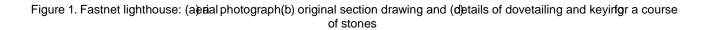
uplift and motion after intense wave impacts. The important does lighthouse network to the safety of navigation, in combination with the heritage value of these iconic lighthouses, provided the motivation flow this s tural analysis.

The uplift and rocking behaviour of slender structures was first introduced by Housi**Heis**[W]prk evidenced that the structural behaviour of bodies capable of uplift



## 3 Limit analysis

The limit analysis method calculates the magnitude of lateral force that is necessary for triggering a failure mechanism such as

failure mechanism are presented Figure 3. This graph illustrates the importance of the impact hatighthe structural stability. The combination of bigger diameter and gravelight near the bottom makes the lighthouse able to resist significantly bigger forces if the imparctais nearthe bottom. Moreover, the huge importance of the vertical keying the stability of the lighthouse revealed Excluding the nonnealistic 180° and 60° mechanisms, the dotted line shows that with vertical keying, the lighthouse would fail in sliding rath hat 2.3 (e(ht)-4.6)

the wave timehistory for a specificock mounted lighthousære provided from a pilot study on the Eddystone lighthouse [8] The reader can refer to sthor more details about the analytical formulation include a knowledge of the site bathymetry

Model #3, with discontinuous material properties and interface contacts that allow detachment, had the best