

भारत सरकार (GOVERNMENT OF INDIA)
रेल मंत्रालय (MINISTRY OF RAILWAYS)
रेलवे बोर्ड (RAILWAY BOARD)

No. 2022/CE-II/TK/Turnout/Renewal

New Delhi, dated 14.05.2025

**Principal Chief Engineers,
All Zonal Railways.**

**CAO(C),
All Zonal Railways.**

Sub: Preparation of ESP on Digital Platform

1. The existence of forced layouts in the yards is a matter of concern. Forced layouts are not only difficult to maintain but also derailment prone. Recently, several cases of derailments have been attributed to forced layout in yards. Once laid, its rectification becomes difficult and cumbersome at later stage due to various field/ yard constraints and involvement of multi- disciplinary works.
2. To avoid laying forced layouts in the field, it is necessary to take care of the same at the planning stage itself while preparing ESP. Since nowadays, all drawings are prepared on digital platform; all turnout curves, turn-in-curves, connecting curves of crossovers, sand hump curves, straights etc. should be drawn on ESP as per actual. The geometrical parameters of turnout curves given in the RDSO drawings can be used to draw the turnout curves on tracks having any geometry without any need of complex mathematical calculations.
3. Finally, the ESP showing proposed and existing (if any) work should be the exact replica of field measurements. It should be possible to measure and verify any geometry from the drawing itself.
4. Once the drawing has been prepared on digital platform as per actual field measurements, the main ESP can be printed on appropriate scale so as to cover entire yard for normal use. However, while executing the work in the field, the relevant portion of proposed work involving turnout, crossovers or any other complex geometry, should be separately printed on larger scale for use of field officials. This will ensure no error in the layout of turnouts, crossovers and curves in the field.
5. Necessary instructions may be issued to all field units to follow above instructions with immediate effect.
6. This is issued with the approval of Board (Member/ Infra).

9/23/
14-05-25

(S. M. Pandey)

**Exec. Dir. Civil Engg. (Plg.)
Railway Board**