

**PREVENTION OF FAILURE TO GIVE A GUARANTEE CONSTRUCTION
OF BORED PILES FOUNDATION AT LEMAH IRENG BRIGDE,
SEMARANG – SOLO TOLL ROAD, INDONESIA**

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ABSTRACT

Lemah Ireng Bridge, section VI, Semarang – Solo toll road is a monumental structure for PT. Trans Marga Jateng Tbk., Publics Work Departement, Province of Central Java, Indonesia. The bridge has span of : 85 m – 130 m – 85 m and 25 m width, more than 35 m height above the land surface. The upper structure of the bridge is box girder and the sub-structure is bored piles foundation. The bridge consists of two piers (P-1 and P-2) and two abutments (Abut-1 and Abut-2). The Construction staging of Lemah Ireng bridge is a balanced cantilever method. The pier P-1 is located on valey with a slope steep and the foundation structure laids on the clay shale, so to ensure the structure stabilities needs geotechnical studies. This paper presents the historical case failure of the slope above the Pier P-1, results of Inclinator measurement and analysis of slope stability uses Plaxis version 8.50.

KEYWORDS: Lemah Ireng Bridge, Clay shale, Slope Failure, Inclinator, Slope Stability