

EAST COAST RAILWAY

CE's Circular No. - 23

**Sub: Inspection and maintenance of Foot Over Bridges**

Foot Over Bridges (FOB) are important structures. Any negligence in upkeep and maintenance of these structures will affect the train as well as passenger safety. Therefore inspection and maintenance of FOBs are required to be done with due care and attention to avoid any mishap and accident.

**A) Inspection:**

As per Para 228 (a) (i) of Indian Railway Works Manual FOB should be inspected by SSE/SE/JE/Works (In charge) once in a year during the prescribed months and one fifth every year on programmed basis by Asstt. Engineer. The records of the results shall be entered in ink in the **Structural Steel Inspection Register** as per proforma given in annexure 2.9 of IRWM. The programme for inspection with month & year for each FOB should be mentioned in the steel inspection register for SE(Works) & Assistant Engineer beforehand and inspections should be carried out as per that programme scrupulously.

As per Para 107- 3(b) of Indian Railways Bridge Manual Foot Over Bridges (FOBs) are specified as one of other specified steel structure. Accordingly SSE/SE/JE (Bridge) in charge of the section should inspect Steel Structure of FOBs once in five years. He will record the inspection details/results in the same **Structural Steel Inspection Register** being maintained by SSE/SE/JE/Works (In charge) for the purpose.

The structural elements of the floor system should be inspected carefully for corrosion and structural adequacy. Action for replacement of corroded member should be taken promptly.

SSE/SE/JE/Works (In charge) should submit the register by the prescribed date to the Assistant Engineer for scrutinizing the entries, issue such orders as deemed necessary and return the register.

**B) Painting:**

In coastal areas, the schedule of painting should be once in 3 years whereas it should be once in 5 years in other areas. Painting of portions of floor system above the OHE wires should invariably be done after taking necessary power block in electrified territories. Painting shall be done as per Para 217 of IRBM, 1998.

**C) Precast Slabs:**

Cement concrete of minimum M-25 grade shall be used in all new construction and replacement of precast slabs. Richer grade of concrete may be used according to the exposure conditions specified in table 3 & 5 of IS 456-2000. Adequate cover to the reinforcement should be ensured.

**D) Prevention of Corrosion:**

To prevent corrosion in the steel members of Foot over Bridges due to accumulation of dust, sweepings and water, it is necessary to safeguard the affected members suitably.

In case of all new foot over bridges or whenever all concrete slabs are being changed, the width of concrete slab shall be kept slightly lesser so that there is a clear gap of 20 mm between the edge of inside bottom runner angle and the edge of the slab as shown in CE/SER's drawing No. 22844.- Sheet No. 2/All-1 (As enclosed with CE/SER's circular no. 191). The groove so made should be filled up with a mixture of bitumen and coarse sand in suitable proportion also covering the thickness of the vertical leg of the bottom angles on both sides.

FOB trestles, which are founded at the level of the platform surface and the dust sweepings are likely to cause corrosion in the members, provide a concrete pedestal as per details shown in CE/SER's drg No. 23925.

**E) Protection of Trestles:**

Provide sacrificial rail posts in line with existing FOB trestles located in between two tracks having center to center distance less than 4.5 m to avoid any damage to trestles due to running of trains with open doors in hanging condition etc. The sacrificial posts (2 nos.) made with 1 rails encased in concrete should be at least 3 m. higher than rail level. The first post should at 3 m and the second at 13 m from the FOB trestle in both the sides.

*R. Richardson ASIR*  
(R. RICHARDSON ASIR)  
Chief Engineer

No. W-3/Br/CE Circular/FOBI 7595

Date: 14-10-2005

Copy to:

1. Secretary to GM for kind information of GM.
2. CTE, CBE, CGE, CSO for information.
3. DRM KUR/SBP/WAT for information.
4. Sr.DEN/Co KUR, SBP&WAT for information.
5. Dy.CE (TP), (Br), (Tr), (Proj) & (G) for information.
6. SEN/Tr, Br, TM, HQ, AEN-I, II (TP), Br, HQ, Gen & AIE/CSP for information