

## **RAILWAY UNDER BRIDGE CONSTRUCTION METHODOLOGY, DESIGN AND ANALYSIS**

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### **Abstract**

Under Bridges are required to be provided under earth embankment for crossing of Vehicular/Road traffic, railway traffic across the level crossing of Railway line, etc. The under Bridges are also required in urban area where the busy Business location streets crossing to Railway lines etc. Present day Intensity of Traffic, both Rail & Road due to the fast development of Industries and other Infrastructures, is very heavy and so it cannot be disturbed, for construction of under bridges or drainage etc by conventional i.e. open cut system. So to construct under bridges without disturbing the existing Railway / Road embankment we chosen to construct the RCC BOX CELL BRIDGE by Box Pushing Technique, where in R.C.C. Boxes in segments are cast out side and pushed through the heavy embankments of Rail or Road by Jacking. The required thrust is generated through thrust bed, as well as line & level of precast boxes are also controlled. Further my thesis work is restricted to design and Analysis part only. Analysis part is done using the computer software Staad.pro and design part is done by manually as per IRS Bridge Rules IRS .....1997.

The box segments design and Analysis part is very simple and not critical. To push the Box into the embankment of railway is also not a major problem, the required thrust can be generated from thrust bed by jacking. After completion of the work Thrust Bed can be used as a protection work in Hydraulic structures and rigid pavement work in Highway structures. The required bearing capacity of soil is very little. Safest method of crossing underground / Embankment, without disturbing overhead traffic / structures for R.U.B

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