

Construction of New Brahmaputra Bridge & Road works near tezpur- an insight.....

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Abstract

This Project comprises of 4-Laning of highway (NH-37A) of total length 17.30 km, from Kaliabor Tiniali (at Nagaon District) to Dolabari Junction (at Sonitpur District) in the state of Assam, including construction of New Brahmaputra Bridge of 3.040 Km length, with the aim to create 4-lane connectivity to Itanagar, the capital of Arunachal Pradesh. Bridging the mighty & ferocious river Brahmaputra is a great challenge in itself. In this paper, regarding construction of New Brahmaputra Bridge, the technical features, methodology, major quantities, challenges encountered & engineering solutions adopted like, seasonal change in the course of river and water depth at different locations resulted in change in construction methodology and materials / plant & machineries movements to desired locations, hindrances encountered during the execution of well foundations & innovativeness in design concept were discussed.

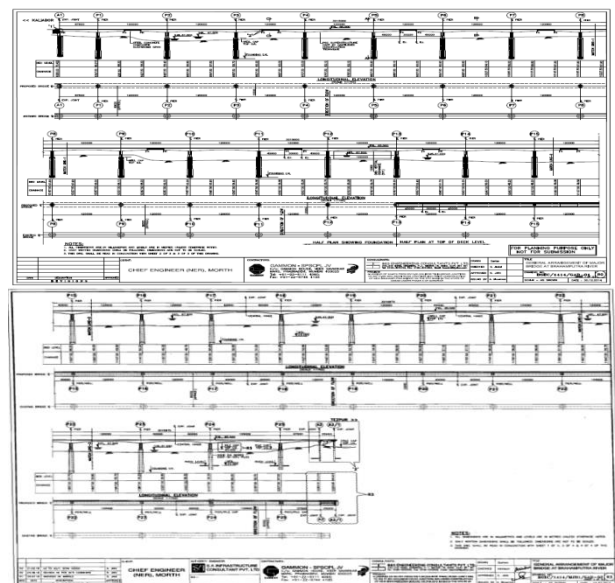
Keywords: Brahmaputra River, Well/ Caisson foundations, Pile foundations, Pre-Stressed RCC Single Box Girder, Working season, Floods, Construction Methodology, Cantilever Construction, Central hinge bearings, Expansion joints.

1 Introduction

Brahmaputra is one of the longest river in Asia with a total length of 2880 km & out of which 920km (approx.) lies in India. The construction of New Brahmaputra Bridge @ Tezpur is one of the most challenging one, in the attempt to bridge the river Brahmaputra once again. The river has been traditionally considered extremely difficult to bridging due to its ferocious & unpredictable behaviour coupled with Flash Floods & high current/ turbulence, wide spread erosion of the banks, change in island configuration.

This 4 Lanning of the Project road starts from Ch. – 0.00 km of NH-37A at Kaliabor Tiniali and ends at Ch. – 17.30 km of NH-37A at Dolabari junction comprising total length of 17.30 km including construction of New Brahmaputra Bridge of 3.015 Km length (Refer Sketch GAD -1 & 2). The project

road passes through Nagaon and Sonitpur District in Central part of Assam.



Sketch – 1 & 2.