

PROJECT REPORT
ON
“DETERMINATION OF FOUNDATION DEPTH (GRIP
LENGTH) FOR BRIDGE PIERS”

(Sponsored by KSCST, IISc, Bangalore)

Work carried out at Hydraulics Lab, Civil department

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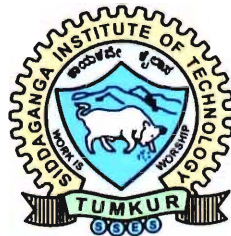
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ABSTRACT

The minimum required grip length is specified as one-third of the maximum scour depth for road bridges and one-half for railway bridges.

Proper estimation of grip length (foundation depth of pier below maximum scour level) is very important for safety of bridge piers, Lacey's recommendations are used for the design of grip length for bridges in India. Validity of Lacey's recommendation has been investigated by both experimental and analytical approaches. Experiments are conducted to find the stability of pier for caisson piers and for two types of median size are D50 and D30 sediments. Stability analysis of forces acting on caisson pier. Experimental verification below the theoretical prediction of grip length. Theoretical prediction is buried moment analysis about base of the caisson pier.