GOVERNMENT OF INDIA
MINISTRY OF ROAD TRANSPORT & HIGHWAYS

Parivahan Bhavan,
1, Sansad Marg
New Delhi-110001

F. No. RW/NH-33044/31/2014/S&R (R) (Pt.) Dated: 4th August, 2014

To,

1. The Chief Secretaries of all the State Governments/ UTs
2. The Principal Secretaries/ Secretaries of all States/ UTs Public Works Department dealing with National Highways, other centrally sponsored schemes.
3. All Engineers-in-Chief and Chief Engineers of Public Works Department of States/ UTs dealing with National Highways, other centrally sponsored schemes.
4. The Director General (Border Roads), Seema Sadak Bhawan, Ring Road, New Delhi-110 010.
5. The Chairman, National Highways Authority of India, G-5 & 6, Sector-10, Dwarka, New Delhi-110 075.

Subject: Usage of Rigid pavement as an alternative option on National Highways.

Sir,

Ministry vide circular no. RW/NH-33044/53/2013-S&R (R) dated 20th November, 2013 had advocated the issue of environment friendly construction practices for reduction of green house gases and had also inter-alia specified the Life Cycle Cost Analysis as an essential component of infrastructure design.

2. Considering the issue related to longer service life, fuel consumption, resistance to extreme weather conditions, saving of natural resources and maintenance etc. the obvious advantages of rigid pavement cannot be denied. However, there are several caveats which needs to be analysed in arriving at the best possible option:

a) Rigid pavement will be best in the highway projects requiring substantive construction/ up-gradation. Where the projects envisage minor improvements as in the form of the paved shoulders or widening etc., the efficacy of the rigid pavement construction in such a scenario would require to be assessed.

b) The price of cement vis-à-vis bitumen varies widely in different parts of the Country depending upon the lead from the production centers/ refineries etc. This variation would be required to be mapped out and unless there is price comparison within an acceptable limits up to 20%, the use of flexible pavements may perhaps required to be continued.

c) Availability of cement at the macro level will also need to be assessed.

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3. Although, rigid pavement could be the default mode of construction, a provision for considering alternative methodology (including flexible pavements) would need to be clearly provided for. The agencies preparing DPRs for the National Highway projects would be expected to bring out the reasons why rigid pavement could not be adopted in specific National Highway project and the Cost Benefit Analysis of rigid pavement vis-à-vis flexible pavement in each project should be clearly brought out.

4. The contents of this circular may be brought to the notice of all concerned in your organization dealing with National Highways.

5. This issues with the approval of Competent Authority.

Gulshan 4/8/14
[Gulshan]
Assistant Executive Engineer (S, R&T) (Roads)
For Director General (Road Development) & SS

Copy to:

1. All ROs and ELOs of the Ministry
2. The Secretary General, Indian Roads Congress
3. The Director, IAHE
4. Technical circular file of S&R Section
5. NIC-for uploading on Ministry's website under "What's new"

Copy for kind information to:

1. PS to Hon'ble Minister (RT&H)/ PS to Hon'ble MOS (RT&H)
2. Sr. PPS to Secretary (RT&H)
3. PPS to DG (RD) & SS
4. PPS to AS&FA
5. PPS to ADG-I/ ADG-II/ ADG-III
6. PPS to JS (T)/ PS to JS (H)/ PS to JS (LA&C)/ PS to JS (IC&E)
7. All Technical Officers in the Ministry of Road Transport & Highways