

**GOVERNMENT OF TELANGANA
ROADS AND BUILDINGS DEPARTMENT**

Office of the Chief Engineer(R&B)
Administration & QC, Hyderabad.

Circular Memo.No:711/CE(Admin.&QC)/EE(QC&MC)/DEE/AEE2/2018, Dt.23.10.2018

Sub:- (R&B)Department -Works- MOST & IRC SP 13 – Box culverts without earth cushion – Providing R.C.C approach slabs – Circular Instructions - Issued -Regarding.

Ref:- 1) MOST (Road Wing) Standard Plans for Single Double Triple Cells Box Culverts with and without earth cushion. (Standard drawings for Box Cell Culverts)
2) IRC:SP:13-2004 Guidelines for the Design of Small Bridges and Culverts (First Revision).

Following Circular Instructions are issued in connection with execution of Box Culverts.

The Drawings SD/102 in the reference (1) & Plate 15 in the Reference (2) deals with Single Cell RCC Box Culverts 2m x 2m to 8m x 7m (Without Earth Cushion) General arrangements.

The Drawings SD/104 in the reference (1) & Plate 17 in the Reference (2) deals with Double Cell RCC Box Culverts 2m x 2m to 3m x 3m (Without Earth Cushion) General arrangements.

The Drawings SD/106 in the reference (1) & Plate 19 in the Reference (2) deals with Triple Cell RCC Box Culverts 2m x 2m to 3m x 3m (Without Earth Cushion) General arrangements.

In all the above Single/Double/Triple Cell RCC Box Culverts without earth cushion, it is stipulated to provide an Approach Slabs resting on RCC Brackets (Kerbel). The RCC Brackets (Kerbel) shall be constructed in monolithic with RCC Box Culvert.

Structural need:- In all the above mentioned Standard Drawings, Approach Slabs are provided. Accordingly the side walls of Box Cell Structure might not be designed to take surcharge load from the earth behind the side wall. Also, weep holes are not provided as the Box Cell Structure is designed for full flow condition with hydraulic head at upstream side. Hence, if approach Slab is not provided, it will become defective structure.

Functional need:- In the absence of Approach Slabs, it is observed that the Road is sinking at the edges forming a dip. Due to dip the road is not as per approved profile. At this dip, the Vehicles are directly striking at the ends of the Box Culverts. This striking is dangerous to the Road user, to the Structure, to the Road and to the Vehicle.

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In view of the above said reasons, it is necessary to provide Approach Slabs for Single/Double/Triple Cell RCC Box Culverts without earth cushion as stipulated in the MOST Drawings mentioned in the references.

In case, if there is no provision for Approach Slabs in the sanctioned estimate or in the approved drawings, the Approach Slabs shall be provided duly obtaining approval or sanctions from the competent authorities.

All the Superintending Engineers(R&B) & Executive Engineers(R&B) are directed to follow the above Circular instructions scrupulously.

P. S. Srinivas
24/10/2018
for Chief Engineer (R&B),
Administration & QC
24/10

To

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