**Prediction ground movement and sinkhole in pipe jacking construction by geotechnical managements using FMEA method**

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**Abstract.** Trenchless techniques which advantages are capability to install pipes with minimal disruption surface activities has been widely in urban sewage construction. Effective construction of a trenchless project is needed to prevent risk and ensured to success of projects. Pipejacking is a trenchless method has complex ecavation process can cause undesirable failure such as volume loss, ground settlement or misalightment ..., This paper presents a approach in predition ground movement and sinkhole by geotechnical managements in sewers’s project using FMEA method in order carrying out a risk analysis as an integral part of the design and operational construction process.

**Keywords:** Trenchless, pipejacking, failure, ground movement, sinkhole, FMEA