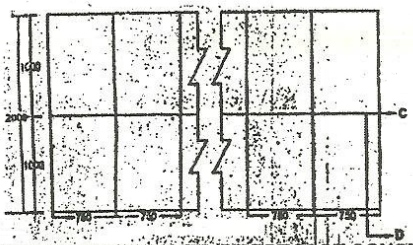
Docket No. W-2/118/09/Works Policy/ 1450 Date - 08.06.09

Copy-

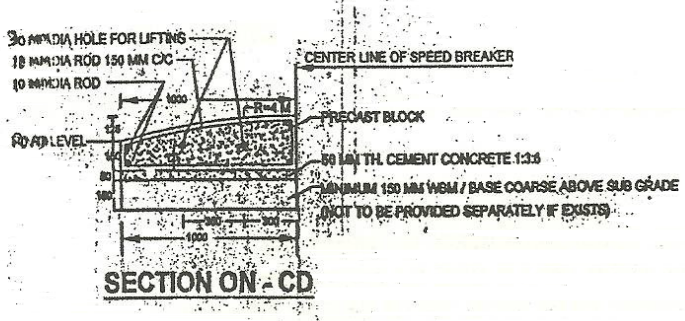
1. CAO/Con/N/MHX, CAO/Con/S/MHX for information pl.
2. DRM/DNR, DHN, MGS, SPJ & SEE for information pl.
3. Sr. DEN/Co-ord./DNR, DHN, MGS, SPJ & SEE for information and necessary action pl.
4. All HOD/ Engg. Deptt./ECR

(Niraj Kumar)
Dy. CE/ Works/HJP

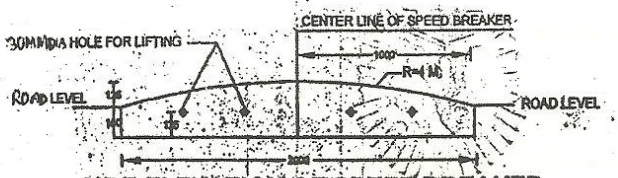
ANNEXURE - A



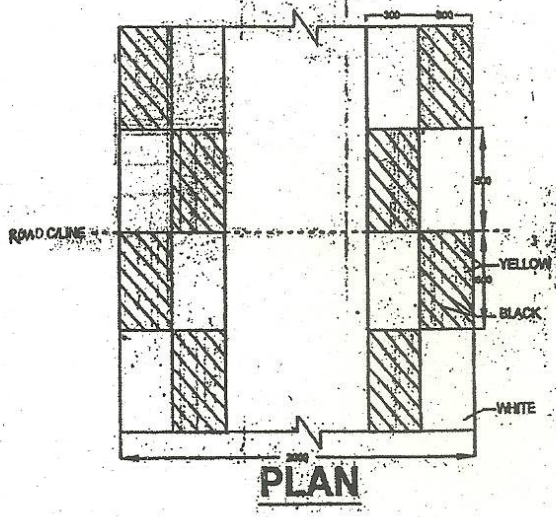
PLAN OF SPEED BREAKER OF PRECAST CONCRETE



SECTION ON - CD



SIDE ELEVATION OF SPEED BREAKER

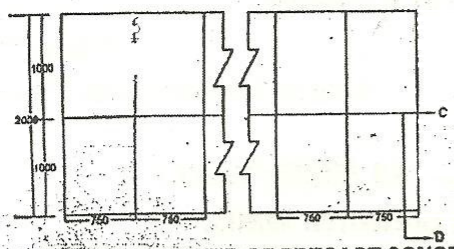


PLAN

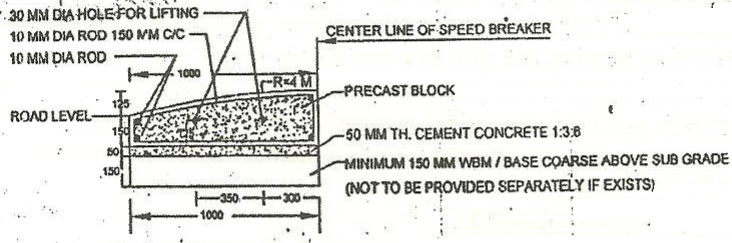
NOTE

1. GRADE OF CONCRETE OF PRECAST SPEED BREAKER IS M35
2. ALL DIMENSION ARE IN MM EXCEPT STATED OTHERWISE

CPDE		DY.CE/PLG	
EAST CENTRAL RAILWAY			
STANDARD DRG. OF PRECAST SPEED BREAKER			
C.E.'s DRG. NO. :- D-22-2009			



PLAN OF SPEED BREAKER OF PRECAST CONCRETE



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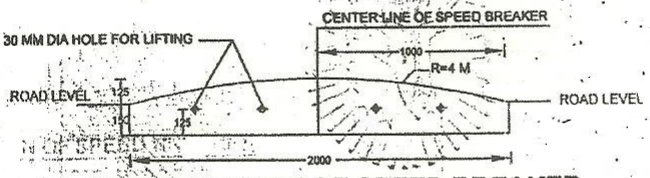

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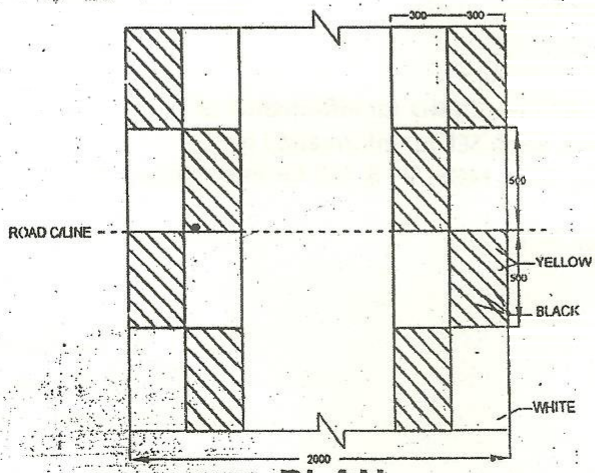

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CPDE		DY.CE/PLG	

EAST CENTRAL RAILWA

STANDARD DRG. OF PRECAST SPEED BRE

C.E.'S DRG. NO.