

Introduction

Post-liquefaction settlement and seismic compression are types of settlement that are caused by seismic events. The estimation of settlement magnitude caused by a seismic event is becoming an important part of seismic hazard assessment. The purpose of this report is to give a brief overview of the mechanics and theory behind these types of settlement, present a summary of previous studies, and show the state-of-the-practice methods to estimate post-liquefaction settlement and seismic compression.

This report does not contain material about traditional (i.e. non-earthquake) soil settlements. Other seismically-induced failures like bearing capacity or seismic slope stability are also outside the scope of this report.